

The lwarp package

LATEX to HTML

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Abstract

The lwarp package converts LATEX to HTML by using LATEX to process the user's document and directly generate HTML tags. External utility programs are only used for the final conversion of text and images. Math may be represented by svG images or MathJax. Hundreds of LATEX packages are supported.

Documents may be produced by DVI or PDF LATEX, LualATEX, XALATEX; by several CJK engines, classes, and packages; or by customized systems such as perltex and pythontex. A *texlua* script automates compilation, index, glossary, and batch image processing, and also supports *latexmk*. Configuration is semi-automatic at the first manual compile. Support files are self-generated. Print and HTML versions of each document may coexist.

Assistance is provided for HTML import into EPUB conversion software and word processors.

Requirements include the commonly-available POPPLER utilities (included with MiKTEX) and PERL. Detailed installation instructions are included for each of the major operating systems and TEX distributions.

A quick-start tutorial is provided, as well as extensive documentation for special cases, a general index, and a troubleshooting index. Automatic error testing is provided for configuration files, package load order, and image generation.

SVG math and many other generated images include LATEX expressions in the alt tags. MATHJAX may be used with advanced equation numbering under the direct control of lwarp.

Complicated tables are supported, which copy/paste well into LibreOffice Writer.

Supported classes and packages include memoir and koma-script, cleveref, caption, mdframed, siunitx, and many popular packages for tabulars, floats, graphics, theorems, the title page, bibliography, indexing, footnotes, and editorial work.

TEX is a self-modifying tokenized macro-expansion language. Since lwarp is written directly in LATEX, it is able to interpret the document's meaning at a deeper level than external conversions which merely approximate TEX. HTML5 and CSS3 are leveraged to provide advanced features such as booktabs trim, multicolumns, side-by-side minipages, and JAVASCRIPT-free navigation.

For a list of supported features, see table 2: Supported packages and features.

To update existing projects, see section 1: Updates.

Lwarp is still in development. Changes are likely.

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- are used in the fields of mathematics, science, engineering, and humanities;
- are international in reach;
- span decades of development;
- are enduring—many older packages are still actively used and maintained;
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- are portable across all the major computing platforms;
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MetaPost: Postscript graphics.

MacTeX: TEX for Mac.

PDF Accessibility: Modern PDF standards. **Other:** Additional projects may be specified.

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1 Updates

The following is a summary of updates to lwarp, highlighting new features and any special changes which must be made due to improvements or modifications in lwarp itself.

For a detailed list of the most recent changes, see the end of the Change History on page 1036.

v0.71: Error handling, multimedia, tabular.

- tabular: Added support for '*' columns. Fix for paragraph tags.
- quotation: Fix for HTML tag.
- Docs: Added a section about error conditions tested by lwarp. See section 13.1.
- *lwarpmk*: If file lwarpmk.conf is an older version, or the incorrect operating system, displays the print command to use to recompile.

packages

- chemfig: Updated for v1.4.
- endfloat: Updated for v2.7.
- textpos: Updated for v1.9.1.

multimedia

• Added media9, movie15, multimedia.

v0.70: Error handling, MathJax, mathtools.

- Error handling for "Label(s) changed." Refuse to lwarpmk limages until recompile first.
- Fix: If Computer Modern font is used, ensures cm-super or Imodern is used.
- Fixes for \makebox.
- Fixes for \parbox inside a .
- MathJax: Updated to v2.7.5. Loads the autoload-all.js extension. Added \MathJaxFilename to select custom scripts.

packages

- textcomp, xunicode: Fix for \textinterrobang.
- mhchem: Works with MATHJAX. See section 321.
- changes: Updated to v3.1.2.
- Added autonum, changelayout, inputtre, mathtools, metalogox.

v0.69: Error handling, many fixes, improved keyfloat/tocdata.

- Fix for HTML corruption of lateximage displays.
- \makebox, \framebox: Fix for ($\langle width, height \rangle$) arguments.
- fminipage: Honors \minipagefullwidth.

packages

- array, longtable: Fix for \tabularnewline.
- tabularx, tabulary: Fix to require the array package.
- supertabular, xtab: Fix to clear caption after use.

- graphics: Added a warning if used the \includegraphics scale option.
- multirow: Added an error if didn't use \mrowcell or \mcolrowcell when using \multirow or \multicolumnrow.
- keyfloat: Updated for v2.00, additional improvements.
- Added ctable, eglist, egparbox, ftcap, listliketab, minitoc, tocdata, topcapt.

v0.68: Error handling, tabulars, footnotes.

Iwarpmk

- *lwarpmk*: Improved error handling for image generation if compile was incomplete.
- tabular: Fix for \warpprintonly.

packages

- longtable: Improved flexibility for \endhead, etc. Improved error reporting if \endhead, etc. incorrect for lwarp.
- threeparttable: Fix for caption type.
- hyperref: Fix for options with braces.
- morefloats: Fix to be loaded early for print output.
- listings: Updated for v1.7.
- Added bigfoot, fnpara, footnotebackref, manyfoot, tablefootnote, threeparttablex.
- · Added layouts, niceframe, perpage, showtags.
- Prevented alg, algorithmic, pdfcprot, fncylab.

v0.67: Filename generation, symbol fonts.

docs

- Documentation fix for ct>-images, ct>-images.txt.
- Added discussion regarding section names. See section 8.4.

filenames

- Added \FilenameNullify and \FilenameSimplify for filename generation. See section 8.4.
- Core, textcomp, xunicode: Nullified additional symbols during filename generation.

packages

- color: Fix for version number warnings.
- Added academicons, bbding, dingbat, eurosym, fontawesome, fontawesome5, marvosym, pifont, typicons.
- Added changes, easyReview, fitbox, foreign, gloss, karnaugh-map, multicap, nomencl, notes, struktex, umoline, xfakebold.
- Tested to work as-is with askmaps, curves, euro, karnaughmap, tikz-karnaugh.

v0.66: xr, multiple projects, image names/directory, HTML formatting

Reset the configuration

• Due to changes in *lwarpmk*, recompile any existing project a single time using pdflatex filename.tex or similar, after which *lwarpmk* may then be used with the new configuration files.

lateximage

• Adds options ImagesDirectory and ImagesName to assign directory and name prefixes for lateximage images. The new defaults include the jobname, allowing the image directories for multiple projects to coexist.

• To reuse existing lateximage directories, add lwarp options

```
\usepackage[
  ImagesDirectory={lateximages},
  ImagesName={lateximage-}
]{lwarp}
```

If not reused, the existing lateximages directory and lateximages.txt file may be removed.

 Added \FilenameLimit to control the maximum length of the filenames generated by lwarp.

- Improved filename generation when special characters or macros are used in section names.
- Fix for lwarpmk cleanlimages with WINDOWS.
- Fixes for floats in the home page.
- Improved css for definition lists, table notes.
- tabular: Fixes for \par in column specifier, minipage inside tabular.
- Indexing: Fix for a long line of multiple entries.
- \minipagefullwidth: Fix for global changes.
- Added \UseMinipageWidths and \IgnoreMinipageWidths. See section 8.3.3.
- Improved \fbox, \fboxBlock, \fminipage to use current text color.
- Improved HTML output formatting.
- Added discussion regarding invalid HTML. See section 8.1.1.
- Added discussion regarding math in section names, \imagegraphics scale option. See section 6.
- Added discussion regarding international languages in section names. See section 8.14.
- caption: Fix for options clash.
- xr, xr-hyper: Now compatible.
- · subcaption: Improved horizontal spacing.
- multicol: Fix for minipage inside multicols.
- multicolrule: Updated for v1.2.
- tocbasic: Minor update.
- acronym: Fix for acronym in float caption.
- kotexutf: Patch with pdflatex and new lwarp labels.
- extramarks, fancyhdr: Updated for v3.10.
- memoir: Added docs regarding version numbers. See section 8.13.
- zref: No longer required.
- Added ar, ed, indentfirst, nameauth, truncate.
- Verified to work as-is with changelog.
- Prevented colortab, epsf, hyper, picinpar, picins, sistyle, ucs.

filenames

Possible filename changes

Windows

floats

lists, table notes

tabular

indexing

minipage

colors html

docs

packages

v0.65: css layout, alt tags, Japanese.

page layout

- Moved the sideroc to the left side, allowing improved css for margin notes.
- Improved page layout css.

image alt tags

• graphicx \includegraphics: Added the alt key to assign an alt tag to an image. Default is "(image)", assigned to pass validation.

duplicate html files

• Detects and causes an error if duplicate HTML file names are generated, caused by identical or similar sectioning names.

fixes

- Fix for tabular*.
- Fix for tabular border colors.
- Fixes \quad, \enskip, and figure captions to pass validation.

Japanese

- Added Itj* classes, bounddvi, gentombow, Iltjext, plarydshln, plext, plextarydshln, plextcolortbl, pxatbegshi, pxeveryshi, pxftnright, pxjahyper, tascmac.
- Verified to work with plarray, plautopatch, plextarray, plextdelarray, pxgentombow, plsiunitx, pxpdfpages, pxpgfrcs, pxpgfmark.

packages

- Added support for fontspec \textsi and \sishape.
- Added multicol's \docolaction.
- Added embrac, footnoterange, multicolrule, versonotes.

v0.64: Koma-Script, Japanese, Chinese.

Japanese

- · Added utarticle and related classes.
- Improved ujarticle and related classes.

Chinese

• Fix for biblatex with CTFX and other classes.

Koma-Script

• Fixes for scrlayer, scrlayer-scrpage.

packages

- addlines: Updated to v0.3.
- Added bsheaders, gmeometric, marginal, rmpage, scrpage2.

v0.63: mdframed, Chinese, Japanese, Korean

localization

- Added \linkhomename: A user-definable name for the **Home** link.
- Documented \sidetocname: A user-definable name for the sidetoc.

fixes

• Fix: \LinkHome for print output.

optimizations

 Moved package load checks to the lwarp core to reduce the number of lwarp-* files.

packages

• mdframed: Fix with amsthm, improved titles and font control. Improved rule widths.

Chinese

- · Fixes for xeCJK.
- Added xpinyin, zhlineskip.
- · Verified to work with cjkpunct, upzhkinsoku, zhspacing.

Japanese

- Verified to work with zxjatype, luatexja, luatexja-fontspec.
- Added bxjsarticle and related classes.
- Added Itjsarticle and related classes.

- Added pLATEX, upLATEX, ujarticle and related classes.
- · Prevented utarticle and related classes.
- Prevented bxcjkatype.

Korean

Verified to work with kotex, xetexko, luatexko.

v0.62: MiKTEX docs, HTML title, CTEX, xeCJK, bitpattern.

docs

• Docs: Setting a UTF-8 locale. See section 9.8.

MiKTEX

• MiKTEX: Docs for MiKTeX Console and miktex-poppler-bin.

html <title>

• HTML subpage titles: Added \HTMLTitleBeforeSection and \HTMLTitleAfterSection to select whether the HTML <title> displays the website name before or after the section name. See section 7.4.

fixes

- · Fix for package options handling.
- Fixes for horizontal white space between fminipage, fcolorminipage, colorboxBlock, fcolorboxBlock.
- Logos: Fix for XaTeX logo, improved css, made robust, improved searchengine optimization.
- \\[\$1]: Additional HTML
 if \$1 > 0 pt.
- Fixes for \includgraphics filename, and with FormatWP.
- Fix: css for \textup.
- Fix: Added \slshape.

Chinese

- Added ctex package and related classes, xeCJK.
- Prevented CJK, CJKutf8 unless xeCJK, ctex are used.

packages

- chemfig: Docs for new macro \polymerdelim.
- asymptote: Docs for compilation.
- chngpage: Fix to load lwarp-changepage.
- algorithm2e: Fix with non-book classes.
- register: Updated to v1.8.
- nicefrac: Improved font control and css, honors nice and ugly.
- units: Improved font control and css, honors tight and loose.
- xfrac: Improved css.
- textcomp and xunicode: Fix conflicts with \textcircled.
- ulem: Improved compatibility with CJKulem, lateximage.
- MathJax and siunitx: Removed inoperable extension.
- Added bitpattern, pdfcomment, pdfmarginpar, tram, unitsdef, xechangebar.
- Added musicography, octave, semantic-markup.
- Added 2in1, flippdf, notespages, rviewport, twoup.

v0.61: Custom compilation, EPS-related packages, documentation, indexes.

docs

- Split index into multiple indexes. See page 1066.
- Improved documentation regarding font selection. See section 7.2.
- Added documentation regarding debugging options. See section 35.
- Added documentation regarding HTML entities inside program listings.
 See section 8.2.1.

custom compiling

• Added options to specify the shell commands to execute for lwarpmk print and lwarpmk html, allowing the use of lwarp with perltex, pythontex, etc. If not specified, these are set automatically depending on the LATEX engine, --shell-escape, and lwarp options. See section 9.

• Changed macro names to match \displaymathother, \displaymathnormal:

Old	New
\StartDynamicMath	\inlinemathother
\StopDynamicMath	\inlinemathnormal

fixes

- Fix: Paragraph tags in a tabular.
- Fix: supertabular and xtab captions.
- Fix: DVI LATEX \includegraphics EPS images.
- · Fix: newfloat lists.
- Fix: css footnotes text align, minipage tabular and footnote margins.

packages

- Added epsfig, psfrag, psfragx, pstool.
- Added copyrightbox, pdfprivacy, thinsp, threadcol, uspace.
- Added chkfloat, cmdtrack, dprogress, lua-visual-debug, refcheck, srcltx, srctex, vpe, xbmks.

v0.60: Fixes for longtable, listings.

fixes

- longtable, etc.: Fixes for slowdown and memory management for very long tables.
- listings: Fix for HTML entities, and also when used inside a list.
- diagbox: Fix for incorrect HTML par tags.

packages

- · Added 2up, booklet.
- Added bophook, draftfigure, fullminipage, grid-system, layaureo.
- Added leading, widows-and-orphans.
- Added fancytabs, thumb, thumbs.

v0.59: DVI *latex*, MATHJAX, asymptote, pdftricks and pstricks, epstopdf, brqen.

Reset the configuration

• Due to changes in *lwarpmk*, recompile any existing project a single time using pdflatex filename.tex or similar, after which *lwarpmk* may then be used with the new configuration files.

Iwarpmk

- Added an error if lwarpmk.conf's format has changed and the document must be recompiled.
- Added a warning if the lwarpmk.conf configuration file appears to be for the wrong operating system, in case files are transferred between systems.

Added

lwarpmk epstopdf <list-of-EPS-files>
to quickly convert a document's EPS images to PDF or SVG. See section 8.8.

dvi latex

Added support for DVI latex. See section 7.3.

latexmk

• Fix for --shell-escape with *latexmk*.

math

- Updated MathJax script to v2.7.4.
- Fix: Mathjax chapter number removed from non-numeric tagged equations.
- Added MathJax support for nicefrac, units.
- Fix for \[and \] with \displaymathnormal.

images

- Fix for \includegraphics filename expansion.
- \includegraphics now works with .pdf and .eps filename extensions.

packages

- Moved amsmath out of the lwarp core.
- Fix for chemformula \NMR.
- Added asymptote, pdftricks, pstricks, pst-eps.
- · Added bregn, Slunits.
- Added bxpapersize, canoniclayout, draftcopy, fnbreak, nccfancyhdr.
- · Added accsupp, axessibility.
- Added xunicode.
- Improved and now supports epstopdf.
- Tested to work as-is: eepic, sepfootnotes.

docs

• Added information about setting up a development version of lwarp.

v0.58: Extensive improvements in indexing, glossaries. Adds PDF-inclusion packages.

A Reset the configuration

• Due to changes in *lwarpmk*, recompile any existing project a single time using pdflatex filename.tex or similar, after which *lwarpmk* may then be used with the new configuration files.

lwarpmk glossaries

- *lwarpmk*: Added the -p option to specify the project name.
- *lwarpmk*: Now uses *makeglossaries* for glossary generation, allowing the processing of multiple glossaries at once.
- Added lwarp option GlossaryCmd to specify the shell command used by lwarpmk printglossary and lwarpmk htmlglossary. Defaults to makeglossaries.

index and glossary

- Docs: Extra indexing options. See section 8.6.13.
- Added support for *makeindex*. (Previously supported only *xindy*.) Also added indexing packages listed below.
- Added lwarp options PrintIndexCmd, HTMLIndexCmd, and LatexmkIndexCmd to specify shell commands used by lwarpmk printindex, lwarpmk htmlindex, and *latexmk*. May be preset with the makeindex or xindy lwarp options. See section 7.3.
- Added lwarp options makeindex and xindy to set PrintIndexCmd, HTMLIndexCmd, and LatexmkIndexCmd to sensible values for a typical single index. See section 7.3.

> • Added lwarp option makeindexStyle to tell lwarpmk to use a custom style instead of lwarp.ist. See section 8.6.19.

- Fix for index entries with \see, \seealso, \emph, \textbf, etc.
- Replaced each \csuse with \@nameuse for improved error detection.
- Additional internal print/HTML macro selection improvements.
- Fix: \printindex finishes pending \index writes first.
- Fixes for memoir: makeidx, ccaption, multiple indexes, \specialindex.
- Fixes for komascript: Indexing improvements.
- Added imakeidx, index, repeatindex, splitidx.
- Added attachfile, attachfile2, intopdf, pdfpages, pdfx.
- Added cases.
- Tested to work as-is: notes2bib. hvindex.

v0.57: algorithm2e, float styles, tabular packages, internal improvements.

MathJax math macros

misc. fixes

packages

• Added support for MathJax equations with \footnote, \footnotemark.

dynamic math

• Added \StartDefiningMath and \StopDefiningMath for use when defining macros in the preamble which contain \$. See section 8.7.7.

Added \inlinemathother and \inlinemathnormal to delimit math ex-

pressions which depend on a variable condition such as a counter. Such expressions will not be hashed for reuse, and will be converted to svg math images even when MathJax is enabled. See section 8.7.8.

new name lateximage alt tags

• Renamed \EndDefiningTabulars to \StopDefiningTabulars.

 Improved localization for lateximage HTML alt tags. For svg math images, the alt tag under some conditions will be set to \mathimagename, which defaults to "math image". For packages, the alt tag is set using the package name followed by \packagediagramname, which defaults to "diagram". Ex:

(-xy- diagram)

See section 7.4.

• Fix: Improved print/HTML macro selection.

misc. fixes

- Fix: \href text catcodes.
- Fix: \subref text.
- Fixes: Colored \rule and \boxframe.

packages

- float, rotfloat: Adds support for float styles ruled and boxed.
- float: Fix: Do not create \l@<type> until \listof is used.
- marginnote: Fix: Long optional argument.
- ellipsis: Adds \midwordellipsis.
- breakurl: Fix for text catcodes.
- Added algorithm2e, register, Itablex, xItabular, xellipsis, trimclip, errata, vowel, xpiano.
- Prevents glossary.
- Tested to work as-is with gauss, phonrule, piano, Slunits, tikzcodeblocks.

v0.56: Shell escape, tabular packages.

Iwarpmk

Added

lwarpmk pdftosvg <list-of-PDF-files>

to quickly convert a document's PDF images to svg, for use with HTML. See section 8.8.

• Added support for --shell-escape. See section 7.1.

tabular

- Added support for array w and W columns.
- Fix: \multicolumn parameter handling.
- Added support for double \hlines, \midrules, and vertical rules.
- Added support for arydshin dashed lines with HTML tabular, but reverts to plain rules for lateximage and svg math array.

misc. fixes

- Fix: \thinspace.
- Fix: paralist compact environments.

packages

- Added parnotes, quoting, lua-check-hyphen, tocenter, underscore.
- Tested to work as-is with babelbib, bibunits, bodegraph, fast-diagram, nicematrix, structmech.

v0.55: Various fixes.

misc fixes

- Fix: Extraneous space in file links, which also prevented *Calibre* EPUB conversions.
- · Fix: Float optional argument regression.
- Fix: \ForceHTMLTOC with \phantomsection.
- Fix: Overfull boxes in lateximages.
- Fix: QED symbols in lateximage.

packages

- koma-script: Fix: Figure with \centering, etc.
- · Added clrdblpg.

v0.54: Float \centering, improved image checks.

Reset the configuration

• Due to changes in *lwarpmk*, recompile any existing project a single time using **pdflatex filename.tex** or similar, after which *lwarpmk* may then be used with the new configuration files.

lwarpmk

- lwarpmk limages checks for the presence of the HTML version of the document and valid image references before attempting to create the lateximages.
- lwarpmk: Improved error message if configuration file does not exist.

 $BibT_FX$

• Added documentation for avoiding error with BibTeX and \etalchar. See section 8.6.9.

polyglossia

• Added documentation regarding polyglossia. See section 8.15.4.

macros in section names

Added documentation regarding the use of macros in section names. See

document encoding

New and revised encoding options

• Renamed and added package options:

do

Old Package Option	New Package Option
xdyFilename IndexLanguage	xindyStyle xindyLanguage
	xindyCodepage pdftotextEnc

Use these options along with inputenc or inputenx to process documents in an encoding other than UTF-8. See section 7.2.

• Floats now honor \centering, \raggedright, \raggedleft, and their ragged2e equivalents, when placed directly after:

\begin{floattype}
\centering

misc. fixes

floats with \centering, etc.

- tikz: \pgfpicture, fit, align, font.
- ragged2e: \centering etc.
- hyperref: \hypertarget was creating duplicate of \label.
- hyperref: Active chars inside \hyperref, \hyperlink.
- hyperref: \ref inside \hyperlink caused a nested нтм llink.
- glossaries: Fix when not using babel or polyglossia.
- textcomp: \textperthousand.
- LATEX core verse environment: line spacing.
- Removed \citetitle, adjusted \attribution.

packages

- memoir: Minor update for v3.7g.
- Added inputenx, bibunits, chngpage, forest, magaz, gridset.
- Prevents loading ae, aecc, t1enc, and wasysym.

v0.53: Improved image checks.

lwarpmk

- *lwarpmk*: Added a warning about corrupted images due to the need to recompile the document one more time.
- *lwarpmk*: Added the *lwarpmk* cleanlimages command.
- Added documentation for lwarpmk cleanlimages and lwarpmk pdftohtml.

v0.52: Improved footnotes, svg math.

documentation

- Improved install instructions regarding lwarp_baseline_marker.png.
- Added documentation regarding footnotes in section headings, and footnotes with \VerbatimFootnotes from fancybox, fancyvrb. See section 8.5.4.
- Added documentation regarding font selection when using XHMTEX or LuaLATEX with fontspec and traditional font packages. See section 7.2.

SVG math

- Fix: Limit the number of background tasks when generating lateximages.
- Added user-adjustable svg math font scaling. See section 80.3.
- Added warnings if lwarp_baseline_marker.png is not present, or if graphicx or graphics is not loaded.

 \triangle

- Improved \ensuremath hashing expansion.
- Fix: equation* with split.
- tabbing now works inside a lateximage. Use for math in tabbing.

MathJax

- Fix: MathJax script was not executing in some conditions.
- Added \CustomizeMathJax to add custom functions. See section 8.7.

footnotes

- Fix: Footnote numbering when using HTMLDebugComments.
- Fix: Footnote paragraph tags.
- Fix: FootnoteDepth defaults to \subsubsection.

misc. fixes

- Fix: \kill in a lateximage.
- Fix: \FileDepth, misc. others, when input encoding is not utf8.
- Fix: \texorpdfstring in a section name.

packages

- hyperref emulation: Fix for #, %, &, ~, _ characters in URLs.
- fancybox, fancyvrb: Initial support for \VerbatimFootnotes.
- nicefrac: Added with fix for \ensuremath.
- graphicx: Fix for option defaults. Added v1.1a/b options.
- endfloat: Updated for v2.6.
- url: Fixes for active characters.

v0.51: Improved svg math, added numerous chemistry packages.

documentation

- Docs: Added Things to avoid.
- Docs: Added to Converting an existing document.
- Docs: Multiple authors and affiliations with custom classes. See section 8.6.1.
- Docs: tikz with matrices. See section 8.8.1.

SVG math

- Improved svg math baseline.
- · Improved svg math font and color.
- Faster svg math rendering.
- Improved support for display math containing complicated math objects, such as tikz-cd. See section 8.7.9.
- Fix: \addcontentsline inside svg math.
- Fix: SVG math containing an embedded lateximage.

MathJax

misc. fixes

MathJax now handles \ensuremath in expressions.

• Fix: Added alignat environment.

- Fix: afterpackage no longer required, which conflicted with scrlfile.
- Fix: titling \thanks mark.
- Fix: fancybox improvements.
- Fix: tikz \tikz macro. (Previously only the tikzpicture environment worked.)
- Fix: tikz with optional argument.

packages

 Added mhchem, chemfig, chemformula, chemmacros, chemnum, chemgreek, epstopdf-base, grid, ltxgrid.

v0.50: Improved svg math.

svg math

- svg math and other lateximages now are converted to svg using parallel background tasks, utilizing all available CPU cores.
- Inline svg math image file names now are MD5 hashes made from their source LATEX code. Identical inline math expressions, such as multiple instance of \$x\$, now share a single image file. This reduces the number of images to store, transmit, process, and display. Each image file is only converted to svg a single time, and reused if it already exists. Display math and other forms of svg image such as picture and Tikz still use individual image files which are recreated each time lwarpmk limages is run
- Fixes: SVG math and/or \underline in a sectioning file name.
- · Improved svG display math and tags.
- Improved svg math and siunitx alt tags.
- Improved siunitx units.
- Fix: \ensuremath with MathJax now creates a lateximage.
- Fix: \centering, etc. in svg math, lateximage, Tikz.

misc. fixes

- Fix: Made various macros robust, additionally fixing authblk.
- Fix: ntheorem if neither standard nor amsthm selected.
- Fix: listings: Improved column alignment.
- Fix: Load fontspec if necessary.

packages

• Added xy, epstopdf, diagbox, pbox, bytefield, axodraw2, phfqit, schemata, dblfloatfix, nonfloat, morefloats.

v0.49:

tabular

- Added xcolor \rowcolors.
- Fix: \noalign inside a tabular.

math

• Fix: \egref in a caption.

misc fixes

- Fix: Incorrect PDF font size changes caused occasional HTML corruption.
- Fix: printlen changes are now grouped for HTML output.

packages

• Added vwcol, vertbars, hyphenat, lineno, fnlineno, figsize, hypdestopt, pagegrid, pdfrender, luacolor, resizegather.

v0.48:

documentation

• Added some documentation regarding converting an existing document. See section 6.

cleveref

• Updated compatibility for new cleveref v0.21.

tabular

• Fix: Ignores optional tabular column arguments.

minor updates

- Added \leftline, \centerline, \rightline.
- Lists have improved font control via \makelabel.
- Print-mode lateximage now boxed to the natural width of its multiline contents.

• abstract now allows an optional name, as required by some classes. math • Fix: Improved spacing, \mbox, and font sizes with svg math, Tikz. • siunitx: Improved svg math, fraction compatibility, color output. misc. fixes • Fix: LOF/LOT links. • Fix: Virtual page size grouping caused excessive PDF page breaks. • Fix: Parsing similar package names in a single \usepackage. • Fix: Adapts to classes without \part. • Fix: \newline in \title was causing
 in window title. • Fix: \maketitle with \cr, \crcr, \noalign, for IEEEtran class. • Fix: xfrac neutralized BlockClass and others. • Fix: todonotes and luatodonotes: Improved \todototoc. • Added colortbl, chapterbib, acro, acronym, hypernat, hypcap, stfloats, packages vmargin, fancyheadings. • fancyref: Now directly supported. v0.47: math · Improved svg math baseline and sizing. • Fixes: svgmath in captions, subcaptions, \nameref. • Fixes: Line wrap at hyphen in HTML output. • Added endheads, multitoc, sectionbreak, blowup, xurl. packages v0.46: name change • \PrintStack changed to \LWRPrintStack. misc. fixes • Fix: Empty lines between tabular rows. · Fix: Stack unnesting. • Fix: SVG math and lateximages in numerous situations. • Fix: Spaces in \usepackage. • Fix: Now allows Mathlax inside verse. v0.45: documentation • Improved MiKTeX install instructions. • Improved graphics and epstopdf instructions. • Updates to the Introduction. • Added memoir, memhfixc. See section 8.13. memoir cross-references • Fix: Now allows underscores in labels. • Fix: _ and \<blank> in section/file names. • Fix: Now allows MATHJAX inside tabbing. math bibliography • Fix: Bibliography \em names. • Added cite, natbib, backref. (Also works as-is with biblatex.)

• Fix: Empty lines between tabular rows.

misc. fixes

- Fix: "Improper \prevdepth" with minipages, lists.
- Fix: Incorrect svg math and lateximages with subfig.
- · Fix: Lateximages from incorrect pages with Mathjax.
- Fix: Missing sidetoc if using listings.
- Fix: Added an array emulation package.

packages

 Added subfigure, prettyref, hanging, midpage, flafter, fltrace, changebar, endfloat, continue, fwlw, turnthepage, footnpag, pagesel, textfit, titleref.

v0.44:

koma-script

- Added koma-script classes (except scrlttr2, scrjura).
- Added scrextend, scrlayer, scrlayer-notecolumn, scrlayer-scrpage, scrhack, tocstyle, tocbasic.

html title and author

- Added \HTMLTitle. Fixed web page title if \HTMLTitle empty and no \title given and not using titling package.
- Fixed web page author if \HTMLauthor is empty and \author is not given.

encodings

• If using *pdflatex*, automatically loads T1 and UTF-8 encodings. (Additional fontenc encodings may be loaded after lwarp.)

lists

- Added list and trivlist environments, hang.
- tabular
- Fix: \multicolumn alignment if formatting for a word processor.
- · Added Itxtable.

math

- Fix: MathJax combined with lateximages.
- algorithmicx: Improved comment symbol and floating.

packages

- Completed todonotes and luatodonotes.
- Added todo, easy-todo, fixmetodonotes, fixme.
- Added soulutf8, soulpos, cancel.
- Added section, fancyref, ifoddpage.
- Added preview, atbegshi, watermark.
- Improved tocloft \newlistof and \newlistentry.

v0.43:

• Docs: Reorganized HTML customization, added an HTML settings table. See section 7.4.

footnotes

 Added FootnoteDepth to control the placement of pending footnotes before section breaks. By default, pending footnotes are printed before each \subparagraph or higher.

sectioning

- Fix: Expansion in section name.
- tabular
- Fix: Ignore spaces in tabular column specification.
- Fix: Tabular rules at bottom or when finishing incomplete rows.
- Fix: \multicolumn at/bang/before/after specifications, trim, and vertical rules.
- Fix: supertabular and xtab column misalignment.

math

- Fix: equation*.
- Fix: svg math in a section name.
- Fix: \ref and \egref in svg math.

packages

- Added todonotes and luatodonotes (but only disabled).
- · Added breakurl.
- hyperref: Fix: Several macros were made robust, \Gauge added.

v0.42:

Support TEX!

name change

name change

word-processor conversion

⚠

Λ

- Added TEX development support page. (See page 2.)
- Improved assitance for word-processor conversions when boolean FormatWP is set true. See section 11.
 - The boolean FormatWordProcessor has been renamed FormatWP.
 - The boolean HTMLMarkFloats has been renamed WPMarkFloats.
 - New booleans control whether to place additional marks around minipages, at the table of contents, at the LOF and LOT, and whether to print math as LATEX source for copy/paste into the LibreOffice Writer TeXMaths extension.
 - Improved formatting for numerous objects. See section 11.

tabbing

overpic

• Add: tabbing environment.

• Add: overpic package. See section 354.

math

- Fix: Text copy/paste of \mathcal{F}_{MS} math environment numbers and names.
- Improved \ensuremath.
- MATHJAX with siunitx: Updated script and documentation.

symbols

- textcomp: Improved \textinterrobangdown.
- realscripts: Fix for subscripts in a lateximage.

load order

· morewrites: Enforces loading before lwarp.

v0.41:

tabular

- Added tabular vertical rules, subject to some limitations. See the rules section of section 8.10.1.
- Improved booktabs: Width and trim are honored.

\land new syntax

- Added \mcolrowcell for empty cells inside a \multicolumnrow. Use \mcolrowcell instead of \mrowcell for two-dimensional cells created by \multicolumnrow. Continue to use \mrowcell for empty cells in a \multirow. See section 334.2 on page 812.
- Fix: Unfinished tabular rows are automatically filled.
- Fix for tabular column specifiers while using babel-french. (\NoAutoSpacing is activated then nullified inside the tabular, due to a conflict with the tabular column parsing code.)

v0.40:

graphics, graphicx

• graphics and graphicx have been moved from the lwarp core, and are only loaded if requested with \usepackage.

\includegraphics path image file extensions

bigdelim

symbols

margins columns

footnotes

sectioning

tabular

fixes

- Improved graphics \graphicspath support. Multiple image directories may now be used. Refer to .pdf files without a file extension to allow the $\ensuremath{\mathsf{HTML}}$ version to use a .svg, .png, .jpg, or .gif version instead. See section 8.8.
- grffile is now directly supported instead of emulated.
- Fix for bigdelim, and improved documentation. See section 138.
- Improved LATEX and textcomp symbols.
- Fix for LATEX logos and \InlineClass, etc. inside a lateximage.
- Fix for xltxtra with XFLATEX.
- Fixes for tocbibind with \simplechapter, etc.
- Fixes for \multicolumnrow and \nullfonts with older versions of multirow and xparse.
- Added \underline.
- · Added adjmulticol.
 - · Added cuted, midfloat.
 - Added pfnote, fnpos, dblfnote.
 - · Added stabular, tabls.
 - Added sectsty, anonchap, quotchap.

v0.39:

title pages

\published and \subtitle Λ load order tabular

multi column/row cell

macros inside tabular

tabular

margins page layout

- Improved the titlepage HTML code, \thanks notes, and \maketitle. titling is no longer required, but is still supported. The \published and \subtitle fields are no longer provided, but \AddSubtitlePublished replicates them using titling. See section 66.8. authblk is added, and should be loaded before titling. See section 66.
- \multirow now supports the new optional vpos argument.
- Added \multicolumnrow for combined \multicolumn and \multirow. See section 334.2.
- Tabular special cases:
 - Added \TabularMacro to mark custom macros inside tabular data cells, avoiding row corruption. See section 8.10.1.
 - Added \ResumeTabular for use when a tabular environment is defined inside another environment. See section 8.10.1.
- Added supertabular, xtab, bigstrut, bigdelim.
- · Added fullwidth.
- Added addlines, anysize, a4, a4wide, a5comb, textarea, zwpagelayout, typearea, ebook.

v0.38:

forced single-pass compile

• Added lwarpmk print1 and lwarpmk html1 actions to force a compile of the project a single time. Useful when multiple passes are not needed, or changes were not detected.

starred sections

 Added \ForceHTMLPage and \ForceHTMLTOC to force a starred sectional unit onto its own HTML page and with its own TOC entry. See section 8.6.2.

tabular defined inside

another environment

updated tutorial

Modified the tutorial to use the new \ForceHTMLPage and \ForceHTMLTOC macros.

packages font size

- Added appendix, tocbibind, fncychap, fix2col.
- · Added relsize, scalefnt.
- Added realscripts, metalogo, xltxtra.
- · Added grffile, romanbar.

page numbering front & back matter

- Added arabicfront, chappg, nonumonpart, nopageno, romanbarpagenumber.
- Docs: Improved description of the use of front/back matter. See section 8.6.
- Fix: color requests xcolor.
- Fix: \part for article class.

v0.37:

\include for html latexmk

- \include now maintains independent .aux files for HTML versions.
- comment, used by lwarp, now maintains independent cut files for print and HTML versions, helping *latexmk* to better know whether to recompile.
- accents and symbols babel-french
- Improved support for LATEX accents, textcomp, siunitx symbols.
- Improved babel-french handling for load order and ~ tilde.

v0.36:

- Recorganized the documentation section regarding special cases and limitations. (Section 8)
- · Improved source formatting.

boxes and frames

- \fbox and related now use \fboxsep and \fboxrule.
- \makebox and \framebox now use width and position.
- \fcolorbox and related now work inside a lateximage.

babel-french

• babel-french: Improvements for French variants, load order, footnotes, ellipses.

footnotes

• Improved footnote numbering. lateximage footnotes now appear as regular footnotes to match the numbering of the print version. Also fixed a regression with MATHJAX.

siunitx

- · Improved siunitx units.
- Fix for filenames while using MATHJAX.
- Fix for \rule when xcolor is not loaded.
- Added transparent, upref.

v0.35: Fix: \textbf and related.

v0.34:

Optional arguments

• BlockClass's optional argument has been moved in front of the mandatory argument:

BlockClass[style]{class} (NEW)

instead of:

BlockClass{class}[style] (OLD)

This change makes it more consistent with LATEX standards, and avoids problems with space between arguments.

Optional arguments

• Likewise, \InlineClass's optional argument now comes before the mandatory arguments:

\InlineClass[style]{class}{text}

spans with minipages

framing minipages

lateximage, svg math,

tabular

eqnarray verbatim packages

framing packages list packages

babel-french

• Improved compatibility between spans, minipages, lists, frames, and math. Handles minipages and lists inside an HTML span, such as an \fbox containing a minipage, although with minimal HTML fomatting. See section 8.3.3. \fboxBlock is added to frame minipages, tables, and lists with full HTML formatting but no longer inline, and behaves as \fbox for print output. The fminipage environment is added for framed minipages, as an environment with full HTML formatting, and draws a framed minipage in print output. See section 8.3.5. \fbox and minipages now often work in svg math and lateximages. MathJax supports \fbox, but not \fboxBlock nor fminipage.

- Improved compatibility between lateximage and minipage, \parbox, \makebox, \fbox, \framebox, \raisebox, \scalebox, \reflectbox, tabular, booktabs.
- Improved font control for lateximagees and svg math.
- Added the eqnarray environments.
- fancyvrb is no longer required (preloaded), but is still supported.
- Added verbatim and moreverb.
- Added fancybox, boxedminipage2e and shadow.
- enumitem is no longer required, but is still supported.
- · Added enumerate and paralist.
- titleps is no longer required, but is still supported.
- Added crop.
- Added rotfloat, marginfit, and several minor packages; see the change log.
- Adds fixed-width HTML spaces around punctuation when using babel-french. LuaTFX does not yet use the extra punctuation spacing.

v0.33:

- Tabular @ and ! columns now havetheir own HTML columns.
- & catcode changes are localized, perhaps causing errors about the tab alignment character &, so any definitions of macros or environments which themselves contain tabular and & must be enclosed within \StartDefiningTabulars and \StopDefiningTabulars (previously called \EndDefiningTabulars. See section 43. This change is not required for the routine use of tables, but only when a table is defined inside another macro or environment, and while also using the & character inside the definition. This may include the use inside conditional expressions.
- Several math environments were incorrectly placed inline. Also, for amsmath with svg math, the fleqn option has been removed, resulting in improved spacing for aligned equations.
- · Bug fixes; see the changelog.

v0.32: Bug fixes; no source changes needed:

- lwarpmk has been adjusted to work with the latest luatex.
- Spaces in the \usepackage and \RequirePackage package lists are now accepted and ignored.
- Fix for the glossaries package and \glo@name.

v0.31: Bug fix; no source changes needed:

• Improved compatibility with keyfloat, including the new keywrap environment.

v0.30:

• lwarp-newproject has been removed, and its functions have been combined with lwarp.

To modify existing documents, remove from the document source:

\usepackage{lwarp-newproject}

The lwarp package now produces the configuration files during print output, and also accepts the option lwarpmk if desired.

 A number of macros related to HTML settings have been converted to options, and other macros and options have been renamed to create a consistent syntax:

Old Macro	New Package Option
\HomeHTMLFileName	HomeHTMLFilename
\HTMLFileName	HTMLFilename
\useLatexmk	latexmk
\warp0Swindows	OSWindows
Old Package Option	New Package Option
lwarpmklang	xindyLanguage
(new)	xindyStyle
Old Macro	New Macro
\MetaLanguage	\HTMLLanguage
\HTMLauthor	\HTMLAuthor
\NewHTMLdescription	\HTMLDescription
\SetFirstPageTop	\HTMLFirstPageTop
\SetPageTop	\HTMLPageTop
\SetPageBottom	\HTMLPageBottom
\NewCSS	\CSSFilename

• Per the above changes, in existing documents, modify the package load of lwarp, such as:

```
\usepackage[
   HomeHTMLFilename=index,
   HTMLFilename={},
   xindyLanguage=english
]{lwarp}
```

⚠ HTML setup changes.

• The file lwarp_html.xdy has been renamed lwarp.xdy. To update each document's project:

- 1. Make the changes shown above.
- 2. Recompile the document in print mode. This updates the project's configuration files, and also generates the new file lwarp.xdy.
- 3. The old file lwarp_html.xdy may be deleted.
- The new lwarp package option xindyStyle may be used to tell *lwarpmk* to use a custom .xdy file instead of lwarp.xdy. See section 8.6.20.
- Improvements in index processing:
 - xindy's language is now used for index processing as well as glossary.
 - Print mode without *latexmk* now uses *xindy* instead of *makeindex*.
 - texindy/xindy usage depends on pdflatex vs xelatex, lualatex.
 - For pdflatex and texindy, the -C utf8 option is used. This is supported in modern distributions, but a customized lwarpmk.lua may need to be created for use with older distributions.

v0.29:

- Add: lwarpmklang option for lwarp-newproject and lwarp. Sets the language to use while processing the glossary. (As of v0.30, this has been changed to the IndexLanguage option.) (As of v0.54, this has been changed to the xindyLanguage option.)
- Fix: \includegraphics when no optional arguments.

v0.28:

- \HTMLAuthor $\{\langle name \rangle\}$ assigns HTML meta author if non-empty. Defaults to \theauthor.
- Booean HTMLDebugComments controls whether HTML comments are added for closing <div>s, opening and closing sections, etc.
- Boolean FormatEPUB changes HTML output for easy EPUB conversion via an external program. Removes per-file headers, footers, and nav. Adds footnotes per chapter/section.
- Boolean FormatWordProcessor changes HTML output for easier conversion by a word processor. Removes headers and nav, prints footnotes per section, and also forces single-file output and turns off HTML debug comments. Name changed to FormatWP as of v0.42.
- Boolean HTMLMarkFloats adds text marks around floats only if the boolean FormatWordProcessor is true. These make it easier to identify float boundaries, which are to be manually converted to word-processor frames. Name changed to WPMarkFloats as of v0.42.
- Updated for the new MATHJAX CDN repository.
- · Adds tabulary.
- Supports the options syntax for graphics.
- Improved index references, now pointing exactly to their target.
- Adds glossaries. *Iwarpmk* is modified to add printglosssary and htmlglossary actions.

2 Introduction

The lwarp project aims to allow a rich LaTeX document to be converted to a reasonable html5 interpretation, with only minor intervention on the user's part. No attempt has been made to force LaTeX to provide for every html-related possibility, and html cannot exactly render every possible LaTeX concept. Where compromise is necessary, it is desirable to allow the print output to remain typographically rich, and compromise only in the html conversion.

Several "modern" features of HTML5, CSS3, and SVG are employed to allow a fairly feature-rich document without relying on the use of JAVASCRIPT. Limited testing on older browsers shows that these new features degrade gracefully.

lwarp is a native LATEX package, and operates by either patching or emulating various functions. Source-level compatibility is a major goal, but occasional user intervention is required in certain cases.

As a package running directly in LaTeX, lwarp has some advantages over other methods of html conversion. TeX itself is still used, allowing a wider range of TeX trickery to be understood. Lua expressions are still available with LuaTeX. Entire categories of LaTeX packages work as-is when used with lwarp: definitions, file handling, utilities, internal data structures and calculations, specialized math-mode typesetting for various fields of science and engineering, and anything generating plain-text output. Blocks of PDF output may be automatically converted to svg images while using the same font and spacing as the original print document, directly supporting Tikz and picture. Numerous packages are easily adapted for html versions, either by loading and patching the originals, or by creating nullified or emulated replacements, and all without resorting to external programming. As a result, several hundred packages have already been adapted (table 2), and an uncounted number more work as-is.

Packages have been selected according to several criteria: perceived importance, popularity lists, recent CTAN updates, CTAN topics, mention in other packages, support by other HTML conversion methods, and from sample documents taken from public archives. These include some "obsolete" packages as well.¹

Assistance is also provided for modifying the HTML output to suit the creation of EPUB documents, and for modifying the HTML output to ease import into a word processor.

¹An amazing number of decades-old packages are still in use today.

pdflatex, xelatex, or lualatex may be used, allowing lwarp to process the usual image formats. While generating HTML output, svg files are used in place of PDF. Other formats such as PNG and JPG are used as-is.

SVG images may be used for math, and are also used for picture, Tikz, and similar environments. The svg format has better browser and e-book support than MathmL (as of this writing), while still allowing for high-quality display and printing of images (again, subject to potentially bug-ridden² browser support).

Furthermore, svg images allow math to be presented with the same precise formatting as in the print version. Math is accompanied by <alt> tags holding the LATEX source for the expression, allowing it to be copy/pasted into other documents.³ Custom LATEX macros may be used as-is in math expressions, since the math is evaluated entirely inside LATEX. An MD5 hash is used to combine multiple instances of the same inline math expression into a single image file, which then needs to be converted to svg only a single time.

The MathJax JavaScript display engine may be selected for math display instead of using svG images. Subject to browser support and Internet access, MathJax allows an html page to display math without relying on a large number of external image files. Iwarp maintains IMTEX control for cross-referencing and equation numbering, and attempts to force MathJax to tag equations accordingly.

A *texlua* program called *lwarpmk* is used to process either the print or HTML version of the document. A few external utility programs are used to finish the conversion from a LATEX-generated PDF file which happens to have HTML5 tags, to a number of HTML5 plain-text files and accompanying images.

lwarp automatically generates the extra files necessary for the HTML conversion, such as css and .xdy files, and configuration files for the utility <code>lwarpmk</code>. Also included is a parallel version of the user's source document, <code><sourcename>-html.tex</code>, which selects <code>HTML</code> output and then inputs the user's own source. This process allows both the printed and <code>HTML</code> versions to co-exist side-by-side, each with their own auxiliary files

When requesting packages during HTML conversion, lwarp first looks to see if it has its own modified version to use instead of the standard LATEX version. These lwarp-packagename.sty files contain code used to emulate or replace functions for HTML output.

²Firefox has had an on-again/off-again bug for quite some time regarding printing svgs at high resolution

 $^{^3}$ There seems to be some debate as to whether Mathml is actually an improvement over \LaTeX for sharing math. The author has no particular opinion on the matter, except to say that in this case \LaTeX is much easier to implement!

⁴One svg image file per math expression, except that duplicate inline math expressions are combined into a single file according to the MD5 hash function of its contents. A common scientific paper can easily include several thousand files, and in one case the MD5 hash cut the number of files in half and the rendering time by 30%.

2.1 Typesetting conventions

Font weight, family, and style are used to indicate various objects:

Table 1: Typesetting conventions

package program option	LATEX package. Program's executable name. Program or package option.
filename Brand Name	File name in the operating system. Proper name for a program, operating system, etc.
commands code \macroname environment counter boolean	Commands to be entered by the user. Program code. LATEX macro. LATEX environment. LATEX counter. LATEX boolean.
<pre><element> attribute</element></pre>	html element. html attribute.
User Interface acro	A user-interface item. Acronym.

2.2 Supported packages and features

Table 2 lists some of the various LATEX features and packages which may be used. Many are tested to work as-is, some are patches for the original packages, and some are emulations written for source-level compatibility. Many are nullified as being irrelevent to HTML output.

Table 2: LATEX lwarp package — Supported features

Category	Status and supported features.
Engines:	DVI LATEX, bdtlatex, xalatex, tracks are to the state of
Compiling:	latexmk, perltex, pythontex, make, etc.
Classes:	article, book, report, scrartcl, scrbook, scrreprt, memoir, CJK-related as listed below.
Koma-script:	scrextend, scrhack, scrlayer. Others as listed below.
Memoir:	memhfixc
Languages:	babel, polyglossia. cjkpunct, xeCJK.
Chinese:	CTEX , ctex, upzhkinsoku, xpinyin, zhlineskip, zhspacing.
Japanese:	upIATEX, LuaTEX-ja, gentombow, lltjext, plarray, plarydshln, plautopatch, plext, plextarray, plextarydshln, plextcolortbl, plextdelarray, pxatbegshi, pxeveryshi, pxftnright, pxgentombow, pxjahyper, pxpdfpages, pxpgfrcs, pxpgfmark, tascmac, zxjatype. bxjsarticle and related, luatexja, luatexja-fontspec, ujarticle and related, utarticle and related.
Korean:	kotex, luatexko, xetexko.

Category	Status
Page layout:	2in1, 2up, a4, a4wide, a5comb, addlines, anysize, atbegshi, blowup, booklet, bophook, bounddvi, bxpapersize, canoniclayout, changelayout, changepage, chngpage, clrdblpg, continue, draftcopy, draftfigure, draftwatermark, ebook, everyshi, fancyhdr, fancytabs, flippdf, fullminipage, fullpage, fwlw, geometry, gmeometric, grid, grid-system, gridset, layaureo, layout, layouts, leading, ltxgrid, nccfancyhdr, notespages, nowidow, pagegrid, pdfprivacy, pagesel, preview, rmpage, scrlayer-scrpage, scrpage2, textarea, threadcol, thumb, thumbs, titleps, tocenter, turnthepage, twoup, typearea, vmargin, watermark, widows-and-orphans, zwpagelayout. Tested to work as-is: underlin.
Sectioning:	Adds FileDepth for splitting the HTML output. Files may be numbered sequentially or named according to section name. Common short words and punctuation are removed from the filenames. anonchap, bsheaders, fncychap, indentfirst, quotchap, section, sectionbreak, sectsty, titlesec. Tested to work as-is: secdot.
Table of contents, figures, tables:	Supported, with hyperlinks. minitoc, multitoc, shorttoc, titletoc, tocbasic, tocbibind, tocdata, tocloft, tocstyle.
Title page:	\maketitle, titlepage, authblk, titling.
Front & back matter:	abstract, appendix.
Indexing:	makeindex and xindy are supported, with hyperlinks. idxlayout, imakeidx, index, makeidx, repeatindex, splitidx. Tested to work as-is: hvindex.
Glossary:	gloss, glossaries and xindy, nomencl.
Bibliography:	babelbib, backref, biblatex, bibunits, chapterbib, cite, hypernat, natbib, showtags. Tested to work as-is: notes2bib.
Cross-references:	bookmark, breakurl, cleveref, fancyref, hypdestopt, hyperref, perpage, prettyref, titleref, url, varioref, xr, xr-hyper, xurl.

Category	Status
Margin notes:	marginal, marginfit, marginfix, scrlayer-notecolumn, versonotes.
Footnotes:	Adds FootnoteDepth to print footnotes at section breaks. bigfoot, dblfnote, endheads, endnotes, fnbreak, fnpara, fnpos, footmisc, footnote, footnotebackref, footnoterange, footnpag, manyfoot, marginnote, pagenote, parnotes, pfnote, sidenote, tablefootnote. Tested to work as-is: fixfoot, nccfoots, sepfootnotes.
Math:	Converted to svG images with HTML <alt> tags containing the LATEX source for the math expression. MATHJAX supported as an alternative. amsmath: AMS environments are supported. User-defined macros are available during converson, due to native LATEX processing.</alt>
Theorems:	Native $\mbox{\sc IATeX}$ theorems, amsthm, ntheorem, theorem.
Additional math:	Math fonts via svg images, breqn, cases, mathtools, resizegather, autonum (ignored), xfakebold, xy. Tested to work as-is: amscd, bm, braket, delarray, guass, nicematrix, pb-diagram, tikz-cd, etc.
Display math with \displaymathother:	Complicated math objects in display math, such as tikz-cd, etc.
Units and fractions:	nicefrac, Slunits, siunitx, units, unitsdef, xfrac. Tested to work as-is: Slunits.
Floats:	Appear where declared. capt-of, caption, cutwin, dblfloatfix, endfloat, fix2col, flafter, float, floatflt, floatrow, fltrace, ftcap, hypcap, keyfloat, morefloats, multicap, newfloat, nonfloat, placeins, rotfloat, stfloats, subcaption, subfig, subfigure, subfloat, topcapt, trivfloat, wrapfig.
Tabular:	tabular environment, array, arydshln, bigdelim, booktabs, colortbl, ctable, diagbox, longtable, ltablex, ltxtable, multirow, supertabular, tabularx, tabulary, threeparttable, threeparttablex, xltabular, xtab.

·	
Category	Status
Graphics:	graphics and graphicx. \includegraphics supports width, height, origin, angle, and scale tags, and adds class. References to PDF files are changed to svg, other image types are accepted as well. \rotatebox and \scalebox are supported as well as HTML can handle. rotating is emulated but all objects are unrotated. picture, tikz, and xy are converted to an svg image. asymptote, epsfig, epstopdf, figsize, fitbox, grffile, media9, movie15, multimedia, overpic, psfrag, psfragx, pst-eps, pstool, pstricks, rviewport. Tested to work as-is: curves, eepic, tikz-3dplot.
xcolor:	Full package color names, any color models, and mixing. \textcolor, \colorbox, \fcolorbox. Enhanced for HTML compatibility.
Lists:	Standard LATEX environments, enumerate, enumitem, eqlist, hang, listliketab, paralist.
Environments:	Standard LATEX environments.
minipage, \parbox:	Some HTML5-imposed limitations. Nested minipages are supported. eqparbox, pbox.
Quotations:	copyrightbox, csquotes, epigraph, quoting, verse.
Verbatim:	fancyvrb, moreverb, shortvrb, verbatim.
Frames:	boxedminipage2e, fancybox, framed, mdframed, niceframe, shadow, vertbars.
Multi-columns:	adjmulticol, multicol, multicolrule, vwcol.
Margins:	fullwidth, hanging, midpage.
Line numbering:	fnlineno, lineno.
Direct formatting:	\emph, \textsuperscript, \textbf, etc are supported. \bfseries, etc. are only supported in some cases. cancel, ellipsis, embrac, enparen, hyphenat, lettrine, lips, lua-check-hyphen, luacolor, magaz, pdfrender, realscripts, relsize, scalefnt, soul, soulpos, soulutf8, textfit, thinsp, trimclip, truncate, ulem, umoline, underscore, uspace, xellipsis.
Acronyms:	acro, acronym.
Ordinals:	engord, fmtcount, nth.

Category	Status
Text ligatures:	Ligatures for symbols are supported. Ligatures for f, q, t are intentionally turned off because many simpler browsers do not display them correctly. Modern full-featured browsers re-create these ligatures on-the-fly.
Horizontal space:	HTML output for thin-unbreakable, unbreakable, \enskip, , \qquad, \hspace.
Rules:	\rule with width, height, raise, text color.
HTML reserved characters:	\&, \textless, and \textgreater are converted to HTML entities.
Fonts:	Used as-is. Appear in svg math expressions or embedded image environments.
Symbols:	Native IATEX diacriticals, academicons, bbding, chemgreek, dingbat, eurosym, fontawesome, fontawesome5, marvosym, metalogo, metalogox, pifont, textalpha, textcomp, textgreek, typicons, xunicode. Tested to work as-is: euro, gensymb.
Files:	attachfile, attachfile2, hyperxmp, inputtrc, intopdf, pdfpages, pdfx, xmpincl.
Science and engineering:	algorithm2e, algorithmicx, ar, axodraw2, bitpattern, bytefield, chemfig, chemformula, chemgreek, chemmacros, chemnum, karnaugh-map, listings, mhchem, phfqit, register, struktex. Tested to work as-is: askmaps, blochsphere, bodegraph, bohr, circuitikz, elements, engtlc, fast-diagram, hepnicenames, heppennames, karnaughmap, linop, pgfgantt, physics, simpler-wick, slashed, structmech, tikz-karnaugh, tikzcodeblocks.
Arts and humanities:	foreign, forest, musicography, nameauth, octave, schemata, semantic-markup, vowel, xpiano. Tested to work as-is: phonrule, piano, tikz-dependency.
Admonitions:	notes.
Editorial:	changebar, changes, easy-todo, ed, errata, fixme, fixmetodonotes, pdfcomment, pdfmarginpar, todo, todonotes, tram, xechangebar. Tested to work as-is: changelog, easyReview.

Category	Status
Accessibility:	accsupp, axessibility.
Debug:	chkfloat, cmdtrack, dprogress, lua-visual-debug, refcheck, srcltx, srctex, vpe, xbmks.
Working as-is:	Various utility, calculation, file, and text-only packages, such as calc, fileerr, somedefs, trace, xspace. Also, most math-only packages, including specialized typesetting for various fields of science and engineering.

3 Alternatives

Summarized below are several other ways to convert a LATEX or other document to HTML. Where an existing LATEX document is to be converted to HTML, lwarp may be a good choice. For new projects with a large number of documents, it may be worth investigating the alternatives before decided which path to take.

3.1 internet class

Cls internet

The closest to lwarp in design principle is the internet class by Andrew Stacey—an interesting project which directly produces several versions of markdown, and also HTML and EPUB. https://github.com/loopspace/latex-to-internet

3.2 ТеХ4нт

```
Prog TeX4ht http://tug.org/tex4ht/
Prog htlatex
```

This system uses native LATEX processing to produce a DVI file containing special commands, and then uses additional post-processing for the HTML conversion by way of numerous configuration files. In some cases lwarp provides a better HTML conversion, and it supports a different set of packages. TeX4ht produces several other forms of output beyond HTML, including ODT and a direct path to EPUB, and is still being developed.

3.3 Translators

These systems use external programs to translate a subset of LATEX syntax into HTML. Search for each on CTAN (http:\ctan.org).

```
H<sup>E</sup>v<sup>E</sup>a: http://hevea.inria.fr/ (not on CTAN)
       Hevea
              T<sub>T</sub>H: http://hutchinson.belmont.ma.us/tth/
              GELLMU: http://www.albany.edu/~hammond/gellmu/
              LATEXML: http://dlmf.nist.gov/LaTeXML/
     LaTeXML
Proa
              PlasTeX: https://github.com/tiarno/plastex
     Plastex
 LaTeX2HTML
              LATEX2HTML: http://www.latex2html.org/
                    and http://ctan.org/pkg/latex2html.
              TEX2page: http://ds26gte.github.io/tex2page/index.html
    TeX2page
              Finally, GladTEX may used to directly insert LATEX math into HTML:
     GladTeX GladTeX: http://humenda.github.io/GladTeX/
```

3.4 AsciiDoc and AsciiDoctor

AsciiDoc is one of the most capable markup languages, providing enough features to produce the typical technical-writing document with cross-references, and it writes LATEX and HTML.

Prog AsciiDoc Asciidoctor: http://asciidoctor.org/ (More active.)

Prog AsciiDoctor AsciiDoc: http://asciidoc.org/ (The original project.)

3.4.1 ASCIIDOCTOR-LATEX

The Asciidoctor-LaTeX project is developing additional LATEX-related features.

Asciidoctor-LateX:

http://www.noteshare.io/book/asciidoctor-latex-manual https://github.com/asciidoctor/asciidoctor-latex

Prog Asciidoctor-LaTeX

3.5 PANDOC

Prog Pandoc A markup system which also reads and writes LATEX and HTML.

Pandoc: http://pandoc.org/

(Watch for improvements in cross-references to figures and tables.)

3.6 Word processors

Prog Word
Prog LibreOffice
Prog OpenOffice

It should be noted that the popular word processors have advanced through the years in their abilities to represent math with a LATEX-ish input syntax, unicode math fonts, and high-quality output, and also generate HTML with varying success. See recent developments in Microsoft [®] Word [®] and LibreOffice TM Writer.

3.7 Commercial systems

Prog Adobe
Prog FrameMaker
Prog InDesign
Prog Flare

Likewise, several professional systems exist whose abilities have been advancing in the areas of typesetting, cross-referencing, and HTML generation. See Adobe [®] FrameMaker [®], Adobe InDesign [®], and Madcap Flare TM.

Prog Madcap

3.8 Comparisons

AsciiDoc, Pandoc, and various other markup languages typically have a syntax which tries to be natural and human-readable, but the use of advanced features tends to

require many combinations of special characters, resulting in a complicated mess of syntax. By contrast, LaTeX spells things out in readable words but takes longer to type, although integrated editors exist which can provide faster entry and a graphic user interface. For those functions which are covered by the typical markup language it is arguable that LaTeX is comparably easy to learn, while LaTeX provides many more advanced features where needed, along with a large number of pre-existing packages which provide solutions to numerous common tasks.

Text-based document-markup systems share some of the advantages of LATEX vs. a typical word processor. Documents formats are stable. The documents themselves are portable, work well with revision control, do not crash or become corrupted, and are easily generated under program control. Formatting commands are visible, cross-referencing is automatic, and editing is responsive. Search/replace with regular expressions provides a powerful tool for the manipulation of both document contents and structure. Markup systems and some commercial systems allow printed output through a LATEX back end, yielding high-quality results especially when the LATEX template is adjusted, but they lose the ability to use LATEX macros and other LATEX source-document features.

The effort required to customize the output of each markup system varies. For print output, LATEX configuration files are usually used. For HTML output, a css file will be available, but additional configuration may require editing some form of control file with a different syntax, such as XML. In the case of lwarp, css is used, and much HTML output is adjusted through the usual LATEX optional macro parameters, but further customization may require patching LATEX code.

The popular word processors and professional document systems each has a large base of after-market support including pre-designed styles and templates, and often include content-management systems for topic reuse.

4 Installation

Table 3 shows the tools which are used for the \LaTeX to \LaTeX to \LaTeX to not cases, these will be available via the standard package-installation tools.

Detailed installation instructions follow.

Table 3: Required software programs

Provided by your LATEX distribution:

From TEXLive: http://tug.org/texlive/.

LATEX: pdflatex, xelatex, or lualatex.

The lwarp package: This package.

The *lwarpmk* utility: Provided along with this package. This should be an operating-system executable in the same way that *pdflatex* or *latexmk* is. It is possible to have the lwarp package generate a local copy of *lwarpmk* called lwarpmk.lua. See table 4.

luatex: Used by the *lwarpmk* program to simplify and automate document generation.

xindy: The *xindy* program is used by lwarp to create indexes. On a MiKTEX system this may have to be acquired separately, but it is part of the regular installer as of mid 2015.

latexmk: Optionally used by *lwarpmk* to compile LATEX code. On a MiKTEX system, *Perl* may need to be installed first.

pdfcrop: Used to pull images out of the LATEX pdf.

POPPLER PDF utilities:

pdftotext: Used to convert pdf to text.

pdfseparate: Used to pull images out of the LATEX pdf.

pdftocairo: Used to convert images to svg.

These might be provided by your operating-system package manager, and MiKTFX provides miktex-poppler-bin-* packages.

From Poppler: poppler.freedesktop.org.

For MacOS®, see https://brew.sh/, install Homebrew, then

 ${\tt Enter} \Rightarrow \quad \textbf{brew install poppler}$

For Windows, see MikTEX miktex-poppler-bin-*, or:

https://sourceforge.net/projects/poppler-win32/ and: http://blog.alivate.com.au/poppler-windows/

Perl:

This may be provided by your operating-system package manager, and may be required for some of the Poppler pdf utilities.

strawberryperl.com (recommended), perl.org

Automatically downloaded from the internet as required:

MATHJAX: Optionally used to display math. From: mathjax.org

4.1 Installing the lwarp package

There are several ways to install lwarp. These are listed here with the preferred methods listed first:

Pre-installed: Try entering into a command line:

```
Enter ⇒ kpsewhich lwarp.sty
```

If a path to lwarp.sty is shown, then lwarp is already installed and you may skip to the next section.

TEX Live: If using a TEX Live distribution, try installing via *tlmgr*:

```
Enter ⇒ tlmgr install lwarp
```

MiKTEX:

- 1. For newer versions of MiKT_EX, install or update lwarp using the *MiKTeX Console* program.
- 2. For older versions of MiKT_EX, to install lwarp the first time, use the *MiKTeX Package Manager (Admin)*. To update lwarp, use *MiKTeX Update (Admin)*.
- 3. Either way, also update the package miktex-misc, which will install and update the *lwarpmk* executable.

Operating-system package: The operating-system package manager may already have lwarp, perhaps as part of a set of TEX-related packages.

CTAN TDS archive: Iwarp may be downloaded from the Comprehensive TEX Archive:

- 1. See http://ctan.org/pkg/lwarp for the lwarp package.
- 2. Download the TDS archive: lwarp.tds.zip
- 3. Find the T_EX local directory:

```
TFX Live:
```

```
Enter ⇒ kpsewhich -var-value TEXMFLOCAL
```

MiKT_EX:

In the **Settings** window, **Roots** tab, look for a local TDS root.

This should be something like:

```
/usr/local/texlive/texmf-local/
```

- 4. Unpack the archive in the TDS local directory.
- 5. Renew the cache:

```
\begin{array}{ll} \operatorname{Enter} \Rightarrow & \operatorname{mktexlsr} \\ --\operatorname{or} -- & \\ & \operatorname{Enter} \Rightarrow & \operatorname{texhash} \end{array}
```

Or, for Windows MiKTEX, start the program called *MiKTeX Settings (Admin)* and click on the button called **Refresh FNDB**.

CTAN .dtx and .ins files: Another form of TEX package is .dtx and .ins source files. These files are used to create the documentation and .sty files.

- 1. See http://ctan.org/pkg/lwarp for the lwarp package.
- 2. Download the zip archive lwarp.zip into your own lwarp directory.
- 3. Unpack lwarp.zip.
- 4. Locate the contents lwarp.dtx and lwarp.ins
- 5. Create the .sty files:

```
Enter ⇒ pdflatex lwarp.ins
```

6. Create the documentation:

```
pdflatex lwarp.dtx (several times)
makeindex -s gglo.ist -o lwarp.gls lwarp.glo
makeindex -s gind.ist lwarp.idx
pdflatex lwarp.dtx (several times)
```

7. Copy the .sty files somewhere such as the TEX Live local tree found in the previous CTAN TDS section, under the subdirectory:

```
<texlocal>/tex/latex/local/lwarp
```

- 8. Copy lwarp_baseline_marker.png and lwarp_baseline_marker.eps to the same place as the .sty files.
- 9. Copy the documentation lwarp.pdf to a source directory in the local tree, such as:

```
<texlocal>/doc/local/lwarp
```

10. Renew the cache:

```
\begin{array}{ll} {\rm Enter} \Rightarrow & {\bf mktexlsr} \\ {\bf --or} {\bf --} \\ & {\rm Enter} \Rightarrow & {\bf texhash} \end{array}
```

Or, for Windows MiKTeX, start the program called *MiKTeX Settings (Admin)* and click on the button called **Refresh FNDB**.

- 11. See section 4.2.1 to generate your local copy of *lwarpmk*.
- 12. Once the local version of lwarpmk.lua is installed, it may be made available system-wide as per section 4.2.

Project-local CTAN .dtx and .ins files: The .dtx and .ins files may be downloaded to a project directory, then compiled right there, alongside the document source files. The resultant *.sty and lwarpmk.lua files may be used as-is, so long as they are in the same directory as the document source. The files lwarp_baseline_marker.png and lwarp_baseline_marker.eps must also be copied as well. This approach is especially useful if you would like to temporarily test lwarp before deciding whether to permanently install it.

Just testing!

4.2 Installing the *lwarpmk* utility

(Note: If *lwarpmk* is not already installed, it is easiest to use a local copy instead of installing it system-wide. See section 4.2.1.)

After the lwarp package is installed, you may need to setup the lwarpmk utility:

1. At a command line, try executing **lwarpmk**. If the *lwarpmk* help message appears, then *lwarpmk* is already set up. If not, it is easiest to generate and use a local copy. See section 4.2.1.

2. For MiKTEX, try updating the miktex-misc package. This may install the *lwarpmk* executable for you.

Otherwise, continue with the following:

3. Locate the file lwarpmk.lua, which should be in the scripts directory of the TDS tree. On a TEX Live or MiKTEX system you may use

```
Enter ⇒ kpsewhich lwarpmk.lua
```

(If the file is not found, you may also generate a local copy and use it instead. See section 4.2.1.)

4. Create lwarpmk:

Unix: Create a symbolic link and make it executable:

(a) Locate the TEX Live binaries:

```
Enter ⇒ kpsewhich -var-value TEXMFROOT
```

This will be something like:

/usr/local/texlive/<year>

The binaries are then located in the bin/<arch> directory under the root:

/usr/local/texlive/<year>/bin/<architecture>/

In this directory you will find programs such as *pdflatex* and *makeindex*.

(b) In the binaries directory, create a new symbolic link from the binaries directory to lwarpmk.lua:

 $Enter \Rightarrow$ ln -s <pathtolwarpmk.lua> lwarpmk

(c) Make the link executable:

Enter ⇒ chmod 0755 lwarpmk

WINDOWS TEX Live: Create a new lwarpmk.exe file:

- (a) Locate the TEX Live binaries as shown above for UNIX.
- (b) In the binaries directory, make a *copy* of runscript.exe and call it lwarpmk.exe This will call the copy of lwarpmk.lua which is in the scripts directory of the distribution.

WINDOWS MIKTEX: Create a new lwarpmk.bat file:

(a) Locate the MiKTEX binaries. These will be in a directory such as:

C:\Program Files\MiKTeX 2.9\miktex\bin\x64

In this directory you will find programs such as pdflatex.exe and makeindex.exe.

(b) Create a new file named lwarpmk.bat containing:

texlua "C:\Program Files\MiKTeX 2.9\scripts\lwarp\lwarp.texlua" %* This will call the copy of lwarpmk.lua which is in the scripts directory of the distribution.

4.2.1 Using a local copy of lwarpmk

It is also possible to use a local version of lwarpmk:

1. When compiling the tutorial in section 5, use the lwarpmk option for the lwarp package:

```
\usepackage[lwarpmk]{lwarp}
```

- 2. When the tutorial is compiled with *pdflatex*, the file lwarpmk.lua will be generated along with the other configuration files.
- 3. lwarpmk.lua may be used for this project:

Unix:

(a) Make lwarpmk.lua executable:

```
Enter ⇒ chmod 0755 lwarpmk.lua
```

(b) Compile documents with

```
Enter ⇒ ./lwarpmk.lua html
Enter ⇒ ./lwarpmk.lua print
etc.
```

(c) It may be useful to rename or link to a version without the .lua suffix.

WINDOWS:

Compile documents with either of the following, depending on which command shell is being used:

```
Enter ⇒ texlua lwarpmk.lua html
Enter ⇒ texlua lwarpmk.lua print
etc.
Or:
Enter ⇒ lwarpmk html
Enter ⇒ lwarpmk print
etc.
```

4.3 Installing additional utilities

To test for the existence of the additional utilities:

Enter the following in a command line. If each programs' version is displayed, then that utility is already installed. See table 3 on page 71.

```
luatex --version
Enter \Rightarrow
Enter \Rightarrow
           xindy --version
Enter \Rightarrow
           latexmk --version
           perl --version
Enter \Rightarrow
Enter ⇒
           pdfcrop --version
           pdftotext -v
Enter \Rightarrow
           pdfseparate --version
Enter \Rightarrow
          pdftocairo -v
Enter \Rightarrow
```

To install xindy, latexmk, and pdfcrop:

The TEX utilities *xindy*, *latexmk*, and *pdfcrop* may be installed in *TexLive* with *tlmgr*, installed by *MiKTeX*, provided by your operating system's package manager, or downloaded from the *CTAN* archive:

```
http://ctan.org/pkg/xindy
http://ctan.org/pkg/latexmk
http://ctan.org/pkg/pdfcrop
```

Prog [requirement] pdftotext

Prog [requirement]

Prog [requirement]

pdfseparate

pdftocairo

To install the Poppler utilities to a Unix/Linux system:

The tools from the Poppler project should be provided by your operating system's package manager.

To install the POPPLER utilities to a MACOS machine:

1. Install *Homebrew* from https://brew.sh/:

/usr/bin/ruby -e "\$(curiIntefs\$L https://raw.githubusercontent.com/Homebrew/install/master/install)"

2. Install the POPPLER utilities:

Enter ⇒ brew install poppler

To install the POPPLER utilities to a WINDOWS machine:

If using MikTEX, install a miktex-poppler-bin-* package. Otherwise:

- 1. See table 3 on page 71.
- 2. Download and extract the Poppler utilities *pdftotext*, *pdfseparate*, and *pdfseparate* to a directory, such as Poppler.
- 3. In the **Start** window, type "Path" to search for results related to Path. Or, open the control panel and search for "Path".
- 4. Choose **Edit the system environment variables** in the control panel.
- 5. Choose the **Environment Variables** button.
- 6. Choose the **Path** variable, then the **Edit** button.
- 7. Choose the **New** button to make an additional entry.
- 9. Click **Ok** when done.

Prog [requirement] perl To install PERL to a WINDOWS machine:

- 1. Download and install a version of Perl, such as Straweberry Perl, to a directory without a space in its name, such as C:\Strawberry.
- 2. Edit the Path as seen above for the POPPLER utilities.
- 3. Enter the bin directory of the *perl* utility, such as:

C:\Strawberry\perl\bin

Be sure to include \bin.

4. Click **Ok** when done.

Any utilities installed by hand must be added to the PATH.

5 Tutorial

This section shows an example of how to create an lwarp document.

Need help?

See the General Index for "how-to", and the Troubleshooting Index if something doesn't work. The Index of Objects contains automated entries for each package, macro, environment, counter, boolean, and other objects; individually and also sorted by category. A Troubleshooting section is also available.

5.1 Starting a new project

1. Create a new project directory called tutorial.

File tutorial.tex

2. Inside the tutorial directory, create a new file called tutorial.tex. This may be done several ways:

Copy from the documentation PDF:

A listing is in fig. 1, which may be copied/pasted from the figure directly into your own editor, depending on the quality of the PDF viewer and editor, or:

Copy from the lwarp documentation directory:

Another copy may be found by entering into a command line:

```
Enter ⇒ texdoc -l lwarp_tutorial.txt
```

This should be in the doc/latex/lwarp/ directory along with this PDF documentation. Copy lwarp_tutorial.txt directly into your tutorial directory, renamed as tutorial.tex.

When using Windows, use an editor other than Notepad, since Notepad does not accept the end-of-line from a Unix text file.

3. Compile the project:

```
Enter ⇒ pdflatex tutorial.tex (several times)
```

(xelatex or lualatex may be used as well. lwarp also supports DVI latex for use with .eps images.)

4. View the resulting tutorial.pdf with a PDF viewer.

A number of new files are created when tutorial.tex is compiled, as shown in table 4. These files are created by the lwarp package.

(Two of the new files are configuration files for the helper program *lwarpmk*. Whenever a print version of the document is created, the configuration files for *lwarpmk* are updated to record the operating system, LATEX engine (*latex*, *pdflatex*, *xelatex*, or *lualatex*), the filenames of the source code and HTML output, and whether the additional helper program *latexmk* will be used to compile the document.)

File lwarp_tutorial.txt

Note: .txt suffix!

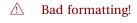


Figure 1: tutorial.tex listing

Note: There are two pages!

```
% Save this as tutorial.tex for the lwarp package tutorial.
\documentclass{book}
\usepackage{iftex}
% --- LOAD FONT SELECTION AND ENCODING BEFORE LOADING LWARP ---
\ifPDFTeX
                                % pdflatex or dvi latex
\usepackage{lmodern}
\usepackage[T1]{fontenc}
\usepackage[utf8]{inputenc}
\else
\usepackage{fontspec}
                                % XeLaTeX or LuaLaTeX
\fi
% --- LWARP IS LOADED NEXT ---
\usepackage[
   HomeHTMLFilename=index,
                                % Filename of the homepage.
%
   HTMLFilename={node-},
                                % Filename prefix of other pages.
                                % Language for xindy index, glossary.
%
   IndexLanguage=english,
%
   latexmk,
                                % Use latexmk to compile.
%
   OSWindows,
                                % Force Windows. (Usually automatic.)
   mathjax,
                                % Use MathJax to display math.
% \boolfalse{FileSectionNames} % If false, numbers the files.
% --- LOAD PDFLATEX MATH FONTS HERE ---
% --- OTHER PACKAGES ARE LOADED AFTER LWARP ---
\usepackage{makeidx} \makeindex
\usepackage{xcolor}
                                % (Demonstration purposes only.)
\usepackage{hyperref,cleveref} % LOAD THESE LAST!
% --- LATEX AND HTML CUSTOMIZATION ---
\title{The Lwarp Tutorial}
\author{Some Author}
\setcounter{tocdepth}{2}
                                % Include subsections in the \TOC.
                                % Number down to subsections.
\setcounter{secnumdepth}{2}
\setcounter{FileDepth}{1}
                                % Split \HTML\ files at sections
\booltrue{CombineHigherDepths} % Combine parts/chapters/sections
\setcounter{SideTOCDepth}{1}
                                % Include subsections in the side\TOC
                                % Overrides \title for the web page.
\HTMLTitle{Webpage Title}
\HTMLAuthor{Some Author}
                                % Sets the HTML meta author tag.
\HTMLLanguage{en-US}
                                % Sets the HTML meta language.
\HTMLDescription{A description.}% Sets the HTML meta description.
\HTMLFirstPageTop{Name and \fbox{HOMEPAGE LOGO}}
\HTMLPageTop{\fbox{LOGO}}}
\HTMLPageBottom{Contact Information and Copyright}
\CSSFilename{lwarp_sagebrush.css}
```

```
\begin{document}
\maketitle
                                % Or titlepage/titlingpage environment.
% An article abstract would go here.
                                % MUST BE BEFORE THE FIRST SECTION BREAK!
\tableofcontents
\listoffigures
\chapter{First chapter}
\section{A section}
This is some text which is indexed.\index{Some text.}
\subsection{A subsection}
See \cref{fig:withtext}.
\begin{figure}\begin{center}
\fbox{\textcolor{blue!50!green}{Text in a figure.}}
\caption{A figure with text\label{fig:withtext}}
\end{center}\end{figure}
\section{Some math}
Inline math: r = r_0 + vt - \frac{1}{2}at^2
followed by display math:
\begin{equation}
a^2 + b^2 = c^2
\end{equation}
\begin{warpprint} % For print output ...
                    % ... a common method to place index entry into TOC.
\cleardoublepage
\phantomsection
\addcontentsline{toc}{chapter}{\indexname}
\end{warpprint}
                    % HTML index will be on its own page.
\ForceHTMLPage
\ForceHTMLTOC
                    % HTML index will have its own toc entry.
\printindex
\end{document}
```

Table 4: Configuration files created by print version

- tutorial.pdf: The pdf output from LATEX. The print version of the document.
- **tutorial_html.tex:** A small .tex file used to create a parallel html version of the document, which co-exists with usual the pdf version, and which will have its own auxiliary files. In this way, both pdf and html documents may co-exist side-by-side.
- **Auxiliary files:** The usual LATEX files .aux, .log, .out, .toc, .lof, .idx. When an html version of the document is created, _html versions of the auxiliary files will also be generated.
- **lwarpmk.conf:** A configuration file for *lwarpmk*, which is used to automate the compilation of pdf or html versions of the document.
- **tutorial.lwarpmkconf:** Another configuration file used by *lwarpmk*, which is only useful if you wish to have several projects residing in the same directory.
- .css files: lwarp.css, lwarp_formal.css, lwarp_sagebrush.css These files are standard for lwarp, and are not meant to be modified by the user.
- **sample_project.css:** An example of a user-customized css file, which may be used for project-specific changes to the lwarp defaults.
- **lwarp.ist:** Used by lwarp while creating an index using *makeindex*. This file should not be modified by the user. A custom file may be used instead, if necessary.
- **lwarp.xdy:** Used by lwarp while creating an index using *xindy*. This file should not be modified by the user. A custom file may be used instead, if necessary.
- **lwarp_one_limage.txt:** For Windows only. Used to process svg images in the background. Copied to lwarp_one_limage.cmd when images are generated.
- lwarp_mathjax.txt: Inserted into the html files when MathJax is used to display
 math. This file should not be modified by the user.
- **comment.cut:** A temporary file used by lwarp to conditionally process blocks of text. This file may be ignored.

When the lwarpmk option is given to the lwarp package:

lwarpmk.lua: A local copy of the lwarpmk utility.

On Unix-related operating systems this file must be made executable:

chmod u+x lwarpmk.lua

This may be useful to have to archive with a project for future use.

5.2 Compiling the print version with *lwarpmk*

The *lwarpmk* utility program is used to compile either the printed or the HTML version of the document.

lwarpmk print is used to recompile a printed version of the document.

1. Re-compile the print version:

```
Enter \Rightarrow  lwarpmk print
```

lwarpmk prints an introduction then checks to see if the document must be recompiled. If it seems that the files are up-to-date, then *lwarpmk* informs you of that fact and then exits.

- Make a small change in the original document, such as adding a space character.
- 3. Recompile again.

```
Enter ⇒ lwarpmk print
```

The document is recompiled when a change is seen in the source. Several compilations may be necessary to resolve cross-references.

4. Force a recompile to occur.

```
Enter \Rightarrow lwarpmk again
```

Enter ⇒ **lwarpmk print**

lwarpmk again updates the date code for the file, triggering a recompile the next time the document is made. 5

5. Process the index.⁶ ⁷

```
Enter ⇒ lwarpmk printindex
```

6. Recompile again to include the index.

```
Enter ⇒ lwarpmk print
```

7. To force a single recompile when needed, even if no changes were detected:

```
Enter ⇒ lwarpmk print1
```

Note that the HTML customization commands are ignored while making the print version.

⁵Although, when using the utility *latexmk* (introduced later), the changed date is ignored and an actual change in contents must occur to cause a recompile.

⁶The command **lwarpmk printglossary** is also available to process a glossary produced with the **glossaries** package. See section 8.6.11.

⁷Also see section 8.6.14 for index options.

5.3 Compiling the HTML version with *lwarpmk*

lwarpmk html is used to recompile an HTML version of the document.

1. Compile the HTML version:

```
Enter ⇒ lwarpmk html
```

- (a) *lwarpmk* uses LATEX to process tutorial_html.tex to create tutorial_html.pdf.
- (b) *pdftotext* is then used to convert to the file tutorial_html.html. This file is a plain-text file containing HTML tags and content for the entire document.
- (c) *Iwarpmk* manually splits tutorial_html.html into individual HTML files according to the HTML settings. For this tutorial, the result is tutorial.html (the home page), along with First-chapter.html⁸, Some-math.html, and the document's index in _Index.html.⁹
- 2. View the HTML page in a web browser.

Open the file tutorial.html in a web browser.

math

Note that math is still displayed as its alt tag, which is the plain-text LATEX source, until the images of the math expressions have been generated. Math may be displayed as svG images or by a MATHJAX script, as seen in sections 5.4 and 5.5.

3. Force a recompile:

```
Enter ⇒ lwarpmk again
Enter ⇒ lwarpmk html
Enter ⇒ lwarpmk print
```

4. Process the HTML index and recompile:¹⁰¹¹

```
Enter ⇒ lwarpmk htmlindex
Enter ⇒ lwarpmk html
```

_Index.html is updated for the new LATEX index.

- 5. Reload the web page to see the added index.
- 6. To force a single recompile when needed, even if no changes were detected:

 $Enter \Rightarrow$ lwarpmk html1

⁸First-chapter.html also contains the first section, even though the second section is its own html page. This behavior is controlled by the boolean CombineHigherDepths.

⁹index.html is commonly used as a homepage, so the document index is in _Index.html.

¹⁰The command **lwarpmk htmlglossary** is also available to process a glossary produced with the **glossaries** package. See section 8.6.11.

¹¹Also see section 8.6.14 for index options.

Generating the svg images 5.4

math as svg images

By default lwarp represents math as svg images, with the LATEX source included in alt attributes. In this way, the math is displayed as it was drawn by LATEX, and the LATEX source may be copied and pasted into other documents.

picture and Tikz | lwarp uses the same mechanism for picture and Tikz environments.

1. Create the svg images:

lwarpmk limages Enter ⇒ lwarpmk html

- 2. Move to the tutorial's HTML math page and reload the document in the browser.
- 3. The math images are displayed using the same font and formatting as the printed version.
- 4. Copy/paste a math expression into a text editor to see the LATEX source.

adding/removing

When a math expression, picture, or Tikz environment is added or removed, the svg images must be re-created by entering lwarpmk limages to maintain the proper image-file associations. Inline svg math may be hashed and thus not need to be recreated, but display math and objects such as Tikz may move to new image numbers when the document is changed.

recompile first

Before attempting to create the svg image files, lwarpmk verifies that the HTML version of the document exists and has correct internal image references. 12 If it is necessary to recompile the document's HTML version one more time, lwarpmk usually will inform the user with an error message, but there are some conditions which cannot be detected, so the user should watch for the LATEX recompile warnings.

html instead of images

If HTML appears where an svg image should be, recompile the document one more time to get the page numbers back in sync, then remake the images one more time.

page counter

Incorrect svG images will also occur if the document changes the page counter:

\setcounter{page}{<value>}

The page counter must *not* be adjusted by the user.

Lots of files!

Expressing math as svG images has the advantage of representing the math exactly as IATEX would, but has the disadvantage of requiring an individual file for each math expression. For inline math, and some other objects, lwarp uses an MD5 hash on its LATEX source to combine multiple instances of identical inline expressions into a single image file, but display math and other environments such as picture and Tikz require one image file each. For a document with a large amount of math, see section 5.5 to use MATHJAX instead.

¹²This becomes important when dealing with a document containing thousands of images.

5.5 Using MATHJAX for math

math with MathJax Math may also be represented using the MATHJAX JAVASCRIPT project.

 In the tutorial's source code, uncomment the mathjax package option for lwarp:

mathjax, % Use MathJax to display math.

2. Recompile

Enter ⇒ lwarpmk html

3. Reload the math page.

MATHJAX requires web access unless a local copy of MATHJAX is available, and it also requires that Javascript is enabled for the web page. The math is rendered by MATHJAX. Right-click on math to see several options for rendering, and for copying the LATEX source.

While using MathJax has many advantages, it may not be able to represent complex expressions or spacing adjustments as well as LATEX, and it may not support some math-related packages.

5.6 Changing the css style

For a formal css style, add to the preamble:

```
\usepackage{lwarp}
...
\CSSFilename{lwarp_formal.css}
...
\begin{document}
```

For a modern css style, lwarp_sagebrush.css is also provided:

```
\CSSFilename{lwarp_sagebrush.css}
```

See section 7.5 for more information about modifying the css styling of the document.

5.7 Customizing the HTML output

A number of settings may be made to control the HTML output, including filename generation, automatic compilation, math output, document splitting, meta data, and page headers and footers.

See section 7.4 for more information.

5.8 Using latexmk

latexmk is a LATEX utility used to monitor changes in source files and recompile as needed.

1. In the tutorial's source code uncomment the latexmk option for the lwarp package:

```
latexmk, % Use latexmk to compile.
```

2. Recompile the printed version of the document.

```
Enter \Rightarrow  lwarpmk print
```

lwarp updates its own configuration files (lwarpmk.conf and tutorial.lwarpmkconf) whenever the printed version of the document is compiled. These configuration files remember that lwarpmk should use latexmk to compile the document.

3. Recompile the document.

```
Enter⇒ lwarpmk print
and/or
Enter⇒ lwarpmk html
```

Changes are detected by comparing checksums rather than modification times, so lwarpmk again will not trigger a recompile, but *latexmk* has a much better awareness of changes than the *lwarpmk* utility does and it is likely to correctly know when to recompile. A recompile may be forced by making a small change to the source, and a single recompile may be forced with:

forced single-pass recompile

```
\operatorname{Enter} \Rightarrow \quad \text{lwarpmk print1} and/or \operatorname{Enter} \Rightarrow \quad \text{lwarpmk html1}
```

5.9 Using X₃T⁴L₂X or Lual⁴T_EX

XHIATEX or LualATEX may be used instead of IATEX.

1. Remove the auxiliary files for the project:

```
Enter ⇒ lwarpmk cleanall
```

2. Use xelatex or lualatex to compile the printed version a single time.

```
\begin{array}{ll} {\rm Enter} \Rightarrow & \hbox{\tt xelatex tutorial.tex} \\ \hbox{\tt -or-} \\ & {\rm Enter} \Rightarrow & \hbox{\tt lualatex tutorial.tex} \end{array}
```

When the compile occurs, the configuration files for *lwarpmk* are modified to remember which TEX engine was used. XHATEX or LuaLATEX will be used for future runs of *lwarpmk*.

3. To recompile the document:

```
Enter⇒ lwarpmk print
-and-
Enter⇒ lwarpmk html
```

4. Also remember to update the indexes and recompile again:

```
Enter⇒ lwarpmk htmlindex
Enter⇒ lwarpmk html
Enter⇒ lwarpmk printindex
Enter⇒ lwarpmk print
```

5.10 Using DVI LATEX

Traditional DVI LaTeX may also be used along with .eps image files. An svG version of each image must also be provided. *lwarpmk* may be used to convert image formats.

To convert EPS files to PDF:

bitmapped fonts See section 7.2 regarding font selection to avoid the use of bitmapped fonts.

5.11 Using a glossary

lwarp supports the gloss and glossaries packages, although this tutorial does not supply an example.

5.11.1 gloss package

See section 8.6.10.

5.11.2 glossaries package

To process the glossary for the print version:

```
Enter ⇒ lwarpmk printglossary
```

(If makeglossaries is not found, see section 8.6.11.)

To process the glossary for the HTML version:

```
Enter \Rightarrow lwarpmk htmlglossary
```

In each case, the document will have to be recompiled afterwards:

Enter ⇒ lwarpmk html1

 $Enter \Rightarrow lwarpmk html$

 $Enter \Rightarrow$ lwarpmk print1

 $Enter \Rightarrow$ lwarpmk print

See section 8.6.11 to set options for processing glossaries.

5.12 Cleaning auxiliary files

```
To remove the auxiliary files .aux, .toc, .lof, .lot, .idx, .ind, .log, and .gl*:
```

```
Enter ⇒ lwarpmk clean
```

5.13 Cleaning auxiliary and output files

To remove the auxiliary files, and also remove the .pdf and .html files:

```
Enter ⇒ lwarpmk cleanall
```

5.14 Cleaning the images from the feet>-images directory

The project>-images directory contains svg images automatically generated for inline and display math, tikz, etc. To remove all the images from the lateximages directory:

```
Enter ⇒ lwarpmk cleanlimages
```

5.15 Converting PDF or EPS images to SVG

HTML cannot display PDF or EPS images, so any external PDF graphics images must be converted to svg format. *pdftocairo* and *epstopdf* may be used one image at a time, but *lwarpmk* also provides a way to convert PDF or EPS images in bulk:

```
Enter \Rightarrow lwarpmk epstopdf *.eps (or a list of files)

Enter \Rightarrow lwarpmk pdftosvg *.pdf (or a list of files)
```

Be sure to always provide svg files for HTML output.

5.16 Creating HTML from an incomplete compile

During testing it may be useful to finish the HTML conversion even when the document had errors and did not compile successfully. To attempt an HTML conversion of an incomplete document:

```
Enter ⇒ lwarpmk pdftohtml [-p project]
```

5.17 Processing multiple projects in the same directory

It is possible to have several projects in the same directory. *lwarpmk* has an optional parameter which is the document to compile.

To create each project:

```
Enter ⇒ pdflatex project_a
Enter ⇒ pdflatex project_b
```

Each project is given its own configuration file:

```
project_a.lwarpmkconf, project_b.lwarpmkconf
```

To compile each project with lwarkmk:

```
Enter \Rightarrow lwarpmk print -p project_a
Enter \Rightarrow lwarpmk html -p project_b
```

5.18 Using the make utility

lwarpmk has an action which may be useful for integration with the common *make* utility:

```
lwarpmk pdftohtml [-p project]
```

make may be used to compile the code to PDF with HTML tags (project_html.pdf), then <code>lwarpmk</code> may be used to convert each target to HTML files.

6 Converting an existing document

To convert an existing document for use with lwarp:

- 1. Arrange the document in the following order:
 - (a) Declare the \documentclass.
 - (b) Load text fonts.
 - (c) Load inputenc or inputenx, fontenc, and/or fontspec.
 - (d) Load lwarp.
 - (e) Load remaining packages.
- 2. Modify the document:
 - (a) If using named HTML files, in section names use paren math \(x+y\) instead of dollar math \$x+y\$. (Dollar math works, but appears in the filename.) Or, use a short name for the TOC entry without the math, or use \texorpdfstring:

```
\section{A name with math
  \texorpdfstring{$1+2=3$}{text description}}
```

(b) Avoid using the \includegraphics scale option. Change:

```
\includegraphics[scale=<xx>]{ . . . }
```

to:

```
\includegraphics[width=<yy>\linewidth]{ . . . }
```

- (c) Possible changes to tabular environments include: * columns, multirow, longtable, supertabular, xtab, bigdelim. See section 8.10.1.
- (d) Possible option clashes with memoir. See section 8.13.
- (e) If using indexes, see section 8.6.14.
- (f) If using many indexes, glossaries, .aux files, etc., see section 8.6.14 regarding morewrites. If morewrites is already used, be sure to add the setup with allocate=10.
- (g) Other changes as per Special cases and limitations, section 8.
- 3. Convert any PDF images to svg. See section 8.8.
- 4. Manually compile the print version with latex, pdflatex, lualatex, or xelatex.
- 5. lwarpmk print to finish the print version.
- 6. lwarpmk html to create the HTML version.
- 7. lwarpmk limages to create the svG images of any svG math, lateximage, Tikz, etc.

Need help?

See the General Index for "how-to", and the Troubleshooting Index if something doesn't work. The Index of Objects contains automated entries for each package, macro, environment, counter, boolean, and other objects; individually and also sorted by category. A Troubleshooting section is also available.



math in section names



7 Additional details

7.1 Shell escape

Opt --shell-escape

Some documents require the use of an external program, which is allowed when using the --shell-escape command-line option. When the document is first compiled manually, and also whenever the print version is recompiled, lwarp detects and remembers whether shell escape is enabled. If so, it will also be enabled when the document is recompiled with *lwarpmk*.

7.2 Font and UTF-8 support

type 3 bitmapped fonts

lwarp uses *pdftotext* to convert PDF output into UTF-8-encoded text. This process requires that UTF-8 information be embedded in the PDF file, which may prevent the use of older "type 3" bit-mapped fonts, and of older packages such as ae. The lwarp option pdftotextEnc may be useful in some situations. See section 7.3.

vector fonts

While using DVI *latex* or PDF *pdflatex*, if no font-related package is specified then the default Computer Modern font is used, which may be a "type 3" bit-mapped font which may not convert well to plain text. A "type 1" vector font is required.

To use the updated cm-super's type 1 fonts instead of Computer Modern, install the

cm-super font package.

Pkg cm-super
Pkg lmodern

To use Latin Modern instead, add

usepackage{lmodern}

to the preamble.

Pkg dejavu

Another useful option is the Deja Vu series of fonts, which have an increased coverage of language and glyphs:

\usepackage{dejavu}

latex, pdflatex, T1, UTF8

While using DVI *latex* or PDF *pdflatex*, lwarp automatically loads fontenc with T1 encoding. fontenc may be loaded with an additional encoding after lwarp. inputenc is automatically loaded with UTF8 encoding if if has not yet been loaded, but may also be specified with another encoding such as latin1. See the next section regarding index encoding.

∴ xelatex and lualatex

XALATEX and LualATEX users must use the fontspec package. Do NOT use fontenc!

Place fontspec or fontenc, xunicode, and other font and UTF-8 related commands after the \documentclass command and before \usepackage{\luncler}.

In some cases, a package conflict may require that a font package be loaded after lwarp, which should work as well:

1. documentclass{article/book/report} comes first, followed by any of:

- 2. Font and UTF-8 related commands:
 - For X¬IATEX or LuaIATEX:

 fontspec and font choices fontspec

> lwarp sets the following to turn off TEX ligatures during the generation of HTML tags, and turn off common ligatures in regular text, since older browsers may not display them correctly and newer browsers can automatically re-create them.

\defaultfontfeatures[\rmfamily]{Ligatures={NoCommon,TeX}} \defaultfontfeatures[\sffamily]{Ligatures={NoCommon,TeX}} \defaultfontfeatures[\ttfamily]{Ligatures=NoCommon}

- For pdflatex:
 - (a) \usepackage{lmodern}, or other font-related packages
 - (b) \usepackage[T1]{fontenc}
 - (c) \usepackage[utf8]{inputenc}, or latin1, etc. Or use inputenx.
 - (d) \usepackage{newunicodechar} along with related definitions.
 - (e) To assist with the PDF-HTML conversion:
 - i. \input glyphtounicode.tex
 - ii. \input glyphtounicode-cmr.tex% from the pdfx package
 - iii. \pdfgentounicode=1
 - (f) Another option to assist with the PDF-HTML conversion:
 - \usepackage{cmap}
 - (g) \usepackage{textcomp}
- 3. \usepackage{\lwarp} (section 7.3) goes after any of the above, followed by:
- 4. \usepackage{newtxmath} or other math-related font packages. Many of these load amsmath, which must be loaded after lwarp, so they must also be loaded after lwarp.

fontspec with traditional font packages

- 5. \setmonofont{TeX Gyre Cursor} or similar may be required if using XHATEX or LualATEX and fontspec along with traditional font packages such as txfonts, newtxtext, etc. This is required to turn off the monospaced font's ligatures with fontspec after loading the traditional font packages. Monospaced output ligatures must be turned off to produce the correct HTML characters.
- 6. ... the rest of the preamble and the main document.

UTF-8 locale In some cases, an external program may require a UTF-8 "locale". See section 9.8.

7.2.1 Indexes, glossaries, and encoding

lwarp uses the xindy program to processes indexes. xelatex and lualatex use xindy and pdflatex uses texindy.

The lwarp option xindyLanguage may be used to set the language option for xindy, and the xindyCodepage option may be used to set the codepage option for xindy. These are used for index generation.

Pkg lmodern fontenc inputenc Pkg

cmap

Pkg textcomp

ligatures

inputenx newunicodechar glyphtounicode.tex

7.3 lwarp package loading and options

lwarp supports book, report, and article classes, as well as the equivalent Komascript classes and memoir, and various CJK-related classes and packages.

Load the lwarp package immediately after the font and UTF-8 setup commands.

Package options may be set while loading lwarp, or later with

```
\lwarpsetup{\key=value, ...\}
```

Pkg lwarp lwarp package options are as follows:

Opt mathsvg
Opt mathjax
Opt latexmk
Default: false

mathsvg, mathjax: For math display, select mathsvg (default) or mathjax. For more information about the math options, see section 8.7.

Latexmk: Tells *lwarpmk* to use *latexmk* to recompile the document several times if necessary. Otherwise, *lwarpmk* attempts to determing for itself whether to recompile. See section 7.4.

Opt dvips
Default: false
Opt dvipdfm
Default: false

Opt dvipdfmx

Default: false HomeHTMLFilename **dvips:** Tells *lwarpmk* to use *dvips* and *ps2pdf* to convert DVI output to PDF.

dvipdfm: Tells *lwarpmk* to use *dvipdfm* to convert DVI output to PDF.

dvipdfmx: Tells lwarpmk to use dvipdfmx to convert DVI output to PDF.

HomeHTMLFilename: See section 7.4.

HTMLFilename: See section 7.4.

Default: {}
Opt HTMLFilename
Default: {}
Opt PrintLatexCmd
Default: <automatic>
Opt HTMLLatexCmd
Default: <automatic>

PrintLatexCmd: Sets the shell commands executed by **lwarpmk print**. If not specified, will automatically be set according to the detected LATEX engine and the use of --shell-escape.

HTMLLatexCmd: Sets the shell commands executed by lwarpmk html. If not specified, will automatically be set according to the detected LATEX engine and the use of --shell-escape.

Opt makeindex
Default: makeindex

makeindex: Sets PrintIndexCmd, HTMLIndexCmd, and LatexmkImageCmd to use makeindex
 when generating indexes with lwarpmk printindex, lwarpmk htmlindex, or
 latexmk. If neither makeindex nor xindy is used, makeindex is assumed.

Opt xindy
Default: makeindex

xindy: Sets PrintIndexCmd, HTMLIndexCmd, and LatexmkImageCmd to use xindy when
generating indexes with lwarpmk printindex, lwarpmk htmlindex, or latexmk.

Opt makeindexStyle

Default: lwarp.ist

 $\mbox{makeindexStyle:}$ If you wish to use a custom .ist file for index generation, see section 28.

Opt xindyStyle
Default: lwarp.xdy

xindyStyle: If you wish to use a custom .xdy file for index generation, see section 28.

Opt xindyLanguage
Default: english
Opt xindyCodepage
Default: utf8
Opt PrintIndexCmd

Default: <automatic>

xindyLanguage: If using an index or glossary, see section 28.

xindyCodepage: If using an index, see section 28.

PrintIndexCmd: Sets the shell commands executed by **lwarpmk printindex**. If not specified, will be set by the selection of makeindex or xindy. May be used to specify the creation of multiple indexes. See section 8.6.14.

Table 5: lwarp package options

Option	Description	
mathsvg	Show math using svg images.	
mathjax	Show math using MathJax.	
latexmk	Use latexmk for compiling documents.	
dvips	Use dvips and ps2pdf to convert dvi documents.	
dvipdfm	Use dvipdfm to convert dvi documents.	
dvipdfmx	Use dvipdfmx to convert dvi documents.	
HomeHTMLFilename	The filename of the home page.	
HTMLFilename	A prefix for the filenames of the remaining web pages.	
PrintLatexCmd	The shell commands for lwarpmk print.	
HTMLLatexCmd	The shell commands for lwarpmk html.	
For indexing (section 8.6.14) and glossaries (section 8.6.11):		
makeindex	Use makeindex to generate indices.	
xindy	Use xindy to generate indices.	
makeindexStyle	Set a custom style for makeindex.	
xindyStyle	Set a custom style for xindy.	
xindyLanguage	The <i>xindy</i> language option used for index generation.	
xindyCodepage	The <i>xindy</i> codepage option used for index generation.	
PrintIndexCmd	Shell commands executed by lwarpmk printindex.	
HTMLIndexCmd	Shell commands executed by lwarpmk htmlindex.	
${\tt LatexmkIndexCmd}$	Shell commands executed by latexmk.	
GlossaryCmd	Shell command executed by lwarpmk printglossary	
	and lwarpmk htmlglossary.	
Seldom necessary:		
OSWindows	Force compatibility with MS-Windows.	
pdftotextEnc	Set the encoding for <i>pdftotext</i> .	
lwarpmk	Generate a local copy of lwarpmk.lua.	
Used internally by lwarp:		
warpprint	Generate print output, and also generate configuration files.	
warpHTML	Generate html output.	
BaseJobname	The \jobname to use. Set to the \jobname of the printed version even while generating html.	

Examples:

automatic setting

The use of the makeindex or xindy options sets PrintIndexCmd to sensible values for each of those programs while compiling a single index. lwarp's makeindexStyle, xindyStyle, xindyLanuage, and xindyCodepage options will be used if specified.

If specifying PrintIndexCmd manually, be sure to assign an *xindy* language and codepage with the -L and -C *xindy* options, as the lwarp xindyLanguage and xindyCodepage options are not used for the PrintIndexCmd option when it is set manually.

This option is stored in the configuration files <code>lwarpmk.conf</code> and <code>*.lwarpmkconf</code>, and is then passed by the <code>lwarpmk printindex</code> command to the operating system to compile the print indexes. Since the command string is parsed by <code>TEX</code>, written to a file, read from the file by <code>LuaTEX</code>, and finally passed to the operating system, any attempt at quoting will be problematic. For complicated commands, it would be best to create a shell script, and simply refer to the script with the <code>lwarp PrintIndexCmd</code> option.

Opt HTMLIndexCmd

Default: <automatic>

HTMLIndexCmd: Sets the shell commands executed by lwarpmk htmlindex. If not specified, will be set by the selection of makeindex or xindy. May be used to specify the creation of multiple indexes. See section 8.6.14.

♠ filenames

Example settings are similar to PrintIndexCmd, but append _html to the filenames:

```
makeindex -s lwarp.ist projectname_html.idx (makeindex) xindy -M lwarp.xdy -L english -C utf8 projectname_html.idx (xindy)
```

automatic setting

The use of the makeindex or xindy options sets HTMLIndexCmd to sensible values for each of those programs while compiling a single index. lwarp's makeindexStyle, xindyStyle, xindyLanuage, and xindyCodepage options will be used if specified.

If specifying HTMLIndexCmd manually, be sure to assign an *xindy* language and codepage with the -L and -C *xindy* options, as the lwarp xindyLanguage and xindyCodepage options are not used for the HTMLIndexCmd option when it is set manually.

As with PrintIndexCmd, to generate complicated indexes it may be worthwhile to use a shell script, then refer to that script with HTMLIndexCmd.

Opt LatexmkIndexCmd
Default: <automatic>

LatexmkIndexCmd: Sets the shell commands executed by *latexmk*. Unlike PrintIndexCmd and HTMLIndexCmd, LatexmkIndexCmd does not include any filenames, which will be provided instead by *latexmk*. See section 8.6.14.

Example settings are similar to PrintIndexCmd, but without a filename:

```
makeindex -s lwarp.ist (makeindex) xindy -M lwarp.xdy -L english -C utf8 (xindy)
```

automatic setting

The use of the makeindex or xindy options sets LatexmkIndexCmd to either of the two settings show above. lwarp's makeindexStyle, xindyStyle, xindyLanuage, and xindyCodepage options will be used if specified. Unlike PrintIndexCmd and HTMLIndexCmd, *latexmk* uses either of the single-line settings of LatexmkIndexCmd shown above to compile each of multiple indexes if necessary.

If specifying LatexmkIndexCmd manually, be sure to assign an *xindy* language and codepage with the -L and -C *xindy* options, as the lwarp xindyLanguage and xindyCodepage options are not used for the LatexmkIndexCmd option when it is set manually.

Opt GlossaryCmd
Default: makeglossaries

GlossaryCmd: Sets the shell command executed by lwarpmk printglossary and lwarpmk htmlglossary. The print or HTML glossary filename is appended to this command. See section 8.6.11.

Opt OSWindows

OSWindows: lwarp attempts to automatically sense Windows, but it may be forced with this option. See section 7.6.

Opt pdftotextEnc
Default: UTF-8

pdftotextEnc: Used to specify the encoding used by *pdftotext* during the PDF-HTML conversion. In most situations, the default is the correct choice.

Opt lwarpmk

Lwarpmk: If you wish to have **lwarp** generate a local copy of Lwarpmk. Lua for archival or local-installation purposes, compile the print version with the Lwarpmk option set. See section 28.

The following options are used internally by lwarp, and usually are not used in the user's document:

Opt warpprint
Opt warpHTML

warpprint and warpHTML: Usually controlled by <code>lwarpmk</code>, and not set in the document. Select the warpprint option to generate print output (default), or the warpHTML option to generate HTML5 output. The default is print output, so the print version may be compiled with the usual <code>pdflatex</code>, etc. When lwarp is loaded in print mode, it creates <code>project>_html.tex</code>, which sets the warpHTML option before calling the user's source code <code>project>.tex</code>. In this way, <code>project>.tex</code> can <code>usepackage{lwarp}</code> without any options to create a printed version, while <code>project>_html.tex</code> will create an <code>html</code> version.

Opt BaseJobname
Default: \jobname

BaseJobname: Not intended for the user. Used internally by lwarp when creating the *_html .tex file used to compile the HTML version. See section 28.

7.4 Customizing the HTML output

Table 6 shows several settings may be used to customize the HTML output. Watch Placement! for the correct placement of each!

⚠

Changes! Note that if changes are made, it is best to first:

1. Clear all the HTML, PDF, and auxiliary files:

```
Enter ⇒ lwarpmk clearall
```

2. Recompile the print version in order to recreate the configuration files for lwarpmk:

```
Enter ⇒ lwarpmk print
```

3. Finally, recompile the HTML version with the new settings:

```
Enter ⇒ lwarpmk html
```

Options for the lwarp package:

Use the following as options for \usepackage[<options>]{lwarp}:

HomeHTMLFilename Default: \BaseJobname

filename underscores

HomeHTMLFilename: Filename of the homepage, without the ".html" suffix. Defaults to the \BaseJobname. A common setting is:

```
HomeHTMLFilename=index
```

causing the homepage to be the file index.html. Underscores are allowed in HomeHTMLFilename and HTMLFilename options, but may need to be escaped elsewhere, such as when appearing in a list:

```
\item [\href{file\_name.pdf}{text}] \
```

See section 7.4.1 for examples of naming and numbering HTML files.

Opt HTMLFilename Default: <empty> HTMLFilename: A filename prefix for the rest of the HTML web pages. Useful for numbered web pages with a common prefix. May be empty. See section 7.4.1 for examples of naming and numbering HTML files.

latexmk: Controls whether lwarp uses *latexmk* to compile the document. This setting is written to *lwarpmk*'s configuration files.

Opt mathsvg

mathsvg: Selects svg display for math output. (The default.)

mathjax: Selects MathJax for math output.

makeindex: Selects makeindex for index generation by lwarpmk.

xindy: Selects *xindy* for index generation by *lwarpmk*.

Placed in the preamble before \begin{document}:

\linkhomename Default: Home

\linkhomename: Name of the link to the home page. Paragraphs are allowed. Redefine with \renewcommand.

Opt latexmk Default: false

Default: true Opt mathjax Default: false Opt makeindex Default: makeindex Opt xindy

Default: makeindex

Table 6: html settings

Macro/Cntr/Bool	Description
\linkhomename	Name of the link to the homepage.
SideTOCDepth	Sectioning depth of the sidetoc.
\sidetocname	Name of the sidetoc.
FileDepth	Sectioning depth of the file splits.
CombineHigherDepths	Combine higher section levels.
FileSectionNames	Use section names for file names, else use numbers.
\FilenameLimit	Maximum length of the generated filenames.
FootnoteDepth	Sectioning depth of footnotes.
\abstractname	The name of the abstract.
\mathimagename	The svg math image lateximage alt tag.
\packagediagramname	The suffix for a package's lateximage alt tags.
\CSSFilename	The css for the following files.
\MathJaxFilename	The MathJax script for the following files.
\HTMLLanguage	The html lang tag.
\HTMLTitle	The homepage's <title>, overriding \title.</td></tr><tr><td>\HTMLTitleBeforeSection</td><td>Set subpage <title>s to
\HTMLTitle - sectionname</td></tr><tr><td>\HTMLTitleAfterSection</td><td>Set subpage <title>s to sectioname - \HTMLTitle</td></tr><tr><td>\HTMLAuthor</td><td>The html author meta tag, overriding \author.</td></tr><tr><td>\HTMLDescription</td><td>The html description meta tag.</td></tr><tr><td>\HTMLFirstPageTop</td><td>Heading for the home page.</td></tr><tr><td>\HTMLPageTop</td><td>Heading for the other pages.</td></tr><tr><td>\HTMLPageBottom</td><td>Footing for all pages.</td></tr><tr><td>HTMLDebugComments</td><td>Boolean to generate html comments.</td></tr></tbody></table></title>

Ctr tocdepth

tocdepth: Sectioning depth of the table of contents. See section 16 for a list of LATEX stack depths.

Ctr SideTOCDepth
Default: 1

SideTOCDepth: Sectioning depth of the sideToc. Defaults to 1, causing the sideToc to show sections but not subsections.

sidetoc

Each subpage of the website has its own small table of contents on the side (the "sidetoc"). Its depth is set by SideTOCDepth. This sidetoc is only shown if the web page is wide enough. When using a narrow web browser window, "responsive web design" is used to show the sidetoc at the top of the page and a link back to **Home** at the bottom.

It is recommended to set:

SideTOCDepth = FileDepth

or

SideTOCDepth = FileDepth+1

If SideTOCDepth<FileDepth, web pages will be inaccessible via the sideToc.

\sidetocname

inaccessible pages

\sidetocname: Name of the sidetoc. Paragraphs are allowed. Redefine with \renewcommand.

Ctr FileDepth
Default: -5

 \triangle

Default: true

Default: Contents

FileDepth: Sectioning depth of file splits. Defaults to -5, causing the entire HTML website to be one single file.

 To place the entire file into one HTML page, use: \setcounter{FileDepth}{-5}

• To split the HTML file at \section depth, use: \setcounter{FileDepth}{1}

• To ensure that the HTML pages/files are accessible: Place a \tableofcontents somewhere before the first section break (therefore in the "home page"), and set

tocdepth >= FileDepth

Bool CombineHigherDepths

CombineHigherDepths: Combine a higher section with its first lower subsections, down to the FileDepth. Defaults to true. Set to false to simulate the concept of a chapter opening on its own page, for example.

The file splits are controlled by the counter FileDepth and the boolean CombineHigherDepths. Setting FileDepth to 0 splits the file at chapters, 1 at sections, etc. CombineHigherDepths controls whether to combine pages at levels higher than the chosen FileDepth, such as in this tutorial where the page which opens the chapter also contains the first section. Be careful to set tocdepth and SideTOCDepth to allow access to each page of the website. Set tocdepth and SideTOCDepth to be greater than or equal to FileDepth.

When making changes to the file structure, it is possible to end up with the web browser pointing to an old file which is no longer in use. When this occurs, changes to the web site will not appear in the browser, even if reloading the page, because that page is no longer in use. It is best to return to the home page, clean the files (lwarpmk cleanall), change

 \wedge

Lost in an old page!

FileDepth and/or CombineHigherDepths, then finally recompile and renavigate to the desired page using the new file structure.

Bool FileSectionNames

Default: true

FileSectionNames: If true, web page filenames are derived from a sanitized version of the section names. If false, web pages are numbered. Either way, the HTMLFilename option is used as a prefix. See section 7.4.1 for examples of naming and numbering HTML files. The user must ensure that filenames are unique after begin sanitized. For example, math in the section name is removed before creating the filename, so the rest of the filename must be sufficiently unique to avoid name collisions.

Unique filename!

\FilenameLimit: The maximum length of the filenames generated by lwarp. ".html" is added to this length. Redefine with \renewcommand.

\FilenameLimit
Default: 80

FootnoteDepth: Determines where to place pending footnotes. 3 places footnotes before each break down to the \subsubsection level. 1 places footnotes before each \section break. Any pending footnotes are also placed at the bottom of each page before each file break.

Ctr FootnoteDepth
Default: 3

HTMLDebugComments: Set true to generate HTML comments, such as which section or <div> is being opened or closed.

I HTMLDebugComments

Default: false

\abstractname: The name of the abstract. This may also be over-written by the babel package. Defaults to "Abstract". Redefine with \renewcommand.

\abstractname
Default: Abstract

Placed before \begin{document}, or before any sectioning command which causes a file break:

\CSSFilename
Default: lwarp.css

\CSSFilename: {\(\sqrt{filename.css}\)\} Sets the css file to use for the following files. May be changed before each each sectioning command which would cause a file split.

The css styles of the web pages are set by the \CSSFilename command. If \CSSFilename is not used, a default plain style is used to mimic printed LATEX output. lwarp_sagebrush.css is a semi-fancy colored style as shown in this tutorial. Change it to lwarp_formal.css for a more formal look, or comment out the \CSSFilename command to see the default. \CSSFilename may be used before each file break to set the css for individual pagess of the website.

\MathJaxFilename
Default: lwarp_mathjax.txt

\MathJaxFilename: {\langle filename \rangle} Sets the MathJax script file to use for the following files. May be changed before each each sectioning command which would cause a file split.

The MathJax script file is copied into the head of each HTML file. This may be used to point to a local repository, add extensions, or change the script somewhere in the middle of the document. \MathJaxFilename may be used before each file break to set the script file for individual pages of the website.

\HTMLLanguage
Default: en-US

\HTMLLanguage: {\language\rangle} The HTML file's HTML lang meta tag. Defaults to en-US.

\HTMLTitle
Default: \thetitle

\HTMLTitle: $\{\langle title \rangle\}$ Overrides \title for the HTML header's meta title. De-

faults to \thetitle, which is set by \title, or empty otherwise. Unlike the author, \thetitle is set by \title even if not using the titling package.

\HTMLTitleBeforeSection
Default: \HTMLTitleBeforeSection

\HTMLTitleBeforeSection: Sets subpage <title> tags to show the website title followed by the section name.

\HTMLTitleAfterSection

\HTMLTitleAfterSection: Sets subpage <title> tags to show the section name followed by the website title.

custom <title>

To customize subpage <title>s, redefine \theHTMLTitleSection, which defaults to:

```
\def\theHTMLTitleSection{%
  \theHTMLTitle\theHTMLTitleSeparator\theHTMLSection%
}
```

\HTMLAuthor
Default: \theauthor

\HTMLAuthor: {\(\lambda uthor\)\} The HTML header's meta author. Defaults to \\theauthor, which is set by \\author if using the titling package, but is empty otherwise. There are several ways to represent the author and affiliations, especially if using the authblk package, most of which do not result in a sensible \\theauthor, so \\HTMLAuthor is useful to create a list of authors without their affiliations.

\HTMLDescription
Default: <empty>

\HTMLDescription: $\{\langle description \rangle\}$ Sets the HTML description tag for the following files. May be changed before each each sectioning command which would cause a file split.

\HTMLFirstPageTop
Default: <empty>

\HTMLFirstPageTop: $\{\langle contents \rangle\}$ A user-definable custom action applied to the top of the home page. Useful for logos, etc. Defaults empty. Ignored in print output.

\HTMLPageTop
Default: <empty>

\HTMLPageTop: $\{\langle contents \rangle\}$ A user-definable custom action applied to the top of pages other than the home page. Useful for logos, etc. Defaults empty. \LinkHome may be used to place a link back to the homepage. Ignored in print output.

\HTMLPageBottom
Default: <empty>

\HTMLPageBottom: {\(\langle contents \rangle \)} A user-definable custom action applied to the bottom of each web page. Useful for authors, copyright notices, contact information, etc. Defaults empty. \LinkHome may be used to place a link back to the homepage. Ignored in print output.

Placed in the home page before the first sectioning command which causes a file break:

\tableofcontents
TOC on the homepage!

\tableofcontents: Used to place a table of contents on the home page. This command must be used before the first file split, so that a way is available to navigate to other files from the homepage.

Links to each chapter/section are provided, as selected by tocdepth.

Placed in the document wherever necessary:

\mathimagename
Default: math image

\mathimagename: Redefine with \renewcommand. When creating an svg math

image, its alt tag may be set to the math expression, which may be hashed for image reuse. In the case of \ensuremath or after \inlinemathother, where the contents require a unique image for each instance of the same expression, the alt tag is set to \mathimagename, and the image is not reused.

This expression is visible in the browser if images are not loaded, and appears when the text is copied and pasted. The default is "math image", and it may be changed according to the document's language. This may be set in the preamble, or changed as necessary inside the document, where it will affect the following svg math images.

\packagediagramname
Default: diagram

\packagediagramname: Redefine with \renewcommand. For many packages, the output is placed inside a lateximage with an HTML alt tag set to the package name followed by \packagediagramname. For example:

This expression is visible in the browser if images are not loaded, and appears when the text is copied and pasted. The default is "diagram", and may it be changed according to the document's language. This may be set in the preamble, or changed as necessary inside the document, where it will affect the following lateximages.

Env warpprint

Warpprint: An environment which is only used while generating print output. Place inside anything which does not apply to HTML and which may cause problems with lwarp. If lwarp knows about and emulates or supports a package then its related macros, lengths, counters, etc. probably won't have to be placed inside a warpprint environment, but unknown packages may cause problems which may be isolated from lwarp using this environment.



Do not place anything else on the same line as \end{warpprint}.

Env warpHTML

warpHTML: An environment which is only used while generating HTML output. This is useful for website logos and other items which have no purpose in printed output.



Do not place anything else on the same line as \end{warpHTML}.

\warpprintonly

\warpprintonly: $\{\langle contents \rangle\}$ A macro version of the warpprint environment.

\warpHTMLonly

\warpHTMLonly: $\{\langle contents \rangle\}$ A macro version of the warpHTML environment.

7.4.1 Example HTML file naming

Examples of ways to name or number HTML files:

Numbered HTML nodes:

Example: Homepage index.html, and node-1, node-2. 13

¹³See \SetHTMLFileNumber to number in groups by chapter, for example.

```
\usepackage[
    HomeHTMLFilename=index,
    HTMLFilename={node-}
]{lwarp}
\boolfalse{FileSectionNames}
```

Named HTML sections, no prefix:

Example: index.html, and About.html, Products.html

```
\usepackage[
    HomeHTMLFilename=index,
    HTMLFilename={}
]{lwarp}
\booltrue{FileSectionNames}
```

Named HTML sections, with prefix:

Example: Homepage mywebsite.html, and additional pages such as mywebsite-About.html, mywebsite-Products, etc.

```
\usepackage[
    HomeHTMLFilename=mywebsite,
    HTMLFilename={mywebsite-}
]{lwarp}
\booltrue{FileSectionNames}
```

7.5 Customizing the css

\CSSFilename
Default: lwarp.css

 $\{\langle filename \rangle\}$

CSSFilename may be used to choose which .css file is used to display each page of the web site. Use \CSSFilename before \begin{document} to assign the style of the home page. If different parts of the website should have different styles, call \CSSFilename again before each section heading which creates a new file. This may be changed numerous times throughout the file, resulting in different HTML pages having different css files assigned:

```
...
\CSSFilename{myCSS.css}
\chapter{Another Chapter}
...
```

The styles provided by lwarp include:

lwarp.css: A default style if \CSSFilename is not used. This style is comparable to a
 plain LATEX document. To set this style, you may use \CSSFilename{lwarp.css},
 or no \CSSFilename call at all.

lwarp_formal.css: A formal style with a serif fonts and a traditional look.

lwarp_sagebrush.css: A style with muted colors, gradient backgrounds, additional borders, and rounded corners.

To see each style in use, change the \CSSFilename entry in the tutorial, lwarpmk html again, and then reload the tutorial webpage.

Custom css

A customized style may also be created. For each new project a file called sample_project.css is generated. This may be renamed to <project>.css then used by assigning \CSSFilename{<project>.css}.

A Rename it!

Note that sample_project.css is overwritten whenever lwarp is loaded in print mode. It is therefore important to rename the file to something like project>.css
before using it, so that your own changes are not overwritten.

File lwarp.css
File project.css
File sample_project.css

It is best to make a local project-specific css file such as project.css, containing only things which are different from lwarp.css. The file project.css should refer to lwarp.css as follows:

```
/* ( --- Start of project.css --- ) */
/* ( --- A sample project-specific CSS file for lwarp --- ) */

/* Uncomment one of the following: */
@import url("lwarp.css") ;
/* @import url("lwarp_formal.css") ; */
/* @import url("lwarp_sagebrush.css") ; */
/* Project-specific CSS setting follow here. */
/* . . . */
/* ( --- End of project.css --- ) */
```

Finally use $\CSSFilename{<project>.css}$ in the document to activate the custom css.

7.6 Selecting the operating system

Prog Unix
Prog Mac OS
Prog Linux
Prog MS-Windows
Prog Windows

Opt OSWindows

lwarp tries to detect which operating system is being used. Unix / Mac OS / Linux is the default (collectively referred to as "Unix" in the configuration files), and MS-Windows is supported as well.

If MS-WINDOWS is not correctly detected, use the lwarp option OSWindows.

When detected or specified, the operating-system path separator used by lwarp is modified, and the boolean usingOSWindows is set true. This boolean may be tested by the user for later use.

7.7 Selecting actions for print or HTML output

The following environments and macros are used to select actions which only apply to either traditional LATEX print-formatted PDF generation, or to HTML generation.

For most of built-in LATEX and many additional packages there is user-level source code support or emulation, so no special handling will be required. For those cases which lwarp does not handle by itself, the following environments and macros may be used to isolate sections of code for print-only or HTML-only.

These environments are also useful for creating a special version of the titlepage for print and another for HTML.

warpHTML

Anything which is to be done only for HTML5 output is surrounded by a warpHTML environment:

\begin{warpHTML} ... something to be done only during \HTML\ generation \end{warpHTML}

\end{warpHTML}

Do *not* place anything else on the same line as \end{warpHTML}. The exact phrase is used to mark the end of the environment.

Anything which is to be done only for print output is surrounded by a warpprint environment:

\begin{warpprint}

... something to be done only during traditional \PDF\ generation \end{warpprint}

\end{warpprint} As above, do not place anything else on the line with \end{warpprint}.

warpall

Anything which is to be done for any output may be surrounded by a warpall environment. Doing so is optional.

\begin{warpall}

... something to be done during print \PDF\ or \HTML\ output \end{warpall}

As above, do not place anything else on the line with \end{warpall}.

Macros are also provided for print-only or HTML-only code:

\warpprintonly $\{\langle actions \rangle\}$

Performs the given actions only when print output is being generated.

\warpHTMLonly $\{\langle actions \rangle\}$

Performs the given actions only when HTML output is being generated.

7.8 Commands to be placed into the warpprint environment

Certain print-related commands should always be placed inside a warpprint environment, or may need other special handling. These are unrelated to html output, but are hard to isolate automatically. For example:

- Paragraph formatting: \parindent \parskip
- Manual page positions such as the textpos package, which is emulated but only in a limited way.
- Anything changing the page counter. lwarp requires that the page counter not be adjusted during HTML output.

Some packages require additional setup commands. Where these packages are emulated for HTML, setup commands may work for the emulated HTML output as well as for print output. See the details for each package in this document for more information.

Also see section 13: Troubleshooting.

7.9 Title page

In the preamble, place an additional block of code to set the following:

```
\title{Document Title} % One line only
\author{Author One\affiliation{Affiliation One} \and
    Author Two\affiliation{Affiliation Two} }
\date{Optional date}
```

The title is used in the meta tags in the HTML files, unless overridden by \HTMLTitle , and the rest are used in $\mbox{maketitle}$. To use a \subtitle or $\protect{published}$ field, see section 66.8.

\maketitle Use \maketitle just after the \begin{document}, as this will establish the title of the homepage. Optionally, use a titlepage environment instead.

titlepage The titlepage environment may be used to hold a custom title page. The titlepage will be set in a <div> class titlepage, and \printtitle, etc. may be used inside this environment.

titlingpage Another form of custom title page, where \maketitle is allowed, and additional information may be included as well.

\title $\{\langle title \rangle\}$

newlines

Avoid newlines in the \title; these will interfere with the file break and css detection. Use a \subtitle command instead (section 66.8). The title will appear in the document \maketitle as a heading <h1>. The HTML meta title tag will also have this title, unless \HTMLTitle is used to set the meta title to something else instead.

\author $\{\langle author \rangle\}$

In \author, \protect may be needed before some formatting commands. In HTML, the author will appear in a <div> of class author in the \maketitle. If the titling package is used, the author will also appear in a HTML meta tag, but \HTMLAuthor may be necessary to create a plain list of names if \author had affiliations added. \affiliation is a new addition to lwarp.

\date $\{\langle date \rangle\}$

\date works as expected. In HTML, this will appear in a <div> class titledate.

\thanks $\{\langle text \rangle\}$

\thanks are allowed in the titlepage fields, and will be rendered as HTML notes at the bottom of the title page.

7.10 HTML page meta descriptions

\HTMLDescription Default: (none) $\{\langle A \ description \ of \ the \ web \ page. \rangle\}$

limitations

Each page of HTML output should have its own HTML meta description, which usually shows up in web search results, is limited to around 150 characters in length, and should not include the ASCII double quote character (").

placement

Use \HTMLDescription just before \begin{document} to set the description of the home page, and also just before each sectioning command such as \chapter or \section where a new file will be generated, depending on FileDepth. For example, if FileDepth is 1, use \HTMLDescription just before each \section command, and that description will be placed inside the HTML page for that \section. The same descrition will be used for all following HTML files as well, until reset by a new \HTMLDescription. It is best to use a unique description for each HTML file.

To disable the generation of HTML description meta tags, use:

\HTMLDescription{}

HTML homepage meta title

\HTMLTitle $\{\langle title \rangle\}$ Default: \HTMLtitle{\thetitle}

Sets the contents of the web page <meta name="title"> element. May be set empty to cancel the meta title tag.

See section 7.4 for \HTMLTitleBeforeSection and \HTMLTitleAfterSection, used to set the title for HTML subpages.

7.12 нтмL page meta author

\HTMLAuthor

 $\{\langle author \rangle\}$

Default: \HTMLAuthor{\theauthor}

Sets the contents of the web page <meta name="author"> element. May be set empty to cancel the meta author tag.

\author may be used to create a list of authors and their affiliations, in several formats if using authblk, and these may not successfully parse properly into a sensible list for \theauthor. \HTMLAuthor may be used to set the meta tag to a simple list of names.

8 Special cases and limitations

Some commonly-used LATEX expressions should be modified as follows to allow for a smooth conversion to both HTML and print-formatted outputs.

Need help?

See the General Index for "how-to", and the Troubleshooting Index if something doesn't work. The Index of Objects contains automated entries for each package, macro, environment, counter, boolean, and other objects; individually and also sorted by category. A Troubleshooting section is also available.

8.1 Things to avoid

In the document, avoid the following:

page counter: Do not adjust the page counter. If doing so is required for the print version, place the adjustment inside a warpprint environment.

Custom math environment macros: Do not use expressions such as \beq as a replacement for \begin{equation}.

Custom macros in section, figure, table names: Custom macros which appear in sectioning commands or float captions then appear in the .toc, .lof, and .lot lists, and should be made robust using \newrobustcmd or \robustify from etoolbox, xparse, etc.

When setting FileSectionNames to true to name the HTML files from the section names, the file names are created from sanitized versions of the chapter or section names, but the section names must be plain text or something which expands into plain text. Robust macros will not work at the sectioning level which is used for file names, but a robust macro or other complicated name may be used for the manditory argument of \chapter, \section, etc., if a plain-text version is also included in the optional argument:

\chapter[Plain Name]{\ARobustMacro{Fancy Name}}

8.1.1 Invalid HTML

Additionally, some objects are valid LATEX, but invalid HTML. An example is a tabular inside \textbf, since HTML does not allow a table inside a span. lwarp will create the table, and the browser may support it, but the result is technically invalid.

8.2 **Formatting**

8.2.1 **Text formatting**

\bfseries, etc. \textbf, etc. are supported, but \bfseries, etc. work only in some situations.

HTML special chars

&, <, and > have special meanings in HTML. If \&, \textless, and \textgreater are used, proper HTML entities will be used, but there may be HTML parsing problems if these special characters occur unescaped in program listings or other verbatim text.

program listings

For program listings, the listings package is supported, and its literate option is used to convert &, <, and > to proper HTML entities.

verbatim

The various verbatim-related environments do not convert &, <, and >, so care must be taken to avoid accidentally including valid HTML code inside these environments. Adding a space on either side may be sufficient.

8.2.2 Horizontal space

\hspace is converted to an inline HTML span of the given width, except that 0 width is ignored, a width of .16667em is converted to an HTML thin breakable space (U+2009), and a \fill is converted to a \qquad.

\, ~ and \, are converted to HTML entities.

\kern and \hskip are entered into the HTML PDF output as-is, then interpreted by \hskip pdftotext, and thus usually appear as a single space.

8.2.3 Text alignment

Use the environments center, flushright, flushleft instead of the macros \centering, \raggedright, \raggedleft.

figure & table \centering, etc. are honored in a figure or table if they are the first command alignment inside the float:

> \begin{table*} \centering \caption{A Table}

. . .

8.2.4 Accents

Native LATEX accents such as \" will work, but many more kinds of accents are available when using Unicode-aware XHATEX and LualATEX.

8.2.5 textcomp package

textcomp

Some textcomp symbols do not have Unicode equivalents, and thus are not supported.

missing symbols

Many textcomp symbols are not supported by many system/browser fonts. In the css try referencing fonts which are more complete, but expect to see gaps in coverage.

8.2.6 Superscripts and other non-math uses of math mode

Use $\text{textsuperscript}\{x\}$ instead of x

8.2.7 Empty \item followed by a new line of text or a nested list:

lists Use a trailing backslash: \item[label] \

8.2.8 Filenames and URLs in lists or footnotes

filename underscore Escape underscores in the filenames:

\item[\href{file_name.pdf}{text}]

8.2.9 relsize package

relsize

For HTML, only the inline macros are supported: \textlarger, \textsmaller, and \textscale. Each becomes an inline span of a modified font-size.

\relsize, \larger, \smaller, and \relscale are ignored.

While creating svg math for HTML, the original definitions are temporarilty restored, and so should work as expected.

not small

The HTML browser's setting for minumum font size may limit how small the output will be displayed.

8.3 **Boxes and minipages**

8.3.1 **Marginpars**

\marginpar

 $[\langle left \rangle] \{\langle right \rangle\}$ \marginpar may contains paragraphs, but in order to remain inline with the surrounding text lwarp nullifies block-related macros inside the \marginpar. Paragraph breaks are converted to
 tags.

\marginparBlock

 $[\langle left \rangle] \{\langle right \rangle\}$ To include block-related macros, use \marginparBlock, which takes the same arguments but creates a <div> instead of a . A line break will occur in the text where the \marginBlock occurs.

8.3.2 Save Boxes

TEX boxes are placed inline and do not allow line breaks, so boxes with long contents may overflow the line during HTML conversion. lwarp uses methods which help avoid this problem.

minipage, \parbox

\savebox and related do not (yet) support minipage or \parbox.

8.3.3 Minipages

inline

A line of text with an inline minipage or \parbox will have the minipage or \parbox placed onto its own line, because a paragraph is a block element and cannot be made inline-block.

placement

minipages and \parboxes will be placed side-by-side in HTML unless you place a \newline between them.

side-by-side

Side-by-side minipages may be separated by \quad, \quad, \enskip, \hspace, \hfill, or a \rule. When inside a center environment, the result is similar in print and HTML. Paragraph tags are suppressed between side-by-side minipages and these spacing commands, but not at the start or end of the paragraph.

minipage in a span

There is limited support for minipages inside an HTML . An HTML <div> cannot appear inside a . While in a , minipages, and \parboxes, and any enclosed lists have limited HTML tags, resulting in an "inline" format, without markup except for HTML breaks. Use \newline or \par for an HTML break.

minipage size

When using \linewidth, \textwidth, and \textheight, widths and heights in HTML are scaled proportionally to a 6×9 inch text area, and inside a multicols \linewidth is divided by the specified number of columns.

if width is \linewidth

If a minipage or \parbox is assigned a width of exactly \linewidth, in HTML it is automatically given no HTML width, thus allowed to fill the line as needed, similar to how it appears in print output.

full-width if html

A new macro \minipagefullwidth requests that, during HTML output, the next single minipage or \parbox be generated without an HTML width attribute, allowing it to

be the full width of the display rather than the declared print-output width. This may be useful where the printed version's width makes no sense in HTML.

⚠ t

tabular, multicols

\UseMinipageWidths \IgnoreMinipageWidths Inside a tabular or multicols environment, where the width depends on the browser window, \minipagefullwidth is effectively used by default for every minipage or \parbox inside the environment. \UseMinipageWidths may be used to tell lwarp to honor the specified widths of all following minipages and \parboxes until the end of the local scope, and \IgnoreMinipageWidths may be used to tell lwarp to ignore the specified widths.



text alignment

Nested minipages adopt their parent's text alignment in HTML, whereas in regular LATEX PDF output they do not. Use a flushleft or similar environment in the child minipage to force a text alignment.

8.3.4 Side-by-side minipages

Place side-by-side minipages inside a center environment, with horizontal space between them, such as \quad, \qquad, \hspace, or \hfill. The result is similar in print and HTML. Do not use space commands at the start or end of the line.

8.3.5 Framed minipages and other environments

\fbox can only be used around inline items during HTML output, but HTML cannot place a block element such as a <div> for a minipage or a list inside of a . Several options are provided for framing an object, depending on which kind of object and which packages are loaded:

\fbox \fboxBlock Env fminipage For a framed object, options include:

To remove the frame in HTML output: Place the \fbox command and its closing brace inside warpprint environments. This will nullify the frame for HTML output.

For inline text:

To frame the contents inline with some formatting losses in HTML: This is the default action of \fbox when enclosing a minipage. During HTML output, \fbox nullifies the HTML tags for minipage, \parbox, and lists. The contents are included as inline text inside the \fbox's of class framebox. For lists, line breaks are converted to HTML breaks. The result is a plain-text inline version of the contents, framed inline with the surrounding text, but lacking any extra HTML markup.

For inline minipage and lists:

To frame the contents on their own line with improved formatting in HTML: A new command \fboxBlock is included, intended to be a direct replacement for \fbox for cases where the \fbox surrounds a minipage, table, or list. For print output, this behaves as \fbox. For HTML output, the contents are placed inside an HTML <div> with the class framed, resulting in the contents being placed on their own line with a frame surrounding them. The contents preserve their HTML formatting, so lists and minipages look nicer, and valid HTML is created for a tabular. While an \fbox containing a tabular is valid LATEX code,

the result in HTML is problematic since a table is a <div> not a , so use \fboxBlock around a tabular, or else place the tabular inside a minipage, or use fminipage, described next. Also see below regarding the "Misplaced alignment tab character &." error.

For display tabular, minipages, and lists: To create a framed minipage in both print and HTML: A new environment fminipage is included. For print output, this is identical to minipage, except that it is also framed. For HTML output, this forms a <div> of class framed, the contents preserve their HTML formatting, and valid HTML is created for a tabular. Also see section 85 for a new environment fcolorminipage. Also see below regarding the "Misplaced alignment tab character &." error.

colored boxes and frames: To create colored frames and boxes: See section 503 for xcolor's \colorbox and \fcolorbox, and lwarp's additional \colorboxBlock and \fcolorboxBlock.

Misplaced alignment tab character & To frame tables or verbatim environments: Place the contents inside a fminipage, or perhaps a \fboxBlock for a tabular. Also, if using \fboxblock with tabular, you will have to use \StartDefiningTabulars before the start of the macro which uses \fboxBlock and the tabular, and \StopDefiningTabulars afterwards. Also see the lwarp documentation for the fancybox package.

To frame equations: See section 216 for the fancybox package.

For fancy framed minipages: See packages boxedminipage, shadow, fancybox, framed, mdframed.

Custom environments: Use a custom environment to create a sidebar, containing a BlockClass environment with custom css formatting, and \warpprintonly{\hrule} command:

```
\begin{BlockClass}{frameminipage}% ignored in print output
 % use \CSS\ to format div class ``framedminipage''
\warpprintonly{\hrule} % only appears in print output
Contents
\warpprintonly{\hrule} % only appears in print output
\end{BlockClass}
```

8.3.6 fancybox package

Pkg fancybox framed equation example fancybox's documentation has an example FramedEgn environment which combines math, \Sbox, a minipage, and an \fbox. This combination requires that the entire environment be enclosed inside a lateximage, which is done by adding \lateximage at the very start of FramedEqn's beginning code, and \endlateximage at the very end of the ending code. Unfortunately, the HTML alt attribute is not used here.

```
\newenvironmentFramedEqn
\lateximage% NEW
\setlength{\fboxsep}{15pt}
. . . }{. . .
\[\fbox{\TheSbox}\]
\endlateximage% NEW
}
```

framing alternatives

\fbox works with fancybox. Also see lwarp's \fboxBlock macro and fminipage environment for alternatives to \fbox for framing environments.

framed table example

The fancybox documentation's example framed table using an \fbox containing a tabular does not work with lwarp, but the FramedTable environment does work if \fbox is replaced by \fboxBlock. This method loses HTML formatting. A better method is to enclose the table's contents inside a fminipage environment. The caption may be placed either inside or outside the fminipage:

```
\begin{table}
\begin{fminipage}{\linewidth}
\begin{tabular}{lr}
\end{tabular}
\end{fminipage}
\end{table}
```

framed verbatim

lwarp does not support the verbatim environment inside a span, box, or fancybox's \Sbox, but a verbatim may be placed inside a fminipage. The fancybox documentation's example FramedVerb may be defined as:

```
\newenvironment{FramedVerb}[1] % width
  \VerbatimEnvironment
  \fminipage{#1}
  \beginVerbatim
}{
  \endVerbatim
  \endfminipage
}
```

framed \VerbBox

fancybox's \VerbBox may be used inside \fbox.

indented alignment

LVerbatim, \LVerbatimInput, and \LUseVerbatim indent with horizontal space which may not line up exactly with what pdftotext detects. Some lines may be off slightly in their left edge.

8.3.7 mdframed package

mdframed support Most basic functionality is supported, including frame background colors and singleborder colors and thickness, title and subtitle background colors and borders and thickness, border radius, and shadow. CSS classes are created for mdframed environments and frame titles.

loading When used, lwarp loads mdframed in HTML with framemethod=none.

font For title font, use

frametitlefont=\textbf,

instead of

frametitlefont=\bfseries,

where \textbf must appear just before the comma and will receive the following text as its argument (since the text happens to be between braces in the mdframed source). Since lwarp does not support \bfseries and friends, only one font selection may be made at a time.

theoremtitlefont

theoremtitlefont is not supported, since the following text is not in braces in the mdframed source.

ignored options

userdefinedwidth and align are currently ignored.

css classes

Environments created or encapsulated by mdframed are enclosed in a <div> of class mdframed, and also class md<environmentname> for new environments.

Frame titles are placed in a <div> of class |mdframedtitle|. Subtitles are in a <div> of class |mdframedsubtitle|, and likewise for subsubtitles.

8.4 Section names

If using named HTML files, by selecting \booltrue{FileSectionNames}, the generated filenames may be simplified by using \FilenameSimplify and \FilenameNullify:

\FilenameSimplify $\{\langle text \rangle\}$

To remove common short words from the automatically-generated filenames, replacing each with a single hyphen "-", use \FilenameSimplify:

```
\FilenameSimplify*{-in-}
\FilenameSimplify*{A-}
```

The first example removes the word "in" in the middle of a filename, and the second example removes "A" at the start of the filename. The star forces the arguments to be detokenized, which is required for a plain-text comparison. (The unstarred form is used for a token-sensitive comparison, which is seldom required by the user.) After simplification, repeated hyphen characters will be further simplified to a single hyphen "-". Finally, single hyphens at the start or end of the filename are removed.

\FilenameNullify $\{\langle macros \rangle\}$

 \wedge

macros in section

Macro names may appear in the automatically-generated file names. To remove these, create *non-robust* nullified versions of the macros, ensuring that each line ends with a percent character % as shown below. These are placed inside \FilenameNullify, which adds them to the list of macros which are nullfied during filename generation. Low-level macros such as \begingroup will cause problems when nullfied. Many macros such as \textbf are already nullfied. lwarp also already nullifies built-in symbol and textcomp macros, including if defined by xunicode, but not all xunicode macros. See the definition of \LWR@nullfonts for a complete list.

```
\FilenameNullify{%
  \renewcommand*{\macroname}[1]{#1}%
  \renewcommand*{\anothermacro}{}%
}
```

Avoid duplicate file names. Section names at levels which result in HTML file splits must be unique. lwarp will generate an error if a duplicate HTML filename is generated. Use the optional TOC caption entry parameter for formatting. Remember to \protect IATEX commands which appear in section names and TOC captions.

math in section names

If using named HTML files, in section names use paren math (x+y) instead of dollar math x+y. (Dollar math works, but appears in the filename.) Or, use a short name for the TOC entry without the math, or use texorpdfstring:

```
\section{A name with math
  \texorpdfstring{$1+2=3$}{text description}}
```

8.5 Cross-references

labels

△ label characters

Labels with special characters may be a problem. It is best to stick with alphanumeric, hyphen, underscore, and perhaps the colon (if not French).

\\nameref \\ \triangle empty link

\nameref refers to the most recently-used section where the \label was defined. If no section has been defined before the \label, the link will be empty. Index entries also use \nameref and have the same limitation.

8.5.1 Page references

⚠ LATEX page numbers

The printed page does not translate to the HTML page, so \pageref references are converted to parentheses containing \pagerefPageFor, which defaults to "see ", followed by a hyperlink to the appropriate object.

Ex:

Ex:

```
\ref{sec:name} on page \pageref{sec:name}
in HTML becomes:
    "Sec. 1.23 on page (see sec. 1.23)".
```

\pagerefPageFor may be redefined to "page for ", empty, etc. See page 458.

8.5.2 cleveref and varioref packages

Pkg cleveref Pkg varioref cleveref and varioref are supported, but printed page numbers do not map to HTML, so a section name or a text phrase are used for \cpageref and \cpagerefrange. This phrase includes \cpagerefFor, which defaults to "for".

cleveref page numbers

```
\cpageref{tab:first,tab:second}
in html becomes:
    "pages for table 4.1 and for table 4.2"
```

See \cpagerefFor at page 530 to redefine the message which is printed for page number references.

8.5.3 Hyperlinks, hyperref, and url

hyperref Pka url

lwarp emulates hyperref, including the creation of active hyperlinks, but does not require that hyperref be loaded by the document.

comments between arguments

Do not place a comment with a % character between arguments for \hyperref, etc., as it is neutralized for inclusion in HTML URLS.

lwarp can also load url, but url should not be used at the same time as hyperref, since they both define the \url command. lwarp does not (yet) attempt to convert url links into hyperlinks during HTML output, nor does the print version of url create hyperlinks.

backref

When generating HTML, lwarp's emulation of hyperref does not automatically load backref, so backref must be loaded explicitly.

Footnotes and page notes

Iwarp uses native LATEX footnote code, although with its own \box to avoid the LATEX output routine. The usual functions mostly work as-is.

footnote numbering To have footnote numbers reset each time footnotes are printed:

```
\setcounter{footnoteReset}{1}
```

For bigfoot, manyfoot, or perpage:

```
\MakePerPage{footnoteX}
 – or –
\MakeSortedPerPage{footnoteX}
```

The footnotes are reset when they are printed, according to section level as set by FootnoteDepth, which is not necessarily by HTML page. This is recommended for \alph, \Alph, or \fnsymbol footnotes, due to the limited number of symbols which are available.

footmisc

The footmisc stable option is emulated by lwarp.

sectioning commands

When using footnotes in sectioning commands, to generate consistent results between print and HTML, use the footmisc package with the stable option, provide a short TOC entry, and \protect the \footnote:

```
\usepackage[stable]{footmisc}
. . .
\subsection[Subsection Name]
    {Subsection Name\protect\footnote{A footnote.}}
```

memoir with footmisc If using memoir class, with which lwarp preloads footmisc, the stable option must memoir be declared before lwarp is loaded:

```
\PassOptionsToPackage{stable}{footmisc}
\usepackage{lwarp}
...
```

Do not use a starred sectioning command. As an alternative, it may be possible to adjust \secnumdepth instead.

fancybox, fancyvrb
\VerbatimFootnotes
\times sectioning or
displaymath

If using fancybox or fancyvrb with \VerbatimFootnotes, and using footnotes in a sectioning command or display math, use \footnotemark and \footnotetext:

```
\subsection[Subsection Name]
    {Subsection Name\protect\footnotemark}
\footnotetext{A footnote with \verb+verbtim+.}
```

and likewise for equations or display math.

At present there is a bug such that paragraph closing tags are not present in footnotes when \VerbatimFootnotes are selected. The browser usually compensates.

prnote

frote numbers

While emulating pfnote, lwarp is not able to reset HTML footnote numbers per page number to match the printed version, as HTML has no concept of page numbers. lwarp therefore uses continuous footnote numbering even for pfnote.

bigfoot, manyfoot verbatim

Verbatim footnotes are not yet supported.

If using the bigfoot package, and possibly also manyfoot, problems may occur with counter allocation because lwarp uses many counters, and there is a difference in how counters numbered 256 and up are handled in pdfLATEX. With bigfoot this has been known to show up as an error related to one footnote insert being forbidden inside another. Another problem showed up as a input stack error, and which of these problems occurred depended on how many counters were allocated.

As a possible solution, try creating several new counters before defining bigfoot or manyfoot footnotes, hoping to shift the problematic counter above the 256 threshold. It may instead be necessary to use XHLYTEX or LuaLATEX instead of pdfLATEX.

8.6 Front and back matter

8.6.1 Custom classes with multiple authors and affiliations

Some classes allow multiple authors and affiliations. Often it is possible to emulate these using a standard class along with authblk:

```
%\documentclass{customclass} % for print document
\documentclass{article} % for html document
\usepackage{lwarp}
\begin{warpHTML}
\usepackage{authblk}
\let\affiliation\affil % maybe required
\end{warpHTML}
```

8.6.2 Starred chapters and sections

The following describes \ForceHTMLPage and \ForceHTMLTOC, which may be used for endnotes, glossaries, tocbibind, bibliographies, and the index. See the following sections where applicable. Continue here if interested in the reason for adding these commands to lwarp.

Some packages use \chapter* or \section* to introduce reference material such as notes or lists, often to be placed in the back matter of a book. These starred sections are placed inline instead of on their own HTML pages, and they are not given TOC entries.

lwarp provides a method to cause a starred section to be on its own HTML page, subject to FileDepth, and also a method to cause the starred section to have its own тос entry during нтмL output.

\ForceHTMLPage

To place a starred section on its own HTML page, use \ForceHTMLPage just before the \chapter* or \section*. warp will create a new page for the starred sectional unit.

A starred sectional unit does not have a TOC entry unless one is placed manually. The typical method using \phantomsection and \addcontentsline works for inline text but fails when the new starred section is given its own webpage after the TOC entry is created, or when creating an EPUB where the TOC entry will point to the page before the starred section. If the starred section has its own HTML page but no correct TOC entry pointing to that page, the page will be inaccessible unless some other link is created.

inaccessible html page

\ForceHTMLTOC

To automatically force the HTML version of the document to have a TOC entry for a starred section, use \ForceHTMLTOC just before the \chapter* or \section*, and place \phantomsection and \addcontentsline inside a warpprint environment.

For print output, \ForceHTMLTOC and \ForceHTMLPage have no effect.

8.6.3 abstract package

Pkg abstract missing toc If using the number option with file splits, be sure to place the table of contents before the abstract. The number option causes a section break which may cause a file split, which would put a table of contents out of the home page if it is after the abstract.

8.6.4 titling and authblk

Pkg authblk

lwarp supports the native LATEX titling commands, and also supports the packages authblk and titling. If both are used, authblk should be loaded before titling.

If using the titling package, additional titlepage fields for \published and \subtitle may be added by using \AddSubtitlePublished in the preamble. See section 66.8.

package support load order \published and \subtitle

8.6.5 tocloft package

Opt[tocloft] titles tocloft tocloft Pkg

If using tocloft with tocbibind, anonchap, fncychap, or other packages which change chapter title formatting, load tocloft with its titles option, which tells tocloft to use standard LATEX commands to create the titles, allowing other packages to work with it.

tocloft & other packages

8.6.6 appendix package

incorrect toc link

During HTML conversion, the option toc without the option page results in a Toc link to whichever section was before the appendices environment. It is recommended to use both toc and also page at the same time.

8.6.7 pagenote package

pagenote works as-is, but the page option is disabled. pagenote

8.6.8 endnotes package

Pkg endnotes table of contents

To place the endnotes in the ToC, use:

\usepackage{endnotes}

\appto\enoteheading{\addcontentsline{toc}{section}{\notesname}}

\renewcommand*{\notesname}{Endnotes} % optional

html page To additionally have the endnotes on their own HTML page, if FileDepth allows:

\ForceHTMLPage \theendnotes

8.6.9 **BIBTEX**

Displays a superscript "+" to indicate "and others". \etalchar

Modify *.bib When enough authors are cited for a source, BiBT_EX may use the \etalchar command to display a math superscript with a + character to indicate "and others". Without modification, this will result in an "Improper \prevdepth" error. At present, lwarp requires that \etalchar be replaced by a text superscript. To do so, add to the start of the .bib file the following:

@PREAMBLE{"\let\etalchar\relax \newcommand{\etalchar}[1]{#1}"}

8.6.10 gloss package

Pkg gloss To process the HTML glossary: compiling bibtex ctname>_html.gls

8.6.11 glossaries package

Pkg glossaries processing glossaries

Opt GlossaryCmd Default: makeglossaries Opt[warpmk] printglossary Opt[Iwarpmk] htmlglossary *lwarpmk* has the commands lwarpmk printglossary and lwarpmk htmlglossary, which process the glossaries created by the glossaries package using that package's makeglossaries program.

The shell command to execute is set by the lwarp option GlossaryCmd, which defaults to makeglossaries. The print or HTML glossary filename is appended to this command.

makeglossaries not found

In some situations it may be required to modify the default command, such as to add the **perl** command in front:

```
\usepackage[
   GlossaryCmd={perl makeglossaries},
```

xindy language To set the language to use for processing glossaries with xindy:

```
\usepackage[
   GlossaryCmd={makeglossaries -L english},
] {lwarp}
```

Other options for makeglossaries may be set as well.

placement and toc options

The glossaries may be placed in a numbered or unnumbered section, given a TOC entry, and placed inline or on their own HTML page:

Numbered section, on its own HTML page:

```
\usepackage[xindy,toc,numberedsection=nolabel]{glossaries}
\printglossaries
```

Unnumbered section, inline with the current HTML page:

```
\usepackage[xindy,toc]{glossaries}
\printglossaries
```

Unnumbered section, on its own HTML page:

```
\usepackage[xindy,toc]{glossaries}
\ForceHTMLPage
\printglossaries
```

glossary style The default style=item option for glossaries conflicts with lwarp, so the style is forced to index instead.

number list The page number list in the printed form would become \namerefs in HTML, which could become a very long string if many items are referenced. For now, the number list is simply turned off.

print/html versions

The print and HTML versions of the glossary differ in their internal page numbers. Separate commands for generating print and HTML glossaries are used, even though the page number is currently ignored.

8.6.12 nomencl package

nomencl To process the HTML nomenclature:

makeindex ct>_html.nlo -s nomencl.ist -o project>_html.nls

8.6.13 Indexing overview

There are many ways to process indexes for a LATEX document, including native LATEX capabilities, a number of packages and classes, the possible availability of shell escape and *latexmk*, and the need to process print and HTML versions. lwarp attempts to provide easy recompilation of indexes along with the rest of the document, but the various indexing options must be set correctly. Numerous examples are given below. Some differ in minor details, so the important parts are highlighted in red, and options are in green.

Once set up properly, the entire document may be recompiled with lwarpmk print and lwarpmk html. In some cases, it will also be necessary to compile the indexes with lwarpmk printindex and lwarpmk htmlindex. A recompile may then be forced with lwarpmk print1 and lwarpmk html1.

manual processing

The user may continue to process indexes manually or by shell script without the use of *lwarpmk*, but adjustments will be required to process HTML indexes as well. In general, *.idx and *.ind files will be accompanied by *_html.idx and *_html.ind

custom index style If using a custom indexing style file, see sections 8.6.19 and 8.6.20.

source code

See section 76 for lwarp's core index and glossary code, section 280 for index, section 432 for splitidx, section 279 for imakeidx, section 466 for tocbibind, and section 521.17 for memoir's indexing patches.

8.6.14 Indexing with basic LATEX and makeidx

lwarpmk processing

The following allow the user to process indexes automatically, or using lwarpmk's commands:

lwarpmk printindex Enter \Rightarrow

 $Enter \Rightarrow$ lwarpmk htmlindex

For a single index using makeindex:

```
\usepackage[makeindex,latexmk] {lwarp}
```

The usual .idx and .ind files will be used, along with the new lwarp.ist style file. When creating the HTML index, "_html" is automatically appended to each of the names.

lwarpmk will use *latexmk* if specified, in which case *latexmk* will create the index automatically. Otherwise, use

```
\begin{array}{ccc} {\rm Enter} \Rightarrow & \text{lwarpmk printindex} \\ & {\rm Enter} \Rightarrow & \text{lwarpmk htmlindex} \\ & \text{to compile the indexes.} \end{array}
```

For a single index using xindy:

The usual .idx and .ind files will be used, along with the new lwarp.xdy style file.

lwarpmk will use *latexmk* if specified, in which case *latexmk* will create the index automatically. Otherwise, use

```
\begin{array}{ll} & \text{Enter} \Rightarrow & \text{lwarpmk printindex} \\ & \text{Enter} \Rightarrow & \text{lwarpmk htmlindex} \\ & \text{to compile the indexes.} \end{array}
```

8.6.15 Indexing with index

lwarp is told how to use *makeindex* using the PrintIndexCmd and HTMLIndexCmd options. The file lwarp.ist is specified, which generates index letter heads for print output and also allows special HTML formatting for HTML output.

For multiple indexes using makeindex and index:

```
(Assuming that the second index has file extensions .sist and .sind)
   \usepackage[
     makeindex, latexmk,
     PrintIndexCmd={
       makeindex -s lwarp.ist ctname.idx ;
       makeindex -s lwarp.ist
         -o ctname>.sind ctname>.sidx
     },
     HTMLIndexCmd={
       makeindex -s lwarp.ist projectname>_html.idx ;
       makeindex -s lwarp.ist
         -o ctname>_html.sind ctname>_html.sidx
     }
   ]{lwarp}
   \usepackage{index}
   . . .
   \makeindex
   \newindex{secondname}{sidx}{sind}{Second Index}
```

♠ Windows

For Windows, replace the two ";" characters with "&".

When creating the HTML index, "_html" is automatically appended to the index filenames.

Use

 $Enter \Rightarrow$ lwarpmk printindex $Enter \Rightarrow$ lwarpmk htmlindex

to compile the indexes.

If the latexmk option is selected for lwarp, <code>latexmk</code> will compile the document but will <code>not</code> compile the indexes. <code>lwarpmk printindex</code> and <code>lwarpmk htmlindex</code> will still be required.

8.6.16 Indexing with splitidx

lwarp is told how to use *splitindex* using the PrintIndexCmd and HTMLIndexCmd options. The file lwarp.ist is specified, which generates index letter heads for print output and also allows special HTML formatting for HTML output.

If the latexmk option is selected for lwarp, <code>latexmk</code> will compile the document but will <code>not</code> compile the indexes. <code>lwarpmk printindex</code> and <code>lwarpmk htmlindex</code> will still be required.

When using \AtWriteToIndex or \AtNextWriteToIndex, the user must not refer to \thepage during HTML output, as the concept of a page number is meaningless. Instead, do

```
\addtocounter{LWR@autoindex}{1}
\LWR@new@label{LWRindex-\arabic{LWR@autoindex}}
```

where the \index -like action occurs, and then refer to $\arabic\{LWR@autoindex\}$ instead of \thepage where the reference should occur.

See section 521.17 in the lwarp-patch-memoir package for the \@@wrspindexhyp macro as an example.

For multiple indexes using makeindex and splitidx:

```
\usepackage[
  makeindex, latexmk,
  PrintIndexCmd={
    splitindex <projectname> -- -s lwarp.ist
  },
  HTMLIndexCmd={
    splitindex <projectname>_html -- -s lwarp.ist
  }
]{lwarp}
\usepackage{splitidx}
...
\makeindex
\newindex[Second Index]{secondname}
```

When creating the HTML index, "_html" is automatically appended to each of the names.

Use

```
\operatorname{Enter} \Rightarrow \quad \text{lwarpmk printindex} \operatorname{Enter} \Rightarrow \quad \text{lwarpmk htmlindex} to compile the indexes.
```

For multiple indexes using xindy and splitidx:

```
\usepackage[
  xindy, latexmk,
  PrintIndexCmd={
    splitindex -m xindy rojectname> -- -M lwarp.xdy
      -L english -C utf8
                                                  <optional>
  },
  HTMLIndexCmd={
    splitindex -m xindy projectname>_html -- -M lwarp.xdy
      -L english -C utf8
                                                  <optional>
  }
]{lwarp}
\usepackage{splitidx}
\makeindex
\newindex[Second Index]{secondname}
```

When creating the HTML index, "_html" is automatically appended to each of the names.

Use

```
Enter ⇒ lwarpmk printindex
```

```
Enter ⇒ lwarpmk htmlindex
```

to compile the indexes.

8.6.17 Indexing with imakeidx

Due to the number of methods which may be used to process multiple indexes, the options for style file and *xindy* language and codepage must be specified in one of several different ways. These are described in detail later in this section, but are summarized here.

If shell escape is used, imakeidx will automatically compile the indexes by itself. Options specifying a custom style file and *xindy* language and codepage must be specified for each \makeindex command using its options= option, which must include lwarp's special lwarp.ist or lwarp.xdy file, or a file based on them. If using a custom indexing style file, see sections 8.6.19 and 8.6.20. The splitindex option is also available of shell escape is used, in which case the splitidx package and *splitindex* program will also be used.

If shell escape is not possible, *latexmk* may be used to automatically compile the indexes. The style, language, and codepage options are specified with lwarp's makeindexStyle, xindyStyle, xindyLanguage, and xindyCodepage options. These are passed to *latexmk* by *lwarpmk*'s lwarpmk printindex and lwarpmk htmlindex commands.

Where shell escape and *latexmk* are not possible, *lwarpmk* may be used to manually compile the indexes. lwarp's PrintIndexCmd and HTMLIndexCmd options are used.

For a single or multiple indexes using makeindex and imakeidx:

The index style lwarp.ist is automatically used for HTML output. This file turns on letter headings, so it may be desirable to specify it as an option, in which case it will also be used for print output, which will help match the print and HTML output.

```
\usepackage[makeindex,latexmk] {lwarp}
\usepackage[makeindex]{imakeidx}
...
\makeindex[options={-s lwarp.ist}]
\makeindex[name=secondname,options={-s lwarp.ist}]
```

imakeidx will automatically compile the indexes. Shell escape is not required while using *makeindex*. Latexmk may be specified, and if so it will be used for <code>lwarpmk print</code> and <code>lwarpmk html</code>, but <code>imakeidx</code> will actually create the indexes.

For a single or multiple indexes using makeindex and splitindex with imakeidx:

The index style lwarp.ist is automatically used for html output. This file turns on letter headings, so it may be desirable to specify it as an option, in which case it will also be used for print output, which will help match the print and html output.

```
\usepackage[makeindex,latexmk] {lwarp}
\usepackage[makeindex,splitindex]{imakeidx}
...
\makeindex[options={-s lwarp.ist}]
\makeindex[name=secondname,options={-s lwarp.ist}]
```

• enable shell escape

Shell escape is required while using splitindex. For the first compile, use

```
Enter ⇒ pdflatex --shell-escape projectname.tex
Enter ⇒ pdflatex --enable-write18 projectname.tex (MiKTeX)
```

or similar with *xelatex* or *lualatex*. lwarp will remember that shell escape was used.

imakeidx will automatically execute *splitindex*, and will also use *makeindex* to compile the indexes.

latexmk may be specified, and if so it will be used for lwarpmk print and lwarpmk html, but *imakeidx* will actually create the indexes.

For multiple indexes using xindy and imakeidx, using shell escape:

Options may be given to imakeidx's \makeindex command. The style file lwarp.xdy is automatically used for HTML output, and is not necessary for print output since the output will be similar. If language or codepage must be set, they should be specified as options for \makeindex, since imakeidx will process the indexes.

```
\usepackage[xindy,latexmk] {lwarp}
\usepackage[xindy,splitindex]{imakeidx}
...
\makeindex[
   options={ -M lwarp.xdy -L english -c utf8 }
]
\makeindex[
   name=secondname,
   options={ -M lwarp.xdy -L english -c utf8 }
]
```

For the first compile, use

```
Enter ⇒ pdflatex --shell-escape projectname.tex

Enter ⇒ pdflatex --enable-write18 projectname.tex (MiKTeX)
```

or similar with *xelatex* or *lualatex*. lwarp will remember that shell escape was used.

imakeidx will automatically execute *splitindex* if selected, and will also use *xindy* to compile the indexes.

If selected, *latexmk* will automatically recompile the entire document as necessary.

For indexes using xindy and imakeidx, without shell escape, but with latexmk:

lwarp's options are used, and are passed to latexmk.

```
\usepackage[
    xindy,
    xindyLanguage=english,
    xindyCodepage=utf8,
    latexmk,
]{lwarp}
\usepackage[xindy]{imakeidx}
...
\makeindex
\makeindex[name=secondname]
```

<code>latexmk</code> will create the indexes automatically when <code>lwarpmk print</code> and <code>lwarpmk html</code> are executed.

For indexes using xindy and imakeidx, without shell escape, and without latexmk:

lwarpmk must be told how to create the indexes:

```
\usepackage[
  xindy,
  PrintIndexCmd={
    xindy -M lwarp.xdy -L english -C utf8
      ojectname>.idx ;
    xindy -M lwarp.xdy -L english -C utf8
      secondname.idx
  },
  HTMLIndexCmd={
    xindy -M lwarp.xdy -L english -C utf8
      projectname>_html.idx ;
    xindy -M lwarp.xdy -L english -C utf8
      secondname_html.idx
  }
]{lwarp}
\usepackage[xindy]{imakeidx}
. . .
\makeindex
\makeindex[name=secondname]
```

For Windows, replace the two ";" characters with "&".

<projectname> is the \jobname: if compiling "name.tex", use the filenames
name.idx and name_html.idx.

Use

Enter ⇒ lwarpmk printindex
Enter ⇒ lwarpmk htmlindex
to compile the indexes.

8.6.18 Indexes with memoir

For a single index with memoir and makeindex:

```
\documentclass{memoir}
\usepackage[makeindex,latexmk]{lwarp}
...
\makeindex
```

The usual .idx and .ind files will be used, along with the lwarp.ist style file. *lwarpmk* will use *latexmk* if specified, in which case *latexmk* will create the index automatically. Otherwise, use

```
{
m Enter} \Rightarrow \quad \mbox{lwarpmk printindex} {
m Enter} \Rightarrow \quad \mbox{lwarpmk htmlindex} to compile the indexes.
```

For multiple indexes with memoir and makeindex, using latexmk:

lwarp's options are used, and are passed to latexmk.

```
\documentclass{memoir}
\usepackage[makeindex,latexmk]{lwarp}
...
\makeindex
\makeindex[secondname]
```

lwarpmk will use *latexmk* to create the indexes automatically when the user executes *lwarpmk* print and *lwarpmk* html.

For multiple indexes with memoir and makeindex, without latexmk:

lwarpmk must be told how to create the indexes:

```
\documentclass{memoir}
\usepackage[
    makeindex,
    PrintIndexCmd={
        makeindex -s lwarp.ist <projectname>.idx ;
        makeindex -s lwarp.ist secondname.idx
    },
    HTMLIndexCmd={
        makeindex -s lwarp.ist <projectname>_html.idx ;
        makeindex -s lwarp.ist secondname_html.idx
    }
]{lwarp}
...
\makeindex
\makeindex[secondname]
```

⚠ Windows

For Windows, replace the two ";" characters with "&".

ctname> is the \jobname: if compiling "name.tex", use the filenames
name.idx and name_html.idx.

Use

```
Enter⇒ lwarpmk printindex
Enter⇒ lwarpmk htmlindex
```

to compile the indexes.

For a single index with memoir and xindy:

The usual .idx and .ind files will be used, along with the lwarp.xdy style file. *lwarpmk* will use *latexmk* if specified, in which case *latexmk* will create the index automatically. Otherwise, use

```
\begin{array}{ccc} {\rm Enter} \Rightarrow & \text{lwarpmk printindex} \\ & {\rm Enter} \Rightarrow & \text{lwarpmk htmlindex} \\ & \text{to compile the indexes.} \end{array}
```

For multiple indexes with memoir and xindy, using latexmk:

lwarp's options are used, and are passed to latexmk.

lwarpmk will use latexmk to create the indexes automatically.

For multiple indexes with memoir and xindy, without latexmk:

lwarpmk must be told how to create the indexes:

```
\documentclass{memoir}
\usepackage[
  xindy,
  PrintIndexCmd={
    xindy -M lwarp.xdy -L english -C utf8
      ojectname>.idx ;
    xindy -M lwarp.xdy -L english -C utf8
      secondname.idx
  },
  HTMLIndexCmd={
    xindy -M lwarp.xdy -L english -C utf8
      projectname>_html.idx ;
    xindy -M lwarp.xdy -L english -C utf8
      secondname_html.idx
  }
]{lwarp}
\xindyindex
\makeindex
\makeindex[secondname]
```

⚠ Windows

For Windows, replace the four ";" characters with "&".

<projectname> is the \jobname: if compiling "name.tex", use the filenames
name.idx and name_html.idx.

Use

 $\operatorname{Enter} \Rightarrow \quad \text{lwarpmk printindex}$ $\operatorname{Enter} \Rightarrow \quad \text{lwarpmk htmlindex}$ to compile the indexes.

8.6.19 Using a custom makeindex style file

Prog makeindex
File lwarp.ist

When using *makeindex*, *lwarpmk* uses the file lwarp.ist to process the index. This file is over-written by lwarp whenever a print version of the document is processed.

To use a custom makeindex style file:

- 1. Copy lwarp.ist to a new filename such as projectname.ist
- 2. Make changes to projectname.ist. Keep the lines which refer to \hyperindexref. These lines creates the hyperlinks for the HTML index. During print output \hyperindexref becomes a null function.

Opt makeindexStyle

3. In the document source use the makeindexStyle option for lwarp:

```
\usepackage[
    ... other options ...
```

```
\textred{makeindexStyle=projectname.ist},
]{lwarp}
```

Likewise, refer to the custom style file if using \PrintIndexCmd, \HTMLIndexCmd, or \LatexmkIndexCmd.

4. Recompile the print version, which causes lwarp to rewrite the lwarpmk.conf configuration file. This tells *lwarpmk* to use the custom projectname.ist file instead of lwarp.ist.

8.6.20 Using a custom xindy style file

File lwarp.xdy

When using *xindy*, *lwarpmk* uses the file lwarp.xdy to process the index. This file is over-written by lwarp whenever a print version of the document is processed.

To use a custom *xindy* style file:

- 1. Copy lwarp.xdy to a new filename such as projectname.xdy
- 2. Make changes to projectname.xdy.

Keep the lines which refer to \hyperindexref:

```
(define-attributes (("hyperindexref")))
(markup-locref :open "\hyperindexref{" :close "}")
...
(markup-locref :open "\textit{\hyperindexref{" :close "}}" :attr "textit")
```

These lines create the hyperlinks for the HTML index. During print output \hyperindexref becomes a null function.

To create custom styles, refer to the lines for \textbf and \textit.

Opt xindyStyle

3. In the document source use the xindyStyle option for lwarp:

```
\usepackage[
    ... other options ...
    \textred{xindyStyle=projectname.xdy},
]{lwarp}
```

Likewise, refer to the custom style file if using \PrintIndexCmd, \HTMLIndexCmd, or \LatexmkIndexCmd.

4. Recompile the print version, which causes lwarp to rewrite the lwarpmk.conf configuration file. This tells *lwarpmk* to use the custom projectname.xdy file instead of lwarp.xdy.

8.6.21 Additional indexing limitations

xindy with hyperref

xindy and hyperref may not work well together for print output with "see", "see also", reference ranges, or stylized index references. It may be necessary to turn off hyper-referencing for indexes:

```
\usepackage[hyperindex=false]{hyperref}
```

If an HTML index is empty, it may be necessary to add the following before lwarp is loaded:

```
\usepackage{morewrites}
\morewritessetup{allocate=10}
...
\usepackage{lwarp}
```

makeindex custom display styles

When using makeindex, custom display styles are possible:

\begin{warpprint}
\newcommand{\notesstyle}[1]{#1nn}
\end{warpprint}
\begin{warpHTML}
\makeatletter
\newcommand{\notesstyle}[1]{\LWR@doindexentry{#1} notes }
\makeatother
\end{warpHTML}
...

xindy custom display styles For custom styles with xindy, see lwarp.xdy for \textbf and \textit as examples.

A sentence.\index{key|notesstyle}

8.6.22 Index positions, TOC, tocbibind

placement and toc options An index may be placed inline with other HTML text, or on its own HTML page:

Pkg makeidx Inline, with a manual Toc entry:

A commonly-used method to introduce an index in a LATEX document:

\cleardoublepage
\phantomsection
\addcontentsline{toc}{section}{\indexname}% or chapter
\printindex

Pkg makeidx On its own HTML page, with a manual TOC entry:

\begin{warpprint}
\cleardoublepage
\phantomsection
\addcontentsline{toc}{section}{\indexname}% or chapter
\end{warpprint}
\ForceHTMLPage
\ForceHTMLTOC
\printindex

Pkg tocbibind Inline, with an automatic Toc entry:

The tocbibind package may be used to automatically place an entry in the TOC.

```
\usepackage[nottoc]{tocbibind}
\cleardoublepage
\phantomsection % to fix print-version index link
\printindex
```

tocbibind On its own HTML page, with an automatic Toc entry:

```
\usepackage[nottoc]{tocbibind}
\cleardoublepage
\phantomsection % to fix print-version index link
\ForceHTMLPage
\printindex
```

Opt [tocbibind] numindex numbered index section

Use the tocbibind numindex option to generate a numbered index. Without this option, the index heading has no number.

Other packages, such as imakeidx, may also have options for including the index in the Table of Contents.

Pkg tocloft tocloft & other packages

If using tocloft with tocbibind, anonchap, fncychap, or other packages which change chapter title formatting, load tocloft with its titles option, which tells tocloft to use standard LATEX commands to create the titles, allowing other packages to work with it.

8.7 Math

8.7.1 Math in section names

math in section names

If using named HTML files, in section names use paren math \(x+y\) instead of dollar math \$x+y\$. (Dollar math works, but appears in the filename.) Or, use a short name for the TOC entry without the math, or use \texorpdfstring:

```
\section{A name with math
    \texorpdfstring{$1+2=3$}{text description}}
```

8.7.2 Rendering tradeoffs

Math rendering

Math may be rendered as svG graphics or using the MATHJAX JavaScript display engine.

SVG files

Rendering math as images creates a new svg file for each expression, except that an MD5 hash is used to combine identical duplicates of the same inline math expression into a single file, which must be converted to svg only once. Display math is still handled as individual files, since it may contain labels or references which are likely to change.

SVG inline

The svG images are currently stored separately, but they could be encoded in-line directly into the HTML document. This may reduce the number of files and potentially

speed loading the images, but slows the display of the rest of the document before the images are loaded.

PNG files

Others LATEX-to-html converters have used PNG files, sometimes pre-scaled for print resolution but displayed on-screen at a scaled down size. This allows high-quality print output at the expense of larger files, but svG files are the preferred approach for scalable graphics.

MathML

Conversion to MathmL might be a better approach, among other things allowing a more compact representation of math than svG drawings. Problems with MathmL include limited browser support and some issues with the fine control of the appearance of the result. Also see section 10 regarding EPUB output with MATHJAX.

8.7.3 svg option

SVG math option

For svg math, math is rendered as usual by LaTeX into the initial PDF file using the current font¹⁴, then is captured from the PDF and converted to svg graphics via a number of utility programs. The svg format is a scalable-vector web format, so math may be typeset by LaTeX with its fine control and precision, then displayed or printed at any size, depending on (sometimes broken) browser support. An html alt attribute carries the LaTeX code which generated the math, allowing copy/paste of the LaTeX math expression into other documents.

SVG image font size

For the lateximage environment, the size of the math and text used in the svG image may be adjusted by setting \LateximageFontSizeName to a font size name — without the backslash, which defaults to:

\renewcommand{\LateximageFontSizeName}{normalsize}

For inline svg math, font size is instead controlled by \LateximageFontScale, which defaults to:

\newcommand*{\LateximageFontScale}{.75}

SVG math copy/paste

For svg math, text copy/paste from the HTML <alt> tags lists the equation number or tag for single equations, along with the LATEX code for the math expression. For $\mathcal{F}_{M}S$ environments with multiple numbers in the same environment, only the first and last is copy/pasted, as a range. No tags are listed inside a starred $\mathcal{F}_{M}S$ environment, although the \tag macro will still appear inside the LATEX math expression.

SVG math in TEX boxes

SVG math does not work inside TEX boxes, since a \newpage is required before and after each image.

8.7.4 MATHJAX option

MathJax math option

The popular MathJax alternative (mathjax.org) may be used to display math.

Prog MathJax

When MATHJAX is enabled, math is rendered twice:

 $^{^{14}\}mbox{See}$ section 508 regarding fonts and fractions.

1. As regular LATEX PDF output placed inside an HTML comment, allowing equation numbering and cross referencing to be almost entirely under the control of LATEX, and

2. As detokenized printed LATEX commands placed directly into the HTML output for interpretation by the MathJax display scripts. An additional script is used to pre-set the equation number format and value according to the current LATEX values, and the MathJax cross-referencing system is ignored in favor of the LATEX internal system, seamlessly integrating with the rest of the LATEX code.

8.7.5 Customizing MATHJAX

MATHJAX does not have preexisting support every possible math function. Additional MATHJAX function definitions may be defined. These will be declared at the start of each HTML page, and thus will have a global effect.

Examples:

8.7.6 MATHJAX limitations

MathJax limitations
Prog MathJax

Limitations when using MATHJAX include:

subequations

• MATHJAX itself does not support subequations. This may be improved by parsing the LATEX math expression to manually insert tags, but this has not yet been done.

footnotes in math

• Footnotes inside equations are not yet supported while using MATHJAX.

lateximage

• Math appearing inside a lateximage, and therefore also inside a Tikz or picture environment, is rendered as SVG math even if MATHJAX is used in the rest of the document.

siunitx

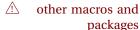
• Usage of siunitx inside a math equation is supported via a third-party MATHJAX extension. While inside a math expression, do not use \SI or \si inside \text, where it will be rendered as normal text.

siunitx inside an equation

https://github.com/burnpanck/MathJax-siunitx Also see section 8.7.11.

tabbing

• A tabbing environment is emulated using an HTML Mhile MATHJAX is enabled inside tabbing, the browser may not correctly render the horizontal alignment of the math and text following after on the same line.



• Other math-related macros and packages are not supported by MATHJAX, including \ensuremath and bigdelim, along with occasionally-used macros such as \relax. lwarp emulates footnotes, units, and nicefrac for MathJax.

8.7.7 Catcode changes

preamble macros with math The math shift character \$ is not set for HTML output until after the preamble. Macros defined in the preamble which contain \$ must be enclosed between \StartDefiningMath and \StopDefiningMath to temporarily change to the HTML meaning of \$:

```
\StartDefiningMath
\newcommand{...}
\StopDefiningMath
```

As an alternative, use \(and \) instead of \$, in which case \StartDefiningMath and \StopDefiningMath are not necessary.

If a package defines macros using \$, it may be nessary to use \StartDefiningMath and \StopDefiningMath before and after loading the package.

8.7.8 Complicated inline math objects

\inlinemathnormal \inlinemathother

changing contents complicated alt tag An inline math expression is usually converted to a reusable hashed svg math image, or a MathJax expression. The hash or expression depends on the contents of the math expression. In most cases this math expression is static, such as \$x+1\$, so the image can be reused for multiples instances of the same expression. In some cases, the math expression includes a counter or other object which may change between uses. Another problem is complicated contents which do not expand well in an alt tag. The macro \inlinemathother may be used before a dynamic math expression, and \inlinemathnormal after. Doing so tells lwarp to use an unhashed svg math image, even if MathJax is in use. See section 44.

8.7.9 Complicated display math objects

\displaymathnormal

By default, or when selecting \displaymathnormal, MATHJAX math display environments print their contents as text into HTML, and svG display math environments render their contents as SVG images and use their contents as the alt tag of HTML output. To do so, the contents are loaded into a macro for reuse. In some cases, such as complicated Tikz pictures, compilation will fail.

\displaymathother MathJax unsupported complicated alt tag

When selecting \displaymathother, it is assumed that the contents are more complicated than "pure" math. An example is an elaborate Tikz picture, which will not render in MathJax and will not make sense as an HTML alt tag. In this mode, Math-Jax is turned off, math display environments become svg images, even if MathJax is selected, and the HTML alt tags become simple messages. The contents are internally processed as an environment instead of a macro argument, so complicated objects such as Tikz pictures are more likely to compile successfully.

8.7.10 ntheorem package

Pkg ntheorem
Font control

This conversion is not total. Font control is via css, and the custom LATEX font settings are ignored.

ntheorem has a bug with equation numbering in $\mathcal{A}_{\mathcal{M}}\mathcal{S}$ environmentswhen the option thref is used. Iwarp does not share this bug, so equations with \split, etc, are numbered correctly with Iwarp's HTML output, but not with the print output. It is recommended to use cleveref instead of ntheorem's thref option.

8.7.11 siunitx package

Pkg siunitx fractions

Due to *pdftotext* limitations, fraction output is replaced by symbol output for per-mode and quotient-mode.

nath mode required

Some units will require that the expression be placed inside math mode.

NOTE: As of this writing, the siunitx extension for MathJax is not currently hosted at any public CDN, thus siunitx is not usable with MathJax unless a local copy of this extension is created first. See \MathJaxFilename to select a custom MathJax script.

Tabular S columns are rendered as simple c columns, and tabular s columns are not supported. These may be replaced by c columns with each cell contained in \num or \si.

8.7.12 units and nicefrac packages

Pkg units
Pkg nicefrac

units and nicefrac work with lwarp, but MATHJAX does not have an extension for units or nicefrac. These packages do work with lwarp's option sygmath.

8.7.13 newtxmath package

Pkg newtxmath

The proper load order is:

⚠ loading sequence

```
...
\usepackage{lwarp}
...
\usepackage{amsthm}
\usepackage{newtxmath}
...
```

8.8 Graphics

Pkg graphics
Pkg graphicx
scale

graphics Avoid using the \includegraphics scale option. Change:

\includegraphics[scale=<xx>]{ . . . }

to:

```
\includegraphics[width=<yy>\linewidth]{ . . . }
```

\includegraphics file formats

For \includegraphics with .pdf or .eps files, the user must provide a .pdf or .eps image file for use in print mode, and also a .svg, .png, or .jpg version of the same image for use in HTML.

```
\includegraphics{filename} % print:.pdf/.eps HTML:.svg, etc.
```

For print output, lwarp will automatically choose the .pdf or .eps format if available, or some other format otherwise. For HTML, one of the other formats is used instead.

If a .pdf or .eps image is referred to with its file extension, the extension will be changed to .svg for HTML:

```
\includegraphics{filename.pdf} % uses .svg in html
\includegraphics{filename.eps} % uses .svg in html
```

Prog pdftocairo To convert a PDF image to svg, use the utility pdftocairo:

PDF to SVG

```
Enter \Rightarrow pdftocairo -svg filename.pdf
```

lwarpmk pdftosvg For a large number of images, use *lwarpmk*:

```
(or a list of filenames)
Enter ⇒ lwarpmk pdftosvg *.pdf
```

lwarpmk epstopdf

For EPS images converted to PDF using the package epstopdf, use

Prog epstopdf epstopdf package

Enter ⇒ lwarpmk pdftosvg *.PDF

to convert to svG images.

DVI latex When using DVI latex, it is necessary to convert EPS to PDF and then to svG:

```
lwarpmk epstopdf *.eps
                                            (or a list of filenames)
Enter \Rightarrow
                                            (or a list of filenames)
        lwarpmk pdftosvg *.pdf
Enter \Rightarrow
```

PNG and JPG For PNG or JPGwhile using pdflatex, lualatex, or xelatex, the same file may be used in both print or HTML versions, and may be used with a file extension, but will also be used without the file extension if it is the only file of its base name.

> GIF files may be used for HTML, but another format must also be provided for print output.

file extension priorities

If a file extension is not used, for HTML the file extension priorities are: svg, GIF, PNG, then JPG.

graphics vs. graphicx

If using the older qraphics syntax, use both optional arguments for \includegraphics. A single optional parameter is interpreted as the newer graphicx syntax. Note that viewports are not supported by lwarp—the entire image will be shown.

viewport viewport units

For \includegraphics, avoid px and % units for width and height, or enclose them inside warpHTML environments. For font-proportional image sizes, use ex or em. For

fixed-sized images, use cm, mm, in, pt, or pc. Use the keys width=.5\linewidth, or similar for \textwidth or \textheight to give fixed-sized images proportional to a 6 by 9 inch text area. Do not use the scale option, since it is not well supported by HTML browsers.

options \includegraphics accepts width and height, origin, rotate and scale, plus new class and alt keys.

html class With HTML output, \includegraphics accepts an optional class=xyz keyval combination, and if this is given then the HTML output will include that class for the image. The class is ignored for print output.

html alt tags Likewise, the \includegraphics alt key adds an HTML alt tag to an image, and is ignored for print output. If not assigned, each image is given an alt tag of "(image)".

\rotatebox \rotatebox accepts the optional origin key.

browser support \rotatebox, \scalebox, and \reflectbox depend on modern browser support. The css3 standard declares that when an object is transformed the whitespace which they occupied is preserved, unlike LATEX, so expect some ugly results for scaling and rotating.

8.8.1 tikz package

Pkg tikz If using display math with tikzpicture or \tikz, along with matrices with the & character, the document must be modified as follows:

| Matrices | Matrices

\usepackage{tikz}
\tikzset{every picture/.style={ampersand replacement=\&}}

and each instance of & in the tikz expression must be replaced with \&.

8.8.2 grffile package

Pkg grffile

matching pdf and svg

grffile is supported as-is. File types known to the browser are displayed, and unknown file types are given a link. Each PDF image for print mode should be accompanied by an SVG, PNG, or JPG version for HTML.

8.8.3 color package

color is superceded by xcolor, and lwarp requires several of the features of xcolor. When color is requested, xcolor is loaded as well.

8.8.4 xcolor package

Pkg xcolor \colorboxBlock and \fcolorboxBlock are provided for increased HTML compatibil\colorboxBlock and ity, and they are identical to \colorbox and \fcolorbox in print mode. In HTML \fcolorboxBlock

mode they place their contents into a <div> instead of a . These <div>s are set to display: inline-block so adjacent \colorboxBlocks appear side-by-side in HTML, although text is placed before or after each.

Print-mode definitions for \colorboxBlock and \fcolorboxBlock are created by lwarp's core if xcolor is loaded.

background: none

\fcolorbox and \fcolorboxBlock allow a background color of none, in which case only the frame is drawn, which can be useful for HTML.

color support

Color definitions, models, and mixing are fully supported without any changes required.

colored tables

\rowcolors is supported, except that the optional argument is ignored so far.

colored text and boxes

\textcolor, \colorbox, and \fcolorbox are supported.

\color and \pagecolor \color and \pagecolor are ignored. Use css or \textcolor where possible.

epstopdf package 8.8.5

Pkg epstopdf convert to .svg Images with an .eps extension will be converted to .pdf. The HTML output uses the . svg version, so use

lwarpmk pdftosvg <listofPDFfiles>

to generate .svg versions.

8.8.6 pstricks package

Pkg pstricks

All pstricks content should be contained inside a pspicture environment.

Æ use pspicture

8.8.7 pdftricks package

Pkg pdftricks \triangle convert image files The pdftricks image files <jobname>-fig*.pdf must be converted to .svg, or else a missing file error will occur. The image files must also be converted again whenever they change. To convert the images:

lwarpmk pdftosvg <jobname>-fig*.pdf

8.8.8 psfrag package

Pkg psfrag use psfrags The psfrags environment is modified to use lateximage to encapsulate the image. Always use a psfrags environment to contain any local \psfrag macros and the associated \includegraphics or \epsfig calls. Outside of a psfrags environment, psfrags adjustments will not be seen by lwarp.

 \triangle Tip: Use a mono-spaced font for the tags in the EPS file.

8.8.9 pstool package

Pkg pstool \graphicspath is ignored, and the file directory must be stated.

The filename must not have a file extension.

Use

Enter ⇒ lwarpmk html

followed by

Enter ⇒ lwarpmk limages

•

8.8.10 asymptote package

Pkg asymptote To compile:

pdflatex project.tex
asy project-*.asy
pdflatex project.tex

lwarpmk print
asy project-*.asy
lwarpmk print1
lwarpmk print1

lwarpmk html
asy project_html-*.asy
lwarpmk html1
lwarpmk html1
lwarpmk limages

8.8.11 overpic package

Pkg overpic scaling The macros \overpicfontsize and \overpicfontskip are used during HTML generation. These are sent to \fontsize to adjust the font size for scaling differences between the print and HTML versions of the document. Renew these macros before using the overpic and Overpic environments.

8.8.12 Multimedia packages

Pkg multimedia Th

The packages multimedia, movie15, and media9 are supported.

Pkg movie15

Pkg media9

HTML5 <audio> and <video> objects are created for .mp3 and .mp4 files.

HTML5 <embed> objects are created for http and ftp links.

\href links are created for other media types. (Unfortunately, there is not much overlap between the file types supported for print output and the file types supported by HTML5.)

For media9, a multimedia object is inserted for each addresource=, as well as each flashvars source= and src=. This may result in duplicate objects.

Undesired objects may be nullified by placing them inside \warpprintonly or the warpprint environment.

Each HTML multimedia object includes the poster text, except for <embed> objects. For movie15, the text option is supported to specify the poster text.

The width, height, and totalheight options are supported. The HTML object is scaled according to the display width, correctly compensating for either tall or wide viewports.

Other options are ignored.

media9 \addmediapath is supported. It is assumed that the same path structure will exist for the HTML document.

HTML5 media controls are always specified for each <audio> and <video> object.

media9 slideshows are not supported.

\hyperlinkmovie, \movieref, and \mediabutton are not supported.

3D objects are not supported.

If using a YouTubeTM video, use an "embedded" url with .../embed/... instead of .../v/...

8.9 Tabbing

The tabbing environment works, except that svG math and lateximages do not yet work inside the environment.

If math is used inside tabbing, place tabbing inside a lateximage environment, which will render the entire environment as a single svg image.

8.10 Tabular

8.10.1 tabular environment

Tabular mostly works as expected, but pay special attention to the following, especially if working with environments, macros inside tabulars, multirows, siunitx S columns, or the packages multirow, longtable, supertabular, or xtab.

Defining macros and environments:

Misplaced alignment tab character &

tabular inside another

floatrow

environment

 When defining environments or macros which include tabular and instances of the & character, it may be necessary to make & active before the environment or macro is defined, then restore & to its default catcode after, using the following commands. These are are ignored in print mode.

\StartDefiningTabulars

<define macros or environments using tabular and & here>
\StopDefiningTabulars

This includes before and after defining any macro which used \ttabbox from floatrow.

• When creating a new environment which contains a tabular environment, lwarp's emulation of the tabular does not automatically resume when the containing environment ends, resulting in corrupted HTML rows. To fix this, use \ResumeTabular as follows. This is ignored in print mode.

```
\StartDefiningTabulars % because & is used in a
definition
\newenvironment{outerenvironment}
{
\tabular{cc}
left & right \\
}
{
\TabularMacro\ResumeTabular
left & right \\
\endtabular
}
\StopDefiningTabulars
```

Cell contents:

• Using a custom macro inside a tabular data cell may result in an extra HTML data cell tag, corrupting the HTML table. To avoid this, use \TabularMacro just before the macro. This is ignored in print mode.

\TabularMacro\somemacro & more row contents \\

Column specifiers:

@ and!

• Only one each of @ and ! is used at each column, and they are used in that order.

\multirow

• In \multirow cells, the print version may have extra instances of <, >, @, and ! cells on the second and later rows in the \multirow which do not appear in the HTML version.

• \newcolumntype is ignored; unknown column types are set to l.

Rules:

- Doubled \hlines, \midrules, and vertical rules are supported.
- Vertical rules next to either side of an @ or ! column are displayed on both sides of the column.

 Λ

(newco camine) pe

vertical rules

width and trim

• Width options are honored. Trim options are converted to rounded top corners. Trim corners are not rounded with @ or ! columns, and full-width rules ignore trim.

full-width rules

• \toprule, \midrule, \bottomrule, and \hline ignore trim. When given an optional width, each cell is styled to create the custom border. Without an optional width, the entire row is given a class to assign the standard border.

combined rules

• If you wish to use \cmidrule followed by \bottomrule, it may be necessary to use:

```
\cmidrule{2-3} \\[-2ex]
\bottomrule
```

The optional -2ex is ignored in HTML, but improves the visual formatting in the print output.

• For \toprule and \bottomrule, when combined with a warpprint or warpHTML environment, if a "Misplaced \noalign" error occurs, change

```
This & That \endhead
```

to

\warpprintonly{This & That \endhead}

and likewise with the other \end headings. Keep the \endfirsthead row unchanged, as it is still relevent to HTML output.

Other:

- tabularx ignores the width, but X columns do produce paragraph columns or multicolumns.
- For longtable, place headings and footings which do not apply to HTML inside \warpprintonly{}.
- For S columns (from the siunitx package), while producing print output, anything non-numeric must be placed inside {} braces, including commands such as \multirow. While producing HTML output, though, anything placed inside braces is not seen by lwarp's tabular handling algorithm. To resolve this problem, make a copy of the row, with one version for print output, containing the extra braces, and another version for HTML output, without the extra braces, such as:

8.10.2 multirow package

vposn

Note that recent versions of multirow include a new optional vposn argument.

multirow cells

• For multirow, insert \mrowcell into any empty multi-row cells. This will be a null function for the print output, and is a placeholder for parsing the table for HTML output. An error is generated if this is missed.

```
... & \multirow{2}{.5in}{text} & ...
... & \mrowcell & ...
```

longtable headings

S columns

colored cells

\multirow

skipped cells

empty cells

 \triangle

• The multirow documentation regarding colored cells recommends using a negative number of rows. This will not work with lwarp, so \warpprintonly and \warpHTMLonly must be used to make versions for print and HTML.

with \multicolumn ♠ \multicolumn &

• See section 334.2 for \multicolumrow.

lwarp does not support directly combining \multicolumn and \multirow. Use \multicolumnrow instead. To create a 2 column, 3 row cell:

```
\label{lem:likelihood} $$\operatorname{lo}_{1in}[0pt]{Text}$
```

The two arguments for \multicolumn come first, followed by the five arguments for \multirow, many of which are optional, followed by the contents.

As per \multirow, skipped cells to the right of the \multicolumnrow statement are not included in the source code on the same line. On the following lines, \mcolrowcell must be used for each cell of each column and each row to be skipped. An error is generated if this is missed.

```
... & \multicolumnrow{2}{c}[c]{3}[0]{1in}[0pt]{Text} & ...

... & \mcolrowcell & \mcolrowcell & ...
```

8.10.3 longtable package

Pkg longtable Use one of either \endhead or \endfirsthead for both print and HTML, and use a \warpprintonly macro to disable the other head phrase, and also the \endfoot and \endfirstfoot phrases. (See section 8.10.4 if using threeparttablex.)

Misplaced \noalign

Use the \warpprintonly macro instead of the warpprint environment. Doing so helps avoid "Misplaced \noalign." when using \begin{warpprint}.

```
\begin{warpprint} . . . \end{warpprint}
```

or place it inside \warpprintonly.

<u>lateximage</u> longtable is not supported inside a lateximage.

8.10.4 threeparttablex package

threeparttablex is used with longtable and booktabs as follows: threeparttablex

```
\begin{longtable}{ [column specifiers] }
[ . . . ] \endfirsthead
                         % or \endhead, for print and HTML
\warpprintonly{
                        % not used in HTML
  [ . . . ] \endhead
                        % or \endfirsthead
  [ . . . ] \endfoot
  \bottomrule \insertTableNotes \endlastfoot
}
... table contents ...
                 % HTML last footer
\warpHTMLonly{
  \bottomrule
  \UseMinipageWidths
                         % optional
  \insertTableNotes
  \endlastfoot
\end{longtable}
```

table width The table notes are created using a \multicolumn. By default the width is not specified to the browser, so long table notes can cause the table to be spread out horizontally. For HTML output, lwarp guesses the width of the table depending on the number of columns, then restricts its guess to a min/max range. To use this guess for the width of the table notes, use \UseMinipageWidths before \insertTableNotes. The width is then specified, and in many cases the result is an improvement in overall table layout.

8.10.5 supertabular and xtab packages

```
supertabular
                     For \tablefirsthead, etc., enclose them as follows:
           Pkg xtab
                          \StartDefiningTabulars
Misplaced alignment
                          \tablefirsthead
     tab character &
                          \StopDefiningTabulars
                      See section 8.10.1.
```

 Λ lateximage supertabular and xtab are not supported inside a lateximage.

8.10.6 colortbl package

```
Pkg colortbl
               Only use \rowcolor and \cellcolor at the start of a row, in that order.
row/cell color
                colortbl ignores the overhang arguments.
```

8.10.7 ctable package

tab character &

Misplaced alignment Use \StartDefiningTabulars before one or more \ctables, and \StopDefiningTabulars after. These change the meaning of the ampersand & character.

8.10.8 bigdelim package

use \mrowcell

\ldelim and \rdelim use \multirow, so \mrowcell must be used in the proper number of empty cells in the same column below \ldelim or \rdelim, but not in cells which are above or below the delimiter:

```
\begin{tabular}{lll}
<empty> & a & b \\
\mrowcell & e & f \\
\mrowcell & g & h \\
<empty> & i & j \\
\end{tabular}
 <->
     С
 left
        j
```

8.11 Floats

8.11.1 Float contents alignment

figure & table \centering, etc. are honored in a figure or table if they are the first command alignment inside the float:

```
\begin{table*}
\centering
\caption{A Table}
. . .
```

8.11.2 float, trivfloat, and/or algorithmicx together

Pkg float Pkg trivfloat Pkg algorithmicx If using \newfloat, trivfloat, and/or algorithmicx together, see section 477.1.

8.11.3 caption and subcaption packages

package conflicts Pkg caption

To pass options to caption, select the options before loading lwarp:

subcaption

options

```
\documentclass{article}
\PassOptionsToPackage{options_list}{caption}
\usepackage{lwarp}
\usepackage{caption}
```

Λ

numbering To ensure proper float numbering, set caption positions such as:

```
\captionsetup[figure]{position=bottom}
\captionsetup[subfigure]{position=bottom}
\captionsetup[table]{position=top}
\captionsetup[subtable]{position=top}
```

Similarly for longtable. These positions depend on where the user places the \caption command inside each float.

8.11.4 subfig package

Pkg subfig

lof/lotdepth

At present, the package options for lofdepth and lotdepth are not working. These counters must be set separately after the package has been loaded.

In the document source, use \hfill and \hspace* subfig>inline between subfigures to spread them apart horizontally. The use of other forms of whitespace may cause paragraph tags to be generated, resulting in subfigures appearing on the following lines instead of all on a single line.

8.11.5 floatrow package

Pkg floatrow

Misplaced alignment tab character & subfig package Use \StartDefiningTabulars and \StopDefiningTabulars before and after defining macros using \ttabbox with a tabular inside. See section 8.10.1.

When combined with the subfig package, while inside a subfloatrow \ffigbox and \ttabbox must have the caption in the first of the two of the mandatory arguments.

\FBwidth, \FBheight

The emulation of floatrow does not support \FBwidth or \FBheight. These values are pre-set to .3\linewidth and 2in. Possible solutions include:

- Use fixed lengths. lwarp will scale the HTML lengths appropriately.
- Use warpprint and warpHTML environments to select appropriate values for each case.
- Inside a warpHTML environment, manually change \FBwidth or \FBheight before the \ffigbox or \ttabbox. Use \FBwidth or \FBheight normally afterwards; it will be used as expected in print output, and will use your customselected value in HTML output. This custom value will be used repeatedly, until it is manually changed to a new value.

8.11.6 keyfloat package

Pkg keyfloat

⚠ keywrap

If placing a \keyfig[H] inside a keywrap, use an absolute width for \keyfig, instead of lw-proportional widths. (The [H] option forces the use of a minipage, which internally adjusts for a virtual 6-inch wide minipage, which then corrupts the lw option.)

8.12 Koma-Script classes

Cls komascript

Many features are ignored during the HTML conversion. The goal is source-level compatibility.

\titlehead, \subject, \captionformat, \figureformat, and \tableformat are not yet emulated.

Please send bug reports!

Some features have not yet been tested. Please contact the author with any bug reports.

8.13 Memoir class

Cls memoir

options clash

While emulating memoir, lwarp pre-loads a number of packages (section 521.1). This can cause an options clash when the user's document later loads the same packages with options. To fix this problem, specify the options before loading lwarp:

```
\documentclass{memoir}
...
\PassOptionsToPackage{options_list}{package_name}
...
\usepackage{lwarp}
...
\usepackage{package_name}
```

version numbers

memoir emulates a number of packages, and declares a version date for each which often does not match the date of the corresponding freestanding package. This can cause warnings about incorrect version numbers. Since lwarp is intended to support the freestanding packages, which are often newer than the date declared by memoir, it is hoped that memoir will update and change its emulated version numbers to match.

\verbfootnote is not supported.

\newfootnoteseries, etc. are not supported.

lwarp loads pagenote to perform memoir's pagenote functions, but there are minor differences in \pagenotesubhead and related macros.

Poem numbering is not supported.

The verbatim environment does not yet support the memoir enhancements. It is currently recommended to load and use fancyvrb instead.

The memoir glossary system is not yet supported by *lwarpmk*. The glossaries package may be used instead, but does require the glossary entries be changed from the memoir syntax to the glossaries syntax.

8.14 International languages

section and file names

If using pdflatex with the setting \booltrue{FileSectionNames}, non-ascII text in section names can result in corrupted HTML file names. pdflatex may be used if setting \boolfalse{FileSectionNames}, in which case HTML file numbers will be generated.

For correct HTML file names, use *xelatex*, *lualatex*, or dedicated document classes / engines.

(As of this writing, this warning is only relevent to the kotex package.)

8.15 Miscellaneous packages

8.15.1 verse and memoir

Pkg verse
Cls memoir
\attrib

When using verse or memoir, always place a \\ after each line.

The documentation for the verse and memoir packages suggest defining an \attrib command, which may already exist in current documents, but it will only work for print output. Iwarp provides \attribution, which works for both print and HTML output. To combine the two so that \attrib is used for print and \attribution is used for HTML:

\begin{warpHTML}
\let\attrib\attribution
\end{warpHTML}

Len \vleftskip
Len \vleftmargini
Len \HTMLvleftskip
Len \HTMLleftmargini

These lengths are used by verse and memoir to control the left margin, and they may already be set by the user for print output. New lengths \HTMLvleftskip and \HTMLleftmargini are provided to control the margins in HTML output. These new lengths may be set by the user before any verse environment, and persist until they are manually changed again. One reason to change \HTMLleftmargini is if there is a wide \flagverse in use, such as the word "Chorus", in which case the value of \HTMLleftmargini should be set to a wide enough length to contain "Chorus". The default is wide enough for a stanza number.

 \triangle spacing

Horizontal spacing relies on *pdftotext*'s ability to discern the layout (-layout option) of the text in the HTML-tagged PDF output. For some settings of \HTMLleftmargini or \HTMLleftskip the horizontal alignment may not work out exactly, in which case a label may be shifted by one space.

8.15.2 newclude package

Pkg newclude

loading

newclude modifies \label in a non-adaptive way, so newclude must be loaded before lwarp is loaded:

```
\documentclass{article}
...<font setup>
\usepackage{newclude}
\usepackage[warpHTML]{lwarp}
```

8.15.3 babel package

Pkg babel

When French is used, the caption separator is changed to a dash. The following may be used to restore it to a colon:

\renewcommand*{\CaptionSeparator}{:~}

punctuation spaces

\CaptionSeparator

Also when French is used, lwarp creates fixed-width space around punctuation by patching \FBcolonspace, \FBthinspace, \FBguillspace, \FBmedkern, \FBtextellipsis, and the tilde. If the user's document also changes these parameters, the user's changes should be placed inside a warpprint environment so that the user's changes do not affect the HTML output.

customized spacing

8.15.4 polyglossia package

Pkg polyglossia

lwarp uses cleveref, which has some limitations when using polyglossia, possibly resulting in the error

```
! Undefined control sequence. . . . \@begindocumenthook
```

To test compatibility, add

```
\usepackage{cleveref}
```

near the end of the preamble (as the last package to be loaded), and try to compile the print version. It may be necessary to set

```
\setdefaultlanguage{english}
```

or some other language supported by cleveref, then select other languages using \setotherlanguages.

Once the print version works with cleveref and polyglossia, the HTML version should work as well using lwarp.

8.15.5 todonotes and luatodonotes packages

Pkg todonotes
Pkg luatodonotes

The documentation for todonotes and luatodonotes have an example with a todo

inside a caption. If this example does not work it will be necessary to move the todo outside of the caption.

8.15.6 fixme

Pkg fixme External layouts (\fxloadlayouts) are not supported.

external layouts

User control is provided for setting the HTML styling of the "faces". The defaults are as follows, and may be changed in the preamble after fixme is loaded:

```
\def\FXFaceInlineHTMLStyle{font-weight:bold}
\def\FXFaceEnvHTMLStyle{font-weight:bold}
\def\FXFaceSignatureHTMLStyle{font-style:italic}
\def\FXFaceTargetHTMLStyle{font-style:italic}
```

8.15.7 chemfig package

If using \polymerdelim to add delimiters to a \chemfig, wrap both inside a single lateximage:

```
\begin{lateximage}[(-chemfig-~\packagediagramname)]
\chemfig{...}
\polymerdelim[...]{...}
\end{lateximage}
```

8.15.8 chemformula package

chemformula with chemformula works best without MATHJAX. If MATHJAX is used, \displaymathother must be used before array, and then \displaymathnormal may be used after. (The chemformula package adapts to array, but does not know about MATHJAX, and MathJax does not know about chemformula.)

> While using Mathjax, \displaymathother may also be used for other forms of display and inline math which contain chemformula expressions.

8.15.9 mhchem package

See section 321.

8.15.10 xparse package

xparse

To remove from the log any warnings about redeclaring objects, place the following before lwarp is loaded:

```
\usepackage[log-declarations=false]{xparse}
```

8.15.11 kotex package

Pkg kotex See section 8.14 regarding *pdflatex* and Korean section names.

9 Compiling using custom shell commands

lwarp and lwarpmk try to make it easy to process print and HTML compilation tasks in most situations. Depending on the operating system, command-line options, TEX engine, and Iwarp options, the commands Iwarpmk print and Iwarpmk html are automatically set up to correctly recompile the project. These actions may be overridden using lwarp options, thus allowing the use of packages such as perltex and pythontex.

9.1 **Command options**

PrintLatexCmd HTMLLatexCmd

The lwarp options PrintLatexCmd and HTMLLatexCmd are used to set customized commands to be executed by lwarpmk print and lwarpmk html.

PrintLatexCmd should be set to shell commands which take project.tex and generate project.pdf.

HTMLLatexCmd should be set to take project_html.tex and generate project_html.pdf. lwarpmk will then take project_html.pdf and automatically convert it and generate project.html.

9.2 Literal character macros

The lwarp package options are parsed by TEX, and so some characters require the use of a special macro to represent them. See table 7. \LWRopquote and \LWRopseq may be used to increase operating-system portability. \jobname must have _html appended for processing HTML. \space may be necessary between other macros.

macro not found To use these macros, either kvoptions-patch must be loaded before lwarp:

```
\usepackage{kvoptions-patch}
\usepackage[
    PrintLatexCmd={ ... } ,
    HTMLLatexCmd={ ... }
]{lwarp}
```

Table 7: Literal character macros

Character	Macro	Comment
%	\LWRpercent	
\$	\LWRdollar	
&	\LWRamp	
%	\LWRhash	
\	\LWRbackslash	
' or "	\LWRopquote	Depends on the operating system.
& or &&	\LWRopseq	Depends on the operating system.
(space)	\space	Forces an extra space.
(jobname)	\jobname	Without file extension.

or \lwarpsetup must be used to set PrintLatexCmd and HTMLLatexCmd:

```
\usepackage[...]{lwarp}
\lwarpsetup{
  PrintLatexCmd=
      {
          latex tm \LWRopseq
          dvips -o tm-pics.ps tm.dvi \LWRopseq
          ps2pdf tm-pics.ps \LWRopseq
          pdflatex tm.tex
      } ,
  HTMLLatexCmd=
      {
          latex tm_html \LWRopseq
          dvips -o tm_html-pics.ps tm_html.dvi \LWRopseq
          ps2pdf tm_html-pics.ps \LWRopseq
          pdflatex tm_html.tex
      }
}
```

9.3 latexmk

Prog latexmk If *latexmk* is used for a project, it may be easiest to continue using it.

latexmk project.tex would create project.pdf as normal.

latexmk project_html.tex would create project_html.pdf, then

lwarpmk pdftohtml project_html.pdf would take project_html.pdf and convert
 it to project.html.

Pkg sagetex latexmk may simplify the use of packages such as sagetex.

9.4 peritex package

Pkg perltex The lwarp package option settings to use perltex would be similar to:

```
\usepackage[
...
PrintLatexCmd={perltex -latex=pdflatex project.tex} ,
HTMLLatexCmd={perltex -latex=pdflatex project_html.tex} ,
...
]{lwarp}
```

Place perItex math expressions between \displaymathother and \displaymathnormal, or \inlinemathother and \inlinemathnormal. See section 8.7.9.

9.5 pythontex package

Pkg pythontex An example using pythontex:

```
\usepackage[
...
PrintLatexCmd={
    pdflatex project.tex \LWRopseq
    pythontex project \LWRopseq
    pdflatex project.tex
},
HTMLLatexCmd={
    pdflatex project_html.tex \LWRopseq
    pythontex project_html \LWRopseq
    pdflatex project_html.tex
},
...
]{\text{lwarp}}
```

Another possibility is to use <code>latexmk</code>, placing the <code>latexmk</code>... commands in the <code>PrintLatexCmd</code> and <code>HTMLLatexCmd</code> options. While using these options, the <code>lwarp</code> option <code>latexmk</code> would not be used.

No attempt has yet been made to make pythontex robust with HTML output. Some math objects must be surrounded by \displaymathother ...\displaymathnormal, or \inlinemathother ...\inlinemathnormal. Displays of code may have to be enclosed inside a lateximage environment to prevent <, > and similar from being interpreted by the browser as HTML entities.

9.6 Other packages

Pkg sympytex Other packages such as sympytex and rterface would be set up similar to pythontex,
Pkg rterface

and the same warnings would apply.

make program 9.7

To use lwarp with the make program, have the makefile take project.tex and Proa generate the print version project.pdf, as normal. \usepackage{\lwarp} must be used, and it generates lwarpmk.conf when the print version is created.

> To generate HTML, first have project_html.tex be compiled to generate project_html.pdf. This must be in PDF format. Finally, have project_html.pdf be converted to HTML using lwarpmk pdftohtml project_html.pdf, and convert svg math with lwarpmk limages.

UTF-8 locale 9.8

UTF-8 locale lwarpmk uses the texlua program, which sets the "locale" to "C", including for external operating-system calls such as when executing lwarpmk html. In some cases, an external program called from the user's document may require the use of a UTF-8 "locale". For Unix-related operating systems, it may be required to use lwarp's custom compilation options to add a locale change:

```
\usepackage{lwarp}[
  PrintLatexCmd={
    env LC_CTYPE=en_US.UTF-8
      xelatex --shell-escape project.tex
  }
  HTMLLatexCmd={
    env LC_CTYPE=en_US.UTF-8
      xelatex --shell-escape project_html.tex
  }
]
```

The only example seen so far where this is required is the ditaa package, where the locale change allows the use of UTF-8 with XeLATEX and ditaa. To use LuaLATEX instead, the locale change would have to be made inside the ditaa package where its calls the ditaa program.

10 EPUB conversion

lwarp does not produce EPUB documents, but it may be told to modify its HTML output to greatly assist in the conversion. An external program may then be used to finish the conversion to EPUB.

<meta> author

To assign the author's name for regular lwarp HTML files, and also for the EPUB, use \HTMLAuthor $\{\langle name \rangle\}$. This assigns the name to the <meta> author element. It may be set empty, and it defaults to \theauthor.

A special boolean is provided to simplify the process of converting lwarp html output to epub:

FormatEPUB

Bool FormatEPUB
Default: false

FormatEPUB changes HTML output for easy EPUB conversion via an external program. Removes per-file headers, footers, and nav. Adds footnotes per chapter/section.

To help convert lwarp HTML output to EPUB, add

\booltrue{FormatEPUB}

to the project's source preamble after \usepackage{\lwarp}. The epub version of the document cannot co-exist with the regular HTML version, so

Enter ⇒ lwarpmk cleanall

Enter ⇒ lwarpmk html

Enter ⇒ lwarpmk limages

to recompile with the FormatePUB boolean turned on. Several changes are then made to the HTML output:

- Headers, footers, and navigation are removed at file splits.
- Any accumulated footnotes are printed at the bottom of each section.

Calibre

The resulting files will be ready to be loaded into an EPUB conversion program, such as the open-source program *Calibre* (https://calibre-ebook.com/).

The EPUB conversion program must know what order the files are included. For lwarp projects, set the EPUB conversion software to do a breadth-first search of the files. For *Calibre*, this option is found in

 $\textbf{Preferences} \rightarrow \textbf{Plugins} \rightarrow \textbf{File type plugins} \rightarrow \textbf{HTML to Zip}$

♠ encoding

Check the box Add linked files in breadth first order. Set the document encoding as utf-8, which is what lwarp generates for HTML, even if the original printed document uses some other encoding.

The EPUB-conversion program must also know where the section breaks are located. For a list of lwarp's section headings, see table 9. For example, an article class document would break at \section, which is mapped to HTML heading level <h4>, whereas a book class document would break at \chapter, which is HTML heading level <h3>. For *Calibre*, this option is found in

Preferences \rightarrow Conversion (Common Options) \rightarrow Structure Detection \rightarrow Detect chapters at (XPath expression)

Select the "magic wand" to the right of this entry box, and set the first entry

Match HTML tags with tag name:

to "h4". (Or "h3" for document classes with \chapters.) The Detect chapters at field should then show

$$//h:h4$$
 — or — $//h:h3$

This option is also available on the main tool bar at the Convert books button.

Once these settings have been made, the lwarp-generated HTML files may be loaded by *Calibre*, and then converted to an EPUB.

MATHJAX support

MATHJAX may be used in EPUB documents. Some e-readers include MATH-JAX, but any given reader may or may not have a recent version, and may or may not include extensions such as support for siunitx.

lwarp adds some modifications to MathmL to support equations numbered by chapter. These modifications may not be compatible with the e-reader's version of MathJax, so lwarp requests that a known version be loaded instead. In some cases chapter numbering of equations still doesn't work.

Until math support in EPUB documents is improved, it is recommended to use svg images instead of MathJax, especially for equations numbered by chapter, or where siunitx support is important.

11 Word-processor conversion

lwarp may be told to modify its HTML output to make it easier to import the HTML document into a word processor. At the time of this writing, it seems that LIBREOFFICE works best at preserving table layout, but it still has some limitations, such as an inability to automatically assign figure and table frames and captions according to user-selected HTML classes. lwarp provides some assistance in locating these frame boundaries, as shown below.

11.1 Activating word-processor conversion

A special boolean is provided to simplify the process of converting lwarp html output to epub:

FormatWP

Bool FormatWP

Default: false

Changes HTML output for easier conversion by a word processor. Removes headers and nav, prints footnotes per section, and also forces single-file output and turns off HTML debug comments. Additionally, honors the booleans WPMarkFloats, WPMarkMinipages, WPMarkTOC, and WPMarkLOFT.

To help modify lwarp HTML output for easier import to a word processor, add

\booltrue{FormatWP}

formatting adjustments

to the project's source preamble after lwarp is loaded. The following changes are then made to the HTML output:

- If using a class without chapters, \section and lower are shifted up in level for the HTML heading tags. The css has not been changed, so the section heading formats will not match the normal HTML output, but when imported to LibreOffice Writer the higher section headings will import as **Heading 1** for the title, **Heading 2** for \section, etc.
- Headers, footers, and navigation are removed at file splits.
- Any accumulated footnotes are printed at the bottom of each section.
- Forces single-file output.
- Turns off HTML debugging comments. These are comments appearing inside
 the HTML code, marking the opening/closing of sections and <div>s, but they
 are no longer useful when the document has been imported into a word processor.
- An additional <div> with an id encapsulates each float and minipage, which on import into *LibreOffice Writer* causes a thin frame to appear around the text block for each.

- Float captions are given an explicit italic formatting.
- Tabular rule borders are made explicit for *LibreOffice Writer*. LIBREOFFICE displays a light border around each cell while editing, even those which have no border when printed, and lwarp also uses a light border for thin rules, so it will be best to judge the results using the print preview instead of while editing in LIBREOFFICE.
- \includegraphics and svg math width and height are made explicit for Libre-Office.
- \hspace is approximated by a number of \quads, and rules are approximated by a number of underscores.
- Explicit HTML styles are given to:
 - \textsc, etc.
 - \underline, soul and ulem markup.
 - center, flushleft, flushright.
 - \marginpar, keyfloat, sidenotes, floatflt, and wrapfig.
 - fancybox \shadowbox, etc.
 - The LATEX and TEX logos.
- · Honors several booleans:

WPMarkFloats: Marks the begin and end of floats.

WPMarkMinipages: Marks the begin and end of minipages.

WPMarkTOC: Marks the location of the Table of Contents.

WPMarkLOFT: Marks the locations of the List of Figures/Tables.

WPMarkMath: Prints LATEX math instead of using images.

WPTitleHeading: Adjusts title and section headings.

Several of these may be used to add markers to the HTML text which help determine where to adjust the word processor document after import.

11.2 Additional modifications

WPMarkFloats

Bool WPMarkFloats
Default: false

around floats while formatting for word processors. This helps identify boundaries of floats to be manually converted to word-processor frames and captions.

WPMarkMinipages

Bool WPMarkMinipages

Default: false

```
Adds
```

```
=== begin minipage ===
...
=== end minipage ===
```

around minipages while formatting for word processors. This helps identify boundaries of minipages to be manually converted to word-processor frames.

WPMarkT0C

Bool WPMarkTOC Default: true

While formatting for word processors, adds

```
=== table of contents ===
```

where the Table of Contents would have been. This helps identify where to insert the actual Toc.

If set false, the actual TOC is printed instead.

WPMarkLOFT

Bool WPMarkLOFT Default: false

While formatting for word processors, adds

```
=== list of figures === and/or
=== list of tables ===
```

where each of these lists would have been. This helps identify where to insert the actual lists.

If set false, the actual lists are printed instead.

WPMarkMath

siunitx

Bool WPMarkMath

Default: false

Prog TeXMaths

While formatting for word processors, prints math as LATEX code instead of creating svg images or MathJax. This is useful for cut/paste into the LibreOffice Writer TeXMaths extension.

When using the siunitx package, enter

Table 8: Section html headings for word-processor conversion

	html headings*			
	With \chapter		Without \chapter	
	WPTitleHeading		WPTitleHeading	
Section	true	false	true	false
Title	<h1></h1>	plain	<h1></h1>	plain
\part	<h2></h2>	<h1></h1>	<h2></h2>	<h1></h1>
\chapter	<h3></h3>	<h2></h2>	_	_
\section	<h4></h4>	<h3></h3>	<h3></h3>	<h2></h2>
\subsection	<h5></h5>	<h4></h4>	<h4></h4>	<h3></h3>
\paragraph	<h6></h6>	<h5></h5>	<h5></h5>	<h4></h4>
\subparagraph	span	<h6></h6>	<h6></h6>	<h5></h5>

^{*} For default depths when not FormatWP, see table 9 on page 182.

\usepackage{siunitx}

in the *TeXMaths* preamble. Equation numbering is problematic for \mathcal{A}_{MS} math environments.

WPTitleHeading

Bool WPTitleHeading

Default: false
section headings

While formatting for word processors, true sets the document title to <h1>, which is expected for HTML documents, but also causes the lower-level section headings to start at **Heading 2** when imported into LibreOffice. Set to false to cause the title to be plain text, and the section headings to begin at **Heading 1**.

See table 8 on page 165.

11.3 Recommendations

TOC, LOF, LOT For use with LibreOffice Writer, it is recommended to:

- 1. Set \booltrue{FormatWP}
- 2. Set \booltrue{WPMarkTOC} and \boolfalse{WPMarkLOFT}
- 3. Use lwarp to generate the HTML document.

Copy/paste from the HTML document into an empty LibreOffice Writer document.

- 5. Manually insert a LibreOffice toc in the LibreOffice document.
- 6. Manually add frames around each float, adding a caption which is cut/pasted from each float's simulated caption.
- 7. Manually create cross references.

This process yields a document with an actual LibreOffice Table of Contents, but a simulated List of Figures and List of Tables.

siunitx For siunitx, remember to adjust the preamble as mentioned above.

LO view border options

LibreOffice has options in the **View** menu to turn on/off the display of thin borders around table cells and text objects.

11.4 Limitations

Floats and captions are not explicitly converted to LibreOffice floats with their own captions. Floats are surrounded by a thin frame in the LibreOffice editor, and may be marked with WPMarkFloats, but are not given a proper LibreOffice object frame. Captions are given an explicit italic formatting, but not a proper LibreOffice paragraph style.

Cross references are not actual LibreOffice linked cross references.

The List of Figures and List of Tables are not linked. The pasted pseudo lof and lot match the numbering of the LATEX and HTML versions.

Equation numbering is not automatic, but the equation numbers in svg math will match the Latex and HTML output. SVG math is recommended when using the \mathcal{FMS} environments, which may have multiple numbered equations per object.

As of when last checked, LIBREOFFICE ignores the following:

- Minipage alignment.
- Tabular cell vertical alignment.
- · Image rotation and scaling.
- Rounded border corners, which are also used by:
 - \textcircled
 - booktabs trim
- \hspace and rules, also used by algorithmic.
- Coloring of text decorations, used by soul and ulem.
- Overline text decoration, used by romanbar.

LIBREOFFICE also has limitations with frames and backgrounds:

• Multiple lines in an object are framed individually instead of as a whole.

- Nested frames are not handled correctly.
- Images inside boxes are not framed correctly.
- Spans with background colors and frames are not displayed correctly.

Modifying lwarp 12

locating something

To quickly find the source for a package in lwarp.dtx, search for *packagename, such as *siunitx.

Likewise, to quickly find the source for a file in lwarp.dtx, search for *filename, such as *lwarp.css.

Purely text-based packages probably will work as-is when generating HTML.

Look to existing code for ideas on how to expand into new code.

image of TEX output

An environment may be converted to a lateximage then displayed with an image of the resulting LATFX output. See section 88 for an example of the picture environment.

To create a custom HTML block or inline css class, see section 51.9.

print/HTML macros

To create print and HTML versions of the same macro or environment, see section 36.

T_FX boxes

Any TEX boxes must be undone, as svg math or lateximages require \newpage, which will not work in a TEX box.

index recreation To recreate the index for the lwarp documentation:

```
makeindex -s gglo.ist -o lwarp.gls lwarp.glo
splitindex lwarp.idx -- -s gind.ist
```

Creating a development system

The following creates a local development system for lwarp on a TeXLive system in a UNIX-like environment. Doing so allows anything requesting lwarp to use the development version instead of whichever version is installed in TeXLive.

Create a development directory:

Place into this directory lwarp.dtx and lwarp.ins.

To create lwarp.sty, execute

```
Enter ⇒ pdflatex lwarp.ins
```

which creates lwarp.sty and several hundred additional lwarp-*.sty files for the various packages which are supported.

To create the documentation lwarp.pdf, execute

```
Enter ⇒ pdflatex lwarp.dtx
```

To make the development files visible to other projects:

Create the directory

/usr/local/texlive/texmf-local/tex/latex/local/lwarp

Inside this directory, create the file update, containing:

```
ln -s /path_to_dev_directory/lwarp*.sty .
ln -s /path_to_dev_directory/lwarp_baseline_marker.png .
ln -s /path_to_dev_directory/lwarp_baseline_marker.eps .
mktexlsr
```

Run ./update now, and whenever a new lwarp-* package is added.

To make the development version of lwarpmk visible to other projects:

```
cd /opt
ln -s /usr/local/texlive/texmf-local/bin/x86_64-linux texbin_local
cd texbin_local
ln -s ../../scripts/lwarp/lwarpmk.lua lwarpmk
cd /usr/local/texlive/texmf-local/scripts/
mkdir lwarp
cd lwarp
ln -s /path_to_dev_directory/lwarpmk.lua lwarpmk
```

Verify that the correct version is found with

```
Enter ⇒ which lwarpmk
```

To make the local versions visible to the shell:

Paths must be set by the shell startup, such as in .bashrc and .cshrc:

In .bashrc:

```
PATH=/opt/texbin_local:/opt/texbin:$PATH

In .cshrc:

setenv PATH ${HOME}/bin:/opt/texbin_local:/opt/texbin:${PATH}
```

12.2 Modifying a package for lwarp

If a class loads additional packages, it will be required to modify the class for lwarp, since lwarp must be loaded before most other packages.

To work with lwarp, a class must first set up anything which replicates the functions of the basic LATEX classes, load any required fonts, then load lwarp, then finally load and adjust any other required packages.

When creating HTML, lwarp redefines the \usepackage and \RequirePackage macros such that it first looks to see if a lwarp-<packagename>.sty version exists. If so, the lwarp version is used instead. This modular system allows users to create their own

versions of packages for lwarp to use for HTML, simply by creating a new package with a lwarp- prefix. If placed in the local directory along with the source code, it will be seen by that project alone. If placed alongside the other lwarp- packages where TEX can see it, then the user's new package will be seen by any documents using lwarp. (Remember mktexlsr or texhash.)

An lwarp-<packagename>.sty package is only used during HTML generation. Its purpose is to pretend to be the original package, while modify anything necessary to create a successful HTML conversion. For many packages it is sufficient to simply provide nullified macros, lengths, counters, etc. for anything which the original package does, while passing the raw text on to be typeset. See the pre-existing lwarp- packages for examples.

Anything the user might expect of the original package must be replaced or emulated by the new lwarp- package, including package options, user-adjustable counters, lengths, and booleans, and conditional behaviors. In many of these packages, most of the new definitions have a "local" prefix according to the package name, and @ characters inside the name, which hides these names from the user. In most cases these macros will not need to be emulated for HTML output. Only the "user-facing" macros need to be nullified or emulated.

Each lwarp-* package should first call either of:

```
\LWR@ProvidesPackageDrop
-or-
\LWR@ProvidesPackagePass
```

If "Drop"ped, the original print-version package is ignored, and only the lwarp-version is used. Use this where the original print version is useless for HTML. If "Pass"ed, the original package is loaded first, with the user-supplied options, then the lwarp- version continues loading as well. See section 352 (ntheorem) for an example of selectively disabling user options for a package. Use this when HTML output only requires some modifications of the original package. For a case where the original package is usable without changes, there is no need to create a lwarp-version.

12.2.1 Adding a package to the lwarp.dtx file

When adding a package to lwarp.dtx for permanent inclusing in lwarp, provide the lwarp-<packagename> code in lwarp.dtx, add its entry into lwarp.ins, and also remember to add

```
\LWR@loadafter{<packagename>}
```

to lwarp.dtx in section 20.1. This causes lwarp to stop with an error if packagename is loaded before lwarp. Finally, add an entry in table 2, Supported packages and features, and also the Updates section.

12.3 Modifying a class for lwarp

If a class loads additional packages, it will be required to modify the class for lwarp, since lwarp must be loaded before most other packages.

To work with lwarp, a class must first set up anything which replicates the functions of the basic LATEX classes, load any required fonts, then load lwarp, then finally load and adjust any other required packages.

12.4 Testing lwarp

When changes have been made, test the print output before testing the HTML. The print output compiles faster, and any errors in the printed version will be easier to figure out than the HTML version.

Remember that the configuration files are only rewritten when compiling the printed version of the document.

When changing the source to *lwarpmk* or a css file in lwarp.dtx:

- 1. Change the source in lwarp.dtx.
- 2. pdflatex lwarp.ins
- 3. pdflatex lwarp.dtx
- 4. If modifying *lwarpmk* the new version should now be active.
- 5. If modifying css files:
 - (a) For the document, lwarpmk print to update the css files in the project.
 - (b) Reload the HTML document to see the effect of the new css files.

Sometimes it is worth checking the project>_html.pdf file, which is the PDF containing HTML tags. Also, project>_html.html has the text conversion of these tags, before the file is split into individual HTML files.

It is also worth checking the browser's tools for verifying the correctness of HTML and css code.

12.5 Modifying lwarpmk

Prog lwarpmk
File lwarpmk.lua

In most installations, lwarpmk.lua is an executable file located somewhere the operating system knows about, and it is called by typing lwarpmk into a terminal.

A project-local copy of lwarpmk.lua may be generated, modified, and then used to compile documents:

1. Add the lwarpmk option to the lwarp package.

2. Recompile the printed version of the document. The lwarpmk option causes lwarp to create a local copy of lwarpmk.lua

- 3. The lwarpmk option may now be removed from the lwarp package.
- 4. Copy and rename lwarpmk.lua to a new file such as mymake.lua.
- 5. Modify mymake.lua as desired.
- 6. If necessary, make mymake.lua executable.
- 7. Use mymake.lua instead of lwarpmk.lua.

13 Troubleshooting

13.1 **lwarp** package error conditions and warnings

lwarp tests for a number of error conditions and prints appropriate warnings. The following is a summary of these conditions.

13.1.1 Configuration file lwarpmk.conf

File does not exist: The configuration file must exist for lwarpmk.

Incorrect Unix /Windows selection: The operating system which was detected by lwarp. So far only Unix and Windows are supported.

Incorrect delimiter characters. Older versions of *lwarpmk* used a different delimiter

Source name is set to Lwarp: Iwarp has recently been recompiled in this directory, which overwrote the project's configuration files. This also occurs if *Iwarpmk* is executed in Iwarp's source directory.

Incorrect operating system: The configuratio file was set for a different operating system, perhaps due to sharing in a collaborative project.

Outdated configuration files: lwarp has been updated since this projects was last compiled. If there appears to be a valid print command in the file, lwarpmk displays this to instruct the user how to recompile the print version, which then updates the configuration files.

The designated source file does not exist: For whatever reason...

Unknown engine: Iwarp cannot determing which engine is being used. Supported are DVI LATEX, PDF LATEX, XHLATEX, LualATEX, and uplateX.

13.1.2 Image generation with lwarpmk limages

"Wait a moment for the images to complete before reloading page.":

Images are generated by background tasks. If the document is reloaded before these tasks are complete, some images may not yet be generated. *lwarpmk* tries to wait for background tasks to complete before exiting.

HTML version does not exist: Images are extracted from the HTML version, which must be compiled before images are generated.

*-images.txt does not exist: This file tells which images to extract from the HTML file. If the file does not exist, it may be that no svG math or lateximages were used. If so, lwarpmk limages is not necessary.

Cross references are not correct: The document must have up-to-date cross references to locate the images to extract. A number of conditions may cause incorrect cross references.

"WARNING: Images will be incorrect.": An image reference was not found. Recompile.

lwarpmk epstopdf * or lwarpmk pdftosvg *: Errors if filenames are not found.

13.1.3 Default bitmapped font

lwarp requires the use of a vector font. If lwarp detects that the document uses the default Computer Modern font, and the cm-super package is not installed, it is assumed that the font is bitmapped. An error is generated, along with the recommendation to install cm-super or use Imodern.

13.1.4 Packages

- **Loaded before lwarp:** Some packages and classes must be loaded before lwarp. These include input and font encoding, morewrites and newclude, and a number of CJK-related packages and classes.
- **Loaded after lwarp:** Most packages which are modified by lwarp must be loaded after lwarp.
- **Loaded never:** Some packages do not work with lwarp. An error is generated, along with a list of alternatives to consider.
- **Specific packages:** Some packages enforce a specific load order vs. certain other packages.
- **Patching error:** Iwarp tries to patch some packages using xpatch. If the original package has been updated more recently than lwarp, a patch may not work. It may be necessary to use an older version of the package until lwarp is updated.
- **longtable:** lwarp's longtable package issues detailed error messages regarding the use of the table headers and footers.

13.1.5 Compiling

- **Duplicate filenames:** lwarp may generate file names from section names. While doing so, the filenames are simplified and special characters are removed. If this process generates a duplicate filename, and error is generated, describing the filename and which section name generated it.
- **Multirow:** When \multirow or \multicolrow are used, \mrowcell or \mcolrowcell must be placed in the appropriate cells to avoid corrupted HTML output.
- (width,height) missing a comma: \makebox and \framebox can accept a parenthesis-delimited width and height, which must be separated by a comma.
- "Load graphicx or graphics for improved SVG math baselines.": svG math baselines are improved if either of these packages are used.

"Load graphics or graphics for improved XeTeX logo.": If these packages are loaded, the XHATEX logo can use the reversed "E".

"It is recommended to use [width=xx\linewidth] instead of [scale=yy] ": Browser support of scale is not the same effect as LATEX.

13.2 Using the lwarp package

The following address problems which may occur, and possible solutions to each.

Also see:

Section 7.8: Commands to be placed into the warpprint environment Section 8: Special cases and limitations

Text is not converting correctly / corrupted HTML tags:

- Font-related UTF-8 information must be embedded in the PDF file. See section 7.2 regarding bitmapped vs. vector fonts.
- See section 8.2.1 regarding HTML entities and the characters &, <, and >.

Undefined HTML settings:

• See the warning regarding the placement of the HTML settings at section 7.4.

Tabular problems: See section 8.10.1.

Obscure error messages:

Print first: Be sure that a print version of the document compiles and that your document's LATEX code is correct, before attempting to generate an HTML version.

\end{warpHTML}, **\end{warpprint}**, **\end{warpall}**: Each of these must be without any other characters on the same line.

Options clash: If using memoir, see section 8.13.

"No room for a new \write.": Before \usepackage{lwarp}, add:

```
\usepackage{morewrites}
\morewritessetup{allocate=10}
```

"Missing \$ inserted.": If using a filename or URL in a footnote or \item, escape underscores with _.

"Label(s) may have changed. Rerun to get cross-references right.":

This warning may repeat endlessly if a math expression is used in a caption. Simple math expressions such as \$X=1\$ may be replaced with

```
\text{textit}\{X\}\,=\,1
```

"Leaders not followed by proper glue": This can be caused by a missing l@<floattype> or l@<sectiontype> definition. See lwarp's definitions for examples.

"Improper \prevdepth": lateximages and svg math require \newpage, which cannot work inside TFX boxes or \ensuremath. Anything using \newsavebox, \newbox, lrbox, \savebox, \hbox, \vbox, \usebox, \sbox, etc., must be modified to work without box commands.

If you find something using \ensuremath, have it temporarily set:

\LetLtxMacro\@ensuredmath\LWR@origensuredmath

inside a group first.

Also, custom macros which appear inside a section, figure, or table name should be made robust since they appear inside the .toc, .lof, or .lot files. Use \newrobustcmd or \robustify from etoolbox, xparse, etc.

If using BibTeX, see section 8.6.9.

"! Undefined control sequence. . . . \@begindocumenthook'': See section 8.15.4 if using polyglossia.

"\begin{equation} ended by \end{document}": Do not use custom macros such as \beg and \eeg to replace

\begin{equation}

. . .

\end{equation}

"Misplaced \omit": If using \LWR@formatted to define new macros for print and HTML modes, see section 36 regarding \LWR@expandableformatted.

Complicated objects inside math: Some objects, such as Tikz, may not compile in lwarp's normal math emulation. Insert

\displaymathother -or- \inlinemathother

before the math, and then

\displaymathnormal -or- \inlinemathnormal

when displaying "normal" math. See section 8.7.9.

Slow compliation of math objects: Complicated math objects can also cause problems with alt tags, resulting in very slow compilation, large alt tags, and possible crashes. Use \inlinemathother ...\inlinemathnormal or \displaymathother ...\displaymathnormal around the math expression.

MathJax Incorrect MathJax: Some objects do not convert to MathJax. Use \displaymathother before these objects, then \displaymathnormal to return to "normal" display math. See section 8.7.9.

> Missing sections: See section 7.4 regarding the FileDepth and SideTOCDepth counters, and the use of \tableofcontents in the home page.

Misnumbered footnotes from section headings: See section 8.5.4.

Missing HTML files:

- See the warning regarding changes to the HTML settings at section 7.4.
- Ensure that the filenames are unique after math and short words are removed. See FileSectionNames at section 7.4.

Missing / incorrect cross-references:

macros in section,table,figure names

BibTeX

polyglossia

custom macros for environments

\LWR@formatted

"impure" math objects

labels

△ label characters

\\nameref \\ \triangle \text{empty link}

cleveref page numbers

- Use lwarpmk again followed by lwarpmk html or lwarpmk print to compile the document one more time.
- Labels with special characters may be a problem. It is best to stick with alpha-numeric, hyphen, underscore, and perhaps the colon (if not French).

\nameref refers to the most recently-used section where the \label was defined. If no section has been defined before the \label, the link will be empty. Index entries also use \nameref and have the same limitation.

 cleveref and varioref are supported, but printed page numbers do not map to HTML, so a section name or a text phrase are used for \cpageref and \cpagerefrange. This phrase includes \cpagerefFor, which defaults to "for".

Ex:
 \cpageref{tab:first,tab:second}
in html becomes:
 "pages for table 4.1 and for table 4.2"

See \cpagerefFor at page 530 to redefine the message which is printed for page number references.

BibTeX errors with \etalchar: See section 8.6.9.

Malformed URLs: Do not use the % character between arguments of \hyperref, etc., as this character is among those which is neutralized for inclusion in HTML URLS.

Em-dashes or En-dashes in listing captions and titles:

Use XFLATEX or LuaLATEX.

Floats out of sequence:

Mixed "Here" and floating: Floats [H]ere and regular floats may become out of order. \clearpage if necessary.

Caption setup: With \captionsetup set the positions for the captions above or below to match their use in the source code.

Images are appearing in strange places:

• Enter lwarpmk limages to refresh the lateximage images.

SVG images:

When a math expression, picture, or Tikz environment is added or removed, the svG images must be re-created by entering lwarpmk limages to maintain the proper image-file associations. Inline svG math may be hashed and thus not need to be recreated, but display math and objects such as Tikz may move to new image numbers when the document is changed.

recompile first

Before attempting to create the svg image files, *lwarpmk* verifies that the HTML version of the document exists and has correct internal image references. If it is necessary to recompile the document's HTML version one more time, *lwarpmk* usually will inform the user with an error message, but there are some conditions which cannot be detected, so the user should watch for the LATEX recompile warnings.

html instead of images

If HTML appears where an svG image should be, recompile the document one more time to get the page numbers back in sync, then remake the images one more time.

Incorrect svG images will also occur if the document changes the page counter:

⚠ page

page counter

\setcounter{page}{<value>}

The page counter must *not* be adjusted by the user.

Expressing math as svG images has the advantage of representing the math exactly as LaTeX would, but has the disadvantage of requiring an individual file for each math expression. For inline math, and some other objects, lwarp uses an MD5 hash on its LaTeX source to combine multiple instances of identical inline expressions into a single image file, but display math and other environments such as picture and Tikz require one image file each. For a document with a large amount of math, see section 5.5 to use MathJax instead.

Lots of files!

Plain-looking document:

• The document's css stylesheet may not be available, or may be linked incorrectly. Verify any \CSSFilename statements point to a valid css file.

Broken fragments of HTML:

• Check the PDF file used to create HTML to see if the tags overflowed the margin. (This is why such large page size and margins are used.)

Changes do not seem to be taking effect:

- Be sure to lwarpmk clean, recompile, then start by reloading the home page. You may have been looking at an older version of the document. If you changed a section name, you may have been looking at the file for the old name.
- See the warning regarding changes to the HTML settings at section 7.4.
- Verify that the proper css is actually being used.
- The browser may compensate for some subtle changes, such as automatically generating ligatures, reflowing text, etc.

Un-matched conditional compiles:

• Verify the proper begin/end of warpprint, warpHTML, and warpall environments.

13.2.1 Debug tracing output

\tracinglwarp

When \tracinglwarp is used, lwarp will add extra tracing messages to the .log file. The last several messages may help track down errors.

Place \tracinglwarp just after \usepackage{lwarp} to activate tracing.

¹⁵This becomes important when dealing with a document containing thousands of images.

13.3 Compiling the lwarp.dtx file

lwarp_tutorial.tex: Copy or link lwarp_tutorial.txt from the TDS doc directory
 to the source directory, or wherever you wish to compile the documentation.
 This file is included verbatim in the documentation, but is in the doc directory
 so that it may be found by texdoc and copied by the user.

Illogical error messages caused by an out-of-sync lwarp. sty file:

- 1. Delete the lwarp.sty file.
- 2. Enter **pdflatex lwarp.ins** to generate a new lwarp.sty file.
- 3. Enter **pdflatex lwarp.dtx** to recompile the lwarp.pdf documentation.

Un-nested environments:

Be sure to properly nest:

- \begin{macrocode} and \end{macrocode}
- \begin{macro} and \end{macro}
- \begin{environment} and \end{environment}

14 Trademarks

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File 1 lwarp.sty

15 Implementation

This package is perhaps best described as a large collection of smaller individual technical challenges, in many cases solved through a number of crude hacks clever tricks. Reference sources are given for many of the solutions, and a quick internet search will provide additional possibilities.

Judgement calls were made, and are often commented. Improvements are possible. The author is open to ideas and suggestions.

Packages were patched for re-use where they provided significant functionality. Examples include xcolor with its color models and conversion to HTML color output, and siunitx which provides many number and unit-formatting options, almost all of which are available in pure-text form, and thus easily used by *pdftotext*.

Packages were emulated where their primary purpose was visual formatting which is not relevent to html output. For example, packages related to sectioning are already patched by numerous other packages, creating a difficult number of combinations to try to support, and yet in html output all of the formatting is thrown away, so these packages are merely emulated.

Packages with graphical output are allowed as-is, but must be nested inside a lateximage environment to preserve the graphics.

Testing has primarily been done with the Iceweasel/Firefox browser.

ngs

Section	IATEX depth	html headings *
title of the entire website		<h1></h1>
none	-5	new for this package
book	-2	not yet used
part	-1	<h2></h2>
chapter	0	<h3></h3>
section	1	<h4></h4>
subsection	2	<h5></h5>
subsubsection	3	<h6></h6>
paragraph	4	
subparagraph	5	
listitem	7	new for this package, used for list items

^{*} If FormatWP is true, section headings may be adjusted, depending on WPTitleHeading. See table 8 on page 165.

16 Section depths and HTML headings

Stacks are created to track depth inside the LATEX document structure. This depth is translated to HTML headings as shown in table 9. "Depth" here is not depth in the traditional computer-science stack-usage sense, but rather a representation of the nesting depth inside the LATEX document structure.

When starting a new section, the program first must close out any existing sections and lists of a deeper level to keep the HTML tags nested correctly.

Support for the memoir package will require the addition of a book level, which may push the HTML headings down a step, and also cause subsubsection to become a <div> due to a limit of six HTML headings.

It is possible to use $\mathtt{HTML5}$ <section> and <h1> for all levels, but this may not be well-recognized by older browsers.

Fixed levels for parts and chapters allow the css to remain fixed as well.

17 Source code

This is where the documented source code for lwarp begins, continuing through the following sections all the way to the change log and index at the end of this document.

The following sections document the actual implementation of the lwarp package.

line numbers

The small numbers at the left end of a line refer to line numbers in the lwarp.sty file

subjects

Blue-colored tags in the left margin aid in quickly identifying the subject of each paragraph.

objects

Black-colored tags in the left marign are used to identify programming objects such as files, packages, environments, booleans, and counters. Items without a tag are command macros. Each of these also appears in the index as individual entries, and are also listed together under "files", "packages", "environments", "booleans", and "counters".

index entries

Special warnings are marked with a warning icon.

for HTML output: for PRINT output: for HTML & PRINT: Green-colored tags in the left margin show which sections of source code apply to the generation of HTML, print, or both forms of output.

18 Detecting the TEX engine — pdflatex, lualatex, xelatex

```
Detects XATEX and LualATEX:

1 \RequirePackage{iftex}
2 \newif\ifxetexorluatex
3 \ifXeTeX
4 \xetexorluatextrue
5 \else
6 \ifLuaTeX
7 \xetexorluatextrue
8 \else
9 \xetexorluatexfalse
10 \fi
11 \fi
12
13 \ifLuaTeX
14 \RequirePackage{luatex85}% until the geometry package is updated
15 \fi
16
```

19 Early package requirements

17 \RequirePackage{ifpdf}

18 \RequirePackage{ifptex}

See: http://tex.stackexchange.com/a/47579.

```
Pkg etoolbox Provides \ifbool and other functions.

Pkg xpatch Patches macros with optional arguments.

19 \RequirePackage{etoolbox}[2011/01/03]% v2.6 for \BeforeBeginEnvironment, etc.
20 \RequirePackage{xpatch}

Pkg ifplatform Provides \ifwindows to try to automatically detect WINDOWS OS.

21 \RequirePackage{ifplatform}% sense op-system platform

kg letltxmacro

22 \RequirePackage{letltxmacro}
```

20 Package load order

Several packages must never be used with lwarp, others should only be loaded before lwarp, and others should only be loaded after. The lwarp core checks most of these

cases. In some lwarp-* packages, \LWR@loadbefore is used to trigger an error if they are loaded after lwarp, while additional code provides necessary patches for when they are loaded before.

Packages which must be loaded after lwarp are enfoced by a large number of \LWR@loadafter statements, below. Some packages are emulated by memoir, and so these are tested by \LWR@notmemoirloadafter, which does not cause an error if memoir is used.

\LWR@checkloadfilename is used to check each filename to see if it must never be loaded, or must always be loaded before lwarp.

20.1 Tests of package load order

\LWR@loadafter $\{\langle packagename \rangle\}$ Error if this package was loaded before lwarp.

```
23 \newcommand*{\LWR@loadafter}[1]{%
24 \@ifpackageloaded{#1}
25 {
      \PackageError{lwarp}
26
          {%
27
              Package #1,\MessageBreak
28
              or one which uses #1,\MessageBreak
29
              must be loaded after lwarp
          {Move \detokenize{\usepackage}{#1} after
32
          \detokenize{\usepackage}{lwarp}.\MessageBreak
33
          Package #1 may also be loaded by something else, \MessageBreak
34
          which must also be moved after lwarp.}
35
36 }
37 {}
38 }
```

\LWR@notmemoirloadafter

 $\{\langle packagename \rangle\}$ Error if not memoir class and this package was loaded before lwarp.

memoir emulates many packages, and pretends that they have already been loaded.

```
39 \@ifclassloaded{memoir}
40 {\newcommand*{\LWR@notmemoirloadafter}[1]{}}
41 {\LetLtxMacro\LWR@notmemoirloadafter\LWR@loadafter}
```

\LWR@notltjloadafter

 $\{\langle packagename \rangle\}$ Error if not a ltjs* class and this package was loaded before lwarp.

```
42 \LetLtxMacro\LWR@notltjloadafter\LWR@loadafter
43
44 \@ifclassloaded{\ltjarticle}{\renewcommand*{\LWR@notltjloadafter}[1]{}}{}
45 \@ifclassloaded{\ltjbook}{\renewcommand*{\LWR@notltjloadafter}[1]{}}{}
46 \@ifclassloaded{\ltjreport}{\renewcommand*{\LWR@notltjloadafter}[1]{}}{}
47 \@ifclassloaded{\ltjsarticle}{\renewcommand*{\LWR@notltjloadafter}[1]{}}{}
```

```
49 \@ifclassloaded{ltjsreport}{\renewcommand*{\LWR@notltjloadafter}[1]{}}{}
                      50 \@ifclassloaded{ltjspf}{\renewcommand*{\LWR@notltjloadafter}[1]{}}{}
                      51\@ifclassloaded{ltjskiyou}{\renewcommand*{\LWR@notltjloadafter}[1]{}}{}
                      \label{lem:command*(LWR@notltjloadafter)[1]{}}{} \\
                      54 \@ifclassloaded{ltjtreport}{\renewcommand*{\LWR@notltjloadafter}[1]{}}{}
                                          Error if this package is loaded after lwarp.
     \LWR@loadbefore
                      \{\langle packagename \rangle\}
                      55 \newcommand*{\LWR@loadbefore}[1]{%
                      56 \@ifpackageloaded{#1}
                      57 {}
                      58 {
                      59 \PackageError{lwarp}
                      60 {Package #1 must be loaded before lwarp}
                      61 {Move \detokenize{\usepackage}{{#1}} before \detokenize{\usepackage}{{\usepackage}{{\usepackage}}.}
                      62 }
                      63 }
\LWR@checkloadbefore
                     {\langle this package name \rangle } {\langle package name \rangle }
                      If package names match, error if it is loaded after lwarp.
                      64 \newcommand*{\LWR@checkloadbefore}[2]{%
                            \edef\LWR@tempone{#1}%
                      65
                            \ifdefstring{\LWR@tempone}{#2}{%
                      66
                      67
                                \LWR@loadbefore{#1}%
                      68
                            }{}%
                      69 }
                      \{\langle badpackagename \rangle\} \{\langle replacementpkgnames \rangle\}
     \LWR@loadnever
                      The first packages is not supported, so tell the user to use the second instead.
                      70 \newcommand*{\LWR@loadnever}[2]{%
                      71 \PackageError{lwarp}
                      72 {%
                      73
                            Package #1 is not supported\MessageBreak
                      74
                            by lwarp's HTML conversion.\MessageBreak
                            Package(s) #2 may be useful instead
                      75
                      76 }
                      77 {%
                      78
                            Package #1 might conflict with lwarp in some way, \MessageBreak
                            or is superceded by another package.\MessageBreak
                      79
                      80
                            For a possible alternative, see package(s) #2.
                      81 }
                      82 }
\LWR@checkloadnever
                      \{\langle thispackagename \rangle\} \{\langle badpackagename \rangle\} \{\langle replacementpkgnames \rangle\}
                      If this package name is the bad packagename, suggest the replacements instead.
```

```
83 \newcommand*{\LWR@checkloadnever}[3]{%
84 \edef\LWR@tempone{#1}%
85 \ifdefstring{\LWR@tempone}{#2}{%
86 \LWR@loadnever{#2}{#3}%
87 }{}%
88 }
```

\LWR@earlyloadnever

{\langle badpackagename \rangle } {\langle replacementpkgname \rangle }

The first package is not supported, so tell the user to use the second instead. This version checks immediately for packages which may have been loaded before lwarp.

```
89 \newcommand*{\LWR@earlyloadnever}[2]{%
90 \@ifpackageloaded{#1}{%
91 \PackageError{lwarp}
92 {%
93
      Package #1 is not supported\MessageBreak
94
      by lwarp's HTML conversion.\MessageBreak
      Package(s) #2 may be useful instead
95
96 }
97 {%
98
      Package #1 might conflict with lwarp in some way, \MessageBreak
99
      or is superceded by another package.\MessageBreak
100
      For a possible alternative, see package(s) #2.
101 }
102 }{}%
103 }
```

\LWR@earlyclassloadnever

{\langle badclassname \rangle} {\langle replacement classname \rangle}

The first class is not supported, so tell the user to use the second instead. This version checks immediately for classes which may have been loaded before lwarp.

```
104 \newcommand*{\LWR@earlyclassloadnever}[2]{%
105 \@ifclassloaded{#1}{%
106 \PackageError{lwarp}
107 {%
108
       Class #1 is not supported\MessageBreak
       by lwarp's HTML conversion.\MessageBreak
109
       Class(es) #2 may be useful instead
110
111 }
112 {%
113
       Class #1 might conflict with lwarp in some way, \MessageBreak
       or is superceded by another class.\MessageBreak
114
       For a possible alternative, see class(es) #2.
115
116 }
117 }{}%
118 }
```

20.2 Error for disallowed packages and classes loaded before lwarp

```
119 \LWR@earlyclassloadnever{jarticle}{ujarticle}
120 \LWR@earlyclassloadnever{jbook}{ujbook}
121 \LWR@earlyclassloadnever{jreport}{ujreport}
122 \LWR@earlyclassloadnever{tarticle}{utarticle}
123 \LWR@earlyclassloadnever{tbook}{utbook}
{\tt 124 \LWR@earlyclassloadnever\{treport\}\{utreport\}}
125 \LWR@earlyloadnever{ae}{cm-super, lmodern}
126 \LWR@earlyloadnever{aecompl}{cm-super, lmodern}
127 \LWR@earlyloadnever{aecc}{cm-super, lmodern}
128 \LWR@earlyloadnever{alg}{algorithm2e, algorithmicx}
129 \LWR@earlyloadnever{algorithmic}{algorithm2e, algorithmicx}
130 \LWR@earlyloadnever{boxedminipage}{boxedminipage2e}
131 \LWR@earlyloadnever{caption2}{caption}
132 % \LWR@earlyloadnever{ccaption}{caption}% might be preloaded by memoir
The older CJK and CJKutf8 only work with xeCJK:
133 \@ifpackageloaded{xeCJK}{}{
       \LWR@earlyloadnever{CJK}{ctex, xeCJK}
134
       \LWR@earlyloadnever{CJKutf8}{ctex, xeCJK}
135
136 }
bxcjkatype is based on CJK:
137 \LWR@earlyloadnever{bxcjkjatype}{upLaTeX, bxjsarticle, ujarticle, utarticle}
hangul is not in TeXLive, and is not tested:
138 \LWR@earlyloadnever{hangul}{kotex, xetexko, luatexko}
Others:
139 \LWR@earlyloadnever{colortab}{colortbl}
140 \LWR@earlyloadnever{epsf}{graphicx}
141 \LWR@earlyloadnever{fancyheadings}{fancyhdr}
142 \LWR@earlyloadnever{fncylab}{cleveref}
143 \LWR@earlyloadnever{glossary}{glossaries}
144 \LWR@earlyloadnever{hyper}{hyperref}
145 \LWR@earlyloadnever{pdfcprot}{microtype}
146 \LWR@earlyloadnever{picinpar}{floatflt, wrapfig}
147 \LWR@earlyloadnever{picins}{floatflt, wrapfig}
148 \LWR@earlyloadnever{sistyle}{siunitx}
149 \LWR@earlyloadnever{t1enc}{fontenc, inputenc, inputenx}
150 \LWR@earlyloadnever{ucs}{inputenc, inputencx}
151 \LWR@earlyloadnever{wasysym}{textcomp, amssymb, amsfonts, mnsymbol, fdsymbol}
```

20.3 Enforcing package loading after lwarp

Packages which should only be loaded after lwarp are tested here to trip an error of they have already been loaded.

The following packages must be loaded after lwarp:

```
152 \LWR@loadafter{2in1}
```

```
153 \LWR@loadafter{2up}
154 \LWR@loadafter{a4}
155 \LWR@loadafter{a4wide}
156 \LWR@loadafter{a5comb}
157 \LWR@notmemoirloadafter{abstract}
158 \LWR@loadafter{academicons}
159 \LWR@loadafter{accsupp}
160 \LWR@loadafter{acro}
161 \LWR@loadafter{acronym}
162 \LWR@loadafter{adjmulticol}
163 \LWR@loadafter{addlines}
164 \LWR@loadafter{ae}
165 \LWR@loadafter{aecc}
166 \LWR@loadafter{afterpage}
167 \LWR@loadafter{algorithm2e}
168 \LWR@loadafter{algorithmicx}
169 \LWR@loadafter{alltt}
170 \LWR@loadafter{amsmath}
171 \LWR@loadafter{amsthm}
172 \LWR@loadafter{anonchap}
173 \LWR@loadafter{anysize}
174 \LWR@notmemoirloadafter{appendix}
175 \LWR@loadafter{ar}
176 \LWR@loadafter{arabicfront}
177 \LWR@notmemoirloadafter{array}
178 \LWR@loadafter{arydshln}
179 \LWR@loadafter{asymptote}
180 % \LWR@loadafter{atbegshi}% used by morewrites
181 \LWR@loadafter{attachfile}
182 \LWR@loadafter{attachfile2}
183 \LWR@loadafter{authblk}
184 \LWR@loadafter{autonum}
185 \LWR@loadafter{axessibility}
186 \LWR@loadafter{axodraw2}
187 \LWR@loadafter{backref}
188 \LWR@loadafter{balance}
189 \LWR@loadafter{bbding}
190 \LWR@loadafter{bigdelim}
191 \LWR@loadafter{bigfoot}
192 \LWR@loadafter{bigstrut}
193 \LWR@loadafter{bitpattern}
194 \LWR@loadafter{blowup}
195 \LWR@loadafter{booklet}
196 \LWR@loadafter{bookmark}
197 \LWR@notmemoirloadafter{booktabs}
198 \LWR@loadafter{bophook}
199 \LWR@loadafter{bounddvi}
200 \LWR@loadafter{boxedminipage}
201 \LWR@loadafter{boxedminipage2e}
202 \LWR@loadafter{breakurl}
203 \LWR@loadafter{bregn}
204 \LWR@loadafter{bsheaders}
205 \LWR@loadafter{bxpapersize}
206 \LWR@loadafter{bytefield}
207 \LWR@loadafter{cancel}
```

```
208 \LWR@loadafter{canoniclayout}
209 \LWR@loadafter{caption}
210 \LWR@loadafter{caption2}
211 \LWR@loadafter{cases}
212 % \LWR@loadafter{ccaption}% may be preloaded by memoir
213 \LWR@loadafter{changebar}
214 \LWR@loadafter{changelayout}
215 \LWR@notmemoirloadafter{changepage}
216 \LWR@loadafter{changes}
217 \LWR@loadafter{chappg}
218 \LWR@loadafter{chapterbib}
219 \LWR@loadafter{chemfig}
220 \LWR@loadafter{chemformula}
221 \LWR@loadafter{chemgreek}
222 \LWR@loadafter{chemmacros}
223 \LWR@loadafter{chemnum}
224 \LWR@loadafter{chkfloat}
225 \LWR@notmemoirloadafter{chngpage}
226 \LWR@loadafter{cite}
227 \LWR@loadafter{cmdtrack}
228 \LWR@loadafter{color}
229 \LWR@loadafter{colortbl}
230 \LWR@loadafter{continue}
231 \LWR@loadafter{copyrightbox}
232 \LWR@notmemoirloadafter{crop}
233 % ctex must be loaded before lwarp
234 \LWR@loadafter{ctable}
235 \LWR@loadafter{cuted}
236 \LWR@loadafter{cutwin}
237 \LWR@loadafter{dblfloatfix}
238 \LWR@loadafter{dblfnote}
239 \LWR@notmemoirloadafter{dcolumn}
240 \LWR@loadafter{diagbox}
241 \LWR@loadafter{dingbat}
242 \LWR@loadafter{dprogress}
243 \LWR@loadafter{draftcopy}
244 \LWR@loadafter{draftfigure}
245 \LWR@loadafter{draftwatermark}
246 \LWR@loadafter{easy-todo}
247 \LWR@loadafter{ebook}
248 \LWR@loadafter{ed}
249 \LWR@loadafter{ellipsis}
250 \LWR@loadafter{embrac}
251 \LWR@loadafter{emptypage}
252 \LWR@loadafter{endfloat}
253 \LWR@loadafter{endheads}
254 \LWR@loadafter{endnotes}
255 \LWR@notmemoirloadafter{enumerate}
256 \LWR@loadafter{enumitem}
257 \LWR@notmemoirloadafter{epigraph}
258 \LWR@loadafter{epsfig}
259 \LWR@loadafter{epstopdf}
260 \LWR@loadafter{epstopdf-base}
261 \LWR@loadafter{eqlist}
262 \LWR@loadafter{eqparbox}
```

```
263 \LWR@loadafter{errata}
264 \LWR@loadafter{eso-pic}
265 \LWR@loadafter{eurosym}
266 \LWR@loadafter{everypage}
267 \LWR@loadafter{everyshi}
268 \LWR@loadafter{extramarks}
269 \LWR@loadafter{fancybox}
270 \LWR@loadafter{fancyhdr}
271 \LWR@loadafter{fancyheadings}
272 \LWR@loadafter{fancyref}
273 \LWR@loadafter{fancytabs}
274 \LWR@loadafter{fancyvrb}
275 \LWR@loadafter{figcaps}
276 \LWR@loadafter{figsize}
277 \LWR@loadafter{fitbox}
278 \LWR@loadafter{fix2col}
279 \LWR@loadafter{fixme}
280 \LWR@loadafter{fixmetodonotes}
281 \LWR@loadafter{flafter}
282 \LWR@loadafter{flippdf}
283 \LWR@loadafter{float}
284 \LWR@loadafter{floatflt}
285 \LWR@loadafter{floatpag}
286 \LWR@loadafter{floatrow}
287 \LWR@loadafter{fltrace}
288 \LWR@loadafter{flushend}
289 \LWR@loadafter{fnbreak}
290 \LWR@loadafter{fncychap}
291 \LWR@loadafter{fnlineno}
292 \LWR@loadafter{fnpara}
293 \LWR@loadafter{fnpos}
294 \LWR@loadafter{fontawesome}
295 \LWR@loadafter{fontawesome5}
296% fontenc must be loaded before lwarp
297% fontspec must be loaded before lwarp
298 \LWR@loadafter{footmisc}
299 \LWR@loadafter{footnote}
300 \LWR@loadafter{footnotebackref}
301 \LWR@loadafter{footnotehyper}
302 \LWR@loadafter{footnoterange}
303 \LWR@loadafter{footnpag}
304 \LWR@loadafter{foreign}
305 \LWR@loadafter{forest}
306 \LWR@loadafter{framed}
307 \LWR@loadafter{ftcap}
308 \LWR@loadafter{ftnright}
309 \LWR@loadafter{fullminipage}
310 \LWR@loadafter{fullpage}
311 \LWR@loadafter{fullwidth}
312 \LWR@loadafter{fwlw}
313 \LWR@loadafter{gentombow}
314% geometry is always loaded by lwarp, and lwarp-geometry is AtBeginDocument
315 \LWR@loadafter{gmeometric}
316 \LWR@loadafter{glossaries}
317% \LWR@loadafter{graphics}% pre-loaded by xunicode
```

```
318% \LWR@loadafter{graphicx}% pre-loaded by xunicode
319 \LWR@loadafter{gloss}
320 \LWR@loadafter{glossary}
321 \LWR@loadafter{grffile}
322 \LWR@loadafter{grid}
323 \LWR@loadafter{grid-system}
324 \LWR@loadafter{gridset}
325 \LWR@loadafter{hang}
326 \LWR@loadafter{hanging}
327 \LWR@loadafter{hypcap}
328 \LWR@loadafter{hypdestopt}
329 \LWR@loadafter{hypernat}
330 \LWR@loadafter{hyperref}
331 \LWR@loadafter{hyperxmp}
332 \LWR@loadafter{hyphenat}
333 \LWR@loadafter{idxlayout}
334 \LWR@loadafter{ifoddpage}
335 \LWR@loadafter{imakeidx}
336 \LWR@notmemoirloadafter{index}
337% inputenc must be loaded before lwarp
338% inputenx must be loaded before lwarp
339% inputtrc may be loaded before lwarp
340 \LWR@loadafter{intopdf}
341 \LWR@loadafter{karnaugh-map}
342 \LWR@loadafter{keyfloat}
343 \LWR@loadafter{layaureo}
344 \LWR@loadafter{layout}
345 \LWR@loadafter{layouts}
346 \LWR@loadafter{leading}
347 \LWR@loadafter{letterspace}
348 \LWR@loadafter{lettrine}
349 \LWR@loadafter{lineno}
350 \LWR@loadafter{lips}
351 \LWR@loadafter{listings}
352 \LWR@loadafter{listliketab}
353 \LWR@loadafter{longtable}
354 \LWR@loadafter{lscape}
355 \LWR@loadafter{ltablex}
356 \LWR@loadafter{ltcaption}
357 \LWR@loadafter{ltxgrid}
358 \LWR@loadafter{ltxtable}
359 \LWR@loadafter{lua-check-hyphen}
360 \LWR@loadafter{lua-visual-debug}
361 \LWR@loadafter{luacolor}
362 \LWR@loadafter{luatodonotes}
363 \LWR@loadafter{magaz}
364 \LWR@notmemoirloadafter{makeidx}
365 \LWR@loadafter{manyfoot}
366 \LWR@loadafter{marginfit}
367 \LWR@loadafter{marginfix}
368 \LWR@loadafter{marginnote}
369 \LWR@loadafter{marvosym}
370 \LWR@loadafter{mathtools}
371 \LWR@loadafter{mcaption}
372 \LWR@loadafter{mdframed}
```

```
373 \LWR@loadafter{media9}
374 \LWR@loadafter{memhfixc}
375 \LWR@loadafter{metalogo}
376 \LWR@loadafter{metalogox}
377 \LWR@loadafter{mhchem}
378 \LWR@loadafter{microtype}
379 \LWR@loadafter{midfloat}
380 \LWR@loadafter{midpage}
381 \LWR@loadafter{minitoc}
382% morefloats must be allowed early for print mode
383 \LWR@notmemoirloadafter{moreverb}
384% morewrites must be loaded before lwarp
385 \LWR@notmemoirloadafter{movie15}
386 \LWR@notmemoirloadafter{mparhack}
387 \LWR@loadafter{multicap}
388 %\LWR@loadafter{multicol}% loaded by ltxdoc
389 \LWR@loadafter{multicolrule}
390 \LWR@loadafter{multimedia}
391 \LWR@loadafter{multirow}
392 \LWR@loadafter{multitoc}
393 \LWR@loadafter{musicography}
394 \LWR@loadafter{nameauth}
395 \LWR@loadafter{nameref}
396 \LWR@loadafter{natbib}
397 \LWR@notmemoirloadafter{nccfancyhdr}
398 \LWR@notmemoirloadafter{needspace}
399% newclude must be loaded before lwarp
400 \LWR@loadafter{newtxmath}
401% newunicodechar must be loaded before lwarp
402 \LWR@notmemoirloadafter{nextpage}
403 \LWR@loadafter{nicefrac}
404 \LWR@loadafter{niceframe}
405 \LWR@loadafter{nomencl}
406 \LWR@loadafter{nonfloat}
407 \LWR@loadafter{nonumonpart}
408 \LWR@loadafter{nopageno}
409 \LWR@loadafter{notes}
410 \LWR@loadafter{notespages}
411 \LWR@loadafter{nowidow}
412 \LWR@loadafter{ntheorem}
413 \LWR@loadafter{octave}
414 \LWR@loadafter{overpic}
415 \LWR@loadafter{pagegrid}
416 \LWR@notmemoirloadafter{pagenote}
417 \LWR@loadafter{pagesel}
418 \LWR@loadafter{paralist}
419 \LWR@loadafter{parnotes}
420 \LWR@notmemoirloadafter{parskip}
421 \LWR@loadafter{pbox}
422 \LWR@loadafter{pdfcomment}
423 \LWR@loadafter{pdflscape}
424 \LWR@loadafter{pdfmarginpar}
425 \LWR@loadafter{pdfpages}
426 \LWR@loadafter{pdfprivacy}
427 \LWR@loadafter{pdfrender}
```

```
428 \LWR@loadafter{pdfsync}
429 \LWR@loadafter{pdftricks}
430 \LWR@loadafter{pdfx}
431 \LWR@loadafter{perpage}
432 \LWR@loadafter{pfnote}
433 \LWR@loadafter{phfqit}
434 \LWR@loadafter{pifont}
435 \LWR@loadafter{placeins}
436 \LWR@loadafter{plarray}
437 \LWR@loadafter{plarydshln}
438 \LWR@loadafter{plextarray}
439 \LWR@loadafter{plextarydshln}
440 \LWR@loadafter{plcolortbl}
441 \LWR@loadafter{plextdelarray}
442 \LWR@loadafter{prelim2e}
443 \LWR@loadafter{prettyref}
444 \LWR@loadafter{preview}
445 \LWR@loadafter{psfrag}
446 \LWR@loadafter{psfragx}
447 \LWR@loadafter{pst-eps}
448 \LWR@loadafter{pstool}
449 \LWR@loadafter{pstricks}
450 % \LWR@loadafter{pxatbegshi}% may be used by morewrites
451 \LWR@loadafter{pxeveryshi}
452 \LWR@loadafter{pxftnright}
453 \LWR@loadafter{pxjahyper}
454 \LWR@loadafter{quotchap}
455 \LWR@loadafter{quoting}
456 \LWR@loadafter{ragged2e}
457 \LWR@loadafter{realscripts}
458 \LWR@loadafter{refcheck}
459 \LWR@loadafter{register}
460 \LWR@loadafter{relsize}
461 \LWR@loadafter{repeatindex}
462 \LWR@loadafter{resizegather}
463 \LWR@loadafter{rmpage}
464 \LWR@loadafter{romanbar}
465 \LWR@loadafter{romanbarpagenumber}
466 \LWR@loadafter{rotating}
467 \LWR@loadafter{rotfloat}
468 \LWR@loadafter{rviewport}
469 \LWR@loadafter{savetrees}
470% scalefnt is loaded by babel-french
471 \LWR@loadafter{schemata}
472 \LWR@loadafter{scrextend}
473 \LWR@loadafter{scrhack}
474 \LWR@loadafter{scrlayer}
475 \LWR@loadafter{scrlayer-notecolumn}
476 \LWR@loadafter{scrlayer-scrpage}
477 \LWR@loadafter{scrpage2}
478 \LWR@loadafter{section}
479 \LWR@loadafter{sectionbreak}
480 \LWR@loadafter{sectsty}
481 \LWR@loadafter{semantic-markup}
482 \LWR@notmemoirloadafter{setspace}
```

```
483 \LWR@loadafter{shadow}
484 \LWR@notmemoirloadafter{showidx}
485 \LWR@loadafter{showkeys}
486 \LWR@loadafter{showtags}
487 \LWR@loadafter{sidecap}
488 \LWR@loadafter{sidenotes}
489 \LWR@loadafter{SIunits}
490 \LWR@loadafter{siunitx}
491 \LWR@loadafter{soul}
492 \LWR@loadafter{soulpos}
493 \LWR@loadafter{soulutf8}
494 \LWR@loadafter{splitidx}
495 \LWR@loadafter{srcltx}
496 \LWR@loadafter{srctex}
497 \LWR@loadafter{stabular}
498 \LWR@notltjloadafter{stfloats}
499 \LWR@loadafter{struktex}
500 \LWR@loadafter{subcaption}
501 \LWR@loadafter{subfig}
502 \LWR@loadafter{subfigure}
503 \LWR@loadafter{supertabular}
504 \LWR@loadafter{t1inc}
505 \LWR@loadafter{tabls}
506 \LWR@loadafter{tablefootnote}
507 \LWR@notmemoirloadafter{tabularx}
508 \LWR@loadafter{tabulary}
509 \LWR@loadafter{tascmac}
510 \LWR@loadafter{textarea}
511 % \LWR@loadafter{textcomp}% maybe before lwarp with font packages
512 \LWR@loadafter{textfit}
513 \LWR@loadafter{textpos}
514 \LWR@loadafter{theorem}
515 \LWR@loadafter{thinsp}
516 \LWR@loadafter{threadcol}
517 \LWR@loadafter{threeparttable}
518 \LWR@loadafter{threeparttablex}
519 \LWR@loadafter{thumb}
520 \LWR@loadafter{thumbs}
521 \LWR@loadafter{tikz}
522 \LWR@loadafter{titleps}
523 \LWR@loadafter{titlesec}
524 \LWR@loadafter{titletoc}
525 \LWR@notmemoirloadafter{titling}
526% \LWR@loadafter{tocbasic}% preloaded by koma-script classes
527 \LWR@notmemoirloadafter{tocbibind}
528 \LWR@loadafter{tocdata}
529 \LWR@loadafter{tocenter}
530 \LWR@notmemoirloadafter{tocloft}
531 \LWR@loadafter{tocstyle}
532 \LWR@loadafter{todo}
533 \LWR@loadafter{todonotes}
534 \LWR@loadafter{topcapt}
535 \LWR@loadafter{tram}
536 \LWR@loadafter{transparent}
537 \LWR@loadafter{trimclip}
```

```
538 \LWR@loadafter{trivfloat}
539 \LWR@loadafter{truncate}
540 \LWR@loadafter{turnthepage}
541 \LWR@loadafter{twoup}
542% \LWR@loadafter{typearea}% preloaded by koma-script classes
543 \LWR@loadafter{typicons}
544% \LWR@loadafter{ulem}% preloaded by ctexart and related classes
545 \LWR@loadafter{umoline}
546 \LWR@loadafter{underscore}
547 \LWR@loadafter{units}
548 \LWR@loadafter{unitsdef}
549 \LWR@loadafter{upref}
550 \LWR@loadafter{url}
551 \LWR@loadafter{uspace}
552 \LWR@loadafter{varioref}% no lwarp package provided
553 \LWR@notmemoirloadafter{verse}
554 \LWR@loadafter{versonotes}
555 \LWR@loadafter{vertbars}
556 \LWR@loadafter{vmargin}
557 \LWR@loadafter{vowel}
558 \LWR@loadafter{vpe}
559 \LWR@loadafter{vwcol}
560 \LWR@loadafter{wallpaper}
561 \LWR@loadafter{watermark}
562 \LWR@loadafter{widows-and-orphans}
563 \LWR@loadafter{wrapfig}
564 \LWR@loadafter{xbmks}
565 \LWR@loadafter{xcolor}
566 \LWR@loadafter{xechangebar}
567 \LWR@loadafter{xellipsis}
568 % xetexko-vertical must be loaded before lwarp
569 \LWR@loadafter{xfakebold}
570 \LWR@loadafter{xfrac}
571 \LWR@loadafter{xltabular}
572 \LWR@loadafter{xltxtra}
573 \LWR@loadafter{xmpincl}
574 \LWR@loadafter{xpiano}
575 \LWR@loadafter{xpinyin}
576 \LWR@loadafter{xtab}
577 % xunicode must be loaded before lwarp
578 \LWR@loadafter{xurl}
579 \LWR@loadafter{xy}
580 \LWR@loadafter{zwpagelayout}
```

21 MD5 hashing

The MD5 hash is used for lateximage filenames for svg math.

```
581 \newcommand{\LWR@mdfive}[1]{%
582 \PackageError{lwarp}
583 {No MD5 macro was found}
```

```
584 {Lwarp must find the macros pdfmdfivesum or mdfivesum.}
585 }
The default for pdfIATEX, DVIIATEX, upIATEX, etc:
586 \let\LWR@mdfive\pdfmdfivesum
For LuaLATEX:
587 \ifLuaTeX
588 \RequirePackage{pdftexcmds}
589 \let\LWR@mdfive\pdf@mdfivesum
590\fi
For X<sub>∃</sub>I<sup>A</sup>T<sub>E</sub>X:
591 \ifXeTeX
592 \@ifundefined{pdffivesum}{}
       {\let\LWR@mdfive\pdfmdfivesum}
594 \@ifundefined{mdfivesum}{}
       {\let\LWR@mdfive\mdfivesum}
596 \fi
```

22 pdfIATEX T1 and UTF-8 encoding

When using pdfLATEX, lwarp requires T1 encoding, and recommends UTF-8 encoding.

If some other input encoding is already defined, lwarp will try to use it instead, and hope for the best.

XHATEX and LualATEX are both UTF-8 by nature.

\LWR@pdfencoding Sets T1, and also utf8 if not already set.

```
597 \newcommand*{\LWR@pdfencoding}{%
598
       \RequirePackage[T1]{fontenc}
599
       \@ifpackageloaded{inputenc}{}{
600
601
           \@ifpackageloaded{inputenx}{}{
               \RequirePackage[utf8]{inputenc}
           }
       }
604
605 }
606 \ifPDFTeX% pdflatex or dvi latex
       \LWR@pdfencoding
607
608\fi
609
       \LWR@pdfencoding
612 \fi
```

23 Unicode input characters

for HTML & PRINT:

If using *pdflatex*, convert a minimal set of Unicode characters. Additional characters may be defined by the user, as needed.

A commonly-used multiply symbol is declared to be \texttimes.

The first arguments of \newunicodechar below are text ligatures in the source code, even though they are not printed in the following listing.

```
613 \ifpTeX
614 \else
615 \RequirePackage{newunicodechar}
616
617 \newunicodechar{*}{\texttimes}
618
619 \ifpDFTeX% pdflatex or dvi latex
620 \newunicodechar{ff}{ff}% the first arguments are ligatures
621 \newunicodechar{fi}{fi}
622 \newunicodechar{ff}{fl}
623 \newunicodechar{ffi}{ffi}
624 \newunicodechar{fff}{ffl}
625 \newunicodechar{---}{---}
626 \newunicodechar{---}{---}
627 \fi
628
629 \fi
```

24 Avoid a bitmapped font

If DVI or PDF LATEX, and if the default Computer Modern is the selected font family, ensure that cm-super or lmodern is used to provide a vector font.

```
630 \ifxetexorluatex
631 \else
       \ifdefstring{\f@family}{cmr}{
632
           \IfFileExists{type1ec.sty}% found in cm-super
633
634
           {% cm-super not installed
               \IfFileExists{lmodern.sty}{
636
                    \PackageInfo{lwarp}{cm-super not installed, loading lmodern}
637
                    \RequirePackage{lmodern}
638
               }{
639
                    \PackageError{lwarp}
640
641
642
                        Lwarp requires a vector font.\MessageBreak
                       Install and load cm-super, lmodern, or another\MessageBreak
643
                        Type-1 vector font before loading lwarp%
644
645
                   {%
646
                        Install cm-super or lmodern.\MessageBreak
647
```

```
If lmodern, load it before lwarp:\MessageBreak
| \space\space\protect\usepackage{\lmodern}\MessageBreak
| \space\space\protect\usepackage{\lwarp}%
| \space\protect\usepackage{\lwarp}%
| \space\prote
```

25 Upright quotes

In PDFT_EX, preserve upright quotes in verbatim text. upquote also loads textcomp.

```
656 \ifPDFTeX
657 \RequirePackage{upquote}
658 \fi
659
660 \ifpTeX
661 \RequirePackage{upquote}
662 \fi
```

26 Miscellaneous tools

```
\LWR@providelength {(\lengthname)} Provides the length if it isn't defined yet.
```

Used to provide source compatibility for lengths which will be ignored, but might or might not be already provided by other packages.

```
663 \newcommand*\LWR@providelength[1]{%
664 \ifdeflength{#1}{}{\newlength{#1}}%
665 }
```

 $\verb|\LWR@convertto| {$\langle \textit{dest unit}\rangle$} {\langle \textit{length}\rangle$}$

Prints a length in the given units, without printing the unit itself.

 $\label{lem:command*} $$ 66 \newcommand*{\LWR@convertto}[2]{\scriptstyle trip@pt\dimexpr \#2*65536/\number\dimexpr 1#1} $$$

```
\LWR@printpercentlength \{\langle smaller \rangle\} \{\langle larger \rangle\}
```

Prints a percent ratio of the two lengths.

```
667 \newcommand*{\LWR@printpercentlength}[2]{%
668 \setcounter{LWR@tempcountone}{100*\ratio{#1}{#2}}%
669 \arabic{LWR@tempcountone}%
670 }
```

```
\LWR@patcherror \{\langle packagename \rangle\} \{\langle macroname \rangle\}
                        Prints an error if could not patch a macro.
                       671 \newcommand*{\LWR@patcherror}[2]{%
                       672 \PackageError{lwarp}
                       673 {Unable to patch package #1, macro #2}
                       674 {Please contact the author of the lwarp package.}
                       675 }
      \LWR@isolate \{\langle text \rangle\} Isolates Chinese characters from the surrounding text. This is required to
                        avoid extra spaces on either side of the Chinese characters, especially when written
                        to a file.
                       676 \newcommand{\LWR@isolate}[1]{#1}%
                       678 \@ifpackageloaded{ctexpatch}{
                                679
                       680 }{}
                       682 \@ifpackageloaded{xeCJK}{
                       683
                                \renewcommand{\LWR@isolate}[1]{\null#1\null}%
                       684 }{}
 \LWR@firstoffour \{\langle first \rangle\} \{\langle second \rangle\} \{\langle third \rangle\} \{\langle fourth \rangle\}
\LWR@secondoffour \{\langle first \rangle\} \{\langle second \rangle\} \{\langle third \rangle\} \{\langle fourth \rangle\}
 \LWR@thirdoffour \{\langle first \rangle\} \{\langle second \rangle\} \{\langle third \rangle\} \{\langle fourth \rangle\}
\LWR@fourthoffour \{\langle first \rangle\} \{\langle second \rangle\} \{\langle third \rangle\} \{\langle fourth \rangle\}
                        Expands to the nth of the four arguments. Used for extra cross referencing.
                       685 \long\def\LWR@firstoffour#1#2#3#4{#1}
                       686 \long\def\LWR@secondoffour#1#2#3#4{#2}
                       687 \verb|\long\def\LWR@thirdoffour#1#2#3#4{#3}|
                       688 \long\def\LWR@fourthoffour#1#2#3#4{#4}
```

27 Operating-System portability

Prog Unix
Prog Mac OS
Prog Linux
Prog MS-Windows

lwarp tries to detect which operating system is being used. Unix / Mac OS / Linux is the default (collectively referred to as "Unix" in the configuration files), and MS-Windows is supported as well.

If MS-WINDOWS is not correctly detected, use the lwarp option OSWindows.

Prog Windows
Opt OSWindows

When detected or specified, the operating-system path separator used by lwarp is modified, and the boolean usingOSWindows is set true. This boolean may be tested by the user for later use.

27.1 Literal characters

Literal characters to be used in PrintLatexCmd and HTMLLatexCmd. These are defined without @ to easily allow their inclusion in the user's document.

The literal % character:

```
689 \let\LWRpercent\@percentchar
```

The literal \$ character:

```
690 \catcode'\$=12
691 \def\LWRdollar{$}
692 \catcode'\$=3
```

The literal & character:

```
693 \catcode'\&=12
694 \def\LWRamp{&}
695 \catcode'\&=4
```

The literal \ character. The ampersand is temporarily set to the escape character during the definition of the backslash macro.

```
696 \catcode'\&=0
697 &catcode'&\=12
698 &def&LWRbackslash{\}
699 &catcode'&\=0
700 \catcode'\&=4
```

The literal { character. The ampersand is temporarily set to the begin group character during the definition of the leftbrace macro.

```
701 \catcode'\&=1
702 \catcode'\{=12
703 \def\LWRleftbrace&{}
704 \catcode'\{=1
705 \catcode'\&=4
```

The literal } character. The ampersand is temporarily set to the end group character during the definition of the leftbrace macro.

```
706 \catcode'\&=2
707 \catcode'\}=12
708 \def\LWRrightbrace{}&
709 \catcode'\}=2
710 \catcode'\&=4
```

The literal # character:

```
711 \catcode'\#=12
712 \def\LWRhash{#}
713 \catcode'\#=6
```

\LWRopquote

The operating system's quote mark, UNIX default. For WINDOWS, see \LWR@setOSWindows, below

```
714 \def\LWRopquote{'}
```

\LWRopseq

The operating system's sequential execution command, UNIX default. For WINDOWS, see \LWR@setOSWindows, below.

715 \def\LWRopseq{\space\LWRamp\LWRamp\space\space}

27.2 Common portability code

Bool usingOSWindows

Set if the OSWindows option is used, or if WINDOWS is automatically detected.

```
716 \newbool{usingOSWindows}
717 \boolfalse{usingOSWindows}
```

27.3 UNIX, LINUX, and MAC OS

\OSPathSymbol

Symbol used to separate directories in a path.

718 \newcommand*{\OSPathSymbol}{/}

27.4 MS-WINDOWS

For MS-WINDOWS:

\LWR@setOSWindows

Set defaults for the MS-WINDOWS operating system. lwarp attempts to auto-detect the operatings system, and the OSWindows option may also be used to force MS-WINDOWS compatibility.

```
719 \newcommand*{\LWR@setOSWindows}
720 {
721 \booltrue{usingOSWindows}
722 \renewcommand*{\OSPathSymbol}{\@backslashchar}
723 \def\LWRopquote{"}
724 \def\LWRopseq{\space\LWRamp\space\space}
725 }
```

Test for windows during compile. The user may also specify OSWindows package option in case this test fails.

```
726 \ifwindows
727 \LWR@setOSWindows
728\fi
```

Opt warpHTML

Package options 28

```
Pkg kvoptions Allows key/value package options.
                      729 \RequirePackage{kvoptions}
                      730 \SetupKeyvalOptions{family=LWR,prefix=LWR@}
         \lwarpsetup
                     A user interface to set the keys:
                      731 \newcommand{\lwarpsetup}[1]{\setkeys{LWR}{#1}}
  Bool warpingprint
        warpingHTML
                       Set to true/false depending on the package option selections for print/html/epub
        Bool mathjax
                      output and mathsvg/mathjax.
Bool LWR@origmathjax
                       LWR@origmathjax remembers the original setting to be restored by \displaymathnormal.
                      732 \newbool{warpingprint}
                      733 \newbool{warpingHTML}
                      734 \newbool{mathjax}
                      735 \newbool{LWR@origmathjax}
             defaults The default is print output, and svg math if the user chose HTML output.
                      736 \booltrue{warpingprint}%
                      737 \boolfalse{warpingHTML}%
                      738 \boolfalse{mathjax}%
                      If the warpprint option is given, boolean warpingprint is true and boolean warpingHTML
      Opt warpprint
                       is false, and may be used for \ifbool tests.
                      739 \DeclareVoidOption{warpprint}{%
                      740 \PackageInfo{lwarp}{Using option 'warpprint'}
                      741 \booltrue{warpingprint}%
                      742 \boolfalse{warpingHTML}%
                      Anything in the warpHTML environment will be generated for HTML output only.
       Opt warpHTML
                      If the warpHTML option is given, boolean warpingHTML is true and boolean warpingprint
```

is false, and may be used for \ifbool tests.

744 \DeclareVoidOption{warpHTML}{%

```
745 \PackageInfo{lwarp}{Using option 'warpHTML'}%
                      746 \booltrue{warpingHTML}%
                      747 \boolfalse{warpingprint}%
                      748 }
                      Option mathsvg selects svg math display: If the mathsvg option is given, boolean
        Opt mathsvg
                      mathjax is false, and may be used for \ifbool tests.
                      749 \DeclareVoidOption{mathsvg}{%
                      750 \PackageInfo{lwarp}{Using option 'mathsvg'}
                      751 \boolfalse{mathjax}%
                      752 \boolfalse{LWR@origmathjax}%
                      753 }
                      Option mathjax selects MATHJAX math display: If the mathjax option is given,
        Opt mathjax
                      boolean mathjax is true, may be used for \ifbool tests.
                      754 \DeclareVoidOption{mathjax}{%
                      755 \PackageInfo{lwarp}{Using option 'mathjax'}
                      756 \booltrue{mathjax}%
                      757 \booltrue{LWR@origmathjax}%
                      758 }
    Opt BaseJobname
                      Option BaseJobname sets the \BaseJobname for this document.
      Default: \jobname
                      This is the \jobname of the printed version, even if currently compiling the HTML
                      version. I.e. this is the \jobname without _html appended. This is used to set
                      \HomeHTMLFilename if the user did not provide one.
                      759 \DeclareStringOption[\jobname]{BaseJobname}
Opt ImagesDirectory
                      Option ImagesDirectory sets the name of the directory to use for the lateximage
Default: \jobname-images
                      images.
                      760 \DeclareStringOption[\BaseJobname-images]{ImagesDirectory}
                      Option ImagesName sets the prefix to use for the lateximage images.
     Opt ImagesName
        Default: image-
                      761 \DeclareStringOption[image-]{ImagesName}
     makeindexStyle Selects a custom .ist file. A customized file should be based on lwarp.ist, and
     Default: lwarp.ist must retain the lines related to \hyperindexref.
                      762 \DeclareStringOption[lwarp.ist]{makeindexStyle}
                      Selects a custom .xdy file. A customized file should be based on lwarp.xdy, and
     Opt xindyStyle
                      must retain the line
     Default: lwarp.xdy
```

```
(markup-locref :open "\hyperindexref{" :close "}")
```

763 \DeclareStringOption[lwarp.xdy]{xindyStyle}

Opt xindyLanguage Default: english

Sets the xindy language to be assigned in *lwarpmk*'s configuration files. This is then used by lwarpmk while processing the index and glossary.

764 \DeclareStringOption[english]{xindyLanguage}

xindyCodepage Default: utf8

Sets the xindy codepage to be assigned in *Iwarpmk*'s configuration files. This is then used by *lwarpmk* while processing the index.

765 \DeclareStringOption[utf8]{xindyCodepage}

Opt pdftotextEnc Default: UTF-8

The option pdftotextEnc sets the encoding used by pdftotext. This is passed to pdftotext using its -enc option, and is used when converting LATEX PDF output with HTML tags into a plain-text file with HTML tags.

766 \DeclareStringOption[UTF-8]{pdftotextEnc}

twarpmk Tells lwarp to generate a local copy of lwarpmk called twarpmk. tua. Useful for archiving for future use. This file may be made executable and acts just like lwarpmk.

If lwarpmk option, creates a local copy of lwarpmk.lua:

```
767 \newbool{LWR@creatinglwarpmk}
768 \boolfalse{LWR@creatinglwarpmk}
770 \DeclareVoidOption{lwarpmk}{
771 \PackageInfo{lwarp}{Using option 'lwarpmk'}
772 \booltrue{LWR@creatinglwarpmk}
```

Opt OSWindows

Tells lwarp to use MS-WINDOWS compatibility. Auto-detection of the operating system is attempted, and this option is only necessary if the auto-detection fails. See the automatically-generated lwarpmk.conf file to find out whether the operating system was detected correctly.

```
774 \DeclareVoidOption{OSWindows}{
775 \PackageInfo{lwarp}{Using option 'OSWindows'}
776 \LWR@setOSWindows
777 }
```

HomeHTMLFilename Default: \BaseJobname The filename of the homepage. The default is the jobname. This option is stored into \LWR@HomeHTMLFilename, and later transferred into \HomeHTMLFilename for internal use.

778 \DeclareStringOption[]{HomeHTMLFilename}

Opt HTMLFilename Default: <empty>

The filename prefix of web pages after the homepage. The default is empty, no

prefix. This option is stored into \LWR@HTMLFilename, and later transferred into \HTMLFilename for internal use.

779 \DeclareStringOption[]{HTMLFilename}

Opt PrintLatexCmd

The shell commands to use to compile the print document.

Default: <automatic>

780 \DeclareStringOption[]{PrintLatexCmd}

Opt HTMLLatexCmd

The shell commands to use to compile the HTML document.

Default: <automatic>

781 \DeclareStringOption[]{HTMLLatexCmd}

Opt PrintIndexCmd

The shell commands to use to compile the print indexes.

Default: <empty>

782 \DeclareStringOption[]{PrintIndexCmd}

Opt HTMLIndexCmd

The shell commands to use to compile the HTML indexes.

Default: <empty>

783 \DeclareStringOption[]{HTMLIndexCmd}

Default: <empty>

LatexmkIndexCmd The shell commands to by used by latexmk to compile the print indexes. Unlike PrintIndexCmd and HTMLIndexCmd, LatexmkIndexCmd does not include the filename, which will be provided by latexmk.

784 \DeclareStringOption[]{LatexmkIndexCmd}

makeindex

Tells Iwarp to use makeindex for index generation. When Iwarpmk.conf and *.lwarpmkconf are generated, PrintIndexCmd and HTMLIndexCmd will be set for makeindex with a single index file.

785 \DeclareBoolOption[false]{makeindex}

xindy

Tells lwarp to use xindy for index generation. When lwarpmk.conf and *.lwarpmkconf are generated, PrintIndexCmd and HTMLIndexCmd will be set for xindy with a single index file.

786 \DeclareBoolOption[false]{xindy}

Opt GlossaryCmd Default: makeglossaries The shell command to use to compile the glossary. The print or HTML version of the glossary filename will be appended to this command.

787 \DeclareStringOption[makeglossaries]{GlossaryCmd}

latexmk Option latexmk tells *lwarpmk* to use *latexmk* when compiling documents.

788 \DeclareBoolOption[false]{latexmk}

Option dvips tells *lwarpmk* to use *dvips* when compiling DVI *latex* documents. dvips

789 \DeclareBoolOption[false]{dvips}

Opt dvipdfm Option dvipdfm tells lwarpmk to use dvipdfm when compiling DVI latex documents.

790 \DeclareBoolOption[false]{dvipdfm}

Opt dvipdfmx Option dvipdfmx tells *lwarpmk* to use *dvipdfmx* when compiling DVI *latex* documents.

791 \DeclareBoolOption[false]{dvipdfmx}

Execute options Execute the package options, with the defaults which have been set just above:

792 \ProcessKeyvalOptions*\relax

28.1 Additional options support

Assign the \BaseJobname if the user hasn't provided one:

793 \providecommand*{\BaseJobname}{\LWR@BaseJobname}

Defaults unless already over-ridden by the user:

Special handling for underscores in labels and filenames.

\LWR@sanitized

The sanitized version of what was given to \LWR@sanitize. Characters are set to their detokenized versions. Required for underscores in labels and filenames.

```
801 \newcommand*{\LWR@sanitized}{}
```

```
\LWR@sanitize \{\langle text \rangle\}
```

Sanitizes the text and returns the result in \LWR@sanitized.

```
802 \newcommand*{\LWR@sanitize}[1]{%
803 \edef\LWR@sanitized{#1}%
804 \edef\LWR@sanitized{\detokenize\expandafter{\LWR@sanitized}}%
805 }
```

Sanitize some string options to neutralize underscores.

```
806 \LWR@sanitize{\LWR@BaseJobname}
807 \edef\LWR@BaseJobname{\LWR@sanitized}
```

```
808
809 \LWR@sanitize{\LWR@ImagesDirectory}
810 \edef\LWR@ImagesDirectory{\LWR@sanitized}
811
812 \LWR@sanitize{\LWR@ImagesName}
813 \edef\LWR@ImagesName{\LWR@sanitized}
```

\LWR@PrintIndexCmd and \LWR@HTMLIndexCmd are tested to see if they are empty. If so, they are set to a reasonable defaults for a single index using *makeindex*, then possibly set to defaults for *xindy* if the lwarp xindy option was selected.

```
814 \ifdefempty{\LWR@PrintIndexCmd}{
815
       \renewcommand{\LWR@PrintIndexCmd}{%
           makeindex -s \LWR@makeindexStyle \space \jobname.idx%
816
817
818
       \ifbool{LWR@xindy}{
           \renewcommand{\LWR@PrintIndexCmd}{%
819
820
                -M \LWR@xindyStyle \space
821
                -L \LWR@xindyLanguage \space
822
                -C \LWR@xindyCodepage \space
823
                \jobname.idx%
824
825
826
       }{}
827 }{}
828
829 \verb|\ifdefempty{\LWR@HTMLIndexCmd}{|} \\
830
       \renewcommand{\LWR@HTMLIndexCmd}{%
831
           makeindex -s \LWR@makeindexStyle \space \jobname_html.idx%
832
       \ifbool{LWR@xindy}{
833
           \renewcommand{\LWR@HTMLIndexCmd}{%
834
                xindy
835
                -M \LWR@xindyStyle \space
836
837
                -L \LWR@xindyLanguage \space
838
                -C \LWR@xindyCodepage \space
                \jobname_html.idx%
840
           }
841
       }{}
842 }{}
843
844 \ifdefempty{\LWR@LatexmkIndexCmd}{
       \renewcommand{\LWR@LatexmkIndexCmd}{%
           makeindex -s \LWR@makeindexStyle%
846
847
       \ifbool{LWR@xindy}{
848
           \renewcommand{\LWR@LatexmkIndexCmd}{%
849
850
                -M \LWR@xindyStyle \space
851
                -L \LWR@xindyLanguage \space
853
                -C \LWR@xindyCodepage%
854
           }
855
       }{}
856 }{}
```

28.2 Conditional compilation

```
\warpprintonly \{\langle contents \rangle\}
                                          Only process the contents if producing printed output.
                                         857 \newcommand{\warpprintonly}[1]{\ifbool{warpingprint}{#1}{}}
  \warpHTMLonly \{\langle contents \rangle\}
                                          Only process the contents if producing HTML output.
                                         858 \end{warpHTMLonly} [1] {\end{warpingHTML} } {\end{warpingHTML} {\end{warpingHTML} } {\end{warpingHTML} } {\end{warpingHTML} } {\end{warpingHTML} {\end{warpingHTML} } {\end{warpingHTML} } {\end{warpingHTML} } {\end{warpingHTML} } {\end{warpingHTML} {\end{warpingHTML} } {\end{warpingHTML} } {\end{warpingHTML} {\end{warpingHTML} } {\end{warpingHTML} } {\end{warpingHTML} } {\end{warpingHTML} {\end{warpingHTML} } {\end{warpingHTML} } {\end{warpingHTML} {\end{warpingHTML} } {\end{warpingHTML} } {\end{warpingHTML} } {\end{warpingHTML} } {\end{warpingHTML} } {\end{warping
                                       Provides conditional code blocks.
               comment
                                          Attempts to use versions or verbatim fail in some cases, and do not provide much
                                          of a speed benefit even when they do work.
                                         859 \RequirePackage{comment}
                                          Use comment_print.cut for print mode, and comment_html.cut for HTML mode. This
                                          helps latexmk to more reliably know whether to recompile.
                                         860 \ifbool{warpingHTML}{
                                         861 \def\DefaultCutFileName{\def\CommentCutFile{comment_html.cut}}
                                         862 }{}
                                         863
                                         864 \ifbool{warpingprint}{
                                         865 \def\DefaultCutFileName{\def\CommentCutFile{comment_print.cut}}
                                         866 }{}
                warpall Anything in the warpall environment will be generated for print or HTML outputs.
                                         867 \includecomment{warpall}
Env warpprint Anything in the warpprint environment will be generated for print output only.
  Env warpHTML
                                          For html output:
                                         868 \ifbool{warpingHTML}
                                        869 {\includecomment{warpHTML}}
                                         870 {\excludecomment{warpHTML}}%
                                         871 \ifbool{warpingprint}
                                         872 {\includecomment{warpprint}}
                                        873 {\excludecomment{warpprint}}
```

Optionally generate a local copy of lwarpmk. Default to no.

```
874 \ifbool{LWR@creatinglwarpmk}
875 {\includecomment{LWR@createlwarpmk}}
876 {\excludecomment{LWR@createlwarpmk}}
```

29 Required packages

These packages are automatically loaded by lwarp when generating HTML output. Some of them are also automatically loaded when generating print output, but some are not.

```
for HTML output: 877 \begin{warpHTML}
```

Load fontspec if necessary:

```
878 \ifxetexorluatex
879 \@ifpackageloaded{fontspec}{}{
       \usepackage[no-math]{fontspec}
881 }
```

The monospaced font is used for HTML tags, so turn off its TeX ligatures and common ligatures:

```
882 \defaultfontfeatures[\rmfamily]{Ligatures={NoCommon,TeX}}
883 \defaultfontfeatures[\sffamily]{Ligatures={NoCommon,TeX}}
884 \defaultfontfeatures[\ttfamily]{Ligatures=NoCommon}
885 \else
```

pdflatex only: Only pre-loaded if pdflatex is being used.

Pkg microtype

ligatures

Older browsers don't display ligatures. Turn off letter ligatures, keeping LATEX dash and quote ligatures, which may fail on older browers but at least won't corrupt written words.

```
886 \RequirePackage {microtype}
887
888 \microtypesetup{
889
       protrusion=false,
890
       expansion=false,
891
       tracking=false,
       kerning=false,
892
       spacing=false}
895 \DisableLigatures[f,q,t,T,Q]{encoding = *,family = *}
896 \fi
897 \end{warpHTML}
```

geometry Tactics to avoid unwanted page breaks and margin overflow:

• Uses a very long and wide page to minimize page breaks and margin overflow.

- Uses a scriptsize font.
- Uses extra space at the margin to avoid HTML tag overflow off the page.
- Forces a new PDF page before some environments.
- Forces line break between major pieces of long tags.

```
for HTML output: 898 \begin{warpHTML}
                  899 \RequirePackage{geometry}
                   Avoid class and option conflict by changing settings after package load:
                  900 \geometry{
                         paperheight=190in,%
                         paperwidth=20in,%
                         left=2in,right=6in,%
                         top=1in,bottom=1in,%
                  904
                  905 }
                   Itjtarticle and other classes may require these to be reset by lwarp:
                  906 \setlength{\textheight}{0.8\paperheight}
                  907 \setlength{\textwidth}{0.7\paperwidth}
                  908
                  909 \@twosidefalse
                  910 \@mparswitchfalse
                  912 \end{warpHTML}
for HTML & PRINT: 913 \begin{warpall}
     Pkg xparse
                   LATEX3 command argument parsing
                  914 \RequirePackage{xparse}
       Pkg calc
                  915 \RequirePackage{calc}
                  916 \end{warpall}
 for HTML output: 917 \begin{warpHTML}
      Pkg expl3
                   LATEX3 programming
                  918 \RequirePackage{expl3}
```

```
gettitlestring
                   Used to emulate \nameref.
                  919 \RequirePackage{gettitlestring}
   Pkg everyhook
                   everyhook is used to patch paragraph handling.
                  920 \@ifundefined{bxjs@everypar}{}{\let\everypar\bxjs@everypar}
                  922 \RequirePackage{everyhook}
                  923 \end{warpHTML}
for HTML & PRINT: 924 \begin{warpall}
Pkg filecontents
                   Used to write helper files, done in print mode.
                   Patched to work with morewrites, per https://tex.stackexchange.com/questions/312830/
                   does-morewrites-not-support-filecontents-and-can-i-write-body-of-environment-us/
                   312910
                  925 \RequirePackage{filecontents}
                  927 \@ifpackagelater{filecontents}{2011/10/09}%
                  928 {}
                  929 {
                  930 \newwrite\fcwrite
                  931 \let\LWR@origfilec@ntents\filec@ntents
                  932 \def\filec@ntents{\def\chardef##1\write{\let\reserved@c\fcwrite}\LWR@origfilec@ntents}
                  933 }
                  934 \end{warpall}
  for HTML output: 935 \begin{warpHTML}
     Pkg xifthen
                  936 \RequirePackage{xifthen}
        verbatim
    Pkg
                  937 \RequirePackage{verbatim}
    Pkg refcount
                   Provides \setcounterref, \setcounterpageref, etc.
                  938 \RequirePackage{refcount}
```

```
Pkg newfloat
                  939 \RequirePackage{newfloat}
                  940 \end{warpHTML}
for HTML & PRINT: 941 \begin{warpall}
    Pkg xstring There was a short-term bug in xstring regarding \IfInteger which affected lwarp's
                   index generation. The updated version is requested here.
           index
                  942 \RequirePackage{xstring}[2019/02/01]
                  Used to encapsulate math environments for re-use in HTML <alt> text.
        environ
                  943 \RequirePackage{environ}
                  944 \end{warpall}
 for HTML output: 945 \begin{warpHTML}
   Pkg printlen Used to convert lengths for image width/height options.
                  946 \RequirePackage{printlen}
\LWR@printlength \{\langle length \rangle\}
                   Prints a length using a locally-controlled unit and space. Rounding is used unless
                   the length is small.
                  947 \newrobustcmd*{\LWR@printlength}[1]{%
                  948 \begingroup%
                  949 \uselengthunit{PT}%
                  950 \renewcommand*{\unitspace}{}%
                  951 \ifdimless{#1}{10pt}{%
                         \printlength{#1}%
                  952
                  953 }{%
                  954
                         \rndprintlength{#1}%
                  955 }%
                  956 \endgroup%
                  957 }
                  958 \end{warpHTML}
 for PRINT output: 959 \begin{warpprint}
   Pkg varwidth Used for print-mode lateximage.
                  960 \RequirePackage{varwidth}
                  961 \end{warpprint}
```

30 Loading packages

```
for HTML & PRINT: 962 \begin{warpall}
                                 Remember the original \RequirePackage:
                                963 \LetLtxMacro\LWR@origRequirePackage\RequirePackage
                                Stores the list of required package names.
     \LWR@requirepackagenames
                                964 \newcommand*{\LWR@requirepackagenames}{}
                                 Stores the parsed list of required package names after spaces are removed and lwarp-
\LWR@parsedrequirepackagenames
                                 is prepended.
                                965 \newcommand*{\LWR@parsedrequirepackagenames}{}
                                 Remove the preexisting comment environment. Certain packages define it for their
           \LWR@nullifycomment
                                 own use.
                                966 \newcommand*{\LWR@nullifycomment}{%
                                       \PackageInfo{lwarp}%
                                           {Nullifying the comment environment before loading \LWR@strresulttwo,}%
                                968
                                969
                                        \let\comment\relax%
                                        \let\endcomment\relax%
                                970
                                971 }
                                [\langle 1: separator \rangle] \{\langle 2: list \rangle\} \{\langle 3: index \rangle\} [\langle 4: destination \rangle]
                 \LWR@findword
                                 Note that argument 4 is passed directly to \StrBetween.
                                972 \newcommand*\LWR@findword[3][,]{%
                                        973
                                974 }
                                 \{\langle filename \rangle\} Checks if this filename should be loaded after lwarp, or never at all.
        \LWR@checkloadfilename
                                 The following should never be loaded:
                                975 \newcommand*{\LWR@checkloadfilename}[1]{%
                                976 \LWR@checkloadnever{#1}{ae}{latinmodern}
                                977 \LWR@checkloadnever{#1}{aecc}{latinmodern}
                                978 \LWR@checkloadnever{#1}{alg}{algorithm2e, algorithmicx}
                                979 \LWR@checkloadnever{#1}{algorithmic}{algorithm2e, algorithmicx}
                                980 \LWR@checkloadnever{#1}{bitfield}{bytefield}
                                981 \LWR@checkloadnever{#1}{boxedminipage}{boxedminipage2e}
                                982 \LWR@checkloadnever{#1}{caption2}{caption}
                                983 \LWR@checkloadnever{#1}{ccaption}{caption}
                                984 \LWR@checkloadnever{#1}{colortab}{colortbl}
                                985 \LWR@checkloadnever{#1}{doublespace}{setspace}
```

```
986 \LWR@checkloadnever{#1}{graphicx}

987 \LWR@checkloadnever{#1}{fancyheadings}{fancyhdr}

988 \LWR@checkloadnever{#1}{fncylab}{cleveref}

989 \LWR@checkloadnever{#1}{glossary}{glossaries}

990 \LWR@checkloadnever{#1}{hyper}{hyperref}

991 \LWR@checkloadnever{#1}{newthm}{ntheorem}

992 \LWR@checkloadnever{#1}{pdfcprot}{microtype}

993 \LWR@checkloadnever{#1}{picinpar}{floatflt, wrapfig}

994 \LWR@checkloadnever{#1}{picins}{floatflt, wrapfig}

995 \LWR@checkloadnever{#1}{rplain}{fancyhdr}

996 \LWR@checkloadnever{#1}{sij{siunitx}}

997 \LWR@checkloadnever{#1}{sistyle}{siunitx}

998 \LWR@checkloadnever{#1}{tlenc}{fontenc, inputenc, inputenx}

999 \LWR@checkloadnever{#1}{ucs}{inputenc, inputencx}

1000 \LWR@checkloadnever{#1}{wasysym}{textcomp, amssymb, amsfonts, mnsymbol, fdsymbol}
```

The following should only be loaded before lwarp:

```
1001 \LWR@checkloadbefore{#1}{ctex}
1002 \LWR@checkloadbefore{#1}{fontspec}
1003 \LWR@checkloadbefore{#1}{inputenc}
1004 \LWR@checkloadbefore{#1}{inputenx}
1005 \LWR@checkloadbefore{#1}{kotex}
1006 \LWR@checkloadbefore{#1}{luatexja}
1007 \LWR@checkloadbefore{#1}{luatexja-fontspec}
1008 \LWR@checkloadbefore{#1}{luatexko}
1009 \LWR@checkloadbefore{#1}{morewrites}
1010 \LWR@checkloadbefore{#1}{newclude}
1011 \LWR@checkloadbefore{#1}{newunicodechar}
1012 \LWR@checkloadbefore{#1}{plext}
1013 \LWR@checkloadbefore{#1}{xeCJK}
1014 \LWR@checkloadbefore{#1}{xetexko}
1015 \LWR@checkloadbefore{#1}{zxjatype}
1016 }
```

\LWR@lookforpackagename $\{\langle index \rangle\}$

If HTML, and if this is an lwarp-supported package name, re-direct it to the lwarp version by renaming it lwarp- followed by the original name.

Looks index deep into the list of package names, \LWR@requirepackagenames, and builds \LWR@parsedrequirepackagenames which is the modified list of names.

1017 \newcommand*{\LWR@lookforpackagename}[1]{%

Find the index'th package name from the list:

1018 \LWR@findword{\LWR@requirepackagenames}{#1}[\LWR@strresult]%

Remove blanks. The original name with blanks is in LWR@strresult and the final name with no blanks goes into LWR@strresulttwo.

See if the package name was found:

```
1020 \IfStrEq{\LWR@strresulttwo}{}%
1021 {}% no filename
1022 {% yes filename was found
```

Possible adjustments before loading the package. Maybe nullify the comment environment if the new package will be redefining it for a new purpose.

```
1023 \ifdefstring{\LWR@strresulttwo}{easyReview}{\LWR@nullifycomment}{}%
1024 \ifdefstring{\LWR@strresulttwo}{changes}{\LWR@nullifycomment}{}%
```

If HTML, check if the package should be loaded before lwarp, or never at all:

```
1025 \ifbool{warpingHTML}{\LWR@checkloadfilename{\LWR@strresulttwo}}{}}
```

If HTML, and if found, and if an lwarp-equivalent name exists, use lwarp-* instead.

```
\ifboolexpr{
1026
            bool{warpingHTML} and
1027
            test{\tt \label{lem:lwresulttwo.sty}} \\
1028
       }%
1029
       {% lwarp-* file found
1030
            \ifdefvoid{\LWR@parsedrequirepackagenames}{%
1031
                \edef\LWR@parsedrequirepackagenames{lwarp-\LWR@strresulttwo}%
1032
            }{%
1033
                \edef\LWR@parsedrequirepackagenames{%
1034
                    \LWR@parsedrequirepackagenames, lwarp-\LWR@strresulttwo%
1035
                }%
1036
            }%
1037
1038
       }%
       {%
1039
```

Otherwise, use the current package name.

```
\ifdefvoid{\LWR@parsedrequirepackagenames}{%
1040
1041
                \edef\LWR@parsedrequirepackagenames{\LWR@strresulttwo}%
            }{%
1042
                \edef\LWR@parsedrequirepackagenames{%
1043
1044
                     \LWR@parsedrequirepackagenames,\LWR@strresulttwo%
1045
                }%
            }%
        }% no lwarp-* file
1048 }% yes filename
1049 }
```

\RequirePackage $[\langle 1: options \rangle]$ {\langle 2: package names \rangle} [\langle 3: version \rangle]

For each of many package names in a comma-separated list, if an lwarp version of a package exists, select it instead of the LATEX version.

```
1050 \RenewDocumentCommand{\RequirePackage}{o m o}{%
```

Redirect up to twenty names:¹⁶

```
1051 \renewcommand*{\LWR@requirepackagenames}{#2}%
                          1052 \renewcommand*{\LWR@parsedrequirepackagenames}{}%
                          1053 \LWR@lookforpackagename{1}%
                          1054 \LWR@lookforpackagename{2}%
                          1055 \LWR@lookforpackagename{3}%
                          1056 \LWR@lookforpackagename{4}%
                          1057 \LWR@lookforpackagename{5}%
                          1058 \LWR@lookforpackagename{6}%
                          1059 \LWR@lookforpackagename{7}%
                          1060 \LWR@lookforpackagename{8}%
                          1061 \LWR@lookforpackagename{9}%
                          1062 \LWR@lookforpackagename{10}%
                          1063 \LWR@lookforpackagename{11}%
                          1064 \LWR@lookforpackagename{12}%
                          1065 \LWR@lookforpackagename{13}%
                          1066 \LWR@lookforpackagename{14}%
                          1067 \LWR@lookforpackagename{15}%
                          1068 \LWR@lookforpackagename{16}%
                          1069 \LWR@lookforpackagename{17}%
                          1070 \LWR@lookforpackagename{18}%
                          1071 \LWR@lookforpackagename{19}%
                          1072 \LWR@lookforpackagename{20}%
                           \RequirePackage depending on the options and version:
                          1073 \IfValueTF{#1}%
                          1074 {% options given
                          1075
                                  \IfValueTF{#3}% version given?
                          1076
                                  {\LWR@origRequirePackage[#1]{\LWR@parsedrequirepackagenames}[#3]}%
                                  {\LWR@origRequirePackage[#1]{\LWR@parsedrequirepackagenames}}%
                          1077
                          1078 }%
                          1079 {% no options given
                          1080
                                  \IfValueTF{#3}% version given?
                          1081
                                  {\LWR@origRequirePackage{\LWR@parsedrequirepackagenames}[#3]}%
                                  {\LWR@origRequirePackage{\LWR@parsedrequirepackagenames}}%
                          1082
                          1083 }%
                          1084 }
                          1085 \LetLtxMacro\usepackage\RequirePackage
                          1086 \end{warpall}
         for HTML output: 1087 \begin{warpHTML}
\LWR@ProvidesPackagePass \{\langle pkgname \rangle\} [\langle version \rangle]
                           Uses the original package, including options.
                          1088 \NewDocumentCommand{\LWR@ProvidesPackagePass}{m o}{
                          1089 \PackageInfo{lwarp}{%
                                  Using package '#1' and adding lwarp modifications, \MessageBreak
```

1090

 $^{^{16}}$ This was originally nine names, but then I came across a package which used twelve...

```
including options,}%
1092 \IfValueTF{#2}
1093 {\ProvidesPackage{lwarp-#1}[#2]}
1094 {\ProvidesPackage{lwarp-#1}}
1095 \DeclareOption*{\PassOptionsToPackage{\CurrentOption}{#1}}
1096 \ProcessOptions\relax
1097 \IfValueTF{#2}
1098 {\LWR@origRequirePackage{#1}[#2]}
1099 {\LWR@origRequirePackage{#1}}
```

In some cases, the following seems to be required to avoid an "unknown option" error, such as when loading xcolor with options.

```
1100 \DeclareOption*{}%
1101 \ProcessOptions\relax
1102 }
```

\LWR@ProvidesPackageDrop

```
\{\langle pkgname \rangle\} [\langle version \rangle]
```

Ignores the original package and uses lwarp's version instead. Drops/discards all options.

```
1103 \NewDocumentCommand{\LWR@ProvidesPackageDrop}{m o}{
1104 \PackageInfo{lwarp}{%
       Replacing package '#1' with the lwarp version, \MessageBreak
1106
       and discarding options,%
1107 }%
1108 \IfValueTF{#2}
1109 {\ProvidesPackage{lwarp-#1}[#2]}
1110 {\ProvidesPackage{lwarp-#1}}
```

Ignore all options.

```
1111 \DeclareOption*{}
```

Nullifies then processes the options. Seems to be required when options contain curly braces, which were causing "Missing \begin{document}".

```
1112 % \ProcessOptions\relax% original LaTeX code
1113 \let\ds@\@empty%
                     from the original \ProcessOptions
1115 \@process@ptions\relax% from the original \ProcessOptions
1116 }
1117 \end{warpHTML}
```

Additional required packages 31

```
Pkg caption

1119 \LWR@origRequirePackage{caption}

1120 \AtBeginDocument{\RequirePackage{lwarp-caption}}%

1121 \end{warpHTML}
```

32 File handles

Defines file handles for writes.

```
for HTML & PRINT: 1122 \begin{warpall}

\LWR@quickfile For quick temporary use only. This is reused in several places.

1123 \newwrite\LWR@quickfile%

1124 \end{warpall}

for HTML output: 1125 \begin{warpHTML}

\LWR@lateximagesfile For <project>-images.txt:

1126 \newwrite\LWR@lateximagesfile
```

33 Include a file

1127 \end{warpHTML}

During HTML output, \include{<filename>} causes the following to occur:

- 2. <filename>_html_inc.tex is then \included instead of <filename>.tex.
- 3. <filename>_html_inc.aux is automatically generated and used by LATEX.

\@include $\{\langle filename \rangle\}$ Modified to load _html_inc files.

```
1129 \def\@include#1 {%
1130 \immediate\openout\LWR@quickfile #1_html_inc.tex% lwarp
1131 \immediate\write\LWR@quickfile{\string\input{#1.tex}}% lwarp
1132 \immediate\closeout\LWR@quickfile% lwarp
1133 \LWR@origclearpage% \changed
1134 \if@filesw
        \immediate\write\@mainaux{\string\@input{#1_html_inc.aux}}% changed
1135
1136 \fi
1137 \@tempswatrue
1138 \if@partsw
1139
        \@tempswafalse
        \edef\reserved@b{#1}%
1140
        \@for\reserved@a:=\@partlist\do
1141
        {\ifx\reserved@a\reserved@b\@tempswatrue\fi}%
1142
1143 \fi
1144 \if@tempswa
        \let\@auxout\@partaux
        \if@filesw
1146
            \immediate\openout\@partaux #1_html_inc.aux % changed
1147
            \immediate\write\@partaux{\relax}%
1148
1149
        \@input@{#1_html_inc.tex}% changed
1150
1151
        \LWR@origclearpage% changed
1152
        \@writeckpt{#1}%
        \if@filesw
1153
            \immediate\closeout\@partaux
1154
        \fi
1155
1156 \else
1157
        \deadcycles\z@
        \@nameuse{cp@#1}%
1160 \let\@auxout\@mainaux%
1161 }
1162 \end{warpHTML}
```

34 Copying a file

```
for HTML output: 1163 \begin{warpHTML}

\LWR@copyfile {\langle source filename \rangle } {\langle destination filename \rangle }

Used to copy the .toc file to .sidetoc to re-print the Toc in the sideToc navigation pane.

1164 \newwrite\LWR@copyoutfile % open the file to write to
1165 \newread\LWR@copyinfile % open the file to read from
1166
1167 \newcommand*{\LWR@copyfile}[2]{%
```

```
1168 \LWR@traceinfo{LWR@copyfile: copying #1 to #2}
1170 \immediate\openout\LWR@copyoutfile=#2
1171 \openin\LWR@copyinfile=#1
1172 \begingroup\endlinechar=-1
1173 \makeatletter
1174
1175 \LWR@traceinfo{LWR@copyfile: about to loop}
1177 \loop\unless\ifeof\LWR@copyinfile
1178 \LWR@traceinfo{LWR@copyfile: one line}
1179 \read\LWR@copyinfile to\LWR@fileline % Read one line and store it into \LWR@fileline
1180 % \LWR@fileline\par
                                             % print the content into the pdf
1181 % print the content:
1182 \immediate\write\LWR@copyoutfile{\unexpanded\expandafter{\LWR@fileline}}%
1183 \repeat
1184 \immediate\closeout\LWR@copyoutfile
1185 \LWR@traceinfo{LWR@copyfile: done}
1186 \endgroup
1187 }
1188 \end{warpHTML}
```

35 Debugging messages

html comments To have the HTML output include additional HTML comments, such as which <div> is closing, use

```
\booltrue{HTMLDebugComments}
```

debugging information To have debug information written to the log, use

```
\tracinglwarp
```

1194 {% 1195

```
for HTML & PRINT: 1189 \begin{warpall}

Bool LWR@tracinglwarp True if tracing is turned on.

1190 \newbool{LWR@tracinglwarp}

\tracinglwarp Turns on the debug tracing messages.

1191 \newcommand{\tracinglwarp}{\booltrue{LWR@tracinglwarp}}

\LWR@traceinfo {\langle text} \rangle If tracing is turned on, writes the text to the .log file.

1192 \newcommand{\LWR@traceinfo}[1]{\%
1193 \ifbool{LWR@tracinglwarp}\%
```

\typeout{*** lwarp: #1}%

```
1196 }%
1197 {}%
1198 }
```

Bool HTMLDebugComments

Add comments in HTML about closing <div>s, sections, etc.

Default: false

```
1199 \newbool{HTMLDebugComments}
1200 \boolfalse{HTMLDebugComments}
```

If \tracinglwarp, show where preamble hooks occur:

```
1201 \AfterEndPreamble{
1202 \LWR@traceinfo{AfterEndPreamble}
1203 }
1204
1205 \AtBeginDocument{
1206 \LWR@traceinfo{AtBeginDocument}
1207 }
1208 \end{warpall}
```

36 Defining print and HTML versions of macros and environments

The following refers to defining objects inside lwarp, and is not for the user's document

Many macros and environments must be provided as both print and HTML versions.

While generating the print version of a document, the original macros as defined by LATEX and its packages are used as-is.

While generating the HTML version of a document, the original macro or environment is redefined to call a new HTML version or a copy of the original print version. The new HTML versions of macros and environments are used most of the time. Copies of the print versions are used inside a lateximage environment, which draws and remembers an image of the printed output, and also several other places. The copies of the print versions may also be used by the HTML versions, such as when the HTML version merely encloses the print version inside HTML tags.

The general structure for providing print and HTML versions of a macro or environment is as follows:

For a preexisting macro, not defined with xparse: An HTML version is provided with a special name, inside a warpHTML environment, then \LWR@formatted is used to redefine and patch various macros:

```
\begin{warpHTML}
\newcommand{\LWR@HTML@name}{\ldots\} may also use xparse
\LWR@formatted{name}
\end{warpHTML}
```

\LWR@formatted{name} copies the original print version, then redefines \name to use either the print or HTML version depending on which mode lwarp is using. xparse may be used to define the new HTML version, even if the original did not use xparse.

For a preexisiting environment, not defined with xparse: The process is similar.

Note the use of \LWR@formattedenv instead of \LWR@formatted.

```
\begin{warpHTML}
\newenvironment{LWR@HTML@name}{...}% may also use xparse
\LWR@formattedenv{name}
\end{warpHTML}
```

If the original used xparse: A copy must be made using a new name:

```
\begin{warpHTML}
\NewDocumentCommand{\LWR@print@name}{..}{..}% copy the original
\NewDocumentCommand{\LWR@HTML@name}{..}{..}% or use \newcommand
\LWR@formatted{name}
\end{warpHTML}
```

Similar for an environment, using \LWR@formattedenv. (\LWR@formatted and \LWR@formattedenv use \LetLtxMacro to copy the original print definiton, which may not work with macros and environments created by xparse, so the print version must be manually recreated in the lwarp source.)

For a new macro or environment, not using xparse for the print version:

```
\begin{warpall}
\newcommand{\name}{...}% NOT xparse!
\end{warpall}
\begin{warpHTML}
\newcommand{\LWR@HTML@name}{...}% may use xparse for HTML
\LWR@formatted{name}
\end{warpHTML}
```

Similar for an environment. The plain \name or environment name is used for the printed version, and is placed inside warpall. xparse may be used for the \LWR@HTML@<name> version.

For a new macro or environment, using xparse: It is possible to use xparse for an entirely new macro or environment by defining the \LWR@print@<name> version with xparse, along with \name defined without xparse to refer directly to the \LWR@print version:

```
\begin{warpall}
\NewDocumentCommand{\LWR@print@name}{...} {...}% -or-
\NewDocumentEnvironment{\LWR@print@name}{...} {...}

% Simply a call to \LWR@print@name:
\newcommand{\name}{\LWR@print@name}% -or-
\newenvironment{\name}{\LWR@print@name}{\endLWR@print@name}
\end{\warpall}

\begin{\warpHTML}
\NewDocumentCommand{\LWR@HTML@name}{...} {...}% -or-
\NewDocumentEnvironment{\LWR@HTML@name}{...} {...}

\LWR@formatted{\name}% -or-
\LWR@formattedenv{\name}
\end{\warpHTML}
```

In general, \LWR@formatted or \LWR@formattedenv are placed inside a warpHTML environment, and while producing an HTML document they do the following:

- · Macros are modified:
 - 1. The pre-existing print version \name is saved as \LWR@print@<name>, unless \LWR@print@<name> is already defined.
 - 2. The original \name is redefined to call either the print or HTML version depending on which format is in use at the moment, as set by \LWR@formatting, which is defined as either "print" or "HTML".
- When lwarp is producing a print document, the original definitions are used, as well as any new definitions defined in warpall above.
- When lwarp is generating HTML output, \LWR@formatting is set to "HTML", and \name is directed to \LWR@HTML@<name>.
- When Iwarp is generating HTML output but enters a lateximage environment, or for some other reason needs to draw images using the original print defintions, \LWR@formatting is changed to "print" and \name is then redirected to \LWR@print@<name>, which was the original \name.

Since arguments are not handled by the new \n any star and other arguments are processed by the print or \n version.

Expandable versions are also provided as well. These usually are necessary for anything which could appear inside a tabular, without which a "Misplaced \omit" error may occur.

```
\LWR@expandableformatted \LWR@expandableformattedenv
```

(Older versions of lwarp used \LetLtxMacro for everything, but this could fail when using macros defined by xparse. This older system is still in use for many definitions.)

for HTML output: 1209 \begin{warpHTML}

\LWR@formatting Remembers if selected print/HTML formatting.

Used while $\LWR@restoreorigformatting$, such as in an lateximage. May be set to either "print" or "HTML".

1210 \newcommand*{\LWR@formatting}{HTML}

\LWR@formatted $\{\langle macroname \rangle\}$ No backslash in the macro name.

If not yet defined, defines \LWR@print@<name> as the original print-mode \<name>. Also redefines \<name> to use \LWR@<format>@<name>, where <format> is set by \LWR@formatting, and is print or HTML.

```
1211 \newcommand*{\LWR@formatted}[1]{%
1212
        \ifcsundef{LWR@print@#1}{%
            \expandafter\LetLtxMacro\csname LWR@print@#1\expandafter\endcsname%
1213
                \csname#1\endcsname%
1214
       }{}%
1215
        \ifcsundef{#1}{%
1216
            \expandafter\newrobustcmd\csname #1\endcsname{%
1217
                \@nameuse{LWR@\LWR@formatting @#1}%
1218
            }%
1219
       }{%
1220
1221
            \expandafter\renewrobustcmd\csname #1\endcsname{%
                 \@nameuse{LWR@\LWR@formatting @#1}%
1222
1223
            }%
       }%
1224
1225 }
```

\LWR@expandableformatted $\{\langle macroname \rangle\}$ No backslash in the macro name.

An expandable version of \LWR@formatted.

```
1226 \newcommand*{\LWR@expandableformatted}[1]{%
       \ifcsundef{LWR@print@#1}{%
1227
            \expandafter\LetLtxMacro\csname LWR@print@#1\expandafter\endcsname%
1228
                \csname#1\endcsname%
1229
1230
       }{}%
       \ifcsundef{#1}{%
1231
1232
            \expandafter\newcommand\csname #1\endcsname{%
                \@nameuse{LWR@\LWR@formatting @#1}%
1233
            }%
1234
       }{%
1235
            \expandafter\renewcommand\csname #1\endcsname{%
1236
                \@nameuse{LWR@\LWR@formatting @#1}%
1237
```

```
\begin{array}{ccc} & 1238 & \  \  & \\ & 1239 & \  \  \, \}\% \\ & & 1240 \ \} \\ \\ \label{localization} $$ \LWR@formattedenv $$ $ \{\langle environmentname \rangle \}$ $
```

If not yet defined, defines the environment LWR@print@<name> as the original print-mode <name>. Also redefines the environment <name> to use environment LWR@<format>@<name>, where <format> is set by \LWR@formatting, and is print or HTML.

```
1241 \newcommand*{\LWR@formattedenv}[1]{%
       \ifcsundef{LWR@print@#1}{%
1242
            \expandafter\LetLtxMacro\csname LWR@print@#1\expandafter\endcsname%
1243
                \csname#1\endcsname%
1244
            \csletcs{endLWR@print@#1}{end#1}%
1245
1246
       }{}%
        \DeclareDocumentEnvironment{#1}{}%
       {\@nameuse{LWR@\LWR@formatting @#1}}%
1248
       {\@nameuse{endLWR@\LWR@formatting @#1}}%
1249
1250 }
```

\LWR@expandableformattedenv

An expandable version of LWR@formattedenv.

 $\{\langle environmentname \rangle\}$

```
1251 \newcommand*{\LWR@expandableformattedenv}[1]{%
1252
       \ifcsundef{LWR@print@#1}{%
1253
            \expandafter\LetLtxMacro\csname LWR@print@#1\expandafter\endcsname%
1254
                \csname#1\endcsname%
1255
            \csletcs{endLWR@print@#1}{end#1}%
1256
       }{}%
1257
        \DeclareExpandableDocumentEnvironment{#1}{}%
1258
       {\@nameuse{LWR@\LWR@formatting @#1}}%
1259
       {\@nameuse{endLWR@\LWR@formatting @#1}}%
1260 }
1261 \end{warpHTML}
```

37 HTML-conversion output modifications

These booleans modify the HTML output in various ways to improve conversion to EPUB or word processor imports.

for HTML & PRINT: 1262 \begin{warpall}

37.1 User-level controls

Bool Formatepub Changes html output for easy epub conversion via an external program. Removes

Default: false

per-file headers, footers, and nav. Adds footnotes per chapter/section.

```
1263 \newbool{FormatEPUB}
1264 \boolfalse{FormatEPUB}
```

Bool FormatWP

Default: false

Changes HTML output for easier conversion by a word processor. Removes headers and nav, prints footnotes per section, and also forces single-file output and turns off HTML debug comments.

```
1265 \newbool{FormatWP}
1266 \boolfalse{FormatWP}
```

Bool WPMarkFloats Adds

Default: false

```
=== begin table ===
...
=== end ===
or
=== begin figure ===
...
=== end ===
```

around floats while formatting for word processors. This helps identify boundaries of floats to be manually converted to word-processor frames and captions. ¹⁷

```
1267 \newbool{WPMarkFloats}
1268 \boolfalse{WPMarkFloats}
```

Bool WPMarkMinipages

Default: false

```
Adds
```

```
=== begin minipage ===
...
=== end minipage ===
```

around minipages while formatting for word processors. This helps identify boundaries of minipages to be manually converted to word-processor frames.

```
1269 \newbool{WPMarkMinipages}
1270 \boolfalse{WPMarkMinipages}
```

Bool WPMarkTOC Default: true

While formatting for word processors, adds

=== table of contents ===

where the Table of Contents would have been. This helps identify where to insert the actual Toc.

If set false, the actual TOC is printed instead.

```
1271 \newbool{WPMarkTOC}
1272 \booltrue{WPMarkTOC}
```

 $^{^{17}}$ Perhaps some day word processors will have html import options for identifying <figure> and caption tags for figures and tables.

Bool WPMarkLOFT Default: false

While formatting for word processors, adds

```
=== list of figures === and/or
=== list of tables ===
```

where each of these lists would have been. This helps identify where to insert the actual lists.

If set false, the actual lists are printed instead.

```
1273 \newbool{WPMarkLOFT}
1274 \boolfalse{WPMarkLOFT}
```

Bool WPMarkMath
Default: false

While formatting for word processors, prints math as LATEX code instead of creating svg images or MathJax. This is useful for cut/paste into the *LibreOffice Writer TeXMaths* extension.

```
1275 \newbool{WPMarkMath}
1276 \boolfalse{WPMarkMath}
```

Bool WPTitleHeading
Default: false

While formatting for word processors, true sets the document title to <h1>, which is expected for HTML documents, but also causes the lower-level section headings to start at **Heading 2** when imported into LibreOffice. Set to false to cause the title to be plain text, and the section headings to begin at **Heading 1**.

See table 8 on page 165.

```
1277 \newbool{WPTitleHeading}
1278 \boolfalse{WPTitleHeading}
1279 \end{warpall}
```

37.2 Heading adjustments

If formatting the HTML for a word processor, adjust heading levels.

If WPTitleHeading is true, adjust so that part is **Heading 1**.

If WPTitleHeading is false, use <h1> for the title, and set part to **Heading 2**.

for HTML output: 1280 \begin{warpHTML}

```
1281 \AtBeginDocument{
1282 \ifbool{FormatWP}{
1283 \@ifundefined{chapter}{
1284 \ifbool{WPTitleHeading}{% part and section starting at h2
1285 \renewcommand*{\LWR@tagtitle}{h1}
1286 \renewcommand*{\LWR@tagtitleend}{/h1}
1287 \renewcommand*{\LWR@tagpart}{h2}
1288 \renewcommand*{\LWR@tagpartend}{/h2}
1289 \renewcommand*{\LWR@tagsection}{h3}
```

```
1290 \renewcommand*{\LWR@tagsectionend}{/h3}
1291 \renewcommand*{\LWR@tagsubsection}{h4}
1292 \renewcommand*{\LWR@tagsubsectionend}{/h4}
1293 \renewcommand*{\LWR@tagsubsubsection}{h5}
1294 \renewcommand*{\LWR@tagsubsubsectionend}{/h5}
1295 \renewcommand*{\LWR@tagparagraph}{h6}
1296 \renewcommand*{\LWR@tagparagraphend}{/h6}
1297 \renewcommand*{\LWR@tagsubparagraph}{span class="subparagraph"}
1298 \renewcommand*{\LWR@tagsubparagraphend}{/span}
1299 }% WPTitleHeading
1300 {% not WPTitleHeading, part and section starting at h1
1301 \renewcommand*{\LWR@tagtitle}{div class="title"}
1302 \renewcommand*{\LWR@tagtitleend}{/div}
1303 \renewcommand*{\LWR@tagpart}{h1}
1304 \renewcommand*{\LWR@tagpartend}{/h1}
1305 \renewcommand*{\LWR@tagsection}{h2}
1306 \renewcommand*{\LWR@tagsectionend}{/h2}
1307 \renewcommand*{\LWR@tagsubsection}{h3}
1308 \renewcommand*{\LWR@tagsubsectionend}{/h3}
1309 \renewcommand*{\LWR@tagsubsubsection}{h4}
1310 \renewcommand*{\LWR@tagsubsubsectionend}{/h4}
1311 \renewcommand*{\LWR@tagparagraph}{h5}
1312 \renewcommand*{\LWR@tagparagraphend}{/h5}
1313 \renewcommand*{\LWR@tagsubparagraph}{h6}
1314 \renewcommand*{\LWR@tagsubparagraphend}{/h6}
1315 }% not WPTitleHeading
1316 }% chapter undefined
1317 {% chapter defined
1318 \ifbool{WPTitleHeading}{}
1319 {% not WPTitleHeading, part and chapter starting at h1
1320 \renewcommand*{\LWR@tagtitle}{div class="title"}
1321 \renewcommand*{\LWR@tagtitleend}{/div}
1322 \renewcommand*{\LWR@tagpart}{h1}
1323 \renewcommand*{\LWR@tagpartend}{/h1}
1324 \renewcommand*{\LWR@tagchapter}{h2}
1325 \renewcommand*{\LWR@tagchapterend}{/h2}
1326 \renewcommand*{\LWR@tagsection}{h3}
1327 \renewcommand*{\LWR@tagsectionend}{/h3}
1328 \renewcommand*{\LWR@tagsubsection}{h4}
1329 \renewcommand*{\LWR@tagsubsectionend}{/h4}
1330 \renewcommand*{\LWR@tagsubsubsection}{h5}
1331 \renewcommand*{\LWR@tagsubsubsectionend}{/h5}
1332 \renewcommand*{\LWR@tagparagraph}{h6}
1333 \renewcommand*{\LWR@tagparagraphend}{/h6}
1334 \renewcommand*{\LWR@tagsubparagraph}{span class="subparagraph"}
1335 \renewcommand*{\LWR@tagsubparagraphend}{/span}
1336 }% not WPTitleHeading
1337 }% chapter defined
1338 }{}% FormatWP
1339 }% AtBeginDocument
1340 \end{warpHTML}
```

38 Remembering original formatting macros

for HTML output: 1341 \begin{warpHTML}

Remember original definitions of formatting commands. Will be changed to HTML commands for most uses. Will be temporarily restored to original meaning inside any lateximage environment. Also nullify unused commands.

Some packages redefine \#, which is used to generate HTML, so the original must be remembered here.

```
1342 \chardef\LWR@origpound='\#
1343 \let\LWR@origcomma\,
1344 \let\LWR@origthinspace\thinspace
1345 \let\LWR@orignegthinspace\negthinspace
1346 \let\LWR@origtilde~
1347 \let\LWR@origenskip\enskip
1348 \let\LWR@origquad\quad
1349 \let\LWR@origqquad\qquad
1350 \let\LWR@orighfil\hfil
1351 \let\LWR@orighss\hss
1352 \let\LWR@origllap\llap
1353 \let\LWR@origrlap\rlap
1354 \let\LWR@orighfilneg\hfilneg
1355 \let\LWR@orighspace\hspace
1357 \let\LWR@origrule\rule
1359 \let\LWR@origmedskip\medskip
1360 \let\LWR@origbigskip\bigskip
1362 \let\LWR@origtextellipsis\textellipsis
1363 \let\LWR@orig@textquotedbl\textquotedbl
1365 \LetLtxMacro\LWR@origrmfamily\rmfamily
1366 \LetLtxMacro\LWR@origsffamily\sffamily
1367 \LetLtxMacro\LWR@origttfamily\ttfamily
1368 \LetLtxMacro\LWR@origbfseries\bfseries
1369 \LetLtxMacro\LWR@origmdseries\mdseries
1370 \LetLtxMacro\LWR@origupshape\upshape
1371 \LetLtxMacro\LWR@origslshape\slshape
1372 \LetLtxMacro\LWR@origscshape\scshape
1373 \@ifundefined{sishape}{
1374
        \LetLtxMacro\LWR@origsishape\scshape
1375 }{
        \LetLtxMacro\LWR@origsishape\sishape
1376
1377 }
1378 \LetLtxMacro\LWR@origitshape\itshape
1379 \LetLtxMacro\LWR@origem\em
1380 \LetLtxMacro\LWR@orignormalfont\normalfont
```

```
1381
1382 \let\LWR@origonecolumn\onecolumn
1384 \let\LWR@origsp\sp
1385 \let\LWR@origsb\sb
1386 \LetLtxMacro\LWR@origtextsuperscript\textsuperscript
1387 \LetLtxMacro\LWR@orig@textsuperscript\@textsuperscript
1389 \AtBeginDocument{
1390 \LetLtxMacro\LWR@origtextsubscript\textsubscript
1391 \LetLtxMacro\LWR@orig@textsubscript\@textsubscript
1392 }
1393
1394 \LetLtxMacro\LWR@origunderline\underline
1395 \let\LWR@orignewpage\newpage
1397 \let\LWR@origpagestyle\pagestyle
1398 \let\LWR@origthispagestyle\thispagestyle
1399 \LetLtxMacro\LWR@origpagenumbering\pagenumbering
1401 \let\LWR@orignewline\newline
1402
1403
1404 \AtBeginDocument{% in case packages change definition
1405 \let\LWR@orig@trivlist\@trivlist
1406 \let\LWR@origtrivlist\trivlist
1407 \let\LWR@origendtrivlist\endtrivlist
1408 \LetLtxMacro\LWR@origitem\item
1409 \LetLtxMacro\LWR@origitemize\itemize
1410 \LetLtxMacro\LWR@endorigitemize\enditemize
1411 \LetLtxMacro\LWR@origenumerate\enumerate
1412 \LetLtxMacro\LWR@endorigenumerate\endenumerate
1413 \LetLtxMacro\LWR@origdescription\description
1414 \LetLtxMacro\LWR@endorigdescription\enddescription
1415 \let\LWR@orig@mklab\@mklab
1416 \let\LWR@origmakelabel\makelabel
1417 \let\LWR@orig@donoparitem\@donoparitem
1418 \LetLtxMacro\LWR@orig@item\@item
1419 \let\LWR@orig@nbitem\@nbitem
1420 }
1421
1422 \let\LWR@origpar\par
1424 \LetLtxMacro\LWR@origfootnote\footnote
1425 \let\LWR@orig@mpfootnotetext\@mpfootnotetext
1427 \let\LWR@origclearpage\clearpage
1429
1430 \AtBeginDocument{% in case packages change definition
1431 \LetLtxMacro\LWR@orighline\hline%
1432 \LetLtxMacro\LWR@origcline\cline%
1433 }
```

1434 \end{warpHTML}

39 Accents

Native LATEX accents such as \" will work, but many more kinds of accents are available when using Unicode-aware XALATEX and LuaLATEX.

for HTML output: 1435 \begin{warpHTML}

Without \AtBeginDocument, \t was being re-defined somewhere.

```
1436 \AtBeginDocument{
```

The following are restored for print when inside a lateximage.

For Unicode engines, only \t needs to be redefined:

```
1437 \LetLtxMacro\LWR@origt\t
```

For pdfLATEX, additional work is required:

```
1438 \ifPDFTeX% pdflatex or dvi latex
1439 \LetLtxMacro\LWR@origequalaccent\=
1440 \LetLtxMacro\LWR@origdotaccent\.
1441 \LetLtxMacro\LWR@origu\u
1442 \LetLtxMacro\LWR@origv\v
1443 \LetLtxMacro\LWR@origc\c
1444 \LetLtxMacro\LWR@origd\d
1445 \LetLtxMacro\LWR@origb\b
```

The HTML redefinitions follow.

For pdfIATEX, Unicode diacritical marks are used:

For all engines, a Unicode diacritical tie is used:

```
1454 \def\LWR@t#1#2{#1\HTMLunicode{0361}#2}
1455 \renewcommand*{\t}[1]{\LWR@t#1}
```

```
1456 \ifPDFTeX% pdflatex or dvi latex
1457 \newcommand*{\LWR@restoreorigaccents}{%
1458 \LetLtxMacro\=\LWR@origequalaccent%
1459 \LetLtxMacro\.\LWR@origdotaccent%
1460 \LetLtxMacro\u\LWR@origu%
1461 \LetLtxMacro\v\LWR@origu%
1462 \LetLtxMacro\t\LWR@origt%
1463 \LetLtxMacro\c\LWR@origc%
1464 \LetLtxMacro\d\LWR@origd%
1465 \LetLtxMacro\b\LWR@origb%
1467 \else% XeLaTeX, LuaLaTeX:
1468 \newcommand*{\LWR@restoreorigaccents}{%
1469 \LetLtxMacro\t\LWR@origt%
1470 }%
1471 \fi%
1472 }% AtBeginDocument
1473 \end{warpHTML}
```

40 Configuration files

40.1 Decide whether to generate configuration files

Configuration files are only written if processing the print version of the document, and not processing a pstool image. pstool uses an additional compile for each image using the original document's preamble, which includes lwarp, so the lwarp configuration files are turned off if -pstool is part of the \jobname.

Default to no configuration files:

```
1474 \excludecomment{LWRwriteconf}
```

1488 \end{warpprint}

Generate configuration files if print mode and not -pstool:

```
for PRINT output: 1475 \begin{warpprint}
                 1476 \fullexpandarg%
                 1477 \IfSubStr*{\jobname}{-pstool}
                 1478
                             \PackageInfo{lwarp}{%
                 1479
                 1480
                                 Jobname with -pstool is found.\MessageBreak
                                 Not generating lwarp configuration files,%
                             }
                 1482
                         }
                 1483
                 1484
                         {
                             \PackageInfo{lwarp}{Generating lwarp configuration files,}%
                 1485
                             \includecomment{LWRwriteconf}
                 1486
                         }
                 1487
```

40.2 ct>_html.tex

```
Config file: 1489 \begin{LWRwriteconf}
           1490 \immediate\openout\LWR@quickfile=\jobname_html.tex
          1491 \immediate\write\LWR@quickfile{%
          1492 \detokenize{\PassOptionsToPackage}%
          1493 {warpHTML,BaseJobname=\jobname}{lwarp}%
          1494 }
          1495 \immediate\write\LWR@quickfile{%
          1496 \detokenize{\input}\string{\jobname.tex\string }%
          1498 \immediate\closeout\LWR@quickfile
           1499 \end{LWRwriteconf}
```

40.3 *lwarpmk* configuration files

```
Config file: 1500 \begin{LWRwriteconf}
```

\LWR@lwarpconfversion The version number of the configuration file, allowing *lwarpmk* to detect an obsolete configuration file format. Incremented by one each time the configuration file format changes. (This is NOT the same as the lwarp version number.)

1501 \newcommand*{\LWR@lwarpconfversion}{2}% also in lwarpmk.lua

40.3.1 Helper macros

\LWR@shellescapecmd The LaTeX compile option for shell escape, if used.

```
1502 \ifshellescape
        \def\LWR@shellescapecmd{--shell-escape }
1504 \else
1505
        \def\LWR@shellescapecmd{}
1506 \fi
```

```
\LWR@compilecmd \{\langle engine \rangle\} \{\langle suffix \rangle\}
```

Used to form the basic compilation command for a document, adding the optional shell escape.

Engine is pdflatex, etc. Suffix is empty or _html

```
1507 \newcommand*{\LWR@compilecmd}[2]{%
1508
       #1 \LWR@shellescapecmd \jobname#2%
1509 }
```

```
\LWR@addcompilecmd \{\langle cmd \rangle\} \{\langle suffix \rangle\}
```

Adds to the compilation command.

Cmd is dvipdfmx, etc. Suffix is empty or _html

```
1510 \newcommand*{\LWR@addcompilecmd}[2]{%
1511 \LWRopseq
1512 #1 \jobname#2%
1513 }
```

\LWR@unknownengine Error message if not sure which LATEX engine is being used.

```
1514 \newcommand*{\LWR@unknownengine}{%
1515     \PackageError{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underline{\underlin
```

\LWR@latexmkvar $\{\langle varname \rangle\} \{\langle value \rangle\}$

Adds a *latexmk* variable assignment.

\LWR@latexmkcmd {\latexmk options\rangle}

Sets a call to *latexmk* with the given options, possibly adding --shell-escape, and also adding the indexing program.

```
1525 \newcommand*{\LWR@latexmkcmd}[1]{%
1526    latexmk \space \LWR@shellescapecmd \space #1 \space
1527    -recorder \space
1528    \LWR@latexmkvar{makeindex}{\LWR@LatexmkIndexCmd}
1529 }
```

 $\verb|\LWR@latexmkdvipdfm| \{\langle \textit{dvipdfm or dvipdfmx}\rangle\}|$

Adds the options settings for dvipdfm or dvipdfmx.

\LWR@compileuplatex Sets compile options for upLATEX with ujarticle or related classes.

```
1539 \newcommand*{\LWR@compileuplatex}{
        \def\LWR@tempprintlatexcmd{%
1540
            \LWR@compilecmd{uplatex}{}
1542
            \LWR@addcompilecmd{dvipdfmx}{}
1543
        \def\LWR@tempHTMLlatexcmd{%
1544
            \LWR@compilecmd{uplatex}{_html}
1545
            \LWR@addcompilecmd{dvipdfmx}{_html}
1546
       }
1547
1548 }
```

 $\verb|\LWR@HTMLLatexCmd| to PDF form.$

\LWR@PrintLatexCmd If not set by the user, the following sets the command to use to compile the source

If using *latexmk*, a complicated string is created, eventually resulting in something such as:

For xelatex with --shell-escape:

```
[[latexmk
                       --shell-escape -recorder
            -xelatex
    -e '$makeindex = q/makeindex -s lwarp.ist/' <jobname>_html]]
```

For dvipdfmx:

```
[[latexmk
            -pdfdvi -e '$dvipdf=q/dvipdfmx %O -o %D %S/'
   -recorder
    -e '$makeindex=q/makeindex -s lwarp.ist/'
                                                <jobname>_html]]
```

For the following, temporary values are computed, but the permanent values are only set if the originals were not assigned by the user.

```
1549 \ifbool{LWR@latexmk}{
```

For latexmk with pdflatex or lualatex:

```
1550
         \ifpdf
```

For *latexmk* with *pdflatex*:

```
\ifPDFTeX
1551
                \def\LWR@latexcmd{\LWR@latexmkcmd{-pdf -dvi- -ps-}}
1552
            \else
```

For latexmk with lualatex:

```
\ifLuaTeX
1554
```

For latexmk with xelatex or DVI latex:

```
1561 \ifXeTeX
```

For latexmk with xelatex:

```
1562 \def\LWR@latexcmd{\LWR@latexmkcmd{-xelatex}}
1563 \else% \ifXeTeX
```

For latexmk with DVI latex:

```
\ifbool{LWR@dvipdfm}{
1564
                     \def\LWR@latexcmd{%
1565
                          \LWR@latexmkcmd{%
1566
1567
                              \LWR@latexmkdvipdfm{dvipdfm}%
1568
1569
                 }{
1570
                     \ifbool{LWR@dvipdfmx}{
1571
                          \def\LWR@latexcmd{%
1572
1573
                              \LWR@latexmkcmd{%
                                   \LWR@latexmkdvipdfm{dvipdfmx}%
1574
1575
1576
                          }
                     }{
1577
                          \def\LWR@latexcmd{\LWR@latexmkcmd{-pdfps}}
1578
1579
                     }
1580
                 }
1581
            \fi
1582
        \fi% \ifpdf
```

The final assignment if *latexmk*:

```
1583 \def\LWR@tempprintlatexcmd{\LWR@latexcmd \space \jobname}
1584 \def\LWR@tempHTMLlatexcmd{\LWR@latexcmd \space \jobname_html}
1585 }% latexmk
```

Without *latexmk*, the compiling command is simply the compiler name and the optional shell escape:

```
1586 {% not latexmk
1587 \ifpdf
```

For pdflatex or lualatex:

```
1588 \ifPDFTeX
```

```
For pdflatex:
```

For lualatex:

For DVI latex or xelatex:

```
1600 \ifXeTeX
```

For xelatex:

For DVI latex. Default to dvips, unless told to use dvipdfm or dvipdfmx:

```
1604 \ifbool{LWR@dvipdfm}{
```

For DVI latex with dvipdfm:

```
\def\LWR@tempprintlatexcmd{%
1605
                         \LWR@compilecmd{latex}{}
1606
1607
                         \LWR@addcompilecmd{dvipdfm}{}
1608
                     \def\LWR@tempHTMLlatexcmd{%
1609
                         \LWR@compilecmd{latex}{_html}
1610
                         \LWR@addcompilecmd{dvipdfm}{_html}
1611
1612
                }{
1613
                     \ifbool{LWR@dvipdfmx}{
1614
```

For DVI latex with dvipdfmx:

```
\def\LWR@tempprintlatexcmd{%
1615
1616
                             \LWR@compilecmd{latex}{}
1617
                             \LWR@addcompilecmd{dvipdfmx}{}
1618
                         }
                         \def\LWR@tempHTMLlatexcmd{%
1619
                             \LWR@compilecmd{latex}{_html}
1620
                             \LWR@addcompilecmd{dvipdfmx}{_html}
1621
1622
                         }
```

```
1623 }{% dvips
```

For DVI latex with dvips and ps2pdf:

```
\def\LWR@tempprintlatexcmd{%
1624
                              \LWR@compilecmd{latex}{}
1625
1626
                              \LWR@addcompilecmd{dvips}{}
                              \LWR@addcompilecmd{ps2pdf}{}.ps
1627
1628
                          }
                          \def\LWR@tempHTMLlatexcmd{%
1629
                              \LWR@compilecmd{latex}{_html}
1630
                              \LWR@addcompilecmd{dvips}{_html}
1631
1632
                              \LWR@addcompilecmd{ps2pdf}{_html}.ps
1633
                          }
1634
1635
            \fi% \ifXeTeX
1636
        \fi% \ifpdf
1637
1638 }% latexmk
```

For ujarticle, utarticle, and related, using upLATEX and dvipdfmx:

```
1639 \@ifclassloaded{ujarticle}{\LWR@compileuplatex}{}
1640 \@ifclassloaded{ujbook}{\LWR@compileuplatex}{}
1641 \@ifclassloaded{ujreport}{\LWR@compileuplatex}{}
1642 \@ifclassloaded{utarticle}{\LWR@compileuplatex}{}
1643 \@ifclassloaded{utbook}{\LWR@compileuplatex}{}
1644 \@ifclassloaded{utreport}{\LWR@compileuplatex}{}
```

Only make the setting permanent if the original was empty:

```
1645 \ifdefempty{\LWR@PrintLatexCmd}{
1646    \def\LWR@PrintLatexCmd{\LWR@tempprintlatexcmd}
1647 }{}
1648 \ifdefempty{\LWR@HTMLLatexCmd}{
1649    \def\LWR@HTMLLatexCmd{\LWR@tempHTMLlatexcmd}
1650 }{}
```

\LWR@writeconf $\{\langle filename \rangle\}$

```
1651 \newcommand{\LWR@writeconf}[1]{
1652 \ifcsdef{LWR@quickfile}{}{\newwrite{\LWR@quickfile}}
1653 \immediate\openout\LWR@quickfile=#1
1654 \immediate\write\LWR@quickfile{confversion = [[\LWR@lwarpconfversion]]}
1655 \ifbool{usingOSWindows}{
1656 \immediate\write\LWR@quickfile{opsystem = [[Windows]]}
1657 }{
1658 \immediate\write\LWR@quickfile{opsystem = [[Unix]]}
1659 }
1660 \immediate\write\LWR@quickfile{sourcename = [[\jobname]]}
```

```
1661 \immediate\write\LWR@quickfile{homehtmlfilename = [[\HomeHTMLFilename]]}
1662 \immediate\write\LWR@quickfile{htmlfilename = [[\HTMLFilename]]}
1663 \immediate\write\LWR@quickfile{imagesdirectory = [[\LWR@ImagesDirectory]]}
1664 \immediate\write\LWR@quickfile{imagesname = [[\LWR@ImagesName]]}
1665 \immediate\write\LWR@quickfile{latexmk = [[\ifbool{LWR@latexmk}{true}{false}]]}
1666 \immediate\write\LWR@quickfile{printlatexcmd = [[\LWR@PrintLatexCmd]]}
1667 \immediate\write\LWR@quickfile{HTMLlatexcmd = [[\LWR@HTMLLatexCmd]]}
1668 \immediate\write\LWR@quickfile{printindexcmd = [[\LWR@PrintIndexCmd]]}
1669 \immediate\write\LWR@quickfile{HTMLindexcmd = [[\LWR@HTMLIndexCmd]]}
1670 \immediate\write\LWR@quickfile{latexmkindexcmd = [[\LWR@LatexmkIndexCmd]]}
1671 \immediate\write\LWR@quickfile{glossarycmd = [[\LWR@GlossaryCmd]]}
1672 \immediate\write\LWR@quickfile{pdftotextenc = [[\LWR@pdftotextEnc]]}
1673 \immediate\closeout\LWR@quickfile
1674 }
1675
1676 \end{LWRwriteconf}
```

40.3.2 lwarpmk.conf

File lwarpmk.conf

lwarpmk.conf is automatically (re-)created by the lwarp package when executing
pdflatex project.tex>,

or similar for *xelatex* or *lualatex*, in print-document generation mode, which is the default unless the warpHTML option is given. lwarpmk.conf is then used by the utility *lwarpmk*.

```
Config file: 1677 \begin{LWRwriteconf}
1678
1679 \AtBeginDocument{\LWR@writeconf{lwarpmk.conf}}
1680
1681 \end{LWRwriteconf}
```


File project.lwarpmkconf

A project-specific configuration file for *lwarpmk*.

The makeindex and xindy options have already been handled for lwarp.conf.

40.4 lwarp.css

File lwarp.css This is the base css layer used by lwarp.

This must be present both when compiling the project and also when distributing the HTML files.

```
Config file: 1687 \begin{LWRwriteconf}
          1688 \begin{filecontents*}{lwarp.css}
          1689 /*
          1690 CSS stylesheet for the LaTeX lwarp package
               Copyright 2016-2018 Brian Dunn --- BD Tech Concepts LLC
          1692 */
          1693
          1694
          1695 /* a fix for older browsers: */
          1696 header, section, footer, aside, nav, main,
                  article, figure { display: block; }
          1698
          1699
          1700 A:link {color:#000080 ; text-decoration: none ; }
          1701 A:visited {color:#800000 ; }
          1702 A:hover {color:#000080 ; text-decoration: underline ;}
          1703 A:active {color:#800000 ; }
          1704
          1705 a. tocpart {display: inline-block; margin-left: 0em;
                  font-weight: bold ;}
          1707 a.tocchapter {display: inline-block; margin-left: 0em;
                  font-weight: bold ;}
          1708
          1709 a.tocsection {display: inline-block; margin-left: 1em;
                  text-indent: -.5em ; font-weight: bold ; }
          1711 a.tocsubsection {display: inline-block; margin-left: 2em;
                  text-indent: -.5em ; }
          1713 a.tocsubsubsection {display: inline-block; margin-left: 3em;
                  text-indent: -.5em ; }
          1715 a.tocparagraph {display: inline-block; margin-left: 4em;
                  text-indent: -.5em ; }
          1717 a.tocsubparagraph {display: inline-block; margin-left: 5em;
                  text-indent: -.5em ; }
          1719 a.tocfigure {margin-left: 0em}
          1720 a.tocsubfigure {margin-left: 2em}
          1721 a.toctable {margin-left: 0em}
          1722 a.tocsubtable {margin-left: 2em}
          1723 a.toctheorem {margin-left: 0em}
          1724 a.toclstlisting {margin-left: 0em}
          1726 body {
                  font-family: "DejaVu Serif", "Bitstream Vera Serif",
          1727
                      "Lucida Bright", Georgia, serif;
          1728
                  background: #FAF7F4;
          1729
                  color: black;
          1730
                  margin:0em;
          1731
          1732
                  padding:0em;
                  font-size: 100%;
          1733
          1734
                  line-height: 1.2;
          1735 }
          1737 p {margin: 1.5ex 0em 1.5ex 0em ;}
          1738 table p {margin: .5ex 0em .5ex 0em ;}
          1740 /* Holds a section number */
          1741 span.sectionnumber { margin-right: 0em }
          1742
```

```
1743 /* Inserted in front of index lines */
1744 span.indexitem {margin-left: 0em}
1745 span.indexsubitem {margin-left: 2em}
1746 span.indexsubsubitem {margin-left: 4em}
1748 div.hidden, span.hidden { display: none ; }
1749
1750 kbd, span.texttt {
        font-family: "DejaVu Mono", "Bitstream Vera Mono", "Lucida Console",
            "Nimbus Mono L", "Liberation Mono", "FreeMono", "Andale Mono",
1752
            "Courier New", monospace;
1753
        font-size: 100% ;
1754
1755 }
1756
1757 pre { padding: 3pt ; }
1758
1759 span.strong, span.textbf, div.strong, div.textbf { font-weight: bold; }
1760
1761 span.textit, div.textit { font-style: italic; }
1762
1763 span.textmd, div.textmd { font-weight: normal; }
1764
1765 span.textsc, div.textsc {
        font-variant: small-caps;
1766
        font-variant-numeric: oldstyle-nums ;
1767
1768 }
1769
1770 span.textsi, div.textsi {
        font-style: italic ;
1771
1772
        font-variant: small-caps;
1773
        font-variant-numeric: oldstyle-nums ;
1774 }
1775
1776 span.textsl, div.textsl { font-style: oblique; }
1778 span.textup, div.textup {
        font-style: normal;
1779
1780
        font-variant: normal;
        font-variant-numeric: normal ;
1781
1782 }
1783
1784 span.textrm, div.textrm {
        font-family: "DejaVu Serif", "Bitstream Vera Serif",
1785
1786
        "Lucida Bright", Georgia, serif;
1787 }
1788
1789 span.textsf, div.textsf {
         font-family: "DejaVu Sans", "Bitstream Vera Sans",
1790
1791
            Geneva, Verdana, sans-serif ;
1792 }
1793
1794 span.textcircled { border: 1px solid black; border-radius: 1ex; }
1796 span.underline {
        text-decoration: underline;
```

```
1798
        text-decoration-skip: auto ;
1799 }
1800
1801 span.overline {
        text-decoration: overline ;
1802
        text-decoration-skip: auto ;
1803
1804 }
1805
1806
1807 /* for vertical text: */
1808 div.verticalrl { writing-mode: vertical-rl }
1809 div.horizontaltb { writing-mode: horizontal-tb }
1810
1811
1812 /* for diagbox */
1813 div.diagboxtitleN { border-bottom: 1px solid gray }
1814 div.diagboxtitleS { border-top: 1px solid gray }
1815
1816 div.diagboxE {
        padding-left: 2em ;
1817
        text-align: right ;
1818
1819 }
1820
1821 div.diagboxW {
1822
        padding-right: 2em ;
1823
        text-align: left ;
1824 }
1825
1826
1828 /* For realscripts */
1829 .supsubscript {
        display: inline-block;
1830
        text-align:left ;
1831
1832 }
1834 .supsubscript sup,
1835 .supsubscript sub {
1836
        position: relative;
1837
        display: block;
1838
        font-size: .5em;
1839
        line-height: 1;
1840 }
1841
1842 .supsubscript sup {
1843
        top: .5em;
1844 }
1845
1846 .supsubscript sub {
1847
        top: .5em;
1848 }
1849
1850 div.attribution p {
1851
        text-align: right ;
1852
        font-size: 80%
```

```
1853 }
1854
1855 span.poemtitle {
    font-size: 120%; font-weight: bold;
1856
1857 }
1858
1859 pre.tabbing {
        font-family: "Linux Libertine Mono O", "Lucida Console",
1860
            "Droid Sans Mono", "DejaVu Mono", "Bitstream Vera Mono",
            "Liberation Mono", "FreeMono", "Andale Mono",
1862
            "Nimbus Mono L", "Courier New", monospace;
1863
1864 }
1865
1866 blockquote {
1867
       display: block;
       margin-left: 2em ;
1868
       margin-right: 2em ;
1869
1870 }
1871
1872 /* quotchap is for the quotchap package */
1873 div.quotchap {
1874
       display: block ;
       font-style: oblique ;
1875
1876
       overflow-x: auto ;
1877
       margin-left: 2em ;
1878
       margin-right: 2em ;
1879 }
1880
1881 blockquote p, div.quotchap p {
       line-height: 1.5;
1882
1883
       text-align: left;
1884
       font-size: .85em ;
1885 }
1886
1887 /* qauthor is for the quotchap package */
1888 div.qauthor {
1889 display: block;
1890
     text-align: right ;
1891
     margin-left: auto ;
1892
     margin-right: 2em ;
     font-size: 80%;
1894
     font-variant: small-caps;
1895 }
1896
1897 div.qauthor p {
1898
     text-align: right;
1899 }
1900
1901 div.epigraph, div.dictum {
1902
     line-height: 1.2;
       text-align: left;
1903
1904
       padding: 3ex 1em 0ex 1em ;
           margin: 3ex auto 3ex auto ; */ /* Epigraph centered */
1905 /*
1906
       margin: 3ex 1em 3ex auto ; /* Epigraph to the right */
1907 /*
         margin: 3ex 1em 3ex 1em ; */ /* Epigraph to the left */
```

```
1908
        font-size: .85em ;
1909
       max-width: 27em;
1910 }
1911
1912 div.epigraphsource, div.dictumauthor {
       text-align:right ;
1913
       margin-left:auto ;
1914
1915 /*
           max-width: 50%; */
1916
       border-top: 1px solid #A0A0A0;
1917
       padding-bottom: 3ex ;
        line-height: 1.2;
1918
1919 }
1920
1921 div.epigraph p, div.dictum p { padding: .5ex ; margin: 0ex ;}
1922 div.epigraphsource p, div.dictumauthor p { padding: .5ex 0ex 0ex 0ex; margin: 0ex;}
1923 div.dictumauthor { font-style:italic }
1924
1925
1926 /* copyrightbox package */
1927 div.copyrightbox { margin: .5ex .5em }
1928 div.copyrightbox p {margin: 0px .5em ; padding: 0px}
1929 div.copyrightboxnote {text-align: left; font-size: 60%}
1931
1932 /* lettrine package: */
1933 span.lettrine { font-size: 4ex ; float: left ; }
1934 span.lettrinetext { font-variant: small-caps ; }
1936 /* ulem, soul, umoline packages: */
1937 span.uline {
1938
       text-decoration: underline ;
1939
        text-decoration-skip: auto ;
1940 }
1941
1942 span.uuline {
1943
       text-decoration: underline;
        text-decoration-skip: auto ;
1944
1945
        text-decoration-style: double ;
1946 }
1947
1948 span.uwave {
1949
       text-decoration: underline;
1950
        text-decoration-skip: auto ;
1951
        text-decoration-style: wavy ;
1952 }
1953
1954 span.sout {
1955
        text-decoration: line-through ;
1956 }
1957
1958 span.oline {
       text-decoration: overline ;
1959
1960
        text-decoration-skip: auto ;
1961 }
1962
```

```
1963 span.xout {
1964
        text-decoration: line-through ;
1965 }
1966
1967 span.dashuline {
        text-decoration: underline ;
1968
        text-decoration-skip: auto ;
1969
        text-decoration-style: dashed ;
1970
1971 }
1972
1973 span.dotuline {
        text-decoration: underline ;
1974
1975
        text-decoration-skip: auto ;
1976
        text-decoration-style: dotted;
1977 }
1978
1979 span.letterspacing { letter-spacing: .2ex ; }
1980
1981 span.capsspacing {
        font-variant: small-caps ;
1982
1983
        letter-spacing: .1ex ;
1984 }
1986 span.highlight { background: #F8E800 ; }
1987
1988
1989
1990
1991 html body {
1992 margin: 0;
     line-height: 1.2;
1993
1994 }
1995
1996
1997 body div {
1998 margin: 0ex;
1999 }
2000
2001
2002 h1, h2, h3, h4, h5, h6, span.paragraph, span.subparagraph
2003 {
        font-family: "Linux Libertine O", "Hoefler Text", "Garamond",
2004
             "Bembo", "Janson", "TeX Gyre Pagella", "Palatino", "Liberation Serif", "Nimbus Roman No 9 L", "FreeSerif", Times,
2005
2006
             "Times New Roman", serif;
2007
        font-style: normal ;
2008
2009
        font-weight: bold ;
2010
        text-align: left;
2011 }
2012
             /* title of the entire website, used on each page */
2013 h1 {
2014
        text-align: center;
2015
        font-size: 2.5em ;
2016
        padding: .4ex 0em 0ex 0em ;
2017 }
```

```
2018 h2 { font-size: 2.25em }
2019 h3 { font-size: 2em }
2020 h4 { font-size: 1.75em }
2021 h5 { font-size: 1.5em }
2022 h6 { font-size: 1.25em }
2023 span.paragraph {font-size: 1em ; font-variant: normal ;
        margin-right: 1em ; }
2025 span.subparagraph {font-size: 1em ; font-variant: normal ;
        margin-right: 1em ; }
2027
2028 div.minisec {
        font-family: "DejaVu Sans", "Bitstream Vera Sans",
2029
            Geneva, Verdana, sans-serif ;
2030
2031
        font-style: normal ;
2032
        font-weight: bold ;
2033
        text-align: left ;
2034 }
2035
2036 h1 {
2037 margin: 0ex 0em 0ex 0em ;
2038 line-height: 1.3;
2039 text-align: center;
2040 }
2041
2042 h2 {
2043 margin: 1ex 0em 1ex 0em ;
2044 line-height: 1.3;
2045 text-align: center;
2046 }
2047
2048 h3 {
2049 margin: 3ex 0em 1ex 0em ;
2050 line-height: 1.3;
2051 }
2052
2053 h4 {
2054 margin: 3ex 0em 1ex 0em;
2055 line-height: 1.3;
2056 }
2057
2058 h5 {
2059 margin: 3ex 0em 1ex 0em;
2060 line-height: 1.3;
2061 }
2062
2063 h6 {
2064 margin: 3ex 0em 1ex 0em;
2065 line-height: 1.3;
2066 }
2067
2068
2069 div.titlepage {
2070 text-align: center;
2071 }
2072
```

```
2073 . footnotes {
2074
        text-align: left;
2075
        font-size: .85em ;
        margin: 3ex 2em 0ex 2em;
2076
2077
        border-top: 1px solid silver ;
2078 }
2079
2080 .marginpar, .marginparblock {
        max-width: 50%;
        float: right;
2082
        clear: both ;
2083
        text-align: left ;
2084
2085
        margin: 1ex 0.5em 1ex 1em ;
2086
        padding: 1ex 0.5em 1ex 0.5em ;
2087
        font-size: 85%;
2088
        border-top: 1px solid silver ;
        border-bottom: 1px solid silver ;
2089
2090
        overflow-x: auto ;
2091 }
2092
2093 .marginpar br { margin-bottom: 2ex ; }
2095 div.marginblock, div.marginparblock {
2096
        max-width:50%;
2097
        min-width: 10em; /* room for caption */
2098
        float:right;
2099
        text-align:left;
2100
        margin: 1ex 0.5em 1ex 1em;
2101
        padding: 1ex 0.5em 1ex 0.5em;
2102
        overflow-x: auto;
2103 }
2104
2105 div.marginblock div.minipage,
2106 div.marginparblock div.minipage {
2107
        display: block;
2108
        margin: Opt auto Opt auto ;
2109 }
2110
2111 div.marginblock div.minipage p ,
2112 div.marginparblock div.minipage p
2113
        { font-size: 85%}
2115 div.marginblock br ,
2116 div.marginparblock br
2117
        { margin-bottom: 2ex ; }
2118
2119 div.bodycontainer {
2120
        float: left;
2121
        width: 80%;
2122 }
2123
2124 div.bodywithoutsidetoc div.bodycontainer {
2125
        float: none;
        width: 100%;
2126
2127 }
```

```
2128
2129 section.textbody div.footnotes{
        margin: 3ex 2em 0ex 2em;
        border-bottom: 2px solid silver ;
2131
2132 }
2133
2134 .footnoteheader {
2135
        border-top: 2px solid silver ;
        margin-top: 3ex ;
        padding-top: 1ex ;
2137
        font-weight: bold ;
2138
2139 }
2140
2141 .mpfootnotes {
2142
        text-align: left;
        font-size: .85em ;
2143
        margin-left: 1em ;
2144
        border-top: 1px solid silver ;
2145
2146 }
2147
2148 /* Remove footnote top border in the title page. */
2149 div.titlepage div.mpfootnotes {
        border-top: none ;
2151 }
2152
2153
2154
2155 ul, ol {
2156 margin: 1ex 1em 1ex 0em;
2157 line-height: 1.2;
2158 }
2159
2160 body dir, body menu {
2161 margin: 3ex 1em 3ex 0em;
2162 line-height: 1.2;
2163 }
2164
2165 li { margin: 0ex 0em 1ex 0em; }
2166
2167 html {
2168 margin: 0;
2169
     padding: 0;
2170 }
2171
2172 .programlisting {
2173 font-family: "DejaVu Mono", "Bitstream Vera Mono", "Lucida Console",
2174
            "Nimbus Mono L", "Liberation Mono", "FreeMono", "Andale Mono",
            "Courier New", monospace;
2175
2176 margin: 1ex 0ex 1ex 0ex;
2177 padding: .5ex Opt .5ex Opt ;
     overflow-x: auto;
2178
2179 }
2180
2181 section.textbody>pre.programlisting {
2182 border-top: 1px solid silver;
```

```
2183 border-bottom: 1px solid silver;
2184 }
2185
2186
2187 div.displaymath {
        text-align: center;
2188
2189 }
2190
2191 div.displaymathnumbered {
        text-align: right ;
2192
        margin-left: 5% ;
2193
        margin-right: 5%;
2194
2195
        min-width: 2.5in;
2196 }
2197
2198 @media all and (min-width: 400px) {
        div.displaymathnumbered {
2199
2200
            margin-left: 10%;
            margin-right: 10%;
2201
        }
2202
2203 }
2204
2205 @media all and (min-width: 800px) {
        div.displaymathnumbered {
2206
2207
            margin-right: 20%;
2208
        }
2209 }
2210
2211 @media all and (min-width: 1200px) {
2212
        div.displaymathnumbered {
2213
            margin-right: 30%;
2214
        }
2215 }
2216
2217
2218 .inlineprogramlisting {
      font-family: "DejaVu Mono", "Bitstream Vera Mono", "Lucida Console",
2220
            "Nimbus Mono L", "Liberation Mono", "FreeMono", "Andale Mono",
2221
            "Courier New", monospace;
2222
     overflow-x: auto;
2223 }
2224
2225 span.listinglabel {
        display: inline-block;
2226
        font-size: 70%;
2227
2228
        width: 4em;
2229
        text-align: right;
2230
        margin-right: 2em ;
2231 }
2232
2233 div.abstract {
2234 margin: 2em 5% 2em 5%;
2235 padding: 1ex 1em 1ex 1em;
2236 /* font-weight: bold ; */
2237 font-size: 90%;
```

```
2238
        text-align: left;
2239 }
2240
2241 div.abstract dl {line-height:1.5;}
2242 div.abstract dt {color:#304070;}
2243
2244 div.abstracttitle{
        font-family: "URW Classico", Optima, "Linux Biolinum O",
2245
            "Linux Libertine O", "Liberation Serif", "Nimbus Roman No 9 L",
            "FreeSerif", "Hoefler Text", Times, "Times New Roman", serif;
2247
        font-weight:bold;
2248
        font-size:1.25em;
2249
2250
        text-align: center ;
2251 }
2252
2253 span.abstractrunintitle{
        font-family: "URW Classico", Optima, "Linux Biolinum O",
2254
2255
            "Linux Libertine O", "Liberation Serif", "Nimbus Roman No 9 L",
            "FreeSerif", "Hoefler Text", Times, "Times New Roman", serif;
2256
        font-weight:bold;
2257
2258 }
2259
2260
2261 .verbatim {
        overflow-x: auto ;
2262
2263 }
2264
2265 .alltt {
2266
        overflow-x: auto ;
2267 }
2268
2269
2270 .bverbatim {
        margin: 1ex 0pt 1ex 0pt;
2271
2272
        padding: .5ex 0pt .5ex 0pt;
2273
        overflow-x: auto ;
2274 }
2275
2276 .lverbatim {
2277
        margin: 1ex 0pt 1ex 0pt;
2278
        padding: .5ex 0pt .5ex 0pt;
2279
        overflow-x: auto ;
2280 }
2281
2282 .fancyvrb {
2283
        font-size:.85em ;
2284
        margin: 3ex 0pt 3ex 0pt
2285 }
2286
2287 .fancyvrblabel {
        font-weight:bold;
2288
2289
        text-align: center;
2290 }
2291
2292
```

```
2293 .verse {
        font-family: "Linux Libertine Mono O", "Lucida Console",
2294
            "Droid Sans Mono", "DejaVu Mono", "Bitstream Vera Mono",
2295
            "Liberation Mono", "FreeMono", "Andale Mono",
2296
            "Nimbus Mono L", "Courier New", monospace;
2297
       margin-left: 1em ;
2298
2299 }
2300
2301
2302 div.singlespace { line-height: 1.2 ; }
2303 div.onehalfspace { line-height: 1.5; }
2304 div.doublespace { line-height: 2 ; }
2305
2306
2307 /* Word processor format output: */
2308 div.wpfigure { border: 1px solid red; margin: .5ex; padding: .5ex; }
2309 div.wptable { border: 1px solid blue ; margin: .5ex ; padding: .5ex ; }
2310 div.wpminipage { border: 1px solid green ; margin: .5ex ; padding: .5ex ;}
2311
2312
2313
2314
2315 /* Minipage environments, vertically aligned to top, center, bottom: */
2316 .minipage, .fminipage, .fcolorminipage {
       /* display: inline-block ; */
2317
            /* Mini pages which follow each other will be tiled. */
2318
2319
       margin: .25em .25em .25em;
2320
       padding: .25em .25em .25em;
       display: inline-flex;
2321
2322
       flex-direction: column;
       overflow: auto;
2323
2324 }
2325
2326 .inlineminipage {
       display: inline-block;
2328
        text-align: left
2329 }
2330
2331 /* Paragraphs in the flexbox did not collapse their margins. */
2332 /* Have not yet researched this. */
2333 .minipage p {margin: .75ex 0em .75ex 0em ;}
2335 .fboxBlock .minipage, .colorbox .minipage, .colorboxBlock .minipage,
2336 .fcolorbox .minipage, .fcolorboxBlock .minipage
        {border: none ; background: none;}
2337
2338
2339 .fbox, .fboxBlock { border: 1px solid black ; }
2340
2341 .fbox, .fboxBlock, .fcolorbox, .fcolorboxBlock, .colorbox, .colorboxBlock,
2342 .fminipage, .fcolorminipage
       {display: inline-block}
2343
2344
2345 .shadowbox, .shabox {
2346
      border: 1px solid black;
       box-shadow: 3px 3px #808080;
```

```
2348
         border-radius: 0px ;
2349
        padding: .4ex .3em .4ex .3em ;
2350
        margin: 0pt .3ex 0pt .3ex ;
     display: inline-block ;
2351
2352 }
2353
2354 .doublebox {
      border: 3px double black;
2355
        border-radius: 0px ;
        padding: .4ex .3em .4ex .3em ;
2357
2358
        margin: 0pt .3ex 0pt .3ex ;
     display: inline-block ;
2359
2360 }
2361
2362 .ovalbox, .Ovalbox {
      border: 1px solid black;
2363
         border-radius: 1ex ;
2364
2365
        padding: .4ex .3em .4ex .3em ;
        margin: Opt .3ex Opt .3ex;
2366
     display: inline-block ;
2367
2368 }
2369
2370 .Ovalbox { border-width: 2px ; }
2371
2372 .framebox {
2373
      border: 1px solid black;
2374
        border-radius: 0px ;
2375
        padding: .3ex .2em 0ex .2em;
2376
        margin: 0pt .1ex 0pt .1ex;
2377
     display: inline-block ;
2378 }
2379
2380
2381 .mdframed {
2382
        padding: 0ex;
2383
        margin: 2ex 0em 2ex 0em ;
2384 }
2385
2386 .mdframed p { padding: 0ex .5em 0ex .5em ; }
2387
2388 .mdframed dl { padding: 1ex .5em 0ex .5em ; }
2389
2390 .mdframedtitle {
2391
        padding: .5ex 0pt 0pt 0pt ;
2392
        border-radius: 10pt 10pt 0pt 0pt;
2393
        display: block;
2394
        margin-bottom: 1ex ;
2395 }
2396
2397 .mdframedsubtitle {
        display: block;
2398
2399 }
2400
2401 .mdframedsubsubtitle {
2402
        display: block;
```

```
2403 }
2404
2405 .mdtheorem {
        padding: 0ex .5em 0ex .5em ;
2406
        margin: 3ex 5% 3ex 5%;
2407
2408 }
2409
2410
2411 /* framed package */
2412 .framed, pre.boxedverbatim, fcolorbox {
        margin: 3ex 0em 3ex 0em ;
2413
2414
       border: 1px solid black;
2415
         border-radius: 0px ;
2416
        padding: .3ex 1em 0ex 1em ;
2417
     display: block;
2418 }
2419
2420 .shaded {
        margin: 3ex 0em 3ex 0em ;
2421
        padding: .3ex 1em .3ex 1em ;
2422
        display: block ;
2423
2424 }
2425
2426 .snugframed {
2427
        margin: 3ex 0em 3ex 0em ;
2428
       border: 1px solid black;
2429
         border-radius: 0px ;
     display: block;
2430
2431 }
2432
2433 .framedleftbar {
        margin: 3ex 0em 3ex 0em ;
2434
       border-left: 3pt solid black;
2435
         border-radius: 0px ;
2436
2437
        padding: .3ex .2em .3ex 1em ;
     display: block;
2438
2439 }
2440
2441 .framedtitle {
2442
        margin: 0em ;
2443
        padding: 0em;
2444
        font-size: 130%
2445 }
2446
2447 .framedtitle p { padding: .3em }
2448
2449
2450 /* For the niceframe package: */
2452 div.niceframe, div.curlyframe, div.artdecoframe, div.generalframe {
        padding: 1ex;
2453
2454
        margin: 2ex auto ;
2455
        border-radius: 2ex;
2456 }
2457
```

```
2458 div.niceframe {
2459
        border: 6px groove black;
2460 }
2461
2462 div.curlyframe {
        border-left: 3px dotted black ;
2463
2464
        border-right: 3px dotted black ;
        border-radius: 6ex ;
2465
2466 }
2467
2468 div.artdecoframe {
2469
        border-left: 10px double black ;
        border-right: 10px double black ;
2470
        border-radius: 6ex;
2471
2472 }
2473
2474 div.generalframe {
2475
        border: 6px groove black;
2476 }
2477
2478
2479
2480 dl {
     margin: 1ex 2em 1ex 0em;
2481
2482
     line-height: 1.3;
2483 }
2484
2485 dl dt {
2486
        display: block ;
        float:left;
2487
2488
        font-weight: bold;
        padding-right: 1em ;
2489
2490 }
2491
2492 dl dd { display: block ; }
2494 dl dd:after { content: "" ; display: block ; clear: both }
2496 dl dd p { margin-top: 0em; }
2498 dd ul, dd ol, dd dl { clear: both ; padding-top: 1ex }
2499
2500
2501 nav {
        font-family: "URW Classico", Optima, "Linux Biolinum O",
2502
            "DejaVu Sans", "Bitstream Vera Sans",
2503
2504
            Geneva, Verdana, sans-serif ;
        margin-bottom: 4ex ;
2505
2506 }
2507
2508 nav p {
2509
        line-height: 1.2;
2510
        margin-top:.5ex ;
2511
        margin-bottom:.5ex;
2512
        font-size: .9em ;
```

```
2513 }
2514
2515
2516
2517 img, img.hyperimage, img.borderimage {
        max-width: 600px;
2518
        border: 1px solid silver;
2519
        box-shadow: 3px 3px #808080;
2520
2521
        padding: .5%;
        margin: .5%;
2522
2523
        background: none;
2524 }
2525
2526 img.inlineimage{
2527
        padding: 0px;
2528
        box-shadow: none;
2529
        border: none ;
2530
        background: none;
        margin: 0px;
2531
        display: inline-block ;
2532
        border-radius: 0px ;
2533
2534 }
2535
2536 img.logoimage{
2537
        max-width: 300px ;
2538
        box-shadow: 3px 3px #808080;
        border: 1px solid black ;
2539
2540
        background:none ;
2541
        padding:0 ;
2542
        margin:.5ex;
2543
        border-radius: 10px ;
2544 }
2545
2546
2547 .section {
2548 /*
2549
        To have each section float relative to each other:
2550 */
2551 /*
        display: block ;
2552
2553
        float: left;
2554
        position: relative;
2555
        background: white;
        border: 1px solid silver;
2556
2557
        padding: .5em ;
2558 */
2559
        margin: 0ex .5em 0ex .5em;
        padding: 0 ;
2560
2561 }
2562
2563
2564 figure {
        margin: 5ex auto 5ex auto ;
2565
2566
        padding: 1ex 1em 1ex 1em ;
2567
        overflow-x: auto ;
```

```
2568 }
2569
2570
2571 /* To automatically center images in figures: */
2572 /*
2573 figure img.inlineimage {
       margin: 0ex auto 0ex auto ;
2574
2575
       display: block ;
2576 }
2577 */
2578
2579 /* To automatically center minipages in figures: */
2581 figure div.minipage, figure div.minipage div.minipage {
2582
       margin: 1ex auto 1ex auto ;
       display: block;
2583
2584 }
2585 */
2586
2587 figure figure { margin: 0pt }
2588
2589 figure div.minipage p { font-size: 85% ; }
2591 figure.subfigure, figure.subtable {
       display: inline-block; margin: 3ex 1em 3ex 1em;
2592
2593 }
2594
2595 div.figurecaption .minipage { margin:0 ; padding: 0 }
2597 div.minipage figure { border: none ; box-shadow: none ; }
2598 div.minipage figure.table { margin: 0ex }
2599 div.minipage div.footnotes { margin: 1ex 2em 0ex 2em }
2600
2601 div.floatrow { text-align: center; }
2603 div.floatrow figure { display: inline-block; margin: 1ex 2%; }
2605 div.floatfoot { font-size: .85em;
2606
       border-top: 1px solid silver ; line-height: 1.2 ; }
2607
2608 div.figurecaption , .lstlistingtitle {
2609
        font-size: .85em ;
2610
        text-align: center;
2611
       font-weight: bold ;
2612
       margin-top: 1ex;
       margin-bottom: 1ex ;
2613
2614 }
2615
2616 figure.subfigure div.figurecaption, figure.subtable div.figurecaption {
2617
       border-bottom: none ; background: none ;
2618 }
2619
2620 div.nonfloatcaption {
2621
       margin: 1ex auto 1ex auto ;
2622
        font-size: .85em ;
```

```
2623
        text-align: center;
2624
        font-weight: bold ;
2625 }
2626
2627 /* For a \RawCaption inside a minipage inside a figure's floatrow: */
2628 figure div.floatrow div.minipage div.figurecaption {
       border: none;
2630
       background: none;
2631 }
2632
2633
2634 /* For packages such as float, rotfloat, and algorithm2e: */
2636 figure.boxed, figure.boxruled {
       border: 1px solid black;
2638 }
2639
2640 figure.ruled {
       border-top: 1px solid black;
2641
       border-bottom: 1px solid black ;
2642
2643
       border-left: 0px ;
       border-right: 0px ;
2644
       border-radius: 0px;
2645
       background: none ;
2646
       box-shadow: none;
2647
2648 }
2649
2650 figure.ruled div.figurecaption, figure.boxruled div.figurecaption {
       border-top: 1px solid silver;
2651
       border-bottom: 1px solid silver ;
2652
2653 }
2654
2655
2656 table {
       margin: 1ex auto 1ex auto ;
       border-collapse: separate ;
2658
       border-spacing: 0px ;
2659
       line-height: 1.3;
2660
2661
       }
2662
2663 tr.hline td {border-top: 1px solid #808080 ; margin-top: 0ex ;
2664
        margin-bottom: 0ex ; } /* for \hline */
2665
2666 tr.tbrule td {border-top: 1px solid black; margin-top: 0ex;
       margin-bottom: 0ex ; } /* for \toprule, \bottomrule */
2667
2668
2669 td {padding: .5ex .5em .5ex .5em ;}
2671 table td.tdl { text-align: left ; vertical-align: middle ; }
2672 table td.tdc { text-align: center ; vertical-align: middle ; }
2673 table td.tdat { text-align: center ; vertical-align: middle ; padding: 0px ; margin: 0px ; }
2674 table td.tdbang { text-align: center ; vertical-align: middle ; }
2675 table td.tdr { text-align: right ; vertical-align: middle ; }
2676 table td.tdp { text-align: left ; vertical-align: bottom ; }
2677 table td.tdm { text-align: left; vertical-align: middle; }
```

```
2678 table td.tdb { text-align: left; vertical-align: top; }
2679 table td.tdP { text-align: center ; vertical-align: bottom ; }
2680 table td.tdM { text-align: center ; vertical-align: middle ; }
2681 table td.tdB { text-align: center ; vertical-align: top ; }
2683 table td.tvertbarl { border-left: 1px solid black }
2684 table td.tvertbarldouble { border-left: 4px double black }
2685 table td.tvertbarr { border-right: 1px solid black }
2686 table td.tvertbarrdouble { border-right: 4px double black }
2688 table td.tvertbarldash { border-left: 1px dashed black }
2689 table td.tvertbarldoubledash { border-left: 2px dashed black }
2690 table td.tvertbarrdash { border-right: 1px dashed black }
2691 table td.tvertbarrdoubledash { border-right: 2px dashed black }
2693
2694 /* for cmidrules: */
2695 table td.tdrule {
       border-top: 1px solid #A0A0A0 ;
2696
2697 }
2698
2699 table td.tdrulel {
       border-top-left-radius:.5em ;
2700
       border-top: 1px solid #A0A0A0;
2701
2702 }
2703
2704 table td.tdruler {
2705
       border-top-right-radius:.5em ;
       border-top: 1px solid #A0A0A0;
2706
2707 }
2708
2709 table td.tdrulelr {
       border-top-left-radius:.5em ;
2711
       border-top-right-radius:.5em ;
       border-top: 1px solid #A0A0A0;
2712
2713 }
2714
2716 /* Margins of paragraphs inside table cells: */
2717 td.tdp p , td.tdprule p , td.tdP p , td.tdPrule p { padding-top: 1ex ;
        padding-bottom: 1ex ; margin: 0ex ; }
2719 td.tdm p , td.tmbrule p , td.tdM p , td.tdMrule p { padding-top: 1ex ;
       padding-bottom: 1ex ; margin: 0ex ; }
2721 td.tdb p , td.tdbrule p , td.tdB p , td.tdBrule p { padding-top: 1ex ;
2722
        padding-bottom: 1ex ; margin: 0ex ; }
2723
2724 td.tdp , td.tdprule , td.tdP , td.tdPrule
       { padding: 0ex .5em 0ex .5em ; }
2726 td.tdm , td.tdmrule , td.tdM , td.tdMrule
       { padding: 0ex .5em 0ex .5em ; }
2728 td.tdb , td.tdbrule , td.tdB , td.tdBrule
2729
       { padding: 0ex .5em 0ex .5em ; }
2730
2731
2732 /* table notes: */
```

```
2733 .tnotes {
        margin: 0ex 5% 1ex 5%;
        padding: 0.5ex 1em 0.5ex 1em;
2735
        font-size:.80em;
2736
        text-align: left;
2737
2738 }
2739
2740 .minipage .tnotes {
        margin: 0pt;
        padding: 0pt ;
2742
2743 }
2744
2745 .tnotes dl dt p {margin-bottom:0px;}
2747 .tnoteitemheader {margin-right: 1em;}
2748
2749
2750 /* for colortbl and cell color */
2751 div.cellcolor {
        width: 100%;
2752
        padding: .5ex .5em .5ex .5em ;
2753
2754
        margin: -.5ex -.5em -.5ex -.5em ;
2755 }
2756
2757
2758 /* for bigdelim */
2759 .ldelim, .rdelim { font-size: 200% }
2762 /* center, flushleft, flushright environments */
2763 div.center{text-align:center;}
2764 div.center table {margin-left:auto;margin-right:auto;}
2765 div.flushleft{text-align:left;}
2766 div.flushleft table {margin-left:0em ; margin-right:auto;}
2767 div.flushright{text-align:right;}
2768 div.flushright table {margin-left:auto; margin-right: 0em;}
2769
2770
2771 /* Fancybox */
2772 div.Btrivlist table tr td {
        padding: .2ex 0em;
2774 }
2775
2776
2777 /* program listing callouts: */
2778 span.callout {
         font-family: "DejaVu Sans", "Bitstream Vera Sans",
2779
2780
            Geneva, Verdana, sans-serif ;
2781
        border-radius: .5em;
2782
        background-color:black;
        color:white;
2783
2784
        padding:0px .25em 0px .25em;
2785
        margin: 0;
        font-weight: bold;
2786
2787
        font-size:.72em ;
```

```
2788 }
2790 div.programlisting pre.verbatim span.callout{
        font-size: .85em ;
2791
2792 }
2793
2794 span.verbatim {
        font-family: "DejaVu Mono", "Bitstream Vera Mono", "Lucida Console",
2795
            "Nimbus Mono L", "Liberation Mono", "FreeMono", "Andale Mono",
2796
            "Courier New", monospace;
2797
2798 }
2799
2800
2801
2802 div.published
2803 {
        text-align: center;
2804
2805
        font-variant: normal ;
        font-style: italic ;
2806
        font-size: 1em ;
2807
2808
        margin: 1ex 0em 1ex 0em ;
2809 }
2810
2811 div. subtitle
2812 {
2813
        text-align: center;
2814
        font-variant: normal ;
2815
        font-style: italic ;
        font-size: 1.25em ;
2816
2817
        margin: 1ex 0em 1ex 0em ;
2818 }
2819
2820 div.subtitle p { margin: 1ex ; }
2821
2822 div.author
2823 {
2824
        font-variant: normal ;
2825
        font-style: normal ;
2826
        font-size: 1em ;
2827
        margin: 1ex 0em 1ex 0em ;
2828 }
2829
2830 div.oneauthor {
        display: inline-block;
2831
2832
        margin: 0ex 1em 0ex 1em;
2833 }
2834
2835 /*
2836 div.author table {
2837
        margin: 1ex auto 0ex auto ;
        background: none;
2838
2839 }
2840
2841 div.author table tbody tr td { padding: .25ex ; }
2842 */
```

```
2844 span.affiliation {font-size: .85em; font-variant: small-caps; }
2846 div.titledate {
2847
        text-align: center ;
        font-size: .85em ;
2848
        font-style: italic;
2849
2850
        margin: 1ex 0em 1ex 0em ;
2851 }
2852
2853
2854 nav.topnavigation{
2855
        text-align: left ;
2856
        padding: 0.5ex 1em 0.5ex 1em ;
2857 /*
           margin: 2ex 0em 3ex 0em ; */
2858
        margin: 0;
        border-bottom: 1px solid silver ;
2859
2860
        border-top: 1px solid silver ;
        clear:both ;
2861
2862 }
2863
2864 nav.botnavigation{
        text-align: left ;
2866
        padding: 0.5ex 1em 0.5ex 1em ;
2867 /*
           margin: 3ex 0em 2ex 0em ; */
2868
        margin: 0;
2869
        border-top: 1px solid silver ;
2870
        border-bottom: 1px solid silver ;
2871
        clear:both ;
2872 }
2873
2874
2875 header {
        line-height: 1.2;
2876
2877
        font-size: 1em ;
2878
        border-bottom: 1px solid silver;
2879
        margin: 0px;
2880
        padding: 2ex 1em 2ex 1em;
2881
        text-align:left ;
2882 }
2883
2884
2885 footer {
        font-size: .85em ;
2886
        line-height: 1.2;
2887
2888
        margin-top: 1ex ;
2889
        border-top: 1px solid silver;
2890
        padding: 2ex 1em 2ex 1em;
2891
        clear:both ;
        text-align:left ;
2892
2893 }
2894
2895
2896 a.linkhome { font-weight:bold ; font-size: 1em ;}
```

```
2898
2899 div.lateximagesource { padding: Opx; margin: Opx; display: none; }
2901 img.lateximage{
       padding: 0pt;
2902
       margin: 0pt;
2903
       box-shadow: none;
2904
2905
       border: none;
       background: none;
2907
       max-width: 100%;
       border-radius: 0ex;
2908
       border: none ;
2909
2910 }
2911
2913 /* The -1px right margin compensates for the 1px right border. */
2914 /* Without this -1px margin, the body container appears below instead */
2915 /* of floating to the side. */
2916 div.sidetoccontainer {
        font-family: "DejaVu Serif", "Bitstream Vera Serif",
2917
2918
            "Lucida Bright", Georgia, serif;
2919
       float: left;
       width: 20%;
2920
       margin: 0pt -1px 3ex 0pt;
2921
       border-right: 1px solid silver;
2922
       border-bottom: 1px solid silver;
2923
2924
       background: #FAF7F4;
2925
       font-size:.9em ;
       border-radius: 0px 0px 20px 0px;
2926
2927 }
2928
2929 div.sidetoccontents {
       overflow-y: auto ;
2930
2931
       width: 100%;
2932
       text-align: left;
2933 }
2934
2935
2936 nav.sidetoc p {line-height:1.2 ; margin: 1ex .5em 1ex .5em ;
2937
       text-indent: 0 ; }
2938
2939 nav.sidetoc p a {color:black; font-size: .7em;}
2941 div.sidetoctitle {font-size: 1.2em; font-weight:bold; text-align:center;
       border-bottom: 1px solid silver ;
2942
                                              }
2943
2944 nav.sidetoc a:hover {text-decoration: underline ; }
2945
2946
2948 section.textbody { margin: 0ex 1em 0ex 1em ;}
2949
2950
2951 div.multicolsheading { -webkit-column-span: all;
       -moz-column-span: all; column-span: all; }
```

```
2953 div.multicols { -webkit-columns: 3 380px ;
        -moz-columns: 3 380px ; columns: 3 380px ; }
2955 div.multicols p {margin-top: 0ex}
2956
2957
2958 /* Used for xfrac and nicefrac: */
2959 span.numerator {
        font-size: 60% ;
2960
2961
        vertical-align: .4em ;
2962 }
2963
2964 span.denominator {
2965
        font-size: 60%
2966 }
2967
2969 /* Used for algorithm2e: */
2970 div.alg2evline{
        margin-left: 1em ;
2971
        padding-left: 1em ;
2972
        border-left: 1px solid black ;
2973
2974
        border-radius: 0px 0px 0px 1ex;
2975 }
2976
2977 div.alg2evsline{
2978
        margin-left: 1em ;
        padding-left: 1em ;
2979
2980
        border-left: 1px solid black ;
2981 }
2982
2983 div.alg2enoline{
2984
        margin-left: 1em ;
2985
        padding-left: 1em ;
2986 }
2987
2988 span.alg2elinenumber{
2989
        margin-right: .5em ;
2990
        font-size: 50% ;
2991
        color: red ;
2992 }
2993
2995 /* Used for algorithmicx: */
2996 span.floatright { float: right ; }
2997
2998
2999 /* keyfloat and tocdata: */
3000 .floatnotes {
        margin: 0ex 5% 0ex 5%;
        padding: 0ex 1em 0ex 1em;
3002
3003
        font-size:.80em ;
3004
        text-align: left ;
3005 }
3006
3007 .authorartist{
```

```
3008
        font-size:.70em;
3009
        font-style: italic;
3010 }
3011
3012
3013
3014 /* Native LaTeX theorems: */
3016 .theoremcontents { font-style: italic; margin-top: 3ex; margin-bottom: 3ex; }
3017 .theoremlabel { font-style: normal; font-weight: bold; margin-right: .5em; }
3019
3020 \ / * theorem, amsthm, and ntheorem packages */
3021
3022 span. theoremheader,
3023 span.theoremheaderplain,
3024 span. theoremheaderdefinition,
3025 span.theoremheaderbreak,
3026 span.theoremheadermarginbreak,
3027 span. theoremheaderchangebreak,
3028 span.theoremheaderchange,
3029 span.theoremheadermargin
3030 {
3031
        font-style:normal ; font-weight: bold ; margin-right: 1em ;
3032 }
3033
3034 span.amsthmnameplain,
3035 span.amsthmnamedefinition,
3036 span.amsthmnumberplain,
3037 span.amsthmnumberdefinition
3038 {
        font-style:normal ; font-weight: bold ;
3039
3040 }
3041
3042
3043 span.amsthmnameremark,
3044 span.amsthmnumberremark
3045 {font-style:italic ; font-weight: normal ; }
3046
3047
3048 span.amsthmnoteplain,
3049 span.amsthmnotedefinition
3050 {font-style:normal;}
3051
3052
3053 span. theoremheaderremark,
3054 span. theoremheaderproof,
3055 span.amsthmproofname
3056 {font-style:italic ; font-weight: normal ; margin-right: 1em ; }
3057
3058 span.theoremheadersc
3059 {
3060
        font-style:normal ;
3061
        font-variant: small-caps ;
3062
        font-weight: normal ;
```

```
3063
        margin-right: 1em ;
3064 }
3065
3066 .theoremendmark {float:right}
3068 div.amsthmbodyplain, div.theorembodyplain, div.theorembodynonumberplain,
3069 div.theorembodybreak, div.theorembodynonumberbreak,
3070 div. theorembodymarginbreak,
3071 div. theorembodychangebreak,
3072 div. theorembodychange,
3073 div.theorembodymargin
3074 {
3075
        font-style:italic;
3076
        margin-top: 3ex ; margin-bottom: 3ex ;
3077 }
3078
3079 div.theorembodydefinition, div.theorembodyremark, div.theorembodyproof,
3080 div.theorembodyplainupright, nonumberplainuprightsc,
3081 div.amsthmbodydefinition, div.amsthmbodyremark,
3082 div.amsthmproof
3083 {
3084
        font-style: normal ;
        margin-top: 3ex ; margin-bottom: 3ex ;
3085
3086 }
3087
3088 span.amsthmnoteremark {}
3089
3091 /* For the notes package: */
3092 div.notesimportantnote, div.noteswarningnote, div.notesinformationnote {
3093
        clear: both;
        margin: 2ex 2em 2ex 2em ;
3094
        border: 1px solid silver;
3095
3096 }
3097
3098 div.notesicon {
        float:left;
3099
        display: inline-block;
3100
3101
        background: gold;
3102
        padding: 0ex 1em 0ex 1em;
3103
        margin-right: 1em ;
3104
        font-weight: bold ;
3105 }
3106
3107 div.notescontents { font-style: italic }
3108
3109
3111 For CSS LaTeX and related logos:
3112 Based on spacing demonstrated by the metafont package.
3113 */
3114
3115 .latexlogofont {
        font-family: "Linux Libertine O", "Nimbus Roman No 9 L",
3116
3117
            "FreeSerif", "Hoefler Text", Times, "Times New Roman", serif;
```

```
3118
       font-variant: normal ;
3119 }
3120
3121 .latexlogo {
       font-family: "Linux Libertine O", "Nimbus Roman No 9 L",
3122
            "FreeSerif", "Hoefler Text", Times, "Times New Roman", serif;
3123
       font-size: 1.1em;
3124
3125 }
3126
3127 .latexlogosup {
3128 text-transform: uppercase;
3129 letter-spacing: .03em;
3130 font-size: 0.7em;
3131 vertical-align: 0.25em;
3132
     margin-left: -0.4em;
3133 margin-right: -0.15em;
3134 }
3135
3136 .latexlogosub {
3137 text-transform: uppercase;
3138 vertical-align: -0.27ex;
3139 margin-left: -0.08em;
3140 margin-right: -0.07em;
3141 font-size: 1em;
3142 }
3143
3144 .latexlogotwoe {
3145 text-transform: none;
3146 font-variant-numeric: oldstyle-nums;
3147 }
3148
3149 .latexlogotwoesub {
3150 font-style:italic;
3151 vertical-align: -0.27ex;
3152 margin-left: -0.11em;
3153 margin-right: -0.1em;
3154 font-size: 1em;
3155 }
3156
3157 .xelatexlogo {
       font-family: "Linux Libertine O", "Nimbus Roman No 9 L",
            "FreeSerif", "Hoefler Text", Times, "Times New Roman", serif;
3159
3160
        letter-spacing: .03em ;
        font-size: 1.1em;
3161
3162 }
3163
3164 .xelatexlogosub {
3165 vertical-align: -0.27ex;
3166 margin-left: -0.0667em;
3167 margin-right: -.05em;
     font-size: 1em;
3168
3169
     letter-spacing: .03em ;
3170 }
3171
3172 .amslogo {
```

```
font-family: "TeXGyreChorus","URW Chancery L",
3173
            "Apple Chancery", "ITC Zapf Chancery", "Monotype Corsiva",
3174
            "Linux Libertine O", "Nimbus Roman No 9 L", "FreeSerif",
3175
            "Hoefler Text", Times, "Times New Roman", serif;
3176
        font-style: italic ;
3177
3178 }
3179
3180 .lyxlogo {
        font-family: "URW Classico", Optima, "Linux Biolinum O",
            "DejaVu Sans", "Bitstream Vera Sans", Geneva,
3182
            Verdana, sans-serif ;
3183
3184 }
3185
3186
3187 /* Only display top and bottom navigation if a small screen: */
3188 /* Hide the sidetoc if a small screen: */
3189 nav.topnavigation { display:none; }
3190 nav.botnavigation { display:none; }
3191
3192 /* Only display the sidetoc's webpage title if a small screen */
3193 span.sidetocthetitle { display: none }
3194
3195 @media screen and (max-width: 50em) {
       div.sidetoccontainer {
3196
            float: none ;
3197
            width: 100%;
3198
3199
            padding: 0 ;
3200
            border-radius: 0 ;
            border-bottom: 1px solid black;
3201
3202
            border-top: 1px solid black;
            box-shadow: none ;
3203
3204
        span.sidetocthetitle { display: inline }
3205
3206
       nav.botnavigation { display:block }
3207
       div.bodycontainer { width: 100% }
3208
        .marginpar {
            max-width: 100%;
3209
            float: none;
3210
3211
            display:block ;
3212
            margin: 1ex 1em 1ex 1em ;
3213
       }
3214 }
3215
3216 @media print {
       body {
3217
            font-family: "Linux Libertine O",
3218
3219
            "DejaVu Serif", "Bitstream Vera Serif",
            "Liberation Serif", "Nimbus Roman No 9 L",
3220
3221
            "FreeSerif", "Hoefler Text", Times, "Times New Roman", serif;
3222
       div.sidetoccontainer { display:none; }
3223
3224
       nav.topnavigation { display: none; }
3225
       nav.botnavigation { display: none; }
3226
       div.bodycontainer { width: 100% }
3227 }
```

```
3228
3229 @media handheld {
       div.sidetoccontainer { display:none; }
3230
3231
       nav.topnavigation { display:block }
       nav.botnavigation { display:block }
3232
       div.bodycontainer { width: 100% }
3233
3234 }
3235
3236 @media projection {
       div.sidetoccontainer { display:none; }
       nav.topnavigation { display:block }
3238
       nav.botnavigation { display:block }
3239
       div.bodycontainer { width: 100% }
3240
3241 }
3242 \end{filecontents*}
3243 % \end{Verbatim}% for syntax highlighting
3244 \end{LWRwriteconf}
```

40.5 lwarp_sagebrush.css

File lwarp_sagebrush.css An optional css which may be used for a semi-modern appearance.

If used, this must be present both when compiling the project and also when distributing the HTML files.

```
Config file: 3245 \begin{LWRwriteconf}
          3246 \begin{filecontents*}{lwarp_sagebrush.css}
          3247 @import url("lwarp.css") ;
          3248
          3249
          3250 A:link {color:#105030 ; text-decoration: none ; }
          3251 A:visited {color:#705030 ; text-shadow:1px 1px 2px #a0a0a0;}
          3252 A:hover {color:#006000; text-decoration: underline; text-shadow:0px 0px 2px #a0a0a0;}
          3253 A:active {color:#00C000 ; text-shadow:1px 1px 2px #a0a0a0;}
          3254
          3255
          3256
          3257 h1, h2, h3, h4, h5, h6, span.paragraph, span.subparagraph
          3258 {
                  font-family: "URW Classico", Optima, "Linux Biolinum O",
          3259
                      "Linux Libertine O", "Liberation Serif",
          3260
                      "Nimbus Roman No 9 L", "FreeSerif",
          3261
                       "Hoefler Text", Times, "Times New Roman", serif;
          3262
                  font-variant: small-caps ;
          3263
                  font-weight: normal ;
          3264
                  color: #304070;
          3265
          3266
                  text-shadow: 2px 2px 3px #808080;
          3267 }
          3268
          3269 h1 {
                      /* title of the entire website, used on each page */
                  font-variant: small-caps ;
          3270
                  color: #304070 ;
          3271
                  text-shadow: 2px 2px 3px #808080;
          3272
          3273
                  background-color: #F7F7F0 ;
```

```
3274
       background-image: linear-gradient(to bottom, #F7F7F0, #C0C0C4);
3275 }
3276
3277 h1 {
3278 border-bottom: 1px solid #304070;
3279 /* border-top: 2px solid #304070; */
3280 }
3281
3282 h2 {
3283 border-bottom: 1px solid #304070;
3284 /* border-top: 2px solid #304070; */
       background-color: #F7F7F0 ;
3285
       background-image: linear-gradient(to bottom, #F7F7F0, #DAD0C0);
3286
3287 }
3288
3289
3290
3291 div.abstract {
       background: #f5f5eb;
3292
       background-image: linear-gradient(to bottom, #f5f5eb, #C8C8B8);
3293
3294
3295
     border: 1px solid silver;
       border-radius: 1em;
3296
3297 }
3299 div.abstract dl {line-height:1.5;}
3300 div.abstract dt {color:#304070;}
3302 div.abstracttitle{
        font-family: "URW Classico", Optima, "Linux Biolinum O",
3303
3304
            "Linux Libertine O", "Liberation Serif", "Nimbus Roman No 9 L",
            "FreeSerif", "Hoefler Text", Times, "Times New Roman", serif;
3305
       font-weight:bold;
3306
3307
       font-variant: small-caps ;
3308
       font-size:1.5em;
3309
       border-bottom: 1px solid silver;
       color: #304070 ;
3310
        text-align: center ;
3311
        text-shadow: 1px 1px 2px #808080;
3312
3313 }
3314
3315 span.abstractrunintitle{
3316
        font-family: "URW Classico", Optima, "Linux Biolinum O",
            "Linux Libertine O", "Liberation Serif", "Nimbus Roman No 9 L",
3317
            "FreeSerif", "Hoefler Text", Times, "Times New Roman", serif;
3318
       font-weight:bold;
3319
3320 }
3321
3322
3323 div.epigraph, div.dictum {
       background: #f5f5eb ;
3324
3325
       background-image: linear-gradient(to bottom, #f5f5eb, #C8C8B8);
3326
3327
       border: 1px solid silver;
3328
       border-radius: 1ex;
```

```
3329
        box-shadow: 3px 3px #808080;
3330 }
3331
3332
3333 .example {
        background-color: #f5f5eb ;
3334
        background-image: linear-gradient(to bottom, #f5f5eb, #C8C8B8);
3335
3336
3337 }
3338
3339 div.exampletitle{
        font-family: "URW Classico", Optima, "Linux Biolinum O",
3340
            "Linux Libertine O", "Liberation Serif", "Nimbus Roman No 9 L",
3341
            "FreeSerif", "Hoefler Text", Times, "Times New Roman", serif;
3342
3343
        font-weight:bold;
        font-variant: small-caps ;
3344
        border-bottom: 1px solid silver ;
3345
        color: #304070 ;
3346
        text-align: center ;
3347
        text-shadow: 1px 1px 2px #808080;
3348
3349 }
3350
3351
3352 .sidebar {
        background-color: #f5f5eb ;
3353
        background-image: linear-gradient(to bottom, #f5f5eb, #C8C8B8);
3354
3355
3356 }
3357
3358 div.sidebartitle{
3359
        font-family: "URW Classico", Optima, "Linux Biolinum O",
            "Linux Libertine O", "Liberation Serif", "Nimbus Roman No 9 L",
3360
            "FreeSerif", "Hoefler Text", Times, "Times New Roman", serif;
3361
        font-weight:bold;
3362
3363
        font-variant: small-caps ;
        border-bottom: 1px solid silver ;
3364
        color: #304070 ;
3365
        text-align: center ;
3366
        text-shadow: 1px 1px 2px #808080;
3367
3368 }
3369
3370
3371 .fancyvrblabel {
        font-family: "URW Classico", Optima, "Linux Biolinum O",
3372
            "Linux Libertine O", "Liberation Serif", "Nimbus Roman No 9 L", \,
3373
            "FreeSerif", "Hoefler Text", Times, "Times New Roman", serif;
3374
3375
        font-weight:bold;
3376
        font-variant: small-caps ;
3377
        font-size: 1.5em ;
3378
        color: #304070;
        text-align: center;
3379
        text-shadow: 1px 1px 2px #808080;
3380
3381 }
3382
3383 div.minipage {
```

```
3384
       background-color: #eeeee7 ;
3385
       border: 1px solid silver;
       border-radius: 1ex;
3386
3387 }
3388
3389 table div.minipage { background: none ; border: none ; }
3391 div.framebox div.minipage {border:none; background:none}
3393 section.textbody > div.minipage {
       box-shadow: 3px 3px #808080;
3394
3395 }
3396
3397 div.fboxBlock div.minipage { box-shadow: none ; }
3399 .framed .minipage , .framedleftbar .minipage {
       border: none ;
3400
       background: none;
3401
       padding: 0ex ;
3402
       margin: 0ex;
3403
3404 }
3405
3406 figure.figure .minipage, div.figurecaption .minipage { border: none; }
3408 div.marginblock div.minipage,
3409 div.marginparblock div.minipage
3410
       { border: none; }
3411
3412 figure , div.marginblock {
3413
       background-color: #eeeee7 ;
3414
       border: 1px solid silver ;
       border-radius: 1ex ;
3415
       box-shadow: 3px 3px #808080;
3416
3417 }
3418
3419 figure figure {
3420
       border: 1px solid silver;
3421
       margin: 0em ;
3422
       box-shadow: none ;
3423 }
3424
3425 /*
3426 div.figurecaption {
       border-top: 1px solid silver ;
3427
3428
       border-bottom: 1px solid silver ;
3429
       background-color: #e8e8e8 ;
3430 }
3431 */
3432
3433
3434 div.table {
3435
       box-shadow: 3px 3px #808080;
3436 }
3437
3438 /*
```

```
3439 .tnotes {
3440
        background: #e8e8e8;
        border: 1px solid silver;
3441
3442 }
3443 */
3444
3445
3446 nav.topnavigation{
        background-color: #b0b8b0 ;
        background-image: linear-gradient(to bottom, #e0e0e0, #b0b8b0) ;
3448
3449 }
3450
3451 nav.botnavigation{
        background-color: #b0b8b0 ;
3452
3453
        background-image: linear-gradient(to top,#e0e0e0,#b0b8b0) ;
3454 }
3455
3456
3457
3458 header{
        background-color: #F7F7F0 ;
3459
3460
        background-image: linear-gradient(to top, #F7F7F0, #b0b8b0);
3461 }
3462
3463 footer{
3464
        background-color: #F7F7F0 ;
3465
        background-image: linear-gradient(to bottom, #F7F7F0, #b0b8b0);
3466 }
3467
3468
3469
3470 div.sidetoccontainer {
        background-color: #F7F7F0 ;
        background-image: linear-gradient(to bottom, #F7F7F0, #C0C0C0);
3472
3473
        box-shadow: 3px 3px #808080;
3474
3475
3476 div.sidetoctitle {color: #304070; }
3478 nav.sidetoc a:hover {
3479
        color:#006000;
3480
        text-decoration: none;
3481
        text-shadow:0px 0px 2px #a0a0a0;
3482 }
3483
3484
3485 @media screen and (max-width: 45em) {
3486
        div.sidetoccontainer { border-radius: 0 ; }
3487 }
3488
3489
3490 \end{filecontents*}
3491\,\%\ \end{\ensuremath{\mbox{Verbatim}}\xspace}\% for syntax highlighting
3492 \end{LWRwriteconf}
```

40.6 lwarp_formal.css

File lwarp_formal.css An optional css which may be used for a more formal appearance.

If used, this must be present both when compiling the project and also when distributing the ${\tt HTML}$ files.

```
Config file: 3493 \begin{LWRwriteconf}
          3494 \begin{filecontents*}{lwarp_formal.css}
          3495 @import url("lwarp.css");
          3496
          3497
          3498
          3499 A:link {color:#802020 ; text-decoration:none; }
          3500 A:visited {color:#802020 ; text-shadow:none ;}
          3501 A:hover {color:#400000 ; text-shadow:none ;}
          3502 A:active {color:#C00000 ; text-shadow:none ;}
          3504
          3505 body {
                  font-family: "Linux Libertine O", "Hoefler Text", "Garamond",
          3506
                       "Bembo", "Janson", "TeX Gyre Pagella", "Palatino",
          3507
                       "Liberation Serif", "Nimbus Roman No 9 L", "FreeSerif", Times,
          3508
          3509
                       "Times New Roman", serif;
                  background: #fffcf5;
          3510
          3511 }
          3512
          3513 span.textrm {
                  font-family: "Linux Libertine O", "Hoefler Text", "Garamond",
          3514
                       "Bembo", "Janson", "TeX Gyre Pagella", "Palatino",
          3515
                       "Liberation Serif", "Nimbus Roman No 9 L", "FreeSerif", Times,
          3516
                       "Times New Roman", serif;
          3517
          3518 }
          3519
          3520 span.textsf {
                   font-family: "DejaVu Sans", "Bitstream Vera Sans",
          3521
          3522
                      Geneva, Verdana, sans-serif ;
          3523 }
          3524
          3525
          3526
          3527 h1, h2, h3, h4, h5, h6, span.paragraph, span.subparagraph
          3528 {
                  font-family: "Linux Libertine O", "Hoefler Text", "Garamond",
          3529
                       "Bembo", "Janson", "TeX Gyre Pagella", "Palatino",
          3530
                       "Liberation Serif", "Nimbus Roman No 9 L", "FreeSerif", Times,
          3531
                       "Times New Roman", serif;
          3532
                  color: #800000;
          3533
                  text-shadow: none ;
          3534
          3535 }
          3536
          3537 h1, h2 {
                  background-color: #fffcf5;
          3538
                  background-image: none ;
          3539
                  border-bottom: 1px solid #808080;
          3540
```

```
3541 /*
          border-top: 2px solid #808080; */
3542 }
3543
3544 div.abstracttitle {
        font-family: "Linux Libertine O", "Hoefler Text", "Garamond",
3545
            "Bembo", "Janson", "TeX Gyre Pagella", "Palatino",
3546
            "Liberation Serif", "Nimbus Roman No 9 L", "FreeSerif", Times,
3547
            "Times New Roman", serif;
3548
3549
        color: black;
        text-shadow: none ;
3550
3551 }
3552
3553 span.abstractrunintitle {
        font-family: "Linux Libertine O", "Hoefler Text", "Garamond",
3554
            "Bembo", "Janson", "TeX Gyre Pagella", "Palatino",
3555
            "Liberation Serif", "Nimbus Roman No 9 L", "FreeSerif", Times,
3556
            "Times New Roman", serif;
3557
3558
       color: black;
        text-shadow: none ;
3559
3560 }
3561
3562 div.abstract { font-size: 100% }
3563
3564 .sidebar {
3565
       background: #fffcf5;
3566
       background-image: none ;
3567
     margin: 2em 5% 2em 5%;
     padding: 0.5em 1em;
     border: none ;
     border-top : 1px solid silver;
3570
     border-bottom : 1px solid silver;
3571
     font-size: 90%;
3572
3573 }
3574
3575 div.sidebartitle{
        font-family: "Linux Libertine O", "Hoefler Text", "Garamond",
3577
            "Bembo", "Janson", "TeX Gyre Pagella", "Palatino",
            "Liberation Serif", "Nimbus Roman No 9 L", "FreeSerif", Times,
3578
3579
            "Times New Roman", serif;
3580
       color: #800000;
3581
        text-shadow: none ;
3582
       border: none;
3583 }
3584
3585 .example {
       background: #fffcf5;
3586
       background-image: none ;
3587
3588
     margin: 2em 5% 2em 5%;
     padding: 0.5em 1em;
3590
     border: none ;
     border-top : 1px solid silver;
3591
     border-bottom : 1px solid silver;
3592
3593 }
3594
3595 div.exampletitle{
```

```
font-family: "Linux Libertine O", "Hoefler Text", "Garamond",
3596
             "Bembo", "Janson", "TeX Gyre Pagella", "Palatino",
"Liberation Serif", "Nimbus Roman No 9 L", "FreeSerif", Times,
3597
3598
             "Times New Roman", serif;
3599
        color: #800000;
3600
        text-shadow: none ;
3601
        border: none;
3602
3603 }
3604
3605 div.fancyvrblabel{
        font-family: "Linux Libertine O", "Hoefler Text", "Garamond",
3606
             "Bembo", "Janson", "TeX Gyre Pagella", "Palatino",
3607
             "Liberation Serif", "Nimbus Roman No 9 L", "FreeSerif", Times,
3608
             "Times New Roman", serif;
3609
3610
        color: #800000;
        text-shadow: none ;
3611
        border: none ;
3612
3613 }
3614
3615
3616
3617 figure {
        margin: 5ex 5% 5ex 5%;
3618
        padding: 1ex 1em 1ex 1em;
3619
3620
        background-color: #fffcf5 ;
3621
        overflow-x: auto ;
3622
        border: none;
3623 /*
           border-top: 1px solid silver; */
3624 /*
           border-bottom: 1px solid silver; */
3625 }
3626
3627
3628\;div.figure caption , .lstlisting {
3629
        border: none;
3630 /*
           border-top: 1px solid silver; */
3631 /*
           border-bottom: 1px solid silver; */
3632
        background-color: #fffcf5 ;
3633 }
3634
3635 .tnotes {
3636
        background: #fffcf5;
3637
        border-top: 1px solid silver;
3638
        border-bottom: 1px solid silver ;
3639 }
3640
3641 .theorem {
3642
            background: none;
3643 }
3644
3645 .minipage {
        background-color: #fffcf5 ;
3646
3647
        border: none ;
3648 }
3650 div.floatrow figure { border: none ; }
```

```
3652 figure figure { border: none ; }
3654
3655 nav.toc, nav.lof, nav.lot, nav.lol {
        font-family: "Linux Libertine O", "Hoefler Text", "Garamond",
3656
            "Bembo", "Janson", "TeX Gyre Pagella", "Palatino",
3657
            "Liberation Serif", "Nimbus Roman No 9 L", "FreeSerif", Times,
3658
            "Times New Roman", serif;
3659
3660 }
3661
3662 div.sidetoccontainer {
        font-family: "Linux Libertine O", "Hoefler Text", "Garamond",
3663
            "Bembo", "Janson", "TeX Gyre Pagella", "Palatino",
3664
            "Liberation Serif", "Nimbus Roman No 9 L", "FreeSerif", Times,
3665
            "Times New Roman", serif;
3666
        background-image: linear-gradient(to bottom, #fffcf5, #C0C0C0);
3667
3668 }
3669
3670 div.sidetoctitle{
        color: #800000;
3671
3672 }
3673
3674 header{
        background-color: #e0e0e0 ;
3675
        background-image: linear-gradient(to top, #fffcf5, #b0b0b0);
3676
3677
        text-align:center ;
3678 }
3679
3680 footer{
        background-color: #e0e0e0 ;
3681
        background-image: linear-gradient(to bottom, #fffcf5, #b0b0b0);
3682
        padding: 2ex 1em 2ex 1em;
3683
3684
        text-align:left ;
3685 }
3686
3687 nav.botnavigation {
        background: #dedcd5 ;
3688
3689
        border-top: 1px solid black ;
3690 }
3691 \end{filecontents*}
3692 % \end{Verbatim}% for syntax highlighting
3693 \end{LWRwriteconf}
```

40.7 sample_project.css

File sample_project.css The project-specific css file. Use with \CSSFilename.

If used, this must be present both when compiling the project and also when distributing the HTML files.

```
3697 /* ( --- A sample project-specific CSS file for lwarp --- ) */
3698
3699 /* Uncomment one of the following: */
3700 @import url("lwarp.css");
3701 /* @import url("lwarp_formal.css"); */
3702 /* @import url("lwarp_sagebrush.css"); */
3703 /* Project-specific CSS setting follow here. */
3704 /* Project-specific CSS setting follow here. */
3705 /* . . . */
3706
3707 /* ( --- End of project.css --- ) */
3708 \end{filecontents*}
3709 % \end{Verbatim}% for syntax highlighting
3710 \end{LWRwriteconf}
```

40.8 lwarp.ist

File lwarp.ist Used to modify the index for lwarp.

This must be present when compiling the project, but does not need to be present when distributing the resulting HTML files.

The page compositor line is for memoir's \specialindex.

```
Config file: 3711 \begin{LWRwriteconf}
                                       3712 \begin{filecontents*}{lwarp.ist}
                                       3713 preamble
                                        3714 "\\begin{theindex}
                                       3715 \\providecommand*\\lettergroupDefault[1]{}
                                                             \\providecommand*\\lettergroup[1]{%
                                        3716
                                        3717
                                                                              \prootem{1}\operatorname{textbf}{\#1}\operatorname{par}
                                        3718
                                                                              \\nopagebreak
                                        3719
                                                            }
                                        3720 "
                                        3721 headings_flag 1
                                        3722 heading_prefix "
                                       3723 \\lettergroup{"
                                        3724 heading_suffix "}"
                                        3725 delim_0 ", \\hyperindexref{"
                                        3726 delim_1 ", \hrightarrow1 ", \hrightarrow1 ", \hrightarrow1 ", \hrightarrow2 ", \hrightarrow3 ", \hrightarrow3 ", \hrightarrow3 ", \hrightarrow4 ", \hrightarrow5 ", \hrightarrow5 ", \hrightarrow6 ", \hrightarrow6
                                        3727 delim_2 ", \\hyperindexref{"
                                        3728 delim_n "}, \\hyperindexref{"
                                        3729 delim_r "} -- \\hyperindexref{"
                                        3730 delim_t "}"
                                        3731 page_compositor "."
                                        3732 \end{filecontents*}
                                        3733 % \end{Verbatim}% for syntax highlighting
                                        3734 \end{LWRwriteconf}
```

40.9 lwarp.xdy

This must be present when compiling the project, but does not need to be present when distributing the resulting HTML files.

See:

https://tex.stackexchange.com/questions/80300/ how-can-i-convince-hyperref-and-xindy-to-play-together-nicely

```
Config file: 3735 \begin{LWRwriteconf}
          3736 \begin{filecontents*}{lwarp.xdy}
          3737 (require "tex/inputenc/latin.xdy")
          3738 (merge-rule "\\PS *" "Postscript")
          3739 (require "texindy.xdy")
          3740 (require "page-ranges.xdy")
          3741 (require "book-order.xdy")
          3742 (define-location-class "arabic-page-numbers"
                  ("arabic-numbers") :min-range-length 1)
          3743
          3744 (require "makeindex.xdy")
          3745 (define-attributes (("hyperindexref")))
          3746 (markup-locref :open "\hyperindexref{" :close "}")
          3747 (markup-locref :open "\hyperindexref{" :close "}" :attr "hyperpage")
          3748 (markup-locref :open "\textbf{\hyperindexref{" :close "}}" :attr "textbf")
          3749 (markup-locref :open "\textit{\hyperindexref{" :close "}}" :attr "textit")
          3750 (define-location-class-order ("roman-page-numbers"
                                 "arabic-page-numbers"
          3751
                                 "alpha-page-numbers"
          3752
                                 "Roman-page-numbers"
          3753
                                 "Alpha-page-numbers"
          3754
                                 "see"
                                 "seealso"))
          3757 \end{filecontents*}
          3758 % \end{Verbatim}% for syntax highlighting
          3759 \end{LWRwriteconf}
```

40.10 lwarp_one_limage.cmd

File lwarp_one_limage.cmd Used by lwarp to help make lateximages when using WINDOWS.

This must be present when compiling the project, but does not need to be present when distributing the resulting HTML files.

The arguments are each of the three fields from project>-images.txt, and also the base name of the source file.

MiKTeX does not allow file lwarp_one_limage.cmd to be created directly by *lwarpmk*, so lwarp_one_limage.txt is created instead, then copied to lwarp_one_limage.cmd by *lwarpmk*. This occurs each time *lwarpmk* used to create lateximages.

```
3766 \immediate\write\LWR@quickfile{%
      pdfcrop --hires \LWR@ImagesDirectory\OSPathSymbol lateximagetemp-\LWRpercent 1.pdf %
        \LWR@ImagesDirectory\OSPathSymbol\LWRpercent 3.pdf%
3768
3769 }
3770 \immediate\write\LWR@quickfile{%
      pdftocairo -svg -noshrink \LWR@ImagesDirectory\OSPathSymbol\LWRpercent 3.pdf %
3771
        \LWR@ImagesDirectory\OSPathSymbol\LWRpercent 3.svg%
3772
3774 \immediate\write\LWR@quickfile{%
        del \LWR@ImagesDirectory\OSPathSymbol\LWRpercent 3.pdf%
3775
3776 }
3777 \immediate\write\LWR@quickfile{%
       del \LWR@ImagesDirectory\OSPathSymbol lateximagetemp-\LWRpercent 1.pdf%
3778
3779 }
3780 \immediate\write\LWR@quickfile{exit}
3781 \immediate\closeout\LWR@quickfile
3782 \end{LWRwriteconf}
```

40.11 lwarp_mathjax.txt

File lwarp_mathjax.txt

The default MathJax script used by lwarp when using MathJax. A recent version of MathJax is used, as served by the recommended repository. Adjustments are made to allow LATEX to control the equation tags.

MathJaxFilename determines which script file is copied into the HTML pages, and defaults to lwarp_mathjax.txt. The script files must be present when compiling the project, but do not need to be present when distributing the resulting HTML files.

custom script

To generate a custom script, such as to use a local repository, copy lwarp_mathjax.txt to a new file, make changes while keeping lwarp's adjustments for equation numbering, and use \MathJaxFilename to select new filename.

```
Config file: 3783 \begin{LWRwriteconf}
          3784 \begin{filecontents*}{lwarp_mathjax.txt}
          3785 <!-- https://groups.google.com/forum/#!topic/
                                              mathjax-users/jUtewUcE2bY -->
          3787 <script type="text/x-mathjax-config">
          3788 MathJax.Hub.Register.StartupHook("TeX AMSmath Ready",function () {
                  var seteqsectionDefault = {name: "", num: 0};
                  var seteqsections = {}, seteqsection = seteqsectionDefault;
          3791
                  var TEX = MathJax.InputJax.TeX, PARSE = TEX.Parse;
          3792
                  var AMS = MathJax.Extension["TeX/AMSmath"];
                  TEX.Definitions.Add({
          3793
          3794
                  macros: {
          3795
                      seteqsection: "mySection",
                      seteqnumber: "mySetEqNumber"
                  }
          3797
          3798
                  });
          3799
                  PARSE.Augment({
          3800
          3801
                  mySection: function (name) {
          3802
                      seteqsection.num = AMS.number;
                      var n = this.GetArgument(name);
```

```
if (n === "") {
3804
3805
                seteqsection = seteqsectionDefault;
            } else {
3806
                if (!seteqsections["_"+n])
3807
                     seteqsections["_"+n] = {name:n, num:0};
3808
                seteqsection = seteqsections["_"+n];
3809
3810
            }
            AMS.number = seteqsection.num;
3811
3812
        },
        mySetEqNumber: function (name) {
3813
            var n = this.GetArgument(name);
3814
            if (!n || !n.match(/^ *[0-9]+ *$/))
3815
                n = "";
3816
3817
            else
3818
                n = parseInt(n)-1;
            <!-- $ syntax highlighting -->
3819
            if (n === "" || n < 1)
3820
                TEX.Error
3821
                ("Argument to "+name+" should be a positive integer");
3822
            AMS.number = n;
3823
3824
        }
3825
        });
        MathJax.Hub.Config({
3826
        TeX: {
3827
            equationNumbers: {
3828
                formatTag: function (n) {
3829
3830
                     <!-- if not numeric, don't include the chapter -->
3831
                     if (!n.match(/^ *[0-9]+ *$/ ))
                     <!-- $ syntax highlighting -->
3832
3833
                         return "("+(n).replace(/^\./,"")+")";
                     else
3834
                       return "("+(seteqsection.name+"."+n).replace(/^\./,"")+")" ;
3835
                },
3836
                formatID: function (n) {
3837
3838
                     n = (seteqsection.name+'.'+n).replace
3839
                         (/[:"'<>&]/g,"").replace(/^\./,"");
                     return 'mjx-eqn-' + n;
3840
                }
3841
            }
3842
3843
        }
3844
        });
3845 });
3846 </script>
3847
3848 <!-- http://docs.mathjax.org/en/latest/options/ThirdParty.html -->
3849 <script type="text/x-mathjax-config">
     MathJax.Ajax.config.path["Contrib"] =
3850
3851
        "https://cdn.mathjax.org/mathjax/contrib";
3852 </script>
3854 <script type="text/x-mathjax-config">
3855 MathJax.Hub.Config({
3856
        TeX: {
            extensions: ["autoload-all.js"] ,
3857
3858
            equationNumbers: {
```

```
3859
                autoNumber: "AMS"
            }
3861
        }
3862 });
3863 </script>
3864
3865 <!-- Alternative CDN provider: -->
3866 <script type="text/javascript" async
3867 src="https://cdnjs.cloudflare.com/ajax/libs/mathjax/2.7.5/MathJax.js?config=TeX-AMS_HTML-full">
3868 </script>
3869
3870 <!-- No longer supported after April 30, 2017: -->
3871 <!--
3872 <script
3873 src="https://cdn.mathjax.org/mathjax/latest/MathJax.js?config=TeX-AMS_HTML-full">
3874 </script>
3875 -->
3876
3877 \end{filecontents*}
3878 % \end{Verbatim}% for syntax highlighting
3879 \end{LWRwriteconf}
```

40.12 lwarpmk.lua — lwarpmk option

Opt lwarpmk Creates a local copy of *lwarpmk*.

Prog lwarpmk Command-line utility to process lwarp files and images.

parallel processing

lateximages and svG math images are generated using multiple processes in parallel. For Unix and Linux, every 32 images the wait command is issued to wait for the previous batch of images to finish processing before starting a new batch. For Windows, every 32 images one task is dispatched with

```
START /B /WAIT /BELOWNORMAL
```

which causes the operating system to wait until this lesser-priority tasks finishes, hopefully also waiting for the normal priority tasks which were already in progress to also complete. Afterwards, the next batch of images is started.

The following is only generated if the lwarpmk option was given to lwarp.

```
3880 \begin{LWR@createlwarpmk}
3881 \begin{filecontents*}{lwarpmk.lua}
3882 #!/usr/bin/env texlua
3883
3884 -- Copyright 2016-2018 Brian Dunn
3885
3886
3887 printversion = "v0.71"
3888 requiredconfversion = "2" -- also at *lwarpmk.conf
3889
3890 function printhelp ()
```

```
3891 print ("lwarpmk: Use lwarpmk -h or lwarpmk --help for help.") ;
3892 end
3893
3894
3895 function printusage ()
3896 --
3897 -- Print the usage of the lwarpmk command:
3898 --
3899 print ([[
3901 lwarpmk print [-p project]: Compile the print version if necessary.
3902 lwarpmk print1 [-p project]: Forced single compile of the print version.
3903 lwarpmk printindex [-p project]: Process print indexes.
3904 lwarpmk printglossary [-p project]: Process the glossary for the print version.
3905 lwarpmk html [-p project]: Compile the HTML version if necessary.
3906 lwarpmk html1 [-p project]: Forced single compile of the HTML version.
3907 lwarpmk htmlindex [-p project]: Process HTML indexes.
3908 lwarpmk htmlglossary [-p project]: Process the glossary for the html version.
3909 lwarpmk again [-p project]: Touch the source code to trigger recompiles.
3910 lwarpmk limages [-p project]: Process the "lateximages" created by lwarp.sty.
3911 lwarpmk pdftohtml [-p project]:
       For use with latexmk or a Makefile:
3912
       Converts project_html.pdf to project_html.html and individual HTML files.
3913
3914
        Finishes the HTML conversion even if there was a compile error.
3915 lwarpmk pdftosvg <list of file names>: Converts each PDF file to SVG.
3916 lwarpmk epstopdf <list of file names>: Converts each EPS file to PDF.
3917 lwarpmk clean [-p project]: Remove *.aux, *.toc, *.lof/t,
        *.idx, *.ind, *.log, *_html_inc.*, .gl*
3919 lwarpmk cleanall [-p project]: Remove auxiliary files, project.pdf, *.html
3920 lwarpmk cleanlimages: Removes all images from the "lateximages" directory.
3921 lwarpmk -h: Print this help message.
3922 lwarpmk --help: Print this help message.
3923
3924 ]] )
3925 -- printconf ()
3926 end
3927
3928
3929 function splitfile (destfile, sourcefile)
3931 -- Split one large sourcefile into a number of files,
3932 -- starting with destfile.
3933 -- The file is split at each occurance of <!--|Start file|newfilename|*
3935 print ("lwarpmk: Splitting " .. sourcefile .. " into " .. destfile) ;
3936 local sfile = io.open(sourcefile)
3937 io.output(destfile)
3938 for line in sfile:lines() do
3939 i,j,copen,cstart,newfilename = string.find (line,"(\cdot*)|(\cdot*)|(\cdot*)|");
3940 if ( (i~= nil) and (copen == "<!--") and (cstart == "Start file")) then
        -- split the file
3941
       io.output(newfilename) ;
3942
3943 else
        -- not a splitpoint
3944
3945
       io.write (line .. "\n") ;
```

```
3946 end
3947 end -- do
3948 io.close(sfile)
3949 end -- function
3950
3951
3952 function cvalueerror ( line, linenum , cvalue )
3953 --
3954 -- Incorrect value, so print an error and exit.
3955 --
        print ("lwarpmk: ===")
3956
        print ("lwarpmk: " .. linenum .. " : " .. line ) ;
3957
        print (
3958
            "lwarpmk: incorrect variable value \"" .. cvalue ..
3959
            "\" in lwarpmk.conf.\n"
3960
3961
        );
        print ("lwarpmk: ===")
3962
          printconf ();
3963 --
        os.exit(1);
3964
3965 end
3966
3967
3968 function printhowtorecompile ()
3969 -- Tells the user how to recompile to regenerate the configuration files.
      print ("lwarpmk: The configuration files lwarpmk.conf and "..sourcename..".lwarpmkconf")
3970
3971
        print ("lwarpmk: must be updated. To do so, recompile" )
        print ("lwarpmk: " , sourcename..".tex" )
3972
        if ( printlatexcmd == "" ) then
3973
            print ("lwarpmk: using xe/lua/pdflatex," )
3974
        else
3975
                                using the command:")
3976
            print ("lwarpmk:
            print ("lwarpmk:
                                " , printlatexcmd )
3977
        end
3978
        print ("lwarpmk:
                          then use lwarpmk again.")
3979
3980 end -- printhowtorecompile
3982
3983 function ignoreconf ()
3984 -- Global argument index
3985 \text{ argindex} = 2
3986 end
3988 function loadconf ()
3989 --
3990 -- Load settings from the project's "lwarpmk.conf" file:
3991 --
3992 -- Default configuration filename:
3993 local conffile = "lwarpmk.conf"
3994 local confroot = "lwarpmk"
3995 -- Global argument index
3996 \text{ argindex} = 2
3997 -- Optional configuration filename:
3998 if (arg[argindex] == "-p") then
3999
        argindex = argindex + 1
4000
        confroot = arg[argindex]
```

```
4001
        conffile = confroot..".lwarpmkconf"
4002
        argindex = argindex + 1
4003 end
4004 -- Additional defaults:
4005 confversion = "0"
4006 opsystem = "Unix"
4007 imagesdirectory = "lateximages"
4008 imagesname = "image-"
4009 latexmk = "false"
4010 printlatexcmd = ""
4011 HTMLlatexcmd = ""
4012 printindexcmd = ""
4013 HTMLindexcmd = ""
4014 latexmkindexcmd = ""
4015 -- to be removed:
4016 -- indexprog = "makeindex"
4017 -- makeindexstyle = "lwarp.ist"
4018 -- xindylanguage = "english"
4019 -- xindycodepage = "utf8"
4020 -- xindystyle = "lwarp.xdy"
4021 -- pdftotextenc = "UTF-8"
4022 glossarycmd = "makeglossaries"
4023 -- Verify the file exists:
4024 if (lfs.attributes(conffile, "mode") == nil) then
        -- file not exists
4025
        print ("lwarpmk: ===")
4026
        print ("lwarpmk: File \"" .. conffile .."\" does not exist.")
4027
4028
        print ("lwarpmk: Move to the project's source directory,")
        print ("lwarpmk: recompile using pdflatex, xelatex, or lualatex,")
        print ("lwarpmk: then try using lwarpmk again.")
4030
4031
        if ( arg[argindex] \sim = nil ) then
            print (
4032
                 "lwarpmk: (\"" .. confroot ..
4033
                 "\" does not appear to be a project name.)" \,
4034
4035
4036
        print ("lwarpmk: ===")
4037
        printhelp ();
4038
        os.exit(1) -- exit the entire lwarpmk script
4039
4040 else -- file exists
4041 -- Read the file:
4042 print ("lwarpmk: Reading " .. conffile ..".")
4043 local cfile = io.open(conffile)
4044 -- Scan each line, parsing each line as: name = [[string]]
4045 local linenum = 0
4046 for line in cfile:lines() do -- scan lines
4047 linenum = linenum + 1
4048 i,j,cvarname,cvalue = string.find (line,"([%w-_]*)%s*=%s*%[%[([^%]]*)%]%]");
4049 -- Error if incorrect enclosing characters:
4050 \text{ if } ( i == nil ) \text{ then}
        print ("lwarpmk: ===")
4051
        print ("lwarpmk: " .. linenum .. " : " .. line ) ;
print ("lwarpmk: Incorrect entry in " .. conffile ..".\n" ) ;
4052
4053
        print ("lwarpmk: ===")
4054
4055 --
          printconf ();
```

```
4056
       os.exit(1);
4057 end -- nil
4058 if ( cvarname == "confversion" ) then
       confversion = cvalue
4060 elseif ( cvarname == "opsystem" ) then
       -- Verify choice of opsystem:
       if ( (cvalue == "Unix") or (cvalue == "Windows") ) then
4062
           opsystem = cvalue
4063
       else
4064
           cvalueerror ( line, linenum , cvalue )
4065
       end
4066
4067 elseif ( cvarname == "sourcename" ) then sourcename = cvalue
4068 elseif ( cvarname == "homehtmlfilename" ) then homehtmlfilename = cvalue
4069 elseif ( cvarname == "htmlfilename" ) then htmlfilename = cvalue
4070 elseif ( cvarname == "imagesdirectory" ) then imagesdirectory = cvalue
4071 elseif ( cvarname == "imagesname" ) then imagesname = cvalue
4072 elseif ( cvarname == "latexmk" ) then latexmk = cvalue
4073 elseif ( cvarname == "printlatexcmd" ) then printlatexcmd = cvalue
4074 elseif ( cvarname == "HTMLlatexcmd" ) then HTMLlatexcmd = cvalue
4075 elseif ( cvarname == "printindexcmd" ) then printindexcmd = cvalue
4076 elseif ( cvarname == "HTMLindexcmd" ) then HTMLindexcmd = cvalue
4077 elseif ( cvarname == "latexmkindexcmd" ) then latexmkindexcmd = cvalue
4078 elseif ( cvarname == "glossarycmd" ) then glossarycmd = cvalue
4079 elseif ( cvarname == "pdftotextenc" ) then pdftotextenc = cvalue
4080 el se
4081
       print ("lwarpmk: ===")
       print ("lwarpmk: " .. linenum .. " : " .. line ) ;
4082
4083
       print (
           "lwarpmk: Incorrect variable name \"" .. cvarname .. "\" in " ..
4084
4085
           conffile ..".\n"
4086
       );
       print ("lwarpmk: ===")
4087
4088 --
         printconf ();
4089 os.exit(1);
4090 end -- cvarname
4091 end -- do scan lines
4092 io.close(cfile)
4093 end -- file exists
4094 -- Error if sourcename is "lwarp".
4095 -- This could happen if a local copy of lwarp has recently been recompiled.
4096 if sourcename=="lwarp" then
       print ("lwarpmk: ===")
4098
       print ("lwarpmk: lwarp.sty has recently been recompiled in this directory,")
4099
      print ("lwarpmk: and \"lwarpmk.conf\" is no longer set for your own project.")
      4100
      print ("lwarpmk: After a recompile, \"lwarpmk.conf\" will be set for your project,")
4101
4102
       print ("lwarpmk: and you may again use lwarpmk.")
4103
       print ("lwarpmk: ===")
       os.exit(1)
4105 end -- sourcename of "lwarp"
4106 -- Select some operating-system commands:
4107 if opsystem=="Unix" then -- For Unix / Linux / Mac OS:
       rmname = "rm"
4108
       mvname = "mv"
4109
4110
       cpname = "cp"
```

```
4111
        touchnamepre = "touch"
        touchnamepost = ""
4112
        newtouchname = "touch"
4113
        dirslash = "/"
4114
        opquote= "\'"
4115
        cmdgroupopenname = " ( "
4116
        cmdgroupclosename = " ) "
4117
        seqname = " && "
4118
        bgname = " &"
4119
4120 elseif opsystem=="Windows" then -- For Windows
        rmname = "DEL"
4121
        mvname = "MOVE"
4122
        cpname = "COPY"
4123
        touchnamepre = "COPY /b"
4124
        touchnamepost = "+,,"
4125
        newtouchname = "echo empty >"
4126
        dirslash = "\\"
4127
        opquote= "\""
4128
        cmdgroupopenname = ""
4129
        cmdgroupclosename = ""
4130
        seqname = " & "
4131
        bgname = ""
4132
4133 else
        print ("lwarpmk: ===")
4134
4135
        print ("lwarpmk: Select Unix or Windows for opsystem." )
        print ("lwarpmk: ===")
4136
4137
        os.exit(1)
4138 end --- for Windows
4139 -- Warning if the operating system does not appear to be correct,
4140 -- in case files were transferred to another system.
4141 if ( (package.config:sub(1,1)) \sim= dirslash ) then
        print ("lwarpmk: ===")
4142
      print ("lwarpmk: It appears that lwarpmk.conf is for a different operating system.")
4143
4144
        printhowtorecompile ()
4145
        print ("lwarpmk: ===")
4146
        os.exit(1)
4147 end
4148 -- Error if the configuration file's version is not current:
4149 if ( confversion ~= requiredconfversion ) then
        print ("lwarpmk: ===")
4150
4151
        printhowtorecompile ()
4152
        print ("lwarpmk: ===")
4153
        os.exit(1)
4154 end
4155 end -- loadconf
4156
4157
4158 function executecheckerror ( executecommands , errormessage )
4160 -- Execute an operating system call,
4161 -- and maybe exit with an error message.
4162 --
4163 local err
4164 err = os.execute ( executecommands )
4165 if ( err ~= 0 ) then
```

```
4166
        print ("lwarpmk: ===")
        print ("lwarpmk: " .. errormessage )
4167
        print ("lwarpmk: ===")
4168
4169
        os.exit(1)
4170 end
4171 end -- executecheckerror
4172
4173
4174 function refreshdate ()
4175 os.execute(touchnamepre .. " " .. sourcename .. ".tex " .. touchnamepost)
4176 end
4177
4178
4179
4180 function reruntoget (filesource)
4181 --
4182 -- Scan the LaTeX log file for the phrase "Rerun to get",
4183 -- indicating that the file should be compiled again.
4184 -- Return true if found.
4185 --
4186 local fsource = io.open(filesource)
4187 for line in fsource:lines() do
4188 if ( string.find(line, "Rerun to get") ~= nil ) then
        io.close(fsource)
4189
4190
        return true
4191 end -- if
4192 end -- do
4193 io.close(fsource)
4194 return false
4195 end
4196
4197
4198
4199 function onetime (latexcmd, fsuffix)
4201 -- Compile one time, return true if should compile again.
4202 -- fsuffix is "" for print, "_html" for HTML output.
4204 print("lwarpmk: Compiling with: " .. latexcmd)
4205 executecheckerror (
4206
        latexcmd ,
4207
        "Compile error."
4209 return (reruntoget(sourcename .. fsuffix .. ".log") );
4210 end
4211
4212
4213 function manytimes (latexcmd, fsuffix)
4215 -- Compile up to five times.
4216 -- fsuffix is "" for print, "_html" for HTML output
4217 --
4218 if onetime(latexcmd, fsuffix) == true then
4219 if onetime(latexcmd, fsuffix) == true then
4220 if onetime(latexcmd, fsuffix) == true then
```

```
4221 if onetime(latexcmd, fsuffix) == true then
4222 if onetime(latexcmd, fsuffix) == true then
4223 end end end end end
4224 end
4225
4226
4227 function verifyfileexists (filename)
4228 --
4229 -- Exit if the given file does not exist.
4231 \ \text{if (lfs.attributes ( filename , "modification" ) == nil ) then}
        print ("lwarpmk: ===")
        print ("lwarpmk: " .. filename .. " not found." );
4233
        print ("lwarpmk: ===")
4234
4235
        os.exit (1);
4236 end
4237 end
4238
4239
4240
4241 function pdftohtml ()
4243 -- Convert <project>_html.pdf into HTML files:
4244 --
4245 -- Convert to text:
4246 print ("lwarpmk: Converting " .. sourcename
       .."_html.pdf to " .. sourcename .. "_html.html")
4248 os.execute("pdftotext -enc " .. pdftotextenc .. " -nopgbrk -layout "
      .. sourcename .. "_html.pdf " .. sourcename .. "_html.html")
4250 -- Split the result into individual HTML files:
4251 splitfile (homehtmlfilename .. ".html", sourcename .. "_html.html")
4252 end
4253
4254
4255 function removeaux ()
4257 -- Remove auxiliary files:
4258 -- All .aux files are removed since there may be many bbl*.aux files.
4259 --
4260 os.execute ( rmname .. " *.aux " ..
        sourcename ..".toc " .. sourcename .. "_html.toc " .. sourcename ..".lof " .. sourcename .. "_html.lof " .. sourcename .. "_html.lof " ..
4262
4263
        " *.idx " ..
4264
        " *.ind " ..
4265
        sourcename ..".ps " .. sourcename .."_html.ps " ..
4266
        sourcename ..".log " .. sourcename .. "_html.log " ..
4267
        sourcename ..".gl* " .. sourcename .. "_html.gl* " ..
4268
        " *_html_inc.* "
4269
4270
        )
4271 end
4273 function checkhtmlpdfexists ()
4275 -- Error if the HTML document does not exist.
```

```
4276 -- The lateximages are drawn from the HTML PDF version of the document,
4277 -- so "lwarpmk html" must be done before "lwarpmk limages".
4278 --
4279 local htmlpdffile = io.open(sourcename .. "_html.pdf", "r")
4280 if ( htmlpdffile == nil ) then
       print ("")
4281
       print ("lwarpmk: ===")
4282
       print ("lwarpmk: The HTML version of the document does not exist.")
4283
       print ("lwarpmk: Enter \"lwarpmk html\" to compile the HTML version.")
       print ("lwarpmk: ===")
4285
       os.exit(1)
4286
4287 end
4288 io.close (htmlpdffile)
4289 end -- checkhtmlpdfexists
4291
4292 function warnlimages ()
4293 --
4294 -- Warning of a missing <sourcename>-images.txt file:
       print ("lwarpmk: ===")
4295
        print ("lwarpmk: \"" .. sourcename .. "-images.txt\" does not exist.")
4296
       print ("lwarpmk: Your project does not use SVG math or other lateximages,")
4297
       print ("lwarpmk: or the file has been deleted somehow.")
4298
       print ("lwarpmk: Use \"lwarpmk html1\" to recompile your project")
4299
       print ("lwarpmk: and recreate \"" .. sourcename .. "-images.txt\".")
4300
       print ("lwarpmk: If your project does not use SVG math or other lateximages,")
4301
      print ("lwarpmk: then \"" .. sourcename .. "-images.txt\" will never exist, and")
4302
4303
       print ("lwarpmk: \"lwarpmk limages\" will not be necessary.")
       print ("lwarpmk: ===")
4304
4305 end -- warnlimages
4306
4307
4308 function warnlimagesrecompile ()
4309 -- Warning if must recompile before creating limages:
       print ("")
4310
4311
       print ("lwarpmk: ===")
       print ("lwarpmk: Cross-references are not yet correct.")
4312
      print ("lwarpmk: The document must be recompiled before creating the lateximages.")
4313
      print ("lwarpmk: Enter \"lwarpmk html1\" again, then try \"lwarpmk limages\" again.")
4314
       print ("lwarpmk: ===")
4315
4316 end --warnlimagesrecompile
4317
4318
4319 function checklimages ()
4320 --
4321 -- Check <sourcename>.txt to see if need to recompile first.
4322 -- If any entry has a page number of zero, then there were incorrect images.
4324 print ("lwarpmk: Checking for a valid " .. sourcename .. "-images.txt file.")
4325 local limagesfile = io.open(sourcename .. "-images.txt", "r")
4326 if ( limagesfile == nil ) then
4327
       warnlimages ()
4328
       os.exit(1)
4329 end
4330 -- Track warning to recompile if find a page 0
```

```
4331 local pagezerowarning = false
4332 -- Scan <sourcename>.txt
4333 for line in limagesfile:lines() do
        -- lwimgpage is the page number in the PDF which has the image
        -- lwimghash is true if this filename is a hash
4335
        -- lwimgname is the lateximage filename root to assign for the image
4336
        i,j,lwimgpage,lwimghash,lwimgname = string.find (line,"|(.*)|(.*)|(.*)|")
4337
4338
        -- For each entry:
        if ( (i\sim=nil) ) then
4339
            -- If the page number is 0, image references are incorrect
4340
            -- and must recompile the soure document:
4341
            if ( lwimgpage == "0" ) then
4342
                pagezerowarning = true
4343
4344
            end
4345
        end -- if i~=nil
4346 end -- do
4347 -- The last line should be |end|end|end|.
4348 -- If not, the compile must have aborted, and the images are incomplete.
4349 \text{ if (lwimgpage } \sim = "end") then
        warnlimagesrecompile()
4350
4351
        os.exit(1);
4352 end
4353 if (pagezerowarning) then
        warnlimagesrecompile()
4354
        os.exit(1);
4355
4356 end -- pagezerowarning
4357 end -- checklimages
4360 function createuniximage ( lwimgfullname )
4362 -- Create one lateximage for Unix / Linux / Mac OS.
4363 --
4364 executecheckerror (
        cmdgroupopenname ..
        "pdfseparate -f " .. lwimgpage .. " -l " .. lwimgpage .. " " ..
4366
            sourcename .."_html.pdf " ..
4367
            imagesdirectory .. dirslash .."lateximagetemp-%d" .. ".pdf" ..
4368
            seqname ..
4369
4370
        -- Crop the image:
        "pdfcrop --hires " .. imagesdirectory .. dirslash .. "lateximagetemp-" ..
4371
            lwimgpage .. ".pdf " ..
4372
4373
            imagesdirectory .. dirslash .. lwimgname .. ".pdf" ..
            seqname ..
4374
        -- Convert the image to svg:
4375
      "pdftocairo -svg -noshrink " .. imagesdirectory .. dirslash .. lwimgname .. ".pdf " ..
4376
4377
            imagesdirectory .. dirslash .. lwimgname ..".svg" ..
4378
            segname ..
4379
        -- Remove the temporary files:
      \verb|rmname .. " " .. images directory .. dirslash .. lwimgname .. ".pdf" .. seqname .. \\|
4380
      rmname .. " " .. imagesdirectory .. dirslash .. "lateximagetemp-" .. lwimgpage .. ".pdf" ..
4381
        cmdgroupclosename .. " >/dev/null " .. bgname
4382
4383
        "File error trying to convert " .. lwimgfullname
4384
4385)
```

```
4386 -- Every 32 images, wait for completion at below normal priority,
4387 -- allowing other image tasks to catch up.
4388 numimageprocesses = numimageprocesses + 1
4389 if ( numimageprocesses > 32 ) then
       numimageprocesses = 0
4390
       print ( "lwarpmk: waiting" )
4391
       executecheckerror ( "wait" , "File error trying to wait.")
4392
4393 end
4394 end -- createuniximage
4395
4396
4397 function createwindowsimage ( lwimgfullname )
4399 -- Create one lateximage for Windows.
4401 -- Every 32 images, wait for completion at below normal priority,
4402 -- allowing other image tasks to catch up.
4403 numimageprocesses = numimageprocesses + 1
4404 if ( numimageprocesses > 32 ) then
4405
       numimageprocesses = 0
        thiswaitcommand = "/WAIT /BELOWNORMAL"
4406
       print ( "lwarpmk: waiting" )
4407
4408 else
4409
        thiswaitcommand = ""
4410 end
4411 -- Execute the image generation command
4412 executecheckerror (
        "start /B " .. thiswaitcommand .. " \"\" lwarp_one_limage " ..
        lwimgpage .. " " ..
4414
        lwimghash .. " " ..
4415
       lwimgname .. " " ..
4416
        sourcename .. " <nul >nul"
4417
4418
        "File error trying to create image."
4419
4421 end -- createwindowsimage
4422
4423
4424 function createonelateximage ( line )
4425 --
4426 -- Given the next line of <sourcename>.txt, convert a single image.
4428 -- lwimgpage is the page number in the PDF which has the image
4429 -- lwimghash is true if this filename is a hash
4430 -- lwimgname is the lateximage filename root to assign for the image
4431 i,j,lwimgpage,lwimghash,lwimgname = string.find (line,"|(.*)|(.*)|(.*)|")
4432 -- For each entry:
4433 if ( (i~=nil) ) then
        -- Skip if the page number is 0:
       if ( lwimgpage == "0" ) then
4435
4436
            pagezerowarning = true
       -- Skip if the page number is "end":
4437
4438
       else if ( lwimgpage == "end" ) then
4439
       else
4440
            -- Skip is this image is hashed and already exists:
```

```
local lwimgfullname = imagesdirectory .. dirslash .. lwimgname .. ".svg"
4441
4442
            if (
                (lwimghash ~= "true") or
4443
                (lfs.attributes(lwimgfullname, "mode") == nil) -- file not exists
4444
            )
4445
            then -- not hashed or not exists:
4446
                -- Print the name of the file being generated:
4447
                print ( "lwarpmk: " .. lwimgname )
              -- Touch/create the dest so that only once instance tries to build it:
                executecheckerror (
4450
                     newtouchname .. " " .. lwimgfullname ,
4451
                     "File error trying to touch " .. lwimgfullname
4452
4453
                -- Separate out the image into its own single-page pdf:
4454
4455
                if opsystem=="Unix" then
4456
                     createuniximage (lwimgfullname)
                elseif opsystem=="Windows" then
4457
                     createwindowsimage (lwimgfullname)
4458
                end
4459
            end -- not hashed or not exists
4460
        end -- not page "end"
4461
        end -- not page 0
4463 end -- not nil
4464 end -- createonelateximage
4465
4466
4467 function createlateximages ()
4469 -- Create lateximages based on <sourcename>-images.txt:
4470 --
4471 -- See if the document must be recompiled first:
4472 checklimages ()
4473 -- See if the HTML version exists:
4474 checkhtmlpdfexists ()
4475 -- Attempt to create the lateximages:
4476 print ("lwarpmk: Creating lateximages.")
4477 local limagesfile = io.open(sourcename .. "-images.txt", "r")
4478 \ \text{if} \ (\ \text{limagesfile} == \ \text{nil} \ ) \ \text{then}
4479
        warnlimages ()
4480
        os.exit(1)
4481 end
4482 -- Create the lateximages directory, ignore error if already exists
4483 err = os.execute("mkdir" .. imagesdirectory)
4484 -- For Windows, create lwarp_one_limage.cmd from lwarp_one_limage.txt:
4485 if opsystem=="Windows" then
        executecheckerror (
4486
4487
            cpname .. " lwarp_one_limage.txt lwarp_one_limage.cmd" ,
4488
           "File error trying to copy lwarp_one_limage.txt to lwarp_one_limage.cmd"
4490 end -- create lwarp_one_limage.cmd
4491 -- Track the number of parallel processes
4492 numimageprocesses = 0
4493 -- Track warning to recompile if find a page 0
4494 pagezerowarning = false
4495 -- Scan <sourcename>.txt
```

```
4496 for line in limagesfile:lines() do
       createonelateximage ( line )
4498 end -- do
4499 io.close(limagesfile)
4500 print ( "lwarpmk limages: ===")
4501 print ( "lwarpmk limages: Wait a moment for the images to complete" )
4502 print ( "lwarpmk limages: before reloading the page." )
4503 print ( "lwarpmk limages: ===")
4504 print ( "lwarpmk limages: Done." )
4505 if ( pagezerowarning == true ) then
       print ( "lwarpmk limages: WARNING: Images will be incorrect." )
4506
       print ( "lwarpmk limages: Enter \"lwarpmk cleanlimages\", then" )
4507
       print ( "lwarpmk limages:
                                  recompile the document one more time, then" )
4508
       4509
4510 end -- pagezerowarning
4511 end -- function
4512
4513
4514 function convertepstopdf ()
4515 --
4516 -- Converts EPS files to PDF files.
4517 -- The filenames are arg[argindex] and up.
4518 -- arg[1] is the command "pdftosvg".
4519 --
4520 ignoreconf ()
4521 \; \text{for i = argindex} \; , \; \# \text{arg do}
       if (lfs.attributes(arg[i], "mode") == nil) then
4522
           print ("lwarpmk: File \"" .. arg[i] .. "\" does not exist.")
4523
4524
4525
           print ("lwarpmk: Converting \"" .. arg[i] .. "\"")
           os.execute ( "epstopdf " .. arg[i] )
4526
       end -- if
4527
4528 end -- do
4529 end --function
4530
4532 function convertpdftosvg ()
4534 -- Converts PDF files to SVG files.
4535 -- The filenames are arg[argindex] and up.
4536 -- arg[1] is the command "pdftosvg".
4537 --
4538 ignoreconf ()
4539 for i = argindex , #arg do
       if (lfs.attributes(arg[i], "mode") == nil) then
4540
           print ("lwarpmk: File \"" .. arg[i] .. "\" does not exist.")
4541
4542
       else
           print ("lwarpmk: Converting \"" .. arg[i] .. "\"")
4543
4544
           os.execute ( "pdftocairo -svg " .. arg[i] )
       end -- if
4545
4546 end -- do
4547 end --function
4548
4550 -- Force an update and conclude processing:
```

```
4551 function updateanddone ()
4552 print ("lwarpmk: Forcing an update of " .. sourcename ..".tex.")
4553 refreshdate ()
4554 print ("lwarpmk: " .. sourcename ..".tex is ready to be recompiled.")
4555 print ("lwarpmk: Done.")
4556 end -- function
4557
4559 -- Start of the main code: --
4560
4561
4562 -- lwarpmk --version :
4564 if (arg[1] == "--version") then
4565 print ( "lwarpmk: " .. printversion )
4567 else -- not --version
4568
4569
4570 -- print intro:
4572 print ("lwarpmk: " .. printversion .. " Automated make for the LaTeX lwarp package.")
4573
4574
4575 -- lwarpmk print:
4576
4577 if arg[1] == "print" then
4578 loadconf ()
4579 if ( latexmk == "true" ) then
4580
        print ("lwarpmk: Compiling with: " .. printlatexcmd)
4581
        executecheckerror (
            printlatexcmd ,
4582
            "Compile error."
4583
4584
4585
        print ("lwarpmk: Done.")
4586 else -- not latexmk
        verifyfileexists (sourcename .. ".tex") ;
4587
4588
        -- See if up to date:
        if (
4589
            ( lfs.attributes ( sourcename .. ".pdf" , "modification" ) == nil ) or
4590
4591
                lfs.attributes ( sourcename .. ".tex" , "modification" ) >
4592
                lfs.attributes ( sourcename .. ".pdf" , "modification" )
4593
4594
        ) then
4595
            -- Recompile if not yet up to date:
4596
            manytimes(printlatexcmd, "")
4597
4598
            print ("lwarpmk: Done.");
4599
            print ("lwarpmk: " .. sourcename .. ".pdf is up to date.") ;
4600
        end
4601
4602 end -- not latexmk
4603
4604
4605 -- lwarpmk print1:
```

```
4606
4607 elseif arg[1] == "print1" then
        loadconf ()
4608
        verifyfileexists (sourcename .. ".tex") ;
4609
        onetime(printlatexcmd, "")
4610
        print ("lwarpmk: Done.") ;
4611
4612
4613
4614 -- lwarpmk printindex:
4615 -- Compile the index then touch the source
4616 -- to trigger a recompile of the document:
4617
4618 elseif arg[1] == "printindex" then
4619 loadconf ()
4620 os.execute ( printindexcmd )
4621 print ("lwarpmk: -----")
4622 updateanddone ()
4623
4624
4625 -- lwarpmk printglossary:
4626 -- Compile the glossary then touch the source
4627 -- to trigger a recompile of the document:
4629 elseif arg[1] == "printglossary" then
4630 loadconf ()
4631 print ("lwarpmk: Processing the glossary.")
4633 os.execute(glossarycmd .. " " .. sourcename)
4634 updateanddone ()
4636
4637 -- lwarpmk html:
4639 elseif arg[1] == "html" then
4640 loadconf ()
4641 if ( latexmk == "true" ) then
        print ("lwarpmk: Compiling with: " .. HTMLlatexcmd)
4642
4643
        executecheckerror (
            HTMLlatexcmd ,
4644
            "Compile error."
4645
4646
4647
        pdftohtml ()
4648
        print ("lwarpmk: Done.")
4649 else -- not latexmk
        verifyfileexists ( sourcename .. ".tex" ) ;
4650
        -- See if exists and is up to date:
4651
4652
        if (
         ( lfs.attributes ( homehtmlfilename .. ".html" , "modification" ) == nil ) or
4653
4654
                lfs.attributes ( sourcename .. ".tex" , "modification" ) >
4655
                lfs.attributes ( homehtmlfilename .. ".html" , "modification" )
4656
4657
4658
        ) then
4659
            -- Recompile if not yet up to date:
4660
            manytimes(HTMLlatexcmd, "_html")
```

```
4661
            pdftohtml ()
4662
            print ("lwarpmk: Done.")
4663
            print ("lwarpmk: " .. homehtmlfilename .. ".html is up to date.")
4664
        end
4665
4666 end -- not latexmk
4667
4668
4669 -- lwarpmk html1:
4671 elseif arg[1] == "html1" then
        loadconf ()
4672
        verifyfileexists ( sourcename .. ".tex" ) ;
4673
        onetime(HTMLlatexcmd, "_html")
4674
4675
        pdftohtml ()
        print ("lwarpmk: Done.")
4676
4677
4678
4679 -- lwarpmk pdftohtml:
4680 elseif arg[1] == "pdftohtml" then
4681
        loadconf ()
4682
        pdftohtml ()
4683
4684
4685 -- lwarpmk htmlindex:
4686 -- Compile the index then touch the source
4687 -- to trigger a recompile of the document:
4689 elseif arg[1] == "htmlindex" then
4690 loadconf ()
4691 os.execute ( HTMLindexcmd )
4692 print ("lwarpmk: -----")
4693 updateanddone ()
4694
4695
4696 -- lwarpmk htmlglossary:
4697 -- Compile the glossary then touch the source
4698 -- to trigger a recompile of the document.
4699 -- The <sourcename>.xdy file is created by the glossaries package.
4701 elseif arg[1] == "htmlglossary" then
4702 loadconf ()
4703 print ("lwarpmk: Processing the glossary.")
4704 os.execute(glossarycmd .. " " .. sourcename .. "_html")
4705 updateanddone ()
4706
4707
4708 -- lwarpmk limages:
4709 -- Scan the <sourcename>.txt file to create lateximages.
4710
4711 elseif arg[1] == "limages" then
4712 loadconf ()
4713 print ("lwarpmk: Processing images.")
4714 createlateximages ()
4715 print ("lwarpmk: Done.")
```

```
4716
4718 -- lwarpmk again:
4719 -- Touch the source to trigger a recompile.
4721 elseif arg[1] == "again" then
4722 loadconf ()
4723 updateanddone ()
4724
4725
4726 -- lwarpmk clean:
4727 -- Remove project.aux, .toc, .lof, .lot, .log, *.idx, *.ind, *_html_inc.*, .gl*
4729 elseif arg[1] == "clean" then
4730 loadconf ()
4731 removeaux ()
4732 print ("lwarpmk: Done.")
4733
4734
4735 -- lwarpmk cleanall
4736 -- Remove project.aux, .toc, .lof, .lot, .log, *.idx, *.ind, *_html_inc.*, .gl*
          and also project.pdf, project.dvi, *.html
4739 elseif arg[1] == "cleanall" then
4740 loadconf ()
4741 removeaux ()
4742\,\, \text{os.execute} ( <code>rmname</code> .. " " ..
        sourcename .. ".pdf " .. sourcename .. "_html.pdf " ..
sourcename .. ".dvi " .. sourcename .. "_html.dvi " ..
4744
        "*.html"
4745
4746
4747 print ("lwarpmk: Done.")
4748
4749
4750 -- lwarpmk cleanlimages
4751 -- Remove images from the imagesdirectory.
4753 elseif arg[1] == "cleanlimages" then
4754 loadconf ()
4755 os.execute ( rmname .. " " .. imagesdirectory .. dirslash .. "*" )
4756 print ("lwarpmk: Done.")
4758 -- lwarpmk epstopdf <list of file names>
4759 -- Convert EPS files to PDF using epstopdf
4760 elseif arg[1] == "epstopdf" then
4761 convertepstopdf ()
4762 print ("lwarpmk: Done.")
4763
4764
4765 -- lwarpmk pdftosvg <list of file names>
4766 -- Convert PDF files to SVG using pdftocairo
4767 elseif arg[1] == "pdftosvg" then
4768 convertpdftosvg ()
4769 print ("lwarpmk: Done.")
```

```
4771
4772 -- lwarpmk with no argument :
4774 elseif (arg[1] == nil) then
4775 printhelp ()
4776
4777
4778 -- lwarpmk -h or lwarpmk --help :
4780 \text{ elseif } (arg[1] == "-h") \text{ or } (arg[1] == "--help") \text{ then}
4781 printusage ()
4782
4783
4784 -- Unknown command:
4786 else
4787 printhelp ()
4788 print ("\nlwarpmk: ****** Unknown command \""..arg[1].."\". *****\n")
4789 end
4790
4791 end -- not --version
4792 \end{filecontents*}
4793 % \end{Verbatim}% for syntax highlighting
4794 \end{LWR@createlwarpmk}
```

41 Stacks

for HTML output: 4795 \begin{warpHTML}



Stacks are used to remember how to close sections and list items. Before a new section is started, previously nested sections and items must be closed out (unnested) in proper order. Note that starting a new section may close several levels of previously nested items at the same time. For example, starting a new \section would close any currently open subsection, subsubsection, and paragraph. General environments are not nested on the stack since they have their own close mechanism. List environments are nested, and items inside those environments are nested one level deeper still. List environments may be nested inside other list environments, and list items are nested inside list environments as well. Thus, the stack may have items which are not necessarily in order, since a description may contain an enumerate, for example. Depths to be recorded in \LWR@closedepthone, etc.

41.1 Assigning depths

initial depths for empty stack entries:

```
4796 \newcommand*{\LWR@depthnone}\{-5\}
```

all sectioning depths are deeper than LWR@depthfinished:

```
4797 \newcommand*{\LWR@depthfinished}{-4}
4798 \newcommand*{\LWR@depthpart}{-1}
4799 \newcommand*{\LWR@depthchapter}{0}
4800 \newcommand*{\LWR@depthsection}{1}
4801 \newcommand*{\LWR@depthsubsection}{2}
4802 \newcommand*{\LWR@depthsubsection}{3}
4803 \newcommand*{\LWR@depthsubsection}{3}
4804 \newcommand*{\LWR@depthsubparagraph}{4}
4804 \newcommand*{\LWR@depthsubparagraph}{5}

used by \itemize, \enumerate, \description:
4805 \newcommand*{\LWR@depthlist}{6}

used by \item:
4806 \newcommand*{\LWR@depthlistitem}{7}
```

41.2 Closing actions

A stack to record the action to take to close each nesting level: Add more levels of stack if necessary for a very deeply nested document, adding to \pushclose and \popclose as well.

```
4807 \newcommand*{\LWR@closeone}{}% top of the stack
4808 \newcommand*{\LWR@closetwo}{}
4809 \newcommand*{\LWR@closethree}{}
4810 \newcommand*{\LWR@closefour}{}
4811 \newcommand*{\LWR@closefive}{}
4812 \newcommand*{\LWR@closesix}{}
4813 \newcommand*{\LWR@closesix}{}
4814 \newcommand*{\LWR@closesight}{}
4815 \newcommand*{\LWR@closeeight}{}
4816 \newcommand*{\LWR@closeten}{}
4817 \newcommand*{\LWR@closeten}{}
4818 \newcommand*{\LWR@closetwelve}{}
```

41.3 Closing depths

A stack to record the depth of each level:

⚠ Note that nested

Note that nested LATEX structures may push depths which are non-sequential.

```
Ex:
\begin{itemize}
  \item{A}
  \begin{description}
  \item{B}
```

```
\end{description}
\end{itemize}
```

```
4819 \newcommand*{\LWR@closedepthone}{\LWR@depthnone}% top of the stack
4820 \newcommand*{\LWR@closedepthtwo}{\LWR@depthnone}
4821 \newcommand*{\LWR@closedepththree}{\LWR@depthnone}
4822 \newcommand*{\LWR@closedepthfour}{\LWR@depthnone}
4823 \newcommand*{\LWR@closedepthfive}{\LWR@depthnone}
4824 \newcommand*{\LWR@closedepthsix}{\LWR@depthnone}
4825 \newcommand*{\LWR@closedepthseven}{\LWR@depthnone}
4826 \newcommand*{\LWR@closedeptheight}{\LWR@depthnone}
4827 \newcommand*{\LWR@closedepthinee}{\LWR@depthnone}
4828 \newcommand*{\LWR@closedepthten}{\LWR@depthnone}
4829 \newcommand*{\LWR@closedeptheleven}{\LWR@depthnone}
4830 \newcommand*{\LWR@closedepthtwelve}{\LWR@depthnone}
```

41.4 Pushing and popping the stack

```
\pushclose \{\langle action \rangle\} \{\langle depth \rangle\}
```

Pushes one return action and its LATEX depth onto the stacks.

```
4831 \NewDocumentCommand{\pushclose}{m m}
4832 {
4833 \global\let\LWR@closetwelve\LWR@closeeleven
4834 \global\let\LWR@closeeleven\LWR@closeten
4835 \global\let\LWR@closeten\LWR@closenine
4836 \global\let\LWR@closenine\LWR@closeeight
4837 \global\let\LWR@closeeight\LWR@closeseven
4838 \global\let\LWR@closeseven\LWR@closesix
4839 \global\let\LWR@closesix\LWR@closefive
4840 \global\let\LWR@closefive\LWR@closefour
4841 \global\let\LWR@closefour\LWR@closethree
4842 \global\let\LWR@closethree\LWR@closetwo
4843 \global\let\LWR@closetwo\LWR@closeone
4844 \global\let\LWR@closeone#1
4845 \global\let\LWR@closedepthtwelve\LWR@closedeptheleven
4846 \global\let\LWR@closedeptheleven\LWR@closedepthten
4847 \global\let\LWR@closedepthten\LWR@closedepthnine
4848 \global\let\LWR@closedepthnine\LWR@closedeptheight
4849 \global\let\LWR@closedeptheight\LWR@closedepthseven
4850 \global\let\LWR@closedepthseven\LWR@closedepthsix
4851 \global\let\LWR@closedepthsix\LWR@closedepthfive
4852 \global\let\LWR@closedepthfive\LWR@closedepthfour
4853 \global\let\LWR@closedepthfour\LWR@closedepththree
4854 \global\let\LWR@closedepththree\LWR@closedepthtwo
4855 \global\let\LWR@closedepthtwo\LWR@closedepthone
4856 \global\let\LWR@closedepthone#2
4857 }
```

\popclose Pops one action and its depth off the stacks.

```
4858 \newcommand*{\popclose}
4859 {
4860 \global\let\LWR@closeone\LWR@closetwo
4861 \global\let\LWR@closetwo\LWR@closethree
4862 \global\let\LWR@closethree\LWR@closefour
4863 \global\let\LWR@closefour\LWR@closefive
4864 \global\let\LWR@closefive\LWR@closesix
4865 \global\let\LWR@closesix\LWR@closeseven
4866 \global\let\LWR@closeseven\LWR@closeeight
4867 \global\let\LWR@closeeight\LWR@closenine
4868 \global\let\LWR@closenine\LWR@closeten
4869 \global\let\LWR@closeten\LWR@closeeleven
4870 \global\let\LWR@closeeleven\LWR@closetwelve
4871 \global\let\LWR@closedepthone\LWR@closedepthtwo
4873 \global\let\LWR@closedepththree\LWR@closedepthfour
4874 \global\let\LWR@closedepthfour\LWR@closedepthfive
4875 \global\let\LWR@closedepthfive\LWR@closedepthsix
4876 \global\let\LWR@closedepthsix\LWR@closedepthseven
4877 \global\let\LWR@closedepthseven\LWR@closedeptheight
4879 \global\let\LWR@closedepthnine\LWR@closedepthten
4880 \global\let\LWR@closedepthten\LWR@closedeptheleven
4881 \global\let\LWR@closedeptheleven\LWR@closedepthtwelve
4882 }
4883 \end{warpHTML}
```

42 Data arrays

These macros are similar to the arrayjobx package, except that \LWR@setexparray's argument is expanded only once when assigned.

name has no backslash, index can be a number or a text name, and an empty value must be \relax instead of empty.

To assign an empty value:

4889

\ifstrempty{#3}%

```
4890
                             {\csgdef{\LWR@thisexparrayname}{}}%
                    4891
                             {\csxdef{\LWR@thisexparrayname}{#3}}%
                              \endgroup%
                    4892
                    4893 }
\LWR@getexparray
                    \{\langle name \rangle\} \{\langle index \rangle\}
                    4894 \newcommand*{\LWR@getexparray}[2]{%
                             \@nameuse{#1#2}%
                    4896 }
                    4897 \end{warpHTML}
```

Localizing catcodes 43

for HTML & PRINT: 4898 \begin{warpall}

tab character &

Misplaced alignment Place \StartDefiningTabulars and \StopDefiningTabulars before and after defining macros or environments which include the tabular & character in their definitions.

> The catcode of & must be changed before the definitions begin, and must be restored afterwards. Doing so avoids the error

> > Misplaced alignment tab character &.

\StartDefiningTabulars Place before defining something with & in it.

```
4899 \newcommand{\StartDefiningTabulars}{%
4900 \LWR@traceinfo{StartDefiningTabulars}%
4901 \warpHTMLonly{\catcode'\&=\active}%
4902 }
```

\StopDefiningTabulars Place after defining something with & in it.

```
4903 \newcommand{\StopDefiningTabulars}{%
4904 \LWR@traceinfo{StopDefiningTabulars}%
4905 \warpHTMLonly{\catcode'\&=4}%
4906 }
```

LWR@mathmacro

True if currently defining math macros. Used to disable svg math hashing and MathJax math contents while defining a macro using inline math. Begin a macro, it is not guaranteed that the contents are static, and so the image must be unique. The contents also almost certainly will not be parsed correctly by MathJax.

```
4907 \newbool{LWR@mathmacro}
4908 \boolfalse{LWR@mathmacro}
```

\StartDefiningMath Place before defining something with \$ in it.

```
4909 \newcommand{\StartDefiningMath}{%
                   4910 \LWR@traceinfo{StartDefiningMath}%
                   4911 \warpHTMLonly{\catcode'\$=\active}%
                   4912 }
\StopDefiningMath Place after defining something with $ in it.
                   4913 \newcommand{\StopDefiningMath}{%
                  4914 \LWR@traceinfo{StopDefiningMath}%
                   4915 \warpHTMLonly{\catcode'\$=3}% math shift
                   4916 }
                   4917 \end{warpall}
```

44 Localizing dynamic math

Inline svg math usually uses a hash of its contents to generate lateximages which are reusable for multiple instances with the same contents. If the contents may change for each use, such as depending on the current value of a counter, then \inlinemathother must be used before the inline math expression, and \inlinemathnormal must be used after.

For MathJax, the inline math expression is usually printed for MathJax to interpret. When marked as dynamic math, the following inline math expression will be displayed as an unhashed inline svg image instead.

For existing code and packages, it may be possible to patch macros after they have been defined, using the xpatch package, which is pre-loaded by lwarp:

```
\xpatchcmd{\macroname}
   {$math expression$}
   {\inlinemathother$math expression$\inlinemathnormal}
   {\typeout{Error patching macroname.}}
```

for HTML & PRINT: 4918 \begin{warpall}

Default: false reuse.

LWR@dynamicmath True to mark inline math which is dynamic in nature, thus should not be hashed for

```
4919 \newbool{LWR@dynamicmath}
4920 \boolfalse{LWR@dynamicmath}
```

\inlinemathother Place before using \$... \$ or \(... \) if the contents of the math are not static, depending on counters or dynamic macros.

```
4921 \newcommand{\inlinemathother}{%
```

```
4922 \LWR@traceinfo{inlinemathother}%
4923 \booltrue{LWR@dynamicmath}%
4924 }

\inlinemathnormal Place after using $ ... $ or \( ... \) with dynamic contents.

4925 \newcommand{\inlinemathnormal}{%
4926 \LWR@traceinfo{inlinemathnormal}%
4927 \boolfalse{LWR@dynamicmath}%
4928 }

4929 \end{warpall}
```

45 HTML entities

```
for HTML output: 4930 \begin{warpHTML}
                  нтмL Unicode entities:
                4931 \let\LWR@origampersand\&
    \HTMLentity \{\langle entitytag \rangle\}
                4932 \newcommand*{\HTMLentity}[1]{%
                4933 % \LWR@traceinfo{HTMLentity \detokenize{#1}}%
                4934 \begingroup%
                4935 \LWR@FBcancel%
                4936 \LWR@origampersand#1;%
                4937 \endgroup%
                4938 % \LWR@traceinfo{HTMLentity done}%
                4939 }
  \HTMLunicode \{\langle hex\_unicode \rangle\}
                4940 \newcommand*{\HTMLunicode}[1]{\HTMLentity{\LWR@origpound{}x#1}}
             \&
                4941 \renewrobustcmd*{\&}{\HTMLentity{amp}}
      \textless
                4942 \let\LWR@origtextless\textless
                4943 \renewrobustcmd*{\textless}{\HTMLentity{lt}}
  \textgreater
                4944 \let\LWR@origtextgreater\textgreater
                4945 \renewrobustcmd*{\textgreater}{\HTMLentity{gt}}
```

4946 \end{warpHTML}

for HTML output: 4957 \begin{warpHTML}

46 HTML filename generation

The filename of the homepage is set to \HomeHTMLFilename.html. The filenames of additional sections start with \HTMLFilename, to which is appended a section number or a simplified section name, depending on FileSectionNames.

```
for HTML & PRINT: 4947 \begin{warpall}
                    The \jobname of the printed version, even if currently compiling the HTML version. I.e.
                     this is the \jobname without _html appended. This is used to set \HomeHTMLFilename
                     if the user did not provide one.
                   4948 \providecommand*{\BaseJobname}{\jobname}
     \HTMLFilename
                    The prefix for all generated HTML files other than the home page, defaulting to empty.
                     See section 7.4.1.
                   4949 \providecommand*{\HTMLFilename}{}
 \HomeHTMLFilename The filename of the home page, defaulting to the \BaseJobname. See section 7.4.1.
                   4950 \providecommand*{\HomeHTMLFilename}{\BaseJobname}
\SetHTMLFileNumber \{\langle number \rangle\}
                     Sets the file number for the next file to be generated. 0 is the home page. Use just
                     before the next sectioning command, and set it to one less than the desired number
                     of the next section. May be used to generate numbered groups of nodes such as
                     100+ for one chapter, 200+ for another chapter, etc.
                   4951 \newcommand*{\SetHTMLFileNumber}[1]{%
                   4952 \setcounter{LWR@htmlfilenumber}{#1}%
                   4953 }
 FileSectionNames Selects how to create HTML file names.
                     Defaults to use section names in the filenames.
                   4954 \newbool{FileSectionNames}
                   4955 \booltrue{FileSectionNames}
                   4956 \end{warpall}
```

Ctr LWR@htmlfilenumber

Records the number of each HTML file as it is being created. Number 0 is the home page.

```
4958 \newcounter{LWR@htmlfilenumber}
4959 \setcounter{LWR@htmlfilenumber}{0}
```

\LWR@htmlsectionfilename

 $\{\langle htmlfilenumber\ or\ name \rangle\}$

Prints the filename for a given section: \HTMLFilename{}filenumber/name.html

```
4960 \newcommand*{\LWR@htmlsectionfilename}[1]{%
4961 \LWR@traceinfo{LWR@htmlsectionfilename A !\detokenize{#1}!}%
```

Section 0 or empty is given the home filename. The filename must be detokenized for underscores.

```
4962 % \LWR@traceinfo{about to assign temp}%
4963 \LWR@sanitize{#1}%
4964 \LWR@traceinfo{about to compare with ??}%
4965 \ifthenelse{\equal{\LWR@sanitized}{??}}%
        {\LWR@traceinfo{found ??}}%
        {\LWR@traceinfo{not found ??}}%
4968 \LWR@traceinfo{about to compare with zero or empty}%
4969 \ifthenelse{%
4970
       \equal{\LWR@sanitized}{0}%
4971
        \OR \equal{\LWR@sanitized}{}%
        \OR \equal{\LWR@sanitized}{??}%
4973 }%
4974 {%
        \LWR@traceinfo{LWR@htmlsectionfilename B \HomeHTMLFilename.html}%
4975
        \HomeHTMLFilename.html%
4976
4977 }%
```

For a LATEX section named "Index" or "index" without a prefix, create a filename with a leading underscore to avoid colliding with the HTML filename index.html:

```
4978 {%
          \LWR@traceinfo{LWR@htmlsectionfilename C \LWR@sanitized}%
4979
          \ifthenelse{%
4980
                \equal{\HTMLFilename}{} \AND
4981
                \ensuremath{\ensuremath{\mbox{VR@sanitized}}{\ensuremath{\mbox{Index}}} \ensuremath{\mbox{\mbox{\mbox{}}} \ensuremath{\mbox{\mbox{}}}
4982
4983
                \equal{\LWR@sanitized}{index}%
          }%
          {%
4985
                \LWR@traceinfo{Prefixing the index name with an underscore.}%
4986
                \_\LWR@sanitized.html%
4987
          }%
4988
```

Otherwise, create a filename with the chosen prefix:

```
4989 {%
4990 \HTMLFilename\LWR@isolate{\LWR@sanitized}.html%
4991 }%
4992 }%
```

```
4993 \LWR@traceinfo{LWR@htmlsectionfilename Z}%
4994 }

\LWR@htmlrefsectionfilename \{\langle logon label}

Prints the filename for the given label

4995 \newcommand*{\LWR@htmlrefsectionfilename}[1]{%
4996 \LWR@traceinfo{LWR@htmlrefsectionfilename: !\detokenize{#1}!}%

\LWR@nullfonts to allow math in a section name.

4997 \begingroup%
4998 \LWR@nullfonts%
4999 \LWR@htmlsectionfilename{\LWR@htmlfileref{#1}}%
5000 \endgroup%
5001 \LWR@traceinfo{LWR@htmlrefsectionfilename: done}%
5002 }
```

47 Homepage link

\LinkHome May be used wherever you wish to place a link back to the homepage. For print output, if hyperref is available a hyperlink to the first page is used, named by \linkhomename. If hyperref is not available, a pageref is used instead.

\BaseJobname is included in the link label in case multiple documents are crossreferenced.

```
5013 \AtBeginDocument{
                   5014 \@ifundefined{hyperref}{
                           \newcommand*{\LinkHome}{%
                                \linkhomename\ --- page \pageref{\BaseJobname-page-LWRfirstpage}%
                   5016
                   5017
                   5018 }{
                           \newcommand*{\LinkHome}{%
                   5019
                   5020
                                \hyperref[\BaseJobname-page-LWRfirstpage]{\linkhomename}%
                   5021
                   5022 }
                   5023 }
                   5025 \AfterEndPreamble{\label{\BaseJobname-page-LWRfirstpage}}
                   5026 \end{warpprint}
   for HTML output: 5027 \begin{warpHTML}
\LWR@topnavigation Creates a link to the homepage at the top of the page for use when the window is
                     too narrow for the sidetoc.
                   5028 \newcommand*{\LWR@topnavigation}{
                   5029 \LWR@htmlelementclassline{nav}{topnavigation}{\LinkHome}
                   5030 }
```

\LWR@botnavigation Creates a link to the homepage at the bottom of the page for use when the window is too narrow for the side toc.

```
5031 \newcommand*{\LWR@botnavigation}{
5032 \verb|\LWR@htmlelementclassline{nav}{botnavigation}{\LinkHome}|
5033 }
5034 \end{warpHTML}
```

\LWRPrintStack diagnostic tool 48

 \triangle

Diagnostics tool: Prints the LATEX nesting depth values for the stack levels. \LWR@startpars is used before printing the stack, so that \LWRPrintStack may be called from anywhere in the normal text flow.

```
for HTML output: 5035 \begin{warpHTML}
\LWRPrintStack Prints the closedepth stack.
                5036 \newcommand*{\LWR@subprintstack}{
                5037 \LWR@closedepthone\ \LWR@closedepthtwo\ \LWR@closedepththree\
```

```
5038 \LWR@closedepthfour\ \LWR@closedepthfive\ \LWR@closedepthsix\
5039 \LWR@closedepthseven\ \LWR@closedeptheight\ \LWR@closedepthnine\
5040 \LWR@closedepthten\ \LWR@closedeptheleven\ \LWR@closedepthtwelve\
5041 }
5042
5043 \newcommand*{\LWRPrintStack}{
5044 \LWR@startpars
5045 \LWR@subprintstack
5046 }

5047 \end{warpHTML}

for PRINT output: 5048 \begin{warpprint}
5049 \newcommand*{\LWRPrintStack}{}

5050 \end{warpprint}
```

49 Closing stack levels

```
for HTML output: 5051 \begin{warpHTML}
```

Close one nested level:

```
5052 \newcommand*{\LWR@closeoneprevious}{%
5053
5054 \LWR@closeone
5055
5056 \popclose
5057 }
```

\LWR@closeprevious $\{\langle depth \rangle\}$ Close everything up to the given depth:

```
5058 \newcommand*{\LWR@closeprevious}[1]{ 5059 \LWR@traceinfo{LWR@closeprevious to depth #1, depths are \LWR@subprintstack}%
```

Close any pending paragraph:

```
5060 \LWR@stoppars%
```

Close anything nested deeper than the desired depth. First close anything deeper, then at most one of the same level.

```
5061 \whileboolexpr{test{\ifnumcomp{\LWR@closedepthone}{>}{#1}}}%
5062 {%
5063    \LWR@traceinfo{LWR@closeprevious: closing out depth \LWR@closedepthone}%
5064    \LWR@closeoneprevious%
5065 }%
5066 \ifboolexpr{test{\ifnumcomp{\LWR@closedepthone}{=}{#1}}}%
5067 {%
```

```
5068
        \LWR@traceinfo{LWR@closeprevious: closing out depth \LWR@closedepthone}%
       \LWR@closeoneprevious%
5070 }{}%
5071 \LWR@traceinfo{LWR@closeprevious: done, depths are \LWR@subprintstack}%
5072 }
5073 \end{warpHTML}
```

PDF pages and styles **50**

```
for HTML output: 5074 \begin{warpHTML}
```

\LWR@forcenewpage New PDF page a before major environment.

This is used just before major environments, such as verse. Reduces the chance of

```
an environment overflowing the HTML PDF output page.
                  5075 \newcommand{\LWR@forcenewpage}{%
                  5076 \LWR@traceinfo{LWR@forcenewpage}%
                  5077 \ifinner\else%
                  5078 \LWR@stoppars\LWR@orignewpage\LWR@startpars%
                  5079 \fi%
                  5080 }
                   \pagestyle, etc. are nullified for HTML output.
    \pagestyle \{\langle style \rangle\}
                  5081 \renewcommand*{\pagestyle}[1]{}
\thispagestyle \{\langle style \rangle\}
                  5082 \renewcommand*{\thispagestyle}[1]{}
      \markboth \{\langle left \rangle\} \{\langle right \rangle\}
                  5083 \renewcommand*{\markboth}[2]{}
    \mbox{\mbox{\it markright}} \ \{\langle {\it right} \rangle\}
                  5084 \renewcommand*{\markright}[1]{}
 \raggedbottom
                  5085 \renewcommand*{\raggedbottom}{}
```

```
\flushbottom

5086 \renewcommand*{\flushbottom}{}

\sloppy

5087 \renewcommand*{\sloppy}{}

\fussy

5088 \renewcommand*{\fussy}{}

\pagenumbering * {\commands\}

5089 \RenewDocumentCommand{\pagenumbering}{s m}{}

5090 \end{\warpHTML}
```

51 HTML tags, spans, divs, elements

for HTML output: 5091 \begin{warpHTML}

51.1 Mapping LATEX sections to HTML sections

```
5092 \newcommand*{\LWR@tagtitle}{h1}
5093 \newcommand*{\LWR@tagtitleend}{/h1}
5094 \newcommand*{\LWR@tagpart}{h2}
5095 \newcommand*{\LWR@tagpartend}{/h2}
5096 \newcommand*{\LWR@tagchapter}{h3}
5097 \newcommand*{\LWR@tagchapterend}{/h3}
5098 \newcommand*{\LWR@tagsection}{h4}
5099 \newcommand*{\LWR@tagsectionend}{/h4}
5100 \newcommand*{\LWR@tagsubsection}{h5}
5101 \newcommand*{\LWR@tagsubsectionend}{/h5}
5102 \newcommand*{\LWR@tagsubsubsection}{h6}
5103 \newcommand*{\LWR@tagsubsubsectionend}{/h6}
5104 \newcommand*{\LWR@tagparagraph}{span class="paragraph"}
5105 \newcommand*{\LWR@tagparagraphend}{/span}
\verb| 5106 \end{|} $$106 \end{|
5107 \newcommand*{\LWR@tagsubparagraphend}{/span}
5109 \newcommand*{\LWR@tagregularparagraph}{p}
```

51.2 Babel-French tag modifications

Adjust babel-french for HTML spaces. So far, this only works for pdflatex and xelatex.

(Emulates or patches code by Daniel Flipo.)

```
5110 \providecommand*{\LWR@FBcancel}{}
5111
5112 \AtBeginDocument{%
5113 \@ifundefined{frenchbsetup}%
5114 { }%
5115 {%
5116
       \frenchbsetup{FrenchFootnotes=false}%
5117 %
       \LetLtxMacro\LWR@FBcancel\NoAutoSpacing%
5118
5119
       \renewrobustcmd*{\FBcolonspace}{%
           \begingroup%
5120
           \LWR@FBcancel%
5121
           \LWR@origampersand{}nbsp;%
5122
           \endgroup%
5123
       }%
5124
       \renewrobustcmd*{\FBthinspace}{%
5125
           \begingroup%
5126
5127
           \LWR@FBcancel%
           \WR@origampersand\WR@origpound{}x202f;% \,
5128
5129
           \endgroup%
5130
       }%
        \renewrobustcmd*{\FBguillspace}{%
5131
5132
           \begingroup%
           \LWR@FBcancel%
5133
5134
           \label{localization} $$ LWR@origampersand{} nbsp;% ~, for \log xyz \fg{} 
           \endgroup%
5135
5136
       }%
       \DeclareDocumentCommand{\FBmedkern}{}{%
5137
5138
           \begingroup%
           \LWR@FBcancel%
5139
5140
           \WR@origampersand\LWR@origpound{} x202f;% \,
5141
           \endgroup%
       }%
5142
       \DeclareDocumentCommand{\FBthickkern}{}{%
5143
5144
           \begingroup%
5145
           \LWR@FBcancel%
           \LWR@origampersand{}nbsp;% ~
5146
           \endgroup%
5147
5148
       5149
       \ifFBunicode%
5150
5151
       \else%
           \DeclareTextSymbol{\FBtextellipsis}{LY1}{133}%
5152
5153
           \DeclareTextCommandDefault{\FBtextellipsis}{\textellipsis\xspace}%
5154
       \fi%
5155 }%
5156 }
```

51.3 HTML output formatting

Helps format the output HTML code for human readability.

\LWR@indentHTML Newline and indent the output HTML code.

```
5157 \newcommand*{\LWR@indentHTML}{%
5158 \LWR@orignewline\LWR@origrule{2em}{0pt}%
5159 }
```

51.4 HTML tags

\LWR@htmltagc $\{\langle tag \rangle\}$ Break ligatures and use upright apostrophes in HTML tags.

\protect is in case the tag appears in TOC, LOF, LOT.

```
5160 \newcommand*{\LWR@htmltagc}[1]{%
5161 \LWR@traceinfo{LWR@htmltagc !\detokenize{#1}!}%
5162 \begingroup%
5163 \LWR@FBcancel%
5164 \ifmmode\else\protect\LWR@origttfamily\fi%
5165 \protect\LWR@origtextless%
5166 \LWR@isolate{#1}%
5167 \protect\LWR@origtextgreater%
5168 \endgroup%
5169 }
```

Env LWR@nestspan Disable minipage, \parbox, and HTML <div>s inside a .

\(\text{\text{begin{LWR@nestspan}}}\) must follow the opening tag to allow a paragraph to start if the span is at the beginning of a new paragraph.

\text{LWR@nestspan} must follow the or a may appear inside the span.

```
5170 \newcommand*{\LWR@nestspanitem}{%
5171 \if@newlist\else{\LWR@htmltagc{br /}}\fi%
5172 \LWR@origitem%
5173 }
5174
5175 \newenvironment*{LWR@nestspan}
5177 \LWR@traceinfo{LWR@nestspan starting}%
5178 \ifnumcomp{\value{LWR@lateximagedepth}}{>}{0}%
5179 {%
        \LWR@traceinfo{LWR@nestspan: inside a lateximage}%
5180
5181 }%
5182 {% not in a lateximage
5183
        \LWR@traceinfo{LWR@nestspan: NOT inside a lateximage}%
5184
        \addtocounter{LWR@spandepth}{1}%
5185
        \RenewDocumentEnvironment{minipage}{O{t} o O{t} m}%
```

```
5186
                            {\LWR@subhtmlelementclass{span}{inlineminipage}}%
               5187
                            {\LWR@htmltagc{/span}}%
                       \RenewDocumentEnvironment{BlockClass}{o m}{}{}%
               5188
                       \renewcommand{\BlockClassSingle}[2]{##2}%
               5189
                       \renewcommand{\LWR@forcenewpage}{}%
               5190
                       \renewcommand{\LWR@liststart}{%
               5191
                            \let\item\LWR@nestspanitem%
               5192
               5193
                       }%
               5194
                       \renewcommand{\LWR@listend}{\LWR@htmltagc{br /}\LWR@htmltagc{br /}}%
               5195 }% not in a lateximage
               5196 \LWR@traceinfo{LWR@nestspan starting: done}%
               5197 }% starting env
               5198 {% ending env
               5199 \LWR@traceinfo{LWR@nestspan ending}%
               5200 \ifnumcomp{\value{LWR@lateximagedepth}}{>}{0}%
               5201 {}%
               5202 {\addtocounter{LWR@spandepth}{-1}}%
               5203 \LWR@traceinfo{LWR@nestspan ending: done}%
               5204 }
               5205
               5206 \ After End Environment \{LWR@nestspan\} \{ \ let \ par \ LWR@close paragraph \} \} 
\LWR@htmlspan \{\langle tag \rangle\} \{\langle text \rangle\}
```

\LWR@spandepth is used to ensure that paragraph tags are not generated inside a span. The exact sequence of when to add and subtract the counter is important to correctly handle the paragraph tags before and after the span.

```
5207 \NewDocumentCommand{\LWR@htmlspan}{m + m}{%
                      5208 \LWR@ensuredoingapar%
                      5209 \LWR@htmltagc{#1}%
                     5210 \begin{LWR@nestspan}%
                     5211 #2%
                     5212 \LWR@htmltagc{/#1}%
                      5213 \end{LWR@nestspan}%
                     5214 }
\LWR@htmlspanclass [\langle style \rangle] \{\langle class \rangle\} \{\langle text \rangle\}
                     5215 \NewDocumentCommand{\LWR@htmlspanclass}{o m +m}{%
                     5216 \LWR@traceinfo{LWR@htmlspanclass |#1|#2|}%
                     5217 \LWR@ensuredoingapar%
                     5218 \LWR@subhtmlelementclass{span}[#1]{#2}%
                     5219 \begin{LWR@nestspan}%
                     5220 #3%
                     5221 \LWR@htmltagc{/span}%
                      5222 \LWR@traceinfo{LWR@htmlspanclass done}%
                     5223 \end{LWR@nestspan}%
                     5224 }
       \LWR@htmltag \{\langle tag \rangle\}
                       Print an HTML tag: <tag>
```

```
5225 \newcommand*{\LWR@htmltag}[1]{%
5226 % \LWR@traceinfo{LWR@htmltagb !\detokenize{#1}!}%
5227 \LWR@htmltagc{#1}%
5228 % \LWR@traceinfo{LWR@htmltagb: done}%
5229 }
```

51.5 Block tags and comments

In the following, \origttfamily breaks ligatures, which may not be used for HTML codes:

```
\LWR@htmlopencomment
\LWR@htmlclosecomment
                       5230 \newcommand*{\LWR@htmlopencomment}{%
                       5231 {%
                       5232 % \LWR@traceinfo{LWR@htmlopencomment}%
                       5233 \begingroup%
                       5234 \LWR@FBcancel%
                       5235 \ifmmode\else\protect\LWR@origttfamily\fi%
                       5236 \LWR@print@mbox{\LWR@origtextless{}!-\/-}%
                       5237 \endgroup%
                       5238 }%
                       5239 }
                       5240
                       5241 \newcommand*{\LWR@htmlclosecomment}{%
                       5243 % \LWR@traceinfo{LWR@htmlclosecomment}%
                       5244 \begingroup%
                       5245 \LWR@FBcancel%
                       5246 \ifmmode\else\protect\LWR@origttfamily\fi%
                       5247 \LWR@print@mbox{-\/-\LWR@origtextgreater}%
                       5248 \endgroup%
                       5249 }%
                       5250 }
     \LWR@htmlcomment \{\langle comment \rangle\}
                       5251 \newcommand{\LWR@htmlcomment}[1]{%
                       5252 \LWR@htmlopencomment{}%
                       5253 {%
                       5254 \LWR@origttfamily% break ligatures
                       5255 #1%
                       5257 \LWR@htmlclosecomment{}}
\LWR@htmlblockcomment \{\langle comment \rangle\}
                       5258 \newcommand{\LWR@htmlblockcomment}[1]
                       5259 {\LWR@stoppars\LWR@htmlcomment{#1}\LWR@startpars}
```

```
\LWR@htmlblocktag \{\langle tag \rangle\} print a stand-alone HTML tag
                    5260 \newcommand*{\LWR@htmlblocktag}[1]{%
                    5261 \LWR@stoppars%
                    5262 \LWR@htmltag{#1}%
                    5263 \LWR@startpars%
                    5264 }
```

Div class and element class

```
\LWR@subhtmlelementclass \{\langle element \rangle\} \ [\langle style \rangle] \ \{\langle class \rangle\}
```

Factored and reused in several places.

The trailing spaces allow more places for a line break.

The use of \textquotedbl instead of " provides improved compatibility with xeCJK.

```
5265 \NewDocumentCommand{\LWR@subhtmlelementclass}{m O{} m}{%
                            5266 \LWR@traceinfo{LWR@subhtmlelementclass !#1!#2!#3!}%
                            5267 \ifblank{#2}%
                            5268 {% empty option
                                    \LWR@htmltag{%
                                         #1 % space
                            5270
                            5271
                                         class=\textquotedbl#3\textquotedbl\ % space
                            5272
                                    }%
                            5273 }%
                            5274 {% non-empty option
                            5275
                                    \LWR@htmltag{%
                            5276
                                         #1\LWR@indentHTML%
                                         class=\textguotedbl#3\textguotedbl\LWR@indentHTML%
                            5277
                            5278
                                         style=\textquotedbl#2\textquotedbl\LWR@orignewline%
                                    }%
                            5279
                            5280 }%
                            5281 \LWR@traceinfo{LWR@subhtmlelementclass done}%
   \LWR@htmlelementclass \{\langle element \rangle\} \{\langle class \rangle\} [\langle style \rangle]
                            5283 \NewDocumentCommand{\LWR@htmlelementclass}{m o m}{%
                            5284 \LWR@stoppars%
                            5285 \LWR@subhtmlelementclass{#1}[#2]{#3}%
                            5286 \LWR@startpars%
                            5287 }
\LWR@htmlelementclassend \{\langle element \rangle\} \{\langle class \rangle\}
                            5288 \newcommand*{\LWR@htmlelementclassend}[2]{%
                            5289 \LWR@stoppars%
                            5290 \LWR@htmltag{/#1}%
                            5291 \ifbool{HTMLDebugComments}{%
```

51.7 Single-line elements

A single-line element, without a paragraph tag for the line of text:

51.8 HTML5 semantic elements

51.9 High-level block and inline classes

These are high-level commands which allow the creation of arbitrary block or inline sections which may be formatted with css.

Nullified versions are provided for print mode.

For other direct-formatting commands, see section 90.

```
BlockClass [\langle style \rangle] \{\langle class \rangle\}
                                              High-level interface for <div> classes.
                           Ex: \begin{BlockClass}{class} text \end{BlockClass}
  for PRINT output: 5319 \begin{warpprint}
                     5320 \NewDocumentEnvironment{BlockClass}{o m}{}{}%
                     5321 \end{warpprint}
  for HTML output: 5322 \begin{warpHTML}
                     5323 \NewDocumentEnvironment{LWR@print@BlockClass}{o m}{}{}%
                     5324 \NewDocumentEnvironment{LWR@HTML@BlockClass}{o m}%
                     5325 {%
                     5326
                              \LWR@origpar%
                     5327
                              \LWR@htmldivclass[#1]{#2}%
                     5328 }
                     5329 {\LWR@htmldivclassend{#2}}
                     5331 \LWR@formattedenv{BlockClass}
                     5332 \end{warpHTML}
\BlockClassSingle \{\langle class \rangle\} \{\langle text \rangle\}
                                             A single-line <div>, without a paragraph tag for the line of text.
for HTML & PRINT: 5333 \begin{warpall}
                     5334 \newcommand{\BlockClassSingle}[2]{#2}
                     5335 \end{warpall}
  for HTML output: 5336 \begin{warpHTML}
                     5337 \newcommand{\LWR@HTML@BlockClassSingle}[2]{%
                     5338 \LWR@origpar%
                     5339 \LWR@htmlelementclassline{div}{#1}{#2}%
                     5340 }
                     5341
                     5342 \LWR@formatted{BlockClassSingle}
                     5343 \end{warpHTML}
     \InlineClass
                      (\langle WP \ style \rangle) \ [\langle style \rangle] \ \{\langle class \rangle\} \ \{\langle text \rangle\}
                      High-level interface for inline span classes.
                      (\langle WP style \rangle) is css styling to add when formatting for a word processor import.
                      [\langle style \rangle] is the css styling to add when not formatting for a word processor.
  for PRINT output: 5344 \begin{warpprint}
```

```
5345 \NewDocumentCommand{\InlineClass}{D{(){)}{}} o m +m}{#4}%
                    5346 \end{warpprint}
 for HTML output: 5347 \begin{warpHTML}
                   5348 \NewDocumentCommand{\LWR@print@InlineClass}{D{()}{}} o m +m}{\#4}%
                   5350 \NewDocumentCommand{\LWR@HTML@InlineClass}{D\{()\}\{()\}\{()\}\} o m +m\}\{()\}\{()\}\{()\}\{()\}\{()\}\}
                   5351 \ifbool{FormatWP}{%
                            \LWR@htmlspanclass[#1]{#3}{#4}%
                    5353 }{%
                            \LWR@htmlspanclass[#2]{#3}{#4}%
                   5354
                   5355 }%
                   5356 }
                   5357
                   5358 \LWR@formatted{InlineClass}
                   5359 \end{warpHTML}
LWR@BlockClassWP \{\langle WPstyle \rangle\} \{\langle Class \rangle\} Low-level interface for \langle VPstyle \rangle\} \{\langle Class \rangle\} Low-level interface for \langle VPstyle \rangle\} \{\langle Class \rangle\}
                     automatic float ID. These are often used when \ifbool{FormatWP}.
                     The use of \textquotedbl instead of " provides improved compatibility with xeCJK.
 for PRINT output: 5360 \begin{warpprint}
                   5361 \NewDocumentEnvironment{LWR@BlockClassWP}{m m m}{}{}%
                   5362 \end{warpprint}
 for HTML output: 5363 \begin{warpHTML}
                   5364 \NewDocumentEnvironment{LWR@print@LWR@BlockClassWP}{m m m}{}{}%
                    5365 \NewDocumentEnvironment{LWR@HTML@LWR@BlockClassWP}{m m m}%
                   5367 \LWR@stoppars%
                   5368 \ifbool{FormatWP}%
                   5369 {%
                            \addtocounter{LWR@thisautoidWP}{1}%
                   5370
                   5371
                            \LWR@htmltag{%
                                 div class=\textquotedbl#3\textquotedbl\ % space
                    5372
                    5373
                                 id=\textquotedbl%
                    5374
                                      \LWR@print@mbox{autoidWP-\arabic{LWR@thisautoidWP}}%
                    5375
                                 \textquotedbl%
                                 \ifblank{#1}{}{ style=\textquotedbl#1\textquotedbl}%
                   5376
                   5377
                            }%
                   5378 }% FormatWP
                   5379 {% not FormatWP
                    5380
                            \LWR@htmltag{%
                    5381
                                 div class=\textquotedbl#3\textquotedbl%
                                 \left\{ 2}{} \right\}  style=\textquotedbl#2\textquotedbl}%
                   5382
                   5383
                            }%
                   5384 }% not FormatWP
                   5385 \LWR@startpars%
                   5387 {\LWR@htmldivclassend{#3}}
```

```
5389 \LWR@formattedenv{LWR@BlockClassWP}
5390 \end{warpHTML}
```

51.10 Closing HTML tags

for HTML output: 5391 \begin{warpHTML}

Sections H1, H2, etc. do not need a closing HTML tag, but we add a comment for readability:

```
5392 \newcommand*{\LWR@printclosepart}
       {\ifbool{HTMLDebugComments}{\LWR@htmlcomment{Closing part}}{}}
5394 \newcommand*{\LWR@printclosechapter}
       {\ifbool{HTMLDebugComments}{\LWR@htmlcomment{Closing chapter}}{}}
5396 \newcommand*{\LWR@printclosesection}
       {\ifbool{HTMLDebugComments}{\LWR@htmlcomment{Closing section}}{}}
5397
5398 \newcommand*{\LWR@printclosesubsection}
       {\ifbool{HTMLDebugComments}{\LWR@htmlcomment{Closing subsection}}{}}
5400 \newcommand*{\LWR@printclosesubsubsection}
       {\ifbool{HTMLDebugComments}{\LWR@htmlcomment{Closing subsubsection}}{}}
5402 \newcommand*{\LWR@printcloseparagraph}
       {\ifbool{HTMLDebugComments}{\LWR@htmlcomment{Closing paragraph}}{}}
5403
5404 \newcommand*{\LWR@printclosesubparagraph}
       {\ifbool{HTMLDebugComments}{\LWR@htmlcomment{Closing subparagraph}}{}}
5405
 Lists require closing HTML tags:
5406 \newcommand*{\LWR@printcloselistitem}
       {\LWR@htmltag{/li}}
5408 \newcommand*{\LWR@printclosedescitem}
       {\LWR@htmltag{/dd}}
5410 \newcommand*{\LWR@printcloseitemize}
       {\LWR@htmltag{/ul}}
5411
5412 \newcommand*{\LWR@printcloseenumerate}
       {\LWR@htmltag{/ol}}
5413
5414 \newcommand*{\LWR@printclosedescription}
       {\LWR@htmltag{/dl}}
5415
```

52 Paragraph handling

5416 \end{warpHTML}

These commands generate the HTML paragraph tags when allowed and required.

Paragraph tags are or are not allowed depending on many conditions. Section 53 has high-level commands which allow paragraph-tag generation to start/stop. Even when allowed (\LWR@doingstartpars), tags are not generated until a LATEX paragraph is being used (\LWR@doingapar). LWR@lateximagedepth is used to prevent nesting tags

inside a lateximage. LWR@spandepth is used to prevent nesting paragraph tags inside a paragraph, which became important inside \fbox commands and other spans.

```
for HTML output: 5417 \begin{warpHTML}
```

Ctr LWR@spandepth Do not create paragraph tags inside of an HTML span.

```
5418 \newcounter{LWR@spandepth}
5419 \setcounter{LWR@spandepth}{0}
```

LWR@doingstartpars Tells whether paragraphs may be generated. Bool

```
5420 \newbool{LWR@doingstartpars}
5421 \boolfalse{LWR@doingstartpars}
```

Bool LWR@doingapar Tells whether have actually generated and are currently processing paragraph text.

```
5422 \newbool{LWR@doingapar}
5423 \global\boolfalse{LWR@doingapar}
```

\LWR@ensuredoingapar If are about to print something visible, and if allowed to start a new paragraph, ensure that are LWR@doingapar, so that paragraph tags are placed:

```
5424 \newcommand*{\LWR@ensuredoingapar}{%
5425 \ifbool{LWR@doingstartpars}%
5426 {\global\booltrue{LWR@doingapar}}%
5427 {}%
5428 }
```

\PN@parnotes@auto Redefined by parnotes to print paragraph notes at the end of each paragraph.

```
5429 \def\PN@parnotes@auto{}%
```

\LWR@openparagraph

```
5430 \newcommand*{\LWR@openparagraph}
5431 {%
```

See if paragraph handling is enabled:

```
5432 \ifbool{LWR@doingstartpars}%
5433 {% handling pars
```

See if have already started a lateximage or a . If so, do not generate nested paragraph tags.

```
\ifboolexpr{
5434
          test {\infty}_{\infty}^{\infty}  or
5435
          test {\ifnumcomp{\value{LWR@spandepth}}{>}{0}}
5436
5437
      }% nested par tags?
```

If so: Do nothing if already started a lateximage page. Cannot nest a lateximage. Also do nothing if already inside a . Do not nest paragraph tags inside a .

```
5438 {}% no nested par tags
```

Else: No lateximage or has been started yet, so it's OK to generate paragraph tags.

```
5439 {% yes nest par tags
```

If parnotes is used, paragraph notes are inserted before starting the next paragraph:

```
5440 \PN@parnotes@auto%
```

The opening paragraph tag:

```
5441 \LWR@htmltagc{\LWR@tagregularparagraph}\LWR@orignewline%
```

Now have started a paragraph.

```
5442 \global\booltrue{LWR@doingapar}%
```

At the endof each paragraph, generate closing tag and do regular /par stuff. (Attempting to use the everyhook cr hook for \LWR@closeparagraph does not work well.)

```
5443 \let\par\LWR@closeparagraph%
5444 }% end of yes nest par tags
5445 }% end of handling pars
5446 {}% not handling pars
5447 }
```

\LWR@closeparagraph@br

Add an HTML break if in a span, and not in a lateximage, and not in tabular metadata. Factored from \LWR@closeparagraph.

```
5448 \newcommand*{\LWR@closeparagraph@br}
5449 {%
5450
        \ifboolexpr{
            test {\inv {\label{lwR@spandepth}}}{>}{0}} and
5451
            test {\ifnumcomp{\value{LWR@lateximagedepth}}{=}{0}} and
5452
            not bool {LWR@intabularmetadata}
5453
5454
            {\unskip\LWR@htmltagc{br /}}%
5455
            {}%
5456
5457 }
```

\LWR@closeparagraph

```
5458 \newcommand*{\LWR@closeparagraph}
5459 {%
5460 % \LWR@traceinfo{LWR@closeparagraph}%
```

See if paragraph handling is enabled:

```
5461 \ifbool{LWR@doingapar}%
```

If currently in paragraph mode:

```
5462 {% handling pars
```

See if already started a lateximage or a :

```
5463 \ifboolexpr{
5464 test {\ifnumcomp{\value{LWR@lateximagedepth}}{>}{0}} or
5465 test {\ifnumcomp{\value{LWR@spandepth}}{>}{0}}
5466 }%
```

Add a parbreak if in a span, not in a lateximage, and not in table metadata.

```
5467 {% no nested par tags
5468 \LWR@closeparagraph@br%
5469 }% no nested par tags
```

If have not already started a lateximage or a :

```
5470 {% yes nest par tags
```

Print a closing tag and some extra vertical space.

(The fill seems to be required to force the caption package to create flush left caption text in the HTML.)

```
5471 \@hspacer{\fill}% \hspace*{\fill}
5472 \leavevmode\LWR@orignewline%
5473 \LWR@htmltagc{/\LWR@tagregularparagraph}%
```

No longer doing a paragraph:

```
5474 \global\boolfalse{LWR@doingapar}%
```

Disable the special minipage & \hspace interaction until a new minipage is found:

```
5475 \global\boolfalse{LWR@minipagethispar}%
```

If parnotes is used, paragraph notes are inserted after ending the previous paragraph:

```
5476 \PN@parnotes@auto%
5477 }% end of yes nest par tags
5478 }% end of handling pars
```

Add a parbreak if in a span, not in a lateximage, and not in table metadata.

```
5479 {% not handling pars
5480 \LWR@closeparagraph@br%
5481 }% not handling pars
```

In most cases, finish with a LATEX \par, but in the case of paragraphs between lines in a tabular fetch the next token instead:

```
5482 \ifboolexpr{%
        not bool {LWR@doingapar} and
5483
        test {\ifnumcomp{\value{LWR@tabulardepth}}{>}{0}} and
5484
5485
            \ifnumcomp{\value{LWR@tabulardepth}}{=}{\value{LWR@tabularpardepth}}}
5486
5487
        } and
5488
        bool {LWR@intabularmetadata} and
        not bool {LWR@tableparcell} and
5489
        test {\ifnumcomp{\value{LWR@lateximagedepth}}{=}{0}}
5490
5491 }%
5492 {%
        \LWR@getmynexttoken%
5493
5494 }{%
5495
        \LWR@origpar%
5496 }%
5497 }
5498 \end{warpHTML}
```

53 Paragraph start/stop handling

These commands allow/disallow the generation of HTML paragraph tags.

Section 52 has the commands which actually generate the tags.

The everyhook package is used to generate the opening paragraph tags. The closing tags are generated by \par.

```
for HTML output: 5499 \begin{warpHTML}

\LWR@startpars Begin handling HTML paragraphs. This allows an HTML paragraph to start, but one has not yet begun.

5500 \newcommand*{\LWR@startpars}%

5501 {%

5502 % \LWR@traceinfo{LWR@startpars}%

Ignore if inside a span:

5503 \ifnumcomp{\value{LWR@spandepth}}{0}%
```

See if currently handling HTML paragraphs:

```
5506 \ifbool{LWR@doingstartpars}%
```

5504 {}% 5505 {%

```
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```

If already in paragraph mode, do nothing.

```
5507
                      {}%
               If not currently in paragraph mode:
              5508
                      {%
               At the start of each paragraph, generate an opening tag:
              5509
                          \PushPreHook{par}{\LWR@openparagraph}%
               At the end of each paragraph, generate closing tag then do regular /par actions:
                          \let\par\LWR@closeparagraph
              5510
              5512
                      }% an intentionally blank line
               Are now handling paragraphs, but have not yet actually started one:
              5513
                      \global\setbool{LWR@doingstartpars}{true}%
               No <par> tag yet to undo:
                      \global\boolfalse{LWR@doingapar}%
              5515 }% nestspan
              5516 % \LWR@traceinfo{LWR@startpars: done}%
              5517 }
\LWR@stoppars Stop handling HTML paragraphs. Any currently open HTML paragraph is closed, and
               no more will be opened.
              5518 \newcommand*{\LWR@stoppars}%
              5519 {%
               Ignore if inside a span:
              5520 \ifnumcomp{\value{LWR@spandepth}}{>}{0}%
              5521 {}%
              5522 {%
               See if currently handling HTML paragraphs:
                      \ifbool{LWR@doingapar}%
               if currently in an нтмL paragraph:
              5524
                      {%
               Print a closing tag:
                          \leavevmode\LWR@orignewline%
              5525
```

```
5526
            \LWR@htmltagc{/\LWR@tagregularparagraph}%
            \LWR@orignewline%
5527
 No longer have an open HTML paragraph:
            \global\boolfalse{LWR@doingapar}%
5528
 Disable the special minipage & \hspace interaction until a new minipage is found:
5529
            \global\boolfalse{LWR@minipagethispar}
5530
       }%
 If was not in an HTML paragraph:
5531
       {}%
 See if currently allowing HTML paragraphs:
       \ifbool{LWR@doingstartpars}%
5532
 If so: clear the par hook to no longer catch paragraphs:
            {\ClearPreHook{par}}%
5533
 Else: Do nothing:
5534
            {}%
 No longer in paragraph mode:
5535
        \global\setbool{LWR@doingstartpars}{false}%
 No  tag to undo:
       \global\boolfalse{LWR@doingapar}%
5537 }% nestspan
5538 }
5539 \end{warpHTML}
```

54 Indentfirst

```
indentfirst indentfirst redefines \@afterindentfalse to be \@afterindenttrue. This is reversed
   \AtBeginDocument here.

for HTML output: 5540 \begin{warpHTML}

5541 \AtBeginDocument{
   5542 \def\@afterindentfalse{\let\if@afterindent\iffalse}

5543 \@afterindentfalse
```

```
5544 }
5545 \let\LWR@afterindent@syntaxhighlight\fi% syntax highlighting
5546 \end{warpHTML}
```

55 Page headers and footers

```
for HTML & PRINT: 5547 \begin{warpall}
```

In the following, catcode is manually changed back and forth without groups, since new macros are being defined which must not be contained within the groups.

```
5548 \mbox{ hewcommand{\LWR@firstpagetop}{}} % for the home page alone
                     5549 \newcommand{\LWR@pagetop}{} % for all other pages
                     5550 \newcommand{\LWR@pagebottom}{}
\HTMLFirstPageTop \{\langle text \ and \ logos \rangle\}
                     5551 \newcommand{\HTMLFirstPageTop}[1]{%
                              \renewcommand{\LWR@firstpagetop}{#1}%
                     5553 }
      \HTMLPageTop \{\langle text \ and \ logos \rangle\}
                     5554 \newcommand{\HTMLPageTop}[1]{%
                               \renewcommand{\LWR@pagetop}{#1}%
                     5556 }
  \verb|\HTMLPageBottom| \{\langle \textit{text and logos} \rangle\}|
                     5557 \newcommand{\HTMLPageBottom}[1]{%
                               \verb|\renewcommand{\LWR@pagebottom}{\#1}|%
                     5558
                     5559 }
                     5560 \end{warpall}
```

56 css

```
for HTML output: 5561 \begin{warpHTML}
```

\LWR@currentcss

The css filename to use. This may be changed mid-document using \CSSFilename, allowing different css files to be used for different sections of the document.

```
5562 \end{*{\lwR@currentcss}{\lwarp.css}}
```

```
\CSSFilename \{\langle new-css-filename.css\rangle\} Assigns the css file to be used by the following HTML pages.

5563 \newcommand*{\CSSFilename}[1]{%
5564 \renewcommand*{\LWR@currentcss}{#1}}%
5565 \@onelevel@sanitize\LWR@currentcss%
5566 \}
5567
5568 \end{\warpHTML}

for PRINT output: 5569 \begin{\warpprint}
5570 \newcommand*{\CSSFilename}[1]{}
5571 \end{\warpprint}
```

57 MathJax script

```
for HTML output: 5572 \begin{warpHTML}
Default: lwarp_mathjax.txt
                         The MathJax script filename to use. This file is copied into the head of each HTML
  \LWR@mathjaxfilename
                         page. This may be changed mid-document using \MathJaxFilename, allowing the
                         use of a custom MathJax script, such as for a local repository, or different MathJax
                         script files to be used for different sections of the document.
                        5573 \newcommand*{\LWR@mathjaxfilename}{\lwarp_mathjax.txt}
                        \{\langle filename \rangle\}
                                            Assigns the MathJax script file to be used by the following HTML
      \MathJaxFilename
                         pages.
                        5574 \newcommand*{\MathJaxFilename}[1]{%
                                \renewcommand*{\LWR@mathjaxfilename}{#1}%
                                \@onelevel@sanitize\LWR@mathjaxfilename%
                        5576
                        5577 }
                        5578
                        5579 \end{warpHTML}
       for PRINT output: 5580 \begin{warpprint}
                        5581 \newcommand*{\MathJaxFilename}[1]{}
                        5582 \end{warpprint}
```

58 Title, HTML meta author, HTML meta description

```
5584 \let\LWR@origtitle\title
                  5586 \renewcommand*{\title}[1]{%
                           \LWR@origtitle{#1}%
                  5587
                           \begingroup%
                  5588
                               \mbox{renewcommand{\thanks}[1]{}}%
                  5589
                               \protected@xdef\thetitle{#1}%
                  5590
                  5591
                          \endgroup%
                  5592 }
                  5593 \end{warpHTML}
for HTML & PRINT: 5594 \begin{warpall}
                                        The Title to place into an HTML meta tag. The default is to use
       \HTMLTitle \{\langle Titlename \rangle\}
                   the document \title's setting.
                  5595 \providecommand{\thetitle}{}
                  5597 \newcommand{\theHTMLTitle}{\thetitle}
                  5599 \newcommand{\HTMLTitle}[1]{\renewcommand{\theHTMLTitle}{#1}}
     \HTMLAuthor \{\langle authorname \rangle\}
                                          The author to place into an HTML meta tag. If none given, the
                   default is \theauthor, which is empty unless the titling package is used.
                  5600 \providecommand{\theauthor}{}
                  5602 \newcommand{\theHTMLAuthor}{\theauthor}
                  5604 \newcommand{\HTMLAuthor}[1]{\renewcommand{\theHTMLAuthor}{#1}}
                   This is placed inside an HTML meta tag at the start of each file. This may be changed
                   mid-document using \HTMLDescription, allowing different HTML descriptions to be
                   used for different sections of the document.
  HTML author Do not use double quotes, and do not exceed 150 characters.
\HTMLDescription \{\langle New \ HTML \ meta \ description. \rangle\}
                                                          Assigns the HTML file's description meta tag.
                  5605 \newcommand{\LWR@currentHTMLDescription}{}
                  5606
                  5607 \newcommand{\HTMLDescription}[1]{%
                  5608 \renewcommand{\LWR@currentHTMLDescription}{#1}
                  5609 }
                  5610
                  5611 \end{warpall}
```

59 Footnotes

Iwarp uses native LATEX footnote code, although with its own \box to avoid the LATEX output routine. The usual functions mostly work as-is.

footnote numbering To have footnote numbers reset each time footnotes are printed:

```
\setcounter{footnoteReset}{1}
For bigfoot, manyfoot, or perpage:
```

```
\MakePerPage{footnoteX}
— or —
\MakeSortedPerPage{footnoteX}
```

The footnotes are reset when they are printed, according to section level as set by FootnoteDepth, which is not necessarily by HTML page. This is recommended for \alph, \Alph, or \fnsymbol footnotes, due to the limited number of symbols which are available.

footmisc The footmisc stable option is emulated by lwarp.

sectioning commands

When using footnotes in sectioning commands, to generate consistent results between print and HTML, use the footmisc package with the stable option, provide a short Toc entry, and \protect the \footnote:

```
\usepackage[stable]{footmisc}
\subsection[Subsection Name]
    {Subsection Name\protect\footnote{A footnote.}}
```

memoir with footmisc If using memoir class, with which lwarp preloads footmisc, the stable option must <u>memoir</u> be declared before lwarp is loaded:

```
\PassOptionsToPackage{stable}{footmisc}
\usepackage{lwarp}
```

Do not use a starred sectioning command. As an alternative, it may be possible to adjust \secnumdepth instead.

Several kinds of footnotes are used: in a regular page, in a minipage, or as thanks in the titlepage. Each of these is handle differently.

59.1 Regular page footnotes

In HTML documents, footnotes are placed at the bottom of the web page or the section, depending on FootnoteDepth, using the LATEX box \LWR@footnotebox. Using this instead of the original \footins box avoids having footnotes be printed by the output routine, since footnotes should be printed per HTML page instead of per PDF page.

See section 59.4 for the implementation.

59.2 Minipage footnotes

See section 59.5 for how minipage footnotes are gathered. See section 89.3 for how minipage footnotes are placed into the document.

59.3 Titlepage thanks

See section 66.7 for titlepage footnotes.

Regular page footnote implementation

```
for HTML & PRINT: 5612 \begin{warpall}
```

Ctr FootnoteDepth Determines how deeply to place footnotes in the HTML files, similar to tocdepth. Default: 3 The default of 3 places footnotes before each \subsubsection or higher. See table 9 for a table of LATEX section headings.

```
5613 \newcounter{FootnoteDepth}
5614 \setcounter{FootnoteDepth}{3}
```

Default: 0

ctr footnoteReset If non-zero, the footnote counter is reset to this value each time the footnotes are printed, as controlled by FootnoteDepth. For the manyfoot and bigfoot packages, additional counters such as footnote<suffix>Reset will be defined as well. These counters may be set non-zero by the user, and are also set if the perpage's \MakePerPage or \MakeSortedPerPage macros are used for the footnote or footnote<suffix> counters.

> (The name is not capitalized because it is made from the counter's name with "Reset" appended.)

```
5615 \newcounter{footnoteReset}
5616 \setcounter{footnoteReset}{0}
5617 \end{warpall}
```

for HTML output: 5618 \begin{warpHTML}

\LWR@footnotebox

Patch LATEX footnotes to use a new \box instead of an insert for lwarp footnotes. This avoids having the original \footins appear at the bottom of a lateximage, which is on its own new page.

5619 \newbox\LWR@footnotebox

Much of the following has unneeded print-mode formatting removed.

```
\ensuremath{\mbox{Qmakefntext}} \ensuremath{\mbox{qmakefntext}} \ensuremath{\mbox{$\langle text \rangle$}}
                         5620 \long\def\@makefntext#1{\textsuperscript{\@thefnmark}~#1}
```

\@makefnmark

```
5621 \def\@makefnmark{%
        \textsuperscript{\@thefnmark}%
5622
5623 }
```

Footnotes may be in regular text, in which case paragraphs are tagged, or in a table data cell or lateximage, in which case paragraph tags must be added manually.

In a lateximage during HTML output, the lateximage is placed inside a print-mode minipage, but the footnotes are broken out by:

```
\def\@mpfn{footnote}
\def\thempfn{\thefootnote}
\let\@footnotetext\LWR@footnotetext
```

```
\LWR@@footnotetext \{\langle text \rangle\} \{\langle footnote\ box\ name \rangle\}
```

Factored to allow multiple footnote boxes for manyfoot.

```
5624 \long\def\LWR@@footnotetext#1#2{%
5625 \LWR@traceinfo{LWR@footnotetext}%
5626 \global\setbox\csname #2\endcsname=\vbox{%
```

Add to any current footnotes:

```
5627
        \unvbox\csname #2\endcsname%
```

Remember the footnote number for \ref:

```
5628
        \protected@edef\@currentlabel{%
            \csname p@footnote\endcsname\@thefnmark%
       }% @currentlabel
5630
```

Open a group:

```
\color@begingroup%
5631
```

Use HTML superscripts in the footnote even inside a lateximage:

```
\renewrobustcmd{\textsuperscript}[1]{\LWR@htmlspan{sup}{##1}}%
5632
```

Use paragraph tags if in a tabular data cell or a lateximage:

```
5633
       \ifthenelse{%
5634
            \boolean{LWR@doingstartpars} \AND%
            \cnttest{\value{LWR@lateximagedepth}}{=}{0}%
5635
5636
       }%
5637
            {\LWR@htmltagc{\LWR@tagregularparagraph}\LWR@orignewline}%
5638
```

Append the footnote to the list:

```
5639
                            \@makefntext{#1}%
                     Closing paragraph tag:
                            \ifthenelse{%
                   5640
                                \boolean{LWR@doingstartpars} \AND%
                   5641
                   5642
                                \cnttest{\value{LWR@lateximagedepth}}{=}{0}%
                            }%
                   5643
                   5644
                                {\par}%
                                {%
                   5645
                                     \LWR@htmltagc{/\LWR@tagregularparagraph}%
                   5646
                                     \LWR@orignewline%
                   5647
                   5648
                                }%
                     Close the group:
                            \color@endgroup%
                   5649
                   5650 }% vbox
                     Paragraph handling:
                   5651 \LWR@ensuredoingapar%
                   5652 }%
\LWR@footnotetext \{\langle text \rangle\}
                   5653 \long\def\LWR@footnotetext#1{\LWR@@footnotetext{#1}{LWR@footnotebox}}
   \ensuremath{\mbox{\tt Qfootnotetext}}
                   5654 \LetLtxMacro\@footnotetext\LWR@footnotetext
```

59.5 Minipage footnote implementation

Patch LATEX minipage footnotes to use a new \box instead of an insert for lwarp minipage footnotes. This avoids having the original \@mpfootins appear at the bottom of a lateximage, which is on its own new page.

```
\@mpfootnotetext {\langle text\rangle} \\
5656 \long\def\@mpfootnotetext#1{\%} \\
5657 \LWR@traceinfo{\text\rangle}\\
5658 \global\setbox\LWR@mpfootnotes\vbox{\%} \\
5659 \unvbox\LWR@mpfootnotes\\\
5660 \reset@font\footnotesize\\\
5661 \hsize\columnwidth\\\\
5662 \@parboxrestore\\\
\end{arrangle}
```

5655 \newbox\LWR@mpfootnotes

```
5663 \protected@edef\@currentlabel%
5664 {\csname p@mpfootnote\endcsname\@thefnmark}%
5665 \color@begingroup%
```

Use paragraph tags if in a tabular data cell or a lateximage:

```
\ifthenelse{%
5666
            \boolean{LWR@doingstartpars} \AND%
5667
            \cnttest{\value{LWR@lateximagedepth}}{=}{0}%
5668
        }%
5669
5670
            {}%
            {\tt \{\LWR@htmltagc{\LWR@tagregularparagraph}\LWR@orignewline}\%}
5671
        \@makefntext{%
5672
            \ignorespaces#1%
5673
        }%
5674
```

Don't add the closing paragraph tag if are inside a lateximage:

```
\ifthenelse{\cnttest{\value{LWR@lateximagedepth}}{>}{0}}%
5675
5676
            {}%
            {%
5677
                \leavevmode\LWR@orignewline%
5678
5679
                \LWR@htmltagc{/\LWR@tagregularparagraph}%
                \LWR@origpar%
            }%
5681
        \color@endgroup%
5682
5683 }% vbox
```

Paragraph handling:

```
5684 \LWR@ensuredoingapar%
5685 \LWR@traceinfo{@mpfootnotetext: done}%
5686 }
```

\thempfootnote Redefined to remove the \itshape, which caused an obscure compiling error in some situations.

```
5687 \AtBeginDocument{
5688 \def\thempfootnote{\@alph\c@mpfootnote}
5689 }
```

59.6 Printing pending footnotes

```
5694
        \LWR@origmedskip
5695
        \unvbox\csuse{LWR@#1box}
        \setbox\csuse{LWR@#1box}=\vbox{}
5696
        \end{BlockClass}
5697
        \ifltxcounter{#1Reset}{%
5698
            \ifnumgreater{\value{#1Reset}}{0}{%
5699
                 \setcounter{#1}{\value{#1Reset}}%
5700
5701
                 \addtocounter{#1}{-1}%
5702
            }{}%
        }{}%
5703
5704 \fi
5705 }
```

\LWR@printpendingfootnotes Enclose the footnotes in a class, print, then clear. For manynotes, new footnotes may be added via \appto.

```
5706 \newcommand*{\LWR@printpendingfootnotes}{%
       \LWR@@printpendingfootnotes{footnote}%
5708 }
```

LWR@maybeprintpendingfootnotes $\{\langle depth \rangle\}$ Used to print footnotes before sections only if formatting for an EPUB or word processor:

```
5709 \newcommand*{\LWR@maybeprintpendingfootnotes}[1]{%
5710 \ifboolexpr{
5711
        not test{\ifnumcomp{#1}{>}{\value{FootnoteDepth}}} or
        bool{FormatEPUB} or
5712
        bool{FormatWP}
5713
5714 }%
5715 {\LWR@printpendingfootnotes}%
5716 {}%
5717 }
```

```
5718 \newcommand*{\LWR@printpendingmpfootnotes}{%
5719 \ifvoid\LWR@mpfootnotes\else
        \LWR@forcenewpage
5720
        \begin{BlockClass}{footnotes}
5721
        \LWR@print@vspace*{\baselineskip}
5722
5723
        \unvbox\LWR@mpfootnotes
        \setbox\LWR@mpfootnotes=\vbox{}
5724
5725
        \end{BlockClass}
5726 \fi
5727 }
5728 \end{warpHTML}
```

Marginpars 60

\marginpar $[\langle left \rangle] \{\langle right \rangle\}$ \marginpar may contains paragraphs, but in order to remain

> inline with the surrounding text lwarp nullifies block-related macros inside the \marginpar. Paragraph breaks are converted to
 tags.

\marginparBlock $[\langle left \rangle] \{\langle right \rangle\}$ To include block-related macros, use \marginparBlock, which takes the same arguments but creates a <div> instead of a . A line break will occur in the text where the \marginBlock occurs.

for HTML output: 5729 \begin{warpHTML}

```
\marginpar [\langle left \rangle] \{\langle right \rangle\}
            5730 \renewcommand{\marginpar}[2][]{%
            5731 \ifbool{FormatWP}%
            5732 {%
            5733 \begin{LWR@BlockClassWP}{width:2in; float:right; margin:10pt}{}{marginblock}
            5735 \end{LWR@BlockClassWP}
            5736 }%
            5737 {%
                     \LWR@htmlspanclass{marginpar}{#2}%
            5739 }%
            5740 }
```

\marginparBlock $[\langle left \rangle] \{\langle right \rangle\}$

For use when the marginpar will be more than one paragraph, and/or contains more than simple text.

HTML version.

```
5741 \newcommand{\marginparBlock}[2][]{%
5742 \ifbool{FormatWP}%
5743 {%
5744 \begin{LWR@BlockClassWP}{width:2in; float:right; margin:10pt}{}{marginblock}
5746 \end{LWR@BlockClassWP}
5747 }%
5748 {%
5749 \begin{BlockClass}[width:2in; float:right; margin:10pt]{marginparblock}
5751 \end{BlockClass}
5752 }%
5753 }
```

\reversemarginpar

```
5754 \renewcommand*{\reversemarginpar}{}
```

```
\normalmarginpar
                     5755 \renewcommand*{\normalmarginpar}{}
                     5756 \end{warpHTML}
    for PRINT output: 5757 \begin{warpprint}
    \marginparBlock [\langle left \rangle] \{\langle right \rangle\}
                      For use when the marginpar will be more than one paragraph, and/or contains more
                      than simple text.
                      Print version.
                     5758 \LetLtxMacro\marginparBlock\marginpar
                     5759 \end{warpprint}
                             Splitting HTML files
                      61
                          • Files are split according to FileDepth and CombineHigherDepths.
                          • Filenames are sanitized by \LWR@filenamenoblanks.
                          • \LWR@newhtmlfile finishes an HTML page, adds a comment to tell where and
                            how to split the file, then starts a new HTML page.
   for HTML & PRINT: 5760 \begin{warpall}
      Ctr FileDepth {\langle section depth \rangle} determines how deeply to break into new HTML files, similar to
                      tocdepth. The default of -5 produces one large HTML file.
                     5761 \newcounter{FileDepth}
                     5762 \setcounter{FileDepth}{-5}
CombineHigherDepths Combile higher-level sections together into one file?
                     5763 \newbool{CombineHigherDepths}
                     5764 \booltrue{CombineHigherDepths}
     \FilenameLimit Maximum length of the generated filenames.
                     5765 \newcommand*{\FilenameLimit}{80}
                     5766 \end{warpall}
```

Bool

for HTML output: 5767 \begin{warpHTML}

\LWR@thisfilename The currently-active filename or number. At first, this is the homepage.

\LWR@thisnewfilename The filename being sanitized.

```
5773 \newcommand*{\LWR@thisnewfilename}{}
```

```
\LWR@simplifyname * \{\langle expression \rangle\} Simplify \LWR@thisnewfilename.
```

If starred, detokenizes the input expression. If found, changes the expression to a single detokenized dash.

```
5774 \NewDocumentCommand{\LWR@simplifyname}{s m}{%
5775 \IfBooleanTF{#1}{%
        \StrSubstitute{\LWR@thisnewfilename}%
5776
5777
            {\detokenize{#2}}%
            {\detokenize{-}}[\LWR@thisnewfilename]%
5778
5779 }{%
        \StrSubstitute{\LWR@thisnewfilename}%
5780
5781
            {\detokenize{-}}[\LWR@thisnewfilename]%
5782
5783 }
5784 }
```

\LWR@simplifycustom User-defined filename simplifications. Redefine with \newcommand.

```
5785 \newcommand*{\LWR@simplifycustom}{}
```

 $\{ (phrase) \}$ Assign a user-defined filename simplification. Appends to \LWR@simplifycustom.

```
5786 \NewDocumentCommand{\FilenameSimplify}{s m}{%
5787 \IfBooleanTF{#1}{%
        \appto{\LWR@simplifycustom}{%
5788
            \LWR@simplifyname*{#2}%
5789
        }%
5790
5791 }{%
        \appto{\LWR@simplifycustom}{%
5792
5793
            \LWR@simplifyname{#2}%
5794
5795 }%
5796 }
```

\LWR@filenamenoblanks $\{\langle filename \rangle\}$

Convert blanks into dashes, removes short words, store result in \LWR@thisfilename.

```
Also see \LWR@nullfonts for nullified macros.
5797 \newcommand*{\LWR@filenamenoblanks}[1]{%
5798 \begingroup
 Locally temporarily disable direct-formatting commands, not used in filenames:
5799 \LWR@nullfonts%
5800 \renewcommand*{\LWR@htmltagc}[1]{}%
5801 \edef\LWR@thisnewfilename{#1}%
 Replaces common macros with hyphens. (\& is done by \LWR@nullfonts.)
5803 \LWR@simplifyname{\_}
5804 \LWR@simplifyname{\#}
5805 \LWR@simplifyname{\textbackslash}
5806 \LWR@simplifyname{\protect}
5807 \LWR@simplifyname{\ }
5808 \LWR@simplifyname{\textless}
5809 \LWR@simplifyname{\textgreater}
5810 \edef\LWR@thisnewfilename{\detokenize\expandafter{\LWR@thisnewfilename}}%
5811 \LWR@traceinfo{LWR@filenamenoblanks edef: !\LWR@thisnewfilename!}%
5812 \fullexpandarg%
 Convert spaces into hyphens:
5813 \LWR@simplifyname*{ }
 Convert punctutation into hyphens:
5814 \LWR@simplifyname*{!}
5815 \LWR@simplifyname*{,}
5816 \LWR@simplifyname*{'}
5817 \LWR@simplifyname*{+}
5818 \LWR@simplifyname*{,}
5819 \LWR@simplifyname*{/}
5820 \LWR@simplifyname*{:}
5821 \LWR@simplifyname*{;}
5822 \LWR@simplifyname*{=}
5823 \LWR@simplifyname*{?}
5824 \LWR@simplifyname*{@}
5825 \LWR@simplifyname*{^}
5826 \LWR@simplifyname*{&}
5827 \LWR@simplifyname*{"}
5828 \LWR@simplifyname*{<}
5829 \LWR@simplifyname*{>}
5830 \LWR@simplifyname{\LWRbackslash}
```

Braces are removed entirely to avoid extra dashes in the result.

```
5831 \StrSubstitute{\LWR@thisnewfilename}%
       {\LWRleftbrace}{}[\LWR@thisnewfilename]%
5833 \StrSubstitute{\LWR@thisnewfilename}%
       {\LWRrightbrace}{}[\LWR@thisnewfilename]%
5835 \LWR@simplifyname{\LWRpercent}
5836 \LWR@simplifyname{\LWRdollar}
5837 \LWR@simplifyname*{|}
5838 \LWR@simplifyname*{^}
5839 \LWR@simplifyname*{~}
5840 \LWR@simplifyname*{[}
5841 \LWR@simplifyname*{]}
5842 \LWR@simplifyname*{'}
 Convert short words:
5843 \LWR@simplifyname*{-s-}
5844 \LWR@simplifyname*{-S-}
5845 \LWR@simplifyname*{-a-}
5846 \LWR@simplifyname*{-A-}
5847 \LWR@simplifyname*{-an-}
5848 \LWR@simplifyname*{-AN-}
5849 \LWR@simplifyname*{-to-}
5850 \LWR@simplifyname*{-TO-}
5851 \LWR@simplifyname*{-by-}
5852 \LWR@simplifyname*{-BY-}
5853 \LWR@simplifyname*{-of-}
5854 \LWR@simplifyname*{-OF-}
5855 \LWR@simplifyname*{-and-}
5856 \verb|\LWR@simplifyname*{-AND-}|
5857 \LWR@simplifyname*{-for-}
5858 \LWR@simplifyname*{-FOR-}
5859 \LWR@simplifyname*{-the-}
5860 \LWR@simplifyname*{-THE-}
 Convert custom words:
5861 \LWR@simplifycustom%
 Convert multiple hyphens:
5862 \LWR@simplifyname*{----}
5863 \LWR@simplifyname*{----}
5864 \LWR@simplifyname*{---}
5865 \LWR@simplifyname*{--}
 If pdfIATEX and not utf8 encoding, don't try to convert emdash, endash:
5866 \ifPDFTeX% pdflatex or dvi latex
5867 \ifdefstring{\inputencodingname}{utf8}{%
5868 \LWR@simplifyname*{---}
```

```
5870 \LWR@simplifyname*{--}
                                   endash
                          5871 %
                          5872 }{ }%
                          5873 \else% not PDFTeX
                          5874 \LWR@simplifyname*{---}
                          5875 \LWR@simplifyname*{--}
                          5876 \fi%
                           If starts with a dash, remove the leading dash:
                          5877 \IfBeginWith{\LWR@thisnewfilename}{\detokenize{-}}{%
                                 \StrGobbleLeft{\LWR@thisnewfilename}{1}[\LWR@thisnewfilename]%
                          5879 }{}%
                           If ends with a dash, remove the trailing dash:
                          5881
                                 \StrGobbleRight{\LWR@thisnewfilename}{1}[\LWR@thisnewfilename]%
                          5882 }{}%
                           Limits the length of the filename:
                          5883 \StrLeft{\LWR@thisnewfilename}{\FilenameLimit}[\LWR@thisnewfilename]%
                           Return the global result:
                          5884 \global\let\LWR@thisfilename\LWR@thisnewfilename%
                          5885 \endgroup%
                          5886 \LWR@traceinfo{LWR@filenamenoblanks: result is \LWR@thisfilename}%
                           Remembers which autopage label was most recently generated. Used to avoid dupli-
LWR@previousautopagelabel
                          5888 \newcounter{LWR@previousautopagelabel}
                          5889 \setcounter{LWR@previousautopagelabel}{-1}
          File *_html.aux A new entry in the *_html.aux file is used to help cross-references:
                               \newlabel{autopage-<nnn>}{{<x>}}
    \LWR@newautopagelabel \{\langle pagenumber\ counter \rangle\}
                          5890 \newcommand*{\LWR@newautopagelabel}[1]{%
                          5891 \ifnumequal{\value{LWR@previousautopagelabel}}{\value{page}}%
                          5892 {}% no action if this autopage label has already been defined
                          5893 {%
                          5894
                                 \label{autopage-\arabic{#1}}%
                          5895
                                  \setcounter{LWR@previousautopagelabel}{\value{page}}
                          5896 }%
                          5897 }
```

5869 %

emdash

61.1 Customizing MATHJAX

\LWR@customizedMathJax Additional MathJax definitions to be added to the start of each html page.

```
5898 \newcommand*{\LWR@customizedMathJax}{}
```

\CustomizeMathJax

MATHJAX does not have preexisting support every possible math function. Additional MATHJAX function definitions may be defined. These will be declared at the start of each HTML page, and thus will have a global effect.

Examples:

\LWR@customizeMathJax

```
5904 \newcommand{\LWR@customizeMathJax}{%
5905 \ifbool{mathjax}{
5906 \LWR@stoppars
5907 \LWR@htmlcomment{Nullify \textbackslash{}ensuremath, footnotes for MathJax:}
5908
5909 \(\newcommand\ensuremath[1]{##1}\)
5910
5911 \(\newcommand\footnote[2][]{\text{( Footnote ##1 )}}\)
5912
5913 \(\newcommand\footnotemark[1][]{\text{( Footnote ##1 )}}\)
5914
5915 \LWR@htmlcomment{Additional customizations for MathJax:}
5916
5917 \LWR@customizedMathJax
5918
5919 \LWR@startpars
5920 }{}
5921 }
5922 \end{warpHTML}
```

for PRINT output: 5923 \begin{warpprint}

```
\CustomizeMathJax The print-mode version:
```

```
5924 \newcommand*{\CustomizeMathJax}[1]{}

\FilenameSimplify * {\langle expression \rangle}
5925 \NewDocumentCommand{\FilenameSimplify}{s m}{}

5926 \end{\warpprint}

for HTML output: 5927 \begin{\warpHTML}

\LWR@newhtmlfile {\langle section name \rangle}
```

Finishes the current HTML page with footnotes, footer, navigation, then starts a new HTML page with an HTML comment telling where to split the page and what the new filename and css are, then adds navigation, side TOC, header, and starts the text body.

```
5928 \newcommand*{\LWR@newhtmlfile}[1]{
5929 \LWR@traceinfo{LWR@newhtmlfile}
```

At the bottom of the ending file:

```
5930 \LWR@htmlelementclassend{section}{textbody}
5931 \LWR@htmlelementclassend{div}{bodycontainer}
5932 \LWR@htmlelementclassend{div}{bodyandsidetoc}
5933
5934 \LWR@printpendingfootnotes
5935
```

No footer between files if EPUB:

```
5936 \ifbool{FormatEPUB}
5937 {}
5938 {
5939    \LWR@htmlelement{footer}
5940
5941    \LWR@pagebottom
5942
5943    \LWR@htmlelementend{footer}
5944 }
```

No bottom navigation if are finishing the home page or formatting for EPUB or a word-processor.

```
5945 \ifthenelse{\boolean{FormatEPUB}\OR\boolean{FormatWP}}
5946 {}
5947 {\ifnumcomp{\value{LWR@htmlfilenumber}}{>}{0}{\LWR@botnavigation}{}}
```

End of this HTML file:

```
5948 \LWR@stoppars
5949 \LWR@htmltag{/body}\LWR@orignewline
5950 \LWR@htmltag{/html}\LWR@orignewline
5951 \LWR@traceinfo{LWR@newhtmlfile: about to LWR@orignewpage}
5952 \LWR@orignewpage
5953
5954 \addtocounter{LWR@htmlfilenumber}{1}%
```

If using a filename based on section name, create a version without blanks. The filename without blanks will be placed into \LWR@thisfilename. Duplicates will be detected using MD5 hashes.

If not using a filename, the file number will be used instead.

```
5955 \ifbool{FileSectionNames}%
5956 {%
```

Convert the section name to a filename with blanks and common words removed. The resulting filename is in \LWR@thisfilename.

```
5957 \LWR@filenamenoblanks{#1}%
```

Create a macro name from the MD5 hash of the file name, to detect duplicates:

```
5958 \edef\LWR@hashedname{\LWR@mdfive{\LWR@thisfilename}}%
```

If the macro name is not yet defined, this filename is unique.

```
5959 \ifcsundef{LWR@filename\LWR@hashedname}{%
```

If the filename is unique, create a macro using the hashed name, to be used to test for additional duplicates in the future.

```
5960 \csdef{LWR@filename\LWR@hashedname}{}% 5961 \}{%
```

If the filename is not unique, create an error.

```
\PackageError{lwarp}
5962
5963
                {%
                    Section name\MessageBreak
5964
                     ''#1'',\MessageBreak
5965
                    at the line number listed below,\MessageBreak
5966
5967
                    generates the filename\MessageBreak
5968
                     ''\LWR@thisfilename'',\MessageBreak
5969
                    which appears to be a duplicate.\MessageBreak
5970
                    There is a previous section with an\MessageBreak
                    identical or similar name%
5971
                }
5972
5973
                {%
                    Lwarp sanitizes most symbols and a few common short words
5974
                    when generating file names, and this may cause a conflict.
5976
                }
```

```
5977 }
5978 }
```

If using file numbers instead of names, the name is set to the next file number.

```
5979 {\renewcommand*{\LWR@thisfilename}{\arabic{LWR@htmlfilenumber}}}
```

Include an HTML comment to instruct lwarpmk where to split the files apart. Uses pipe-separated fields for split_html.gawk. Uses monospaced font with ligatures disabled for everything except the title.

```
5980 \LWR@traceinfo{LWR@newhtmlfile: about to print start file}%
```

\LWR@nullfonts to allow math in a section name.

```
5981 \begingroup%
5982 \LWR@nullfonts%
5983 \LWR@htmlblockcomment{%
5984 |Start file|%
5985 \LWR@htmlsectionfilename{\LWR@thisfilename}|%
5986 }
5987 \endgroup%
```

At the top of the starting file:

```
5988 \LWR@stoppars
5989
```

Start a new file with the given section name:

```
5990 \LWR@filestart[#1]
5991
```

Track the page numbers:

```
5992 \setcounter{LWR@latestautopage}{\value{page}}%
5993 \LWR@newautopagelabel{LWR@latestautopage}%
```

No navigation between files if formatting for an EPUB or word processor:

```
5994 \ifthenelse{\boolean{FormatEPUB}\OR\boolean{FormatWP}}
5995 {}
5996 {\LWR@topnavigation}
5997
```

No header if between files if formatting for an EPUB or word processor:

```
6004
           \LWR@htmlelementend{header}
6005
       }
6006
6007
 The container for the sidetoc and text body:
6008 \LWR@htmlelementclass{div}{bodyandsidetoc}
 No sidetoc if formatting for an EPUB or word processor:
6010
       {\LWR@sidetoc}
6011
6012
 Start of the <textbody>:
6013 \LWR@htmlelementclass{div}{bodycontainer}
6014 \LWR@htmlelementclass{section}{textbody}
6015
 Print title only if there is one. Skip if formatting for an EPUB or word processor:
6016 \ifthenelse{\boolean{FormatEPUB}\OR\boolean{FormatWP}}%
       {}%
6017
6018
       {%
           \ifcsvoid{thetitle}{}{%
6019
               \LWR@printthetitle%
6020
           }%
6021
       }%
6022
 Keep paragraph tags disabled for now:
6023 \LWR@stoppars
6024
 If using MathJax, disable \ensuremath by printing a nullified definition at the start
 of each file, and add further customizations:
6025 \LWR@customizeMathJax
6026 \LWR@traceinfo{LWR@newhtmlfile: done}
6027 }
6028 \end{warpHTML}
```

62 Sectioning

Sectioning and cross-references have been emulated from scratch, rather than try to patch several layers of existing LATEX code and packages. Formatting is handled by css, so the emulated code has much less work to do than the print versions.

Unicode

accents in filenames to

Section names and the resulting filenames with accented characters are partially supported, depending on the ability of *pdflatex* to generate characters and *pdftotext* to read them. If extra symbols appear in the text, it may be that *pdflatex* is actually producing a symbol over or under a character, resulting in *pdftotext* picking up the accent symbol separately.

XATATEX and LualATEX directly support accented section and file names.

for HTML output: 6029 \begin{warpHTML}

62.1 User-level starred section commands

\ForceHTMLPage

For HTML output, forces the next section to be on its own HTML page, if FileDepth allows, even if starred. For use with \printindex and others which generate a starred section which should be on its own HTML page. Also see \ForceHTMLTOC.

For print output, no effect.

```
6030 \newbool{LWR@forcinghtmlpage}
6031 \boolfalse{LWR@forcinghtmlpage}
6032
6033 \newcommand*{\ForceHTMLPage}{%
6034 \global\booltrue{LWR@forcinghtmlpage}%
6035 }
```

\ForceHTMLT0C

For HTML output, forces the next section to have a TOC entry, even if starred. For use with \printindex and others which generate a starred section which should be in the TOC so that it may be accessed via HTML. Not necessary if used with tocbibind. Also see \ForceHTMLPage.

For print output, no effect.

```
6036 \newbool{LWR@forcinghtmltoc}
6037 \boolfalse{LWR@forcinghtmltoc}
6038
6039 \newcommand*{\ForceHTMLTOC}{%
6040 \global\booltrue{LWR@forcinghtmltoc}%
6041 }

6042 \end{warpHTML}

for PRINT output:
6043 \begin{warpprint}
6044 \newcommand*{\ForceHTMLPage}{}
6045 \newcommand*{\ForceHTMLTOC}{}
```

```
6046 \end{warpprint}
for HTML output: 6047 \begin{warpHTML}
```

62.2 Book class commands

\mainmatter Declare the main matter section of the document. Does not reset the page number, which must be consecutive arabic numbers for the HTML conversion.

```
6048 \newbool{LWR@mainmatter}
6049 \DeclareDocumentCommand{\mainmatter}{}{%
6050 \booltrue{LWR@mainmatter}%
6051 }
```

\frontmatter Declare the front matter section of the document, using arabic numbering for the internal numbering. Does not reset the page number.

```
6052 \DeclareDocumentCommand{\frontmatter}{}{%
6053 \boolfalse{LWR@mainmatter}%
6054 }
```

\backmatter Declare the back matter section of the document. Does not reset the page number.

```
6055 \DeclareDocumentCommand{\backmatter}{}{%
6056 \boolfalse{LWR@mainmatter}
6057 }
```

62.3 Sectioning support macros

```
\LWR@sectionumber \{\langle section \ type \rangle\}
```

Typeset a section number and its trailing space with css formatting:

```
6058 \newcommand*{\LWR@sectionnumber}[1]{%
6059 \InlineClass{sectionnumber}{#1}%
6060 }
```

A tag used by the ToC and index.

```
\LWR@createautosec \{\langle section \ type \rangle\}
```

autosec

Create an autosection tag.

```
6061 \newcommand*{\LWR@createautosec}[1]{%
6062 \LWR@htmltag{%
       #1 % space
6063
       id=\textquotedbl\LWR@print@mbox{autosec-\arabic{page}}\textquotedbl%
6064
```

Iwarp 350

```
6065 }%
6066 }
```

\LWR@pushoneclose

 $\{\langle depth \rangle\}$ $\{\langle printclose \rangle\}$ Stacks the new sectioning level's closing tag, to be used when this section is closed some time later.



\LWR@stoppars must be executed first.

```
6067 \NewDocumentCommand{\LWR@pushoneclose}{m m}{%
6068 \LWR@traceinfo{LWR@pushoneclose #1}%
        \pushclose{#2}{#1}%
6069
6070 }
```

\LWR@startnewdepth $\{\langle depth \rangle\}\ \{\langle printclose \rangle\}$

Closes currently stacked tags of a lesser level, then opens the new nesting level by saving this new sectioning level's closing tag for later use.

 \triangle

\LWR@stoppars must be executed first.

```
6071 \NewDocumentCommand{\LWR@startnewdepth}{m m}{%
```

Close any stacked sections up to this new one.

```
6072 \LWR@closeprevious{#1}%
```

Push a new section depth:

```
6073 \LWR@pushoneclose{#1}{#2}%
6074 }
```

LWR@prevFileDepth Remembers the previous LWR@FileDepth.

Initialized to a deep level so that any section will trigger a new HTML page after the home page.

```
6075 \newcounter{LWR@prevFileDepth}
                6076 \setcounter{LWR@prevFileDepth}{\LWR@depthsubparagraph}
\ensuremath{\langle sectiontype \rangle}
```

6077 \def\@seccntformat#1{\csname the#1\endcsname\quad}

\simplechapterdelim Used by tocbibind and anonchap.

```
6078 \newcommand*{\simplechapterdelim}{}
```

```
\ensuremat {\langle sectiontype \rangle}
```

\let to \@seccntformat by default, but may be redefined by \simplechapter and \restorechapter from tocbibind or anonchap.

6079 \let\@chapcntformat\@seccntformat

```
\ensuremath{\lozenge} artcntformat \{\langle sectiontype \rangle\}
```

\let to \@seccntformat by default, but may be redefined by ctex.

6080 \let\@partcntformat\@seccntformat

\@partnameformat Prints "Part" for part sections.

Nullified by ctex.

6081 \newcommand*{\@partnameformat}{\LWR@isolate{\partname}~}%

Ctr LWR@currentautosec

Records the page number when the section was created. If a math expression is included in the section name, and SVG math is used, the corresponding lateximage will cause the page number to change by the time the following autosec label is created.

```
6082 \newcounter{LWR@currentautosec}
6083 \setcounter{LWR@currentautosec}{1}
```

```
\LWR@section * [\langle TOC \ name \rangle] \{\langle name \rangle\} \{\langle section type \rangle\}
```

The common actions for the high-level sectioning commands.

```
6084 \DeclareDocumentCommand{\LWR@section}{m m m}{% 6085 \LWR@traceinfo{LWR@section: starting}% 6086 \LWR@stoppars%
```

Cancel special minipage horizontal space interaction:

```
6087 \global\boolfalse{LWR@minipagethispar}%
```

Start a new HTML file unless starred, and if is a shallow sectioning depth.

Exception: Also start a new HTML file for \part*, for appendix.

Generate a new LATEX page so that TOC and index page number points to the section:

```
6088 \LWR@traceinfo{LWR@section: testing whether to start a new HTML file}%
6089 \IfBooleanT{#1}{\LWR@traceinfo{LWR@section: starred}}%
6090 \ifbool{LWR@forcinghtmlpage}{\LWR@traceinfo{LWR@section: forcinghtmlpage}}{}%
6091 \ifthenelse{%
6092 \(%
6093 \(\NOT\equal{#1}{\BooleanTrue}\)\OR%
6094 \(\cnttest{\@nameuse{LWR@depth#4}}{=}{\LWR@depthpart}\)\OR%
6095 \(\boolean{LWR@forcinghtmlpage}\)%
```

```
\)%
6096
       \AND%
6097
6098
       \cnttest{\@nameuse{LWR@depth#4}}{<=}{\value{FileDepth}}%</pre>
       \AND%
6099
       \(%
6100
           \NOT\boolean{CombineHigherDepths}\OR%
6101
           6102
       \)%
6103
       \AND%
6104
       \(% phantomsection
6105
           \NOT\isempty{#3}%
6106
           \(\NOT\equal{#1}{\BooleanTrue}\)%
6108
       \)%
6109
6110 }%
 If so: start a new HTML file:
6111 {% new file
       \LWR@traceinfo{LWR@section: new HTML file}%
 See if there was an optional ToC name entry:
6113
       \IfNoValueTF{#2}%
 If no optional entry
           {\LWR@newhtmlfile{#3}}%
6114
 If yes an optional entry
6115
           {\LWR@newhtmlfile{#2}}%
6116 }% new file
 Else: No new html file:
6117 {% not new file
 Generate a new LATEX page so that TOC and index page number points to the section:
       \LWR@traceinfo{LWR@section: not a new HTML file, about to LWR@orignewpage}%
6118
       \LWR@orignewpage%
6120 }% not new file
6121
 Remember this section's name for \nameref:
6122 \IfValueT{#3}{%
       \LWR@traceinfo{LWR@section: about to LWR@setlatestname}%
6123
       \IfValueTF{#2}{\LWR@setlatestname{#2}}{\LWR@setlatestname{#3}}%
6124
6125 }%
```

Print an opening comment with the level and the name; ex: "section" "Introduction" Footnotes may be used in section names, which would also appear in the HTML section opening comments, so the short TOC entry is used if possible, and a limited opening comment is made if the sectional unit is starred.

```
6126 \ifbool{HTMLDebugComments}{%
6127
        \begingroup%
6128
        \LWR@nullfonts%
        \IfBooleanTF{#1}% starred
6129
6130
       {\LWR@htmlcomment{Opening #4*}}%
6131
6132
            \IfNoValueTF{#2}% short TOC
                {\LWR@htmlcomment{Opening #4 ''#3''}}%
6133
6134
                {\LWR@htmlcomment{Opening #4 ''#2''}}%
6135
        }\LWR@orignewline%
6136
        \endgroup%
6137 }{}
```

For inline sections paragraph and subparagraph, start a new paragraph now:

Create the opening tag with an autosec:

```
6143 \LWR@traceinfo{LWR@section: about to LWR@createautosec}% 6144 \LWR@createautosec{\@nameuse{LWR@tag#4}}%
```

6145 \setcounter{LWR@currentautosec}{\value{page}}%

Check if starred:

```
6146 \IfBooleanTF{#1}%
6147 {%
6148 \LWR@traceinfo{LWR@section: starred}%
```

Starred, but also forcing a TOC entry, so add unnumbered TOC name or regular name:

Not starred, so step counter and add to TOC:

```
6157 {% not starred
```

Only add a numbered ToC entry if section number is not too deep:

```
6158 \ifthenelse{%
6159 \cnttest{\@nameuse{LWR@depth#4}}{<=}{\value{secnumdepth}}%
6160 }%
6161 {% if secnumdepth</pre>
```

If in the main matter, step the counter and add the TOC entry. For article class, lwarp assumes that all is mainmatter.

Add main matter numbered toc entry with the toc name or the regular name:

```
6167
                  \LWR@traceinfo{LWR@section: about to addcontentsline}%
6168
                  \addcontentsline{toc}{#4}%
6169
                  {%
                       \protect\numberline{%
6170
                           \@nameuse{pre#4name}%
6171
                           \@nameuse{the#4}%
6172
                           \@nameuse{post#4name}%
6173
                      }%
6174
                      {%
6175
6176
                           \ignorespaces%
                   \label{thm:linear} $$ \TF{\#2}{\LWR@isolate{\#3}}\operatorname{\#3}}\operatorname{LWR@isolate{\#3}}\
6177
                      }%
6178
                  }%
6179
6180
                  \LWR@traceinfo{LWR@section: finished addcontentsline}%
             }% end of if main matter
```

If not main matter, add unnumbered TOC name or regular name:

```
6182 {% not main matter
6183 \LWR@traceinfo{LWR@section: no main matter}%
6184 \addcontentsline{toc}{#4}{%
6185 \IfValueTF{#2}{\LWR@isolate{#2}}{\LWR@isolate{#3}}%
6186 }%
6187 }% end of not main matter
6188 }% end of secnumdepth
```

Deeper than secnumdepth, so add an unnumbered Toc entry:

```
6189 {%
6190 \addcontentsline{toc}{#4}{%
6191 \IfValueTF{#2}{\LWR@isolate{#2}}{\LWR@isolate{#3}}%
6192 }%
6193 }%
```

For part, print "Part":

```
6194
       \ifbool{LWR@mainmatter}%
6195
            \ifthenelse{%
6196
                6197
                    {\value{secnumdepth}}\) \AND%
6198
                \label{local-control} $$ \operatorname{LWR@depth#4}}{=}{\LWR@depthpart}\)% $$
6199
           }%
6200
6201
                {\@partnameformat}%
                {}%
6202
 Print the section number:
            \LWR@traceinfo{LWR@section: about to print section number}%
6203
6204
            \ifthenelse{%
6205
                \cnttest{\@nameuse{LWR@depth#4}}{<=}{\value{secnumdepth}}%
            }%
6206
                {%
6207
                    \ifstrequal{#4}{part}%
6208
                    {\protect\LWR@sectionnumber{\@partcntformat{#4}}}%
6209
6210
                        \ifstrequal{#4}{chapter}%
6211
                            {\tt \{\protect\LWR@sectionnumber\{\ensuremat{\#4}\}\}\%}
6212
                            {\protect\LWR@sectionnumber{\@seccntformat{#4}}}%
6213
                    }%
6214
                }%
6215
6216
                {}%
6217
            \LWR@traceinfo{LWR@section: finished print section number}%
6218
       }{}%
6219 }% end of not starred
 Print the section name:
6220 \LWR@traceinfo{LWR@section: about to print the section name}%
6221 \LWR@isolate{#3}%
 Close the heading tag, such as /H2:
6222 \LWR@traceinfo{LWR@section: about to close the heading tag}%
6223 \LWR@htmltag{\@nameuse{LWR@tag#4end}}%
6224 \LWR@orignewline%
 Generate a LATEX label:
6225 \LWR@traceinfo{LWR@section: about to create the LaTeX label}%
6226 \setcounter{LWR@latestautopage}{\value{page}}%
6227 \LWR@newautopagelabel{LWR@currentautosec}\LWR@orignewline%
 Start paragraph handing unless is an inline paragraph or subparagraph:
6228 \ifthenelse{%
6229
        \cnttest{\@nameuse{LWR@depth#4}}{<}{\LWR@depthparagraph}%
6230 }%
6231
       {\LWR@startpars}%
```

6232

{}%

If not starred, remember the previous depth to possibly trigger a new HTML page.

HOWEVER, allow a \part* to start a new HTML page. This is used by appendix.

A starred section does not trigger a new HTML page at the beginning of this macro, so it should not affect it here at the end either. This became an issue when a \listoftables was tested in the middle of the document. The \chapter* for the list was not allowing a new HTML page for the section following it while CombineHigherDepths was true.

```
6233 \ifthenelse{%
6234    \NOT\equal{#1}{\BooleanTrue}\OR%
6235    \cnttest{\@nameuse{LWR@depth#4}}{=}{\LWR@depthpart}%
6236 }%
6237    {% not starred
6238     \setcounter{LWR@prevFileDepth}{\@nameuse{LWR@depth#4}}%
6239    }% not starred
6240    {}%
```

Reset to defaults if not a phantomsection:

```
6241 \ifstrempty{#3}%
6242 {}%
6243 {%
6244 \global\boolfalse{LWR@forcinghtmlpage}%
6245 \global\boolfalse{LWR@forcinghtmltoc}%
6246 }%
6247 %
6248 \LWR@traceinfo{LWR@section: done}%
6249 }
```

62.4 Pre- and post- sectioning names

```
Usually null, but is used by uj* and ut* Japanese classes.
    \prepartname
   \postpartname
                 6250 \providecommand*{\prepartname}{}
                 6251 \providecommand*{\postpartname}{}
 \prechaptername
                  Usually null, but is used by uj* and ut* Japanese classes.
\postchaptername
                 6252 \providecommand*{\prechaptername}{}
                 6253 \providecommand*{\postchaptername}{}
 \presectionname
                 Always null, but provided here for algorithmic simplicity in \LWR@section.
\postsectionname
                 6254 \providecommand*{\presectionname}{}
                 6255 \let\postsectionname\presectionname
                 6257 \let\presubsectionname\presectionname
                 6258 \let\postsubsectionname\postsectionname
```

```
6259
6260 \let\presubsubsectionname\presectionname
6261 \let\postsubsubsectionname\postsectionname
6262
6263 \let\preparagraphname\presectionname
6264 \let\postparagraphname\postsectionname
6265
6266 \let\presubparagraphname\presectionname
6267 \let\postsubparagraphname\postsectionname
```

62.5 \section and friends

```
\part * [\langle TOC \, name \rangle] \{\langle name \rangle\}
          6268 \newcommand{\part@preamble}{}% for koma-script
          6270 \DeclareDocumentCommand{\part}{s o m}{%
         6271 \LWR@maybeprintpendingfootnotes{\LWR@depthpart}%
         6272 \LWR@stoppars%
         6274 \LWR@startnewdepth{\LWR@depthpart}{\LWR@printclosepart}%
         6275
         6276 \LWR@section{#1}{#2}{#3}{part}%
          6278 \part@preamble% for koma-script
          6279 \renewcommand{\part@preamble}{}%
\chapter * [\langle TOC \ name \rangle] [\langle heading \ name \rangle] \{\langle name \rangle\}
         6281 \let\@printcites\relax% for quotchap package
          6283 \newcommand{\chapter@preamble}{}% for koma-script
         6285 \@ifundefined{chapter}
         6286 {}
         6287 {%
         6288 \DeclareDocumentCommand{\chapter}{s o o m}{%
          6289 \IfValueTF{#2}{
         6290 \LWR@traceinfo{chapter #2}%
         6291 }{
         6292 \LWR@traceinfo{chapter #4}%
         6293 }
         6294 \LWR@maybeprintpendingfootnotes{\LWR@depthchapter}%
         6295 \LWR@stoppars%
         6297 \LWR@startnewdepth{\LWR@depthchapter}{\LWR@printclosechapter}%
         6298
         6299 \LWR@section{#1}{#2}{#4}{chapter}%
          6301 \@printcites% for quotchap package
          6302
```

```
6303 \chapter@preamble% for koma-script
                6304 \renewcommand{\chapter@preamble}{}%
                6305 }
                6306 }
      \section * [\langle TOC \ name \rangle] [\langle heading \ name \rangle] \{\langle name \rangle\}
                6307 \DeclareDocumentCommand{\section}{s o o m}{%
                6308 \LWR@traceinfo{section: starting}%
                6309 \LWR@maybeprintpendingfootnotes{\LWR@depthsection}%
                6310 \LWR@stoppars%
                6311
                6312 \LWR@startnewdepth{\LWR@depthsection}{\LWR@printclosesection}%
                6314 \LWR@section{#1}{#2}{#4}{section}%
                6315 }
   \subsection * [\langle TOC \ name \rangle] \{\langle name \rangle\}
                6316 \DeclareDocumentCommand{\subsection}{s o m}{%
                6317 \LWR@maybeprintpendingfootnotes{\LWR@depthsubsection}%
                6318 \LWR@stoppars%
                6319
                6320 \ LWR@startnewdepth{\LWR@depthsubsection}{\LWR@printclosesubsection}\%
                6322 \LWR@section{#1}{#2}{#3}{subsection}%
                6323 }
\subsubsection * [\langle TOC \ name \rangle] \{\langle name \rangle\}
                6324 \DeclareDocumentCommand{\subsubsection}{s o m}{%
                6325 \LWR@maybeprintpendingfootnotes{\LWR@depthsubsubsection}%
                6326 \LWR@stoppars%
                6327
                6328 \LWR@startnewdepth{\LWR@depthsubsubsection}%
                6329 {\LWR@printclosesubsubsection}%
                6331 \LWR@section{#1}{#2}{#3}{subsubsection}%
                6332 }
    \paragraph * [\langle TOC name \rangle] \{\langle name \rangle\}
                6333 \DeclareDocumentCommand{\paragraph}{s o m}{%
                6334 \LWR@maybeprintpendingfootnotes{\LWR@depthparagraph}%
                6335 \LWR@stoppars%
                6336
                6337 \LWR@startnewdepth{\LWR@depthparagraph}{\LWR@printcloseparagraph}%
                6339 \LWR@section{#1}{#2}{#3}{paragraph}%
                6340 }
```

```
6341 \DeclareDocumentCommand{\subparagraph}{s o m}{%
6342 \LWR@maybeprintpendingfootnotes{\LWR@depthsubparagraph}%
6343 \LWR@stoppars%
6344
6345 \LWR@startnewdepth{\LWR@depthsubparagraph}{\LWR@printclosesubparagraph}%
6346
6347 \LWR@section{#1}{#2}{#3}{subparagraph}%
6348 }
6349 \end{warpHTML}
```

63 Starting a new file

```
for HTML & PRINT: 6350 \begin{warpall}
```

\HTMLLanguage Default language for the HTML lang tag.

```
6351 \newcommand*{\LWR@currentHTMLLanguage}{en-US}
6352
6353 \newcommand*{\HTMLLanguage}[1]{%
6354 \renewcommand*{\LWR@currentHTMLLanguage}{#1}%
6355 }
```

\theHTMLTitleSeparator May be used inside \theHTMLTitleSection to separate the website's overall HTML title and the particular page's section name.

```
6356 \ifPDFTeX% pdflatex or dvi latex
        \ifdefstring{\inputencodingname}{utf8}{%
6357
            \newcommand*{\theHTMLTitleSeparator}{ --- }% EMdash
6358
6359
       }{%
            \newcommand*{\theHTMLTitleSeparator}{ - }% hyphen
6360
       }%
6361
6362 \else%
        \ifpTeX
6363
            \newcommand*{\theHTMLTitleSeparator}{ - }% hyphen
6364
6365
            \newcommand*{\theHTMLTitleSeparator}{ --- }% EMdash
6366
6367
        \fi%
6368 \fi%
```

\HTMLTitleBeforeSection Sets the HTML page's meta title tag to show the website title before the section name.

```
6369 \newcommand*{\HTMLTitleBeforeSection}{%
6370  \def\theHTMLTitleSection{%
6371  \theHTMLTitle\theHTMLTitleSeparator\theHTMLSection%
6372  }%
6373 }
```

```
Sets the HTML page's meta title tag to show the section name before the website
\HTMLTitleAfterSection
                         title.
                       6374 \newcommand*{\HTMLTitleAfterSection}{%
                               \def\theHTMLTitleSection{%
                                   \theHTMLSection\theHTMLTitleSeparator\theHTMLTitle%
                       6376
                               }%
                       6377
                       6378 }
  \theHTMLTitleSection Forms the HTML page's meta title tag. The default is to show the website title before
                         the section name.
                       6379 \HTMLTitleBeforeSection
       \theHTMLSection The section name is passed to \LWR@filestart, which then sets \theHTMLSection
                         for use inside \theHTMLTitleSection to create an HTML meta title tag.
                       6380 \newcommand*{\theHTMLSection}{}
                       6381 \end{warpall}
       for HTML output: 6382 \begin{warpHTML}
        \LWR@filestart [\langle sectionname \rangle]
                                              Creates the opening HTML tags.
                       6383 \newcommand*{\LWR@filestart}[1][]{%
                       6384 \LWR@traceinfo{LWR@filestart !#1!}%
                        Locally temporarily disable direct-formatting commands:
                       6385 \begingroup%
                       6386 \LWR@nullfonts%
                        Save the section name for use while creating the HTML meta title tag:
                       6387 \edef\theHTMLSection{#1}%
                        Create the page's HTML header:
                       6388 \LWR@htmltag{!DOCTYPE html}\LWR@orignewline
                        The language is user-adjustable:
                       6389 \LWR@htmltag{%
                            html lang=\LWR@orig@textquotedbl\LWR@currentHTMLLanguage\LWR@orig@textquotedbl%
                       6391 }\LWR@orignewline
                        Start of the meta data:
```

6392 \LWR@htmltag{head}\LWR@orignewline

Charset is fixed at UTF-8:

```
6393 \LWR@htmltag{%
6394 meta charset=\LWR@orig@textquotedbl{}UTF-8\LWR@orig@textquotedbl\ /%
6395 }\LWR@orignewline
```

Author:

```
6396 \ifthenelse{\equal{\theHTMLAuthor}{}}%
6397 {}%
6398 {%
6399 \LWR@htmltag{%
6400 meta name=\LWR@orig@textquotedbl{}author\LWR@orig@textquotedbl\ % space
6401 content=\LWR@orig@textquotedbl\theHTMLAuthor\LWR@orig@textquotedbl\ /%
6402 }\LWR@orignewline%
6403 }%
```

lwarp is the generator:

```
6404 \LWR@htmltag{%
6405    meta % space
6406    name=\LWR@orig@textquotedbl{}generator\LWR@orig@textquotedbl\ % space
6407    content=\LWR@orig@textquotedbl{}LaTeX lwarp package\LWR@orig@textquotedbl\ /%
6408 }\LWR@orignewline%
```

If there is a description, add it now:

```
6409 \ifdefempty{\LWR@currentHTMLDescription}{}{%
6410    \LWR@htmltag{%
6411    meta name=\LWR@orig@textquotedbl{}description\LWR@orig@textquotedbl\ % space
6412    content=\LWR@orig@textquotedbl\LWR@currentHTMLDescription\LWR@orig@textquotedbl\ /%
6413    }\LWR@orignewline
6414 }%
```

Mobile-friendly viewport:

```
6415 \LWR@htmltag{%
6416 meta % space
6417 name=\LWR@orig@textquotedbl{}viewport\LWR@orig@textquotedbl\ % space
6418 content=\LWR@orig@textquotedbl{}width=device-width, initial-scale=1.0\LWR@orig@textquotedbl\ /%
6419 }\LWR@orignewline
```

IE patch:

The page's title, if there is one. A section name is also added if given.

```
6429 \ifthenelse{\equal{\theHTMLTitle}{}}%
       {}%
6430
6431
       {%
6432
            \LWR@htmltag{title}%
            \ifdefempty{\theHTMLSection}%
6433
                {\theHTMLTitle}%
6434
                {\theHTMLTitleSection}%
6435
            \LWR@htmltag{/title}\LWR@orignewline%
6436
       }%
6437
```

The page's stylesheet:

Optional MathJax support. The html tags must be turned off during the verbatim input, and the paragraph handling which was turned on at the end of verbatim input must be immediately turned off again.

```
6445 \ifbool{mathjax}%
6446 {%
6447
        \begingroup%
6448
        \LWR@restoreoriglists%
        \boolfalse{LWR@verbtags}%
6449
            \verbatiminput{\LWR@mathjaxfilename}%
6450
6451
        \booltrue{LWR@verbtags}%
        \endgroup%
6452
        \LWR@stoppars%
6453
6454 }% end of mathjax
6455 {}%
 End of the header:
6456 \LWR@htmltag{/head}\LWR@orignewline
 Start of the body:
6457 \LWR@htmltag{body}\LWR@orignewline
6458 \endgroup
6459 \LWR@traceinfo{LWR@filestart: done}
6460 }
```

6461 \end{warpHTML}

64 Starting HTML output

```
for HTML output: 6462 \begin{warpHTML}
\LWR@LwarpStart Executed at the beginning of the entire document.
                 The use of \textquotedbl instead of " improves compatibility with xeCJK.
                6463 \catcode'\$=\active
                6464 \newcommand*{\LWR@LwarpStart}
                6466 \LWR@traceinfo{LWR@lwarpStart}
                 If formatting for a word processor, force filedepth to single-file only, force HTML
                 debug comments off.
                6467 \ifbool{FormatWP}{%
                       \setcounter{FileDepth}{-5}%
                        \boolfalse{HTMLDebugComments}%
                6469
                6470 }{}
                 Expand and detokenize \HomeHTMLFilename and \HTMLFilename:
                6471 \edef\LWR@strresult{\HomeHTMLFilename}
                6472 \edef\HomeHTMLFilename{\detokenize\expandafter{\LWR@strresult}}
                6473 \edef\LWR@strresult{\HTMLFilename}
                6474 \edef\HTMLFilename{\detokenize\expandafter{\LWR@strresult}}
                 Force onecolumn and empty page style:
                6475 \LWR@origonecolumn%
                6476 \LWR@origpagestyle{empty}%
                 No black box for overfull lines:
                6477 \overfullrule=0pt
                 Reduce chance of line overflow when HTML tags are added:
                6478 \LWR@print@footnotesize%
                 In PDF output, don't allow line breaks to interfere with HTML tags:
                6479 \LWR@print@raggedright%
                6480 \LetLtxMacro{\\}{\LWR@endofline}%
                 Spread the lines for pdftotext to read them well:
                6481 \linespread{1.3}%
```

For *pdftotext* to reliably identify paragraph splits:

```
6482 \setlength{\parindent}{0pt}
              6483 \setlength{\parskip}{2ex}
               For the lateximage record file:
              6484 \immediate\openout\LWR@lateximagesfile=\BaseJobname-images.txt
               Removes space around the caption in the HTML:
              6485 \setlength{\belowcaptionskip}{0ex}
              6486 \setlength{\abovecaptionskip}{0ex}
               Redefine the plain page style to be empty when used by index pages:
              6487 \renewcommand{\ps@plain}{}
               Plug in some new actions. This is done just before the document start so that they
               won't be over-written by some other package.
               Float captions:
              6488 \let\LWR@origcaption\caption
               Labels: \ltx@label is used in amsmath environments and is also patched by
Label in html cleveref.
              6489 \let\LWR@origltx@label\ltx@label
              6490 \let\ltx@label\LWR@htmlmathlabel
               Not yet started any paragraph handling:
              6491 \global\boolfalse{LWR@doingapar}
              6492 \global\boolfalse{LWR@doingstartpars}
               Document and page settings:
              6493 \mainmatter
              6494 \LWR@origpagenumbering{arabic}
               Start a new HTML file and a header:
              6495 \LWR@traceinfo{LWR@lwarpStart: Starting new file.}
              6496 \LWR@filestart
              6497 \LWR@traceinfo{LWR@lwarpStart: Generating first header.}
              6498 \LWR@htmltag{header}\LWR@orignewline
              6499 \LWR@startpars
              6500 \LWR@firstpagetop
              6501 \LWR@stoppars
              6502 \LWR@htmltag{/header}\LWR@orignewline
              6503 \LWR@htmlelementclass{div}{bodywithoutsidetoc}
              6504 \LWR@htmlelementclass{div}{bodycontainer}
              6505 \LWR@traceinfo{LWR@lwarpStart: Generating textbody.}
```

6506 \LWR@htmlelementclass{section}{textbody}

Patch the itemize, enumerate, and description environments and \item. This works with the native LATEX environments, as well as those provided by enumitem, enumerate, and paralist.

```
6507 \LWR@patchlists
```

Ensure that math mode is active to call lwarp's patches:

```
6508 \catcode'\$=\active
```

Required for \nameref to work with svg math:

```
6509 \immediate\write\@mainaux{\catcode'\string$\active}%
6510 \LetLtxMacro\LWR@syntaxhighlightone$% balance for editor syntax highlighting
```

Allow HTML paragraphs to begin:

```
6511 \LWR@startpars
```

If using MathJax, disable \ensuremath by printing a nullified definition at the start of each file, and add further customizations:

```
6512 \LWR@customizeMathJax
```

First autopage label in case a figure occurs early.

```
6513 \setcounter{LWR@latestautopage}{\value{page}}%
6514 \LWR@newautopagelabel{LWR@currentautosec}%
6515 \LWR@traceinfo{LWR@lwarpStart: done}
6516 }
6517 \catcode'\$=3% math shift until lwarp starts
6518 \end{warpHTML}
```

65 Ending HTML output

```
for HTML output: 6519 \begin{warpHTML} 
 \LWR@requesttoc \{\langle boolean \rangle\} \{\langle suffix \rangle\} \} Requests that a TOC, LOF, or LOTbe generated. 
 6520 \newcommand*{\LWR@requesttoc}[2]{% 
 6521 \ifbool{#1} 
 6522 { 
 6523 \expandafter\newwrite\@nameuse{tf@#2} 
 6524 \immediate\openout \@nameuse{tf@#2} \jobname.#2\relax 
 6525 }{} 
 6526 }
```

```
\verb|\LWR@LwarpEnd|| Final stop of all html output:
```

```
6527 \newcommand*{\LWR@LwarpEnd}
6528 {
6529 \LWR@stoppars
6530 \LWR@closeprevious{\LWR@depthfinished}
```

At the bottom of the ending file:

Close the textbody:

```
6531 \LWR@htmlelementclassend{section}{textbody}
6532 \LWR@htmlelementclassend{div}{bodycontainer}
6533 \LWR@htmlelementclassend{div}{bodyandsidetoc}
```

Print any pending footnotes:

6534 \LWR@printpendingfootnotes

Create the footer:

```
6535 \LWR@htmlelement{footer}
6536
6537 \LWR@pagebottom
6538
6539 \LWR@htmlelementend{footer}
```

No bottom navigation if are finishing the home page, or if formatting for an $\ensuremath{\mathtt{EPUB}}$ or word processor.

Presumably has a table-of-contents.

```
6540 \ifthenelse{\boolean{FormatEPUB}\OR\boolean{FormatWP}}
6541 {}
6542 {
6543 \ifnumcomp{\value{LWR@htmlfilenumber}}{>}{0}{\LWR@botnavigation}{}
6544 }
6545 \LWR@stoppars% final stop of all paragraphs
```

Finish the HTML file:

Seems to be required sometimes:

```
6548 \LWR@orignewpage
6549 }
```

\enddocument If labels have not changed, mark successful completion of the lateximages file. Executed as everything is being shut down.

```
6550 \xpatchcmd{\enddocument}
        {%
6552
            \if@tempswa
            \@latex@warning@no@line{Label(s) may have changed.
6553
            Rerun to get cross-references right}%
6554
            \fi
6555
        }
6556
        {%
6557
            \if@tempswa
6558
                \@latex@warning@no@line{Label(s) may have changed.
6559
                Rerun to get cross-references right}%
6560
            \else
6561
                \immediate\write\LWR@lateximagesfile{%
6562
6563
                     |end|end|end|%
                }%
            \fi
6565
        }
6566
        {}
6567
6568
            \PackageWarningNoLine{lwarp}
6569
6570
                Could not patch \protect\enddocument.\MessageBreak
6571
                If labels have changed, be sure to recompile before\MessageBreak
6572
                creating lateximages with\MessageBreak
6573
                \space\space lwarpmk limages,\MessageBreak
6574
                or the images may be corrupt%
6575
6576
            }
6577
        }
6578 \end{warpHTML}
```

66 Title page

package support load order lwarp supports the native LATEX titling commands, and also supports the packages authblk and titling. If both are used, authblk should be loaded before titling.

\published and \subtitle

If using the titling package, additional titlepage fields for \published and \subtitle may be added by using \AddSubtitlePublished in the preamble. See section 66.8.

affiliation

Iwarp provides for the \author macro an additional \affiliation macro to provide an affiliation and other additional information for each author in the title page. The affiliation information is removed when using titlingpage's \theauthor in the main text.

reusing titlepage information

The titling package maintains the definitions of \thetitle, \theauthor, etc., after the title has been typeset. These commands are to be used to refer to the document's title and author, etc., in the main text. These definitions have the \thanks and \affiliation removed, and for \author the \and is replaced to generate a simple inline list of authors separated by commas. Note: \theauthor does not work well with authblk unless the traditional LATEX syntax is used.

\theauthor, authblk

custom titlepages \printtitle, \printauthor, etc., are provided for use inside a custom titlepage or

titlingpage environment, and these retain the \thanks and \affiliation.

\printthanks

\printthanks has been added to force the printing of thanks inside a titlingpage environment when \maketitle is not used.

\thanks

Inside a \titlepage or \titlingpage environment, use \thanks instead of \footnote for acknowledgements, etc.

Setting the title, etc. 66.1

The following provide setting commands for both HTML and print outputs.

\author $\{\langle author \rangle\}$ While using \maketitle and print mode, the author is treated as a singlecolumn tabular and the \and feature finishes the current tabular then starts a new one for the next author. Each author thus is placed into its own tabular, and an affiliation may be placed on its own line such as

\author{Name \\ Affiliation \and Second Name \\ Second Affiliation}

For HTML, the entire author block is placed inside a <div> of class author, and each individual author is inside a <div> of class oneauthor.

\@title \@author \@date

\@title, \@author, and \@date store the values as originally assigned, including any \thanks, \and, or \affiliation. These are low-level macros intended to be used by other macros only inside a titlepage or titlingpage, and are used by \maketitle. The author is printed inside a single-column tabular, which becomes multiple single-column tabulars if multiples authors are included. For HTML, these tabulars become side-by-side <div>s of class oneauthor, all of which are combined into one <div> of class author.

\printtitle \printauthor \printdate \printtitle, etc. are user-level macros intended to be used in custom titlepage or titlingpage environments in cases where \maketitle is not desired. These commands preserve the \thanks, etc., and should not be used in the main text.

\thetitle **\theauthor \thedate** \HTMLPageBottom

\thetitle, \theauthor, and \thedate are available if titling has been loaded, and are sanitized user-level versions from which have been removed the \thanks and \affiliation, and \and is changed for inline text usage. The author is printed inline without \affiliation or \thanks, with \and placing commas between multiple authors. Thus, these commands are to be used in the main text whenever the user wishes to refer to the document's title and such. One practical use for this is to place the authors at the bottom of each HTML page, such as:

```
\HTMLPageBottom{
  \begin{center}\textcopyright~2016 \theauthor\end{center}
}
```

\theauthor, authblk \theauthor does not work well if authblk is used. If \theauthor is important, it is recommended to use the standard LATEX syntax for \author, optionally with lwarp's \affiliation macro as well.

affiliations After \maketitle has completed, \theauthor retains the definition of the author,

but \and is changed to become a comma and a space, intending to print the authors names separated by spaces. This fails when affiliations are included on their own table rows.

\affiliation A solution, provide here, is to define a macro \affiliation which, during \maketitle, starts a new row and adds the affiliation, but after \maketitle is finished \affiliation is re-defined to discard its argument, thus printing only the author names when \author is later used inline.

66.2 \if@titlepage

```
for HTML & PRINT: 6579 \begin{warpall}
   \if@titlepage Some classes do not provide \if@titlepage. In this case, provide it and force it
                   false.
                 6580 \ifcsvoid{@titlepagefalse}{
                         \newif\if@titlepage
                 6582
                         \@titlepagefalse
                 6583 }{}
                 6584 \end{warpall}
```

Changes for \affiliation

```
\affiliation \{\langle text \rangle\}
                    Adds the affiliation to the author for use in \maketitle.
                    Inside titlepage, this macro prints its argument. Outside, it is null.
for HTML & PRINT: 6585 \begin{warpall}
                   6586 \providerobustcmd{\affiliation}[1]{}
                   6587 \end{warpall}
 for PRINT output: 6588 \begin{warpprint}
                   6589 \AtBeginEnvironment{titlepage}{
                   6590 \renewrobustcmd{\affiliation}[1]{\\ \textsc{\small#1}}
                   6591 }
                   6592
                   6593 \AtBeginDocument{
                   6594 \@ifpackageloaded{titling}{
                   6595 \AtBeginEnvironment{titlingpage}{
                   \label{lem:cond} $$6596 \end{\affiliation}[1]_{\ \textsc{\small$#1}}$
                   6597 }
```

6598 }{}% titling loaded 6599 }% AtBeginDocument

```
6600 \end{warpprint}
 for HTML output: 6601 \begin{warpHTML}
  Env titlepage Sets up a <div> of class titlepage. Provided even for memoir class, since it is used
                  by \maketitle.
                 6602 \DeclareDocumentEnvironment{titlepage}{}
                 6604 \renewrobustcmd{\affiliation}[1]{\\ \InlineClass{affiliation}{##1}}
                 6605 \LWR@printpendingfootnotes
                 6606 \LWR@forcenewpage
                 6607 \BlockClass{titlepage}
                 6608 }
                 6609 {
                 6610 \endBlockClass
                 6611 \LWR@printpendingfootnotes
                 6612 }
                 6613 \end{warpHTML}
                         Printing the thanks
for HTML & PRINT: 6614 \begin{warpall}
  \printthanks Forces the \thanks to be printed.
                  This is necessary in a titlingpage environment when \maketitle was not used.
                 6615 \newcommand*{\printthanks}{\@thanks}
                 6616 \end{warpall}
                          Printing the title, etc. in HTML
                  The following are for printing the title, etc. in a titlepage or a titlingpage in HTML:
 for HTML output: 6617 \begin{warpHTML}
     \printtitle
                 6618 \newcommand*{\printtitle}
                 6619 {%
                 6620
                         \LWR@stoppars%
                         \LWR@htmltag{\LWR@tagtitle}%
                 6621
                 6622
                         \@title%
                         \LWR@htmltag{\LWR@tagtitleend}%
                 6623
                         \LWR@startpars%
                 6624
```

6625 }

\LWR@printthetitle A private version which prints the title without footnotes, used to title each HTML page.

```
6626 \newcommand*{\LWR@printthetitle}
             6628
                     \LWR@stoppars%
             6629
                     \LWR@htmltag{\LWR@tagtitle}%
             6630
                     \thetitle%
                     \LWR@htmltag{\LWR@tagtitleend}%
             6631
                     \LWR@startpars%
             6632
             6633 }
\printauthor HTML version.
             6634 \newcommand*{\printauthor}{
              The entire author block is contained in a <diy> named author:
             6635 \begin{BlockClass}{author}
              \and finishes one author and starts the next:
             6636 \renewcommand{\and}{%
             6637 \end{BlockClass}
             6638 \begin{BlockClass}{oneauthor}
             6639 }
              Individual authors are contained in a <div> named oneauthor:
             6640 \begin{BlockClass}{oneauthor}
             6641 \@author
             6642 \end{BlockClass}
             6643 \end{BlockClass}
             6644 }
  \printdate
             6645 \newcommand*{\printdate}{%
             6646 \begin{BlockClass}{titledate}
             6647 \@date
             6648 \end{BlockClass}
             6649 }
             6650 \end{warpHTML}
```

66.6 Printing the title, etc. in print form

The following are for printing the title, etc. in a titlepage or a titlingpage in print form:

```
for PRINT output: 6651 \begin{warpprint}
```

```
\printtitle
                    6652 \newcommand*{\printtitle}{{\Huge\@title}}
       \printauthor Print mode.
                    6653 \newcommand*{\printauthor}
                            {\{\langle u = \{ t_{c} \leq t_{c} \} \}}
         \printdate
                    6655 \newcommand*{\printdate}{{\small\textit{\@date}}}}
                    6656 \end{warpprint}
                             \maketitle for HTML output
                     66.7
                     An HTML <div> of class titlepage is used.
                     \thanks are a form of footnotes used in the title page. See section 59 for other kinds
                     of footnotes.
                     See \thanksmarkseries{series}, below, to set the style of the footnote marks.
    for HTML output: 6657 \begin{warpHTML}
                    6658 \@ifclassloaded{memoir}
                    6659 {
                    6660 \newcommand{\LWR@setfootnoteseries}{%
                            \renewcommand\thefootnote{\@arabic\c@footnote}%
                    6661
                    6662 }
                    6663 }{% not memoir
                    6664 \if@titlepage
                    6665 \newcommand{\LWR@setfootnoteseries}{%
                            \renewcommand\thefootnote{\@arabic\c@footnote}%
                    6666
                    6667 }
                    6668 \else
                    6669 \newcommand{\LWR@setfootnoteseries}{%
                            \renewcommand\thefootnote{\@fnsymbol\c@footnote}%
                    6671 }
                    6672 \fi
                    6673 }% not memoir
\LWR@maketitlesetup Patches \thanks macros.
                    6674 \newcommand*{\LWR@maketitlesetup}{%
                     Redefine the footnote mark:
```

6675 \LWR@setfootnoteseries%

6676 \def\@makefnmark{\thefootnote}

```
\theta \Rightarrow \text{nameuse}\{arabic\}\{footnote\}, or
                                                                  \thefootnote ⇒ \nameuse{fnsymbol}{footnote}
                                Redefine the footnote text:
                             6677 \long\def\@makefntext##1{%
                                Make the footnote mark and some extra horizontal space for the tags:
                             6678 \textsuperscript{\@thefnmark}~%
                                                                  \mbox{\mbox{\it makethanksmark}} \rightarrow \mbox{\mbox{\it thanksfootmark}} \Rightarrow \mbox{\mbox{\it tamark}} \Rightarrow
                                                                                                                     \ensuremath{\lozenge} thefnmark \Rightarrow \itshape a (or similar)
                                Print the text:
                             6679 ##1%
                             6680 }%
                             6681 }
\ensuremath{\mbox{\tt Qfnsymbol}} \ \{\langle counter \rangle\}
                                Re-defined to use an HTML entity for the double vertical bar symbol. The original
                                definition used \| which was not being seen by pdftotext.
                             \label{lem:condition} 6682 \end{center} $$ \end{center} \end{center} $$ \end
                                               \HTMLentity{sect}\ \HTMLentity{para}\or \text{\HTMLunicode{2016}}\or
                             6684
                                                **\or \HTMLentity{dagger}\HTMLentity{dagger} \or
                                                \HTMLentity{Dagger}\HTMLentity{Dagger} \else\@ctrerr\fi}
\maketitle HTML mode. Creates an HTML titlepage div and typesets the title, etc.
                                 Code from the titling package is adapted, simplified, and modified for HTML output.
                             6686 \renewcommand*{\maketitle}{%
                                An HTML titlepage <div> is used for all classes.
                             6687 \begin{titlepage}
                                Set up special patches:
                             6688 \LWR@maketitlesetup
                                Typeset the title, etc:
                              6689 \@maketitle
                                Immediately generate any \thanks footnotes:
                             6690 \@thanks
```

Close the HTML titlepage div and cleanup:

```
6691 \end{titlepage}
6692 \setcounter{footnote}{0}%
6693 \global\let\thanks\relax
6694 \global\let\maketitle\relax
6695 \global\let\@maketitle\relax
6696 \global\let\@thanks\@empty
6697 \global\let\@author\@empty
6698 \global\let\@date\@empty
6699 \global\let\@title\@empty
6700 \global\let\title\relax
6701 \global\let\author\relax
6702 \global\let\date\relax
6703 \global\let\and\relax
6704 }
```

\@maketitle HTML mode. Typesets the title, etc.:

```
6705 \DeclareDocumentCommand{\@maketitle}{}{%
6706     \LWR@stoppars\LWR@htmltag{\LWR@tagtitle}%
6707     \@title%
6708     \LWR@htmltag{\LWR@tagtitleend}\LWR@startpars%
6709     \begin{BlockClass}{author}%
```

For IEEEtran class:

```
\mbox{renewcommand} {\cr}{}
6710
6711
        \renewcommand*{\crcr}{}%
6712
        \renewcommand*{\noalign}{}%
            \renewcommand{\and}{%
6713
                 \end{BlockClass}%
6714
                 \begin{BlockClass}{oneauthor}%
6715
6716
6717
            \begin{BlockClass}{oneauthor}%
                 \@author%
6718
            \end{BlockClass}%
6719
        \end{BlockClass}%
6720
        \begin{BlockClass}{titledate}%
6721
        \@date%
6722
6723
        \end{BlockClass}%
6724 }
```

\LWR@titlingmaketitle \maketitle for use inside an HTML titlingpage environment.

```
6725 \newcommand*{\LWR@titlingmaketitle}{%
```

Keep pending footnotes out of the title block:

6726 \@thanks

```
Set up special patches:

6727 \LWR@maketitlesetup

Typeset the title, etc:

6728 \@maketitle

Immediately generate any \thanks footnotes:

6729 \@thanks

6730 }

6731 \end{warpHTML}
```

66.8 \published and \subtitle

\subtitle and \published

To add \subtitle and \published to the titlepage, load the titling package and use \AddSubtitlePublished in the preamble.

The default lwarp.css has definitions for the published and subtitle classes.

If titling is loaded, \AddSubtitlePublished creates a number of additional macros, and also assigns some of the titling hooks. If titling is not loaded, \AddSubtitlePublished creates null macros.

★ titling hooks

Do not use \AddSubtitlePublished if the user has patched the titling hooks for some other reason. Portions are marked \warpprintonly to reduce extra tags in HTML. Similarly, BlockClass has no effect in print mode. Thus, the following may be marked warpall.

```
for HTML & PRINT: 6732 \begin{warpall}
```

\AddSubtitlePublished Adds \published and \subtitle, and related.

```
6733 \newcommand*{\AddSubtitlePublished}{%
6734 \@ifpackageloaded{titling}{% yes titling package
6735
        \newcommand{\@published}{}%
        \label{linewcommand} $$\operatorname{\published}[1]_{\gdef\@published{\##1}}%$
6736
        \renewcommand*{\maketitlehooka}{\printpublished}%
6737
        \newcommand*{\printpublished}{%
6738
            \warpprintonly{\begin{center}\unskip}%
6739
            \begin{BlockClass}{published}%
6740
            \warpprintonly{\large\itshape}%
6741
6742
            \@published%
            \end{BlockClass}%
6744
            \warpprintonly{\end{center}}%
6745
        }%
        \newcommand{\@subtitle}{}%
6746
        \newcommand{\subtitle}[1]{\gdef\@subtitle{##1}}%
6747
6748
        \renewcommand*{\maketitlehookb}{\printsubtitle}%
```

```
6749
       \newcommand*{\printsubtitle}{%
           \warpprintonly{\begin{center}\unskip}%
6750
           \begin{BlockClass}{subtitle}%
6751
           \warpprintonly{\Large\itshape}%
6752
           \@subtitle%
6753
           \end{BlockClass}%
6754
           6755
       }%
6756
6757 }% yes titling package
6758 {% no titling package
6759
       \newcommand{\published}[1]{}%
6760
       \newcommand*{\printpublished}{}%
       \newcommand{\subtitle}{}%
6761
       \newcommand*{\printsubtitle}%
6762
6763 }% no titling package
6764 }% \AddSubtitlePublished
6765 \end{warpall}
```

67 Abstract

The following code replaces the LATEX default, and will itself be replaced later if the abstract package is loaded.

```
for HTML output: 6766 \begin{warpHTML}
```

\abstractname User-redefinable title for the abstract.

Also over-written by the babel package.

```
6767 \providecommand*{\abstractname}{Abstract}
```

Some classes allow an optional name, so it is allowed here.

```
Env abstract
```

```
6768 \DeclareDocumentEnvironment{abstract}{O{\abstractname}}
6769 {
6770 \LWR@forcenewpage
6771 \BlockClass{abstract}
6772 \BlockClassSingle{abstracttitle}{#1}
6773 }
6774 {
6775 \endBlockClass
6776 }
```

68 Quote and verse

68.1 Attributions

```
\attribution \{\langle name \rangle\}
                  For use with quote, quotation, verse:
                  Ex: "A quotation." \attribution{\textsc{Author Name}}\textsl{Book Title}}\\
for HTML output: 6778 \begin{warpHTML}
                6779 \newcommand{\attribution}[1]{%
                         \begin{BlockClass}{attribution}
                6781
                         \end{BlockClass}
                6782
                6783 }
                6784 \end{warpHTML}
for PRINT output: 6785 \begin{warpprint}
                6786 \newcommand{\attribution}[1]{
                         \begin{flushright}
                6788
                         \unskip
                6789
                 6790
                         \end{flushright}%
                6791 }
                6792 \end{warpprint}
```

68.2 Quotes, quotations

```
for HTML output: 6793 \begin{warpHTML}
         quote
     Env
                6794 \renewenvironment*{quote}
                6795 {
                6796
                         \LWR@forcenewpage
                6797
                         \LWR@htmlblocktag{blockquote}
                6798 }
                6799 {\LWR@htmlblocktag{/blockquote}}
Env quotation
                6800 \renewenvironment*{quotation}
                6801 {
                6802
                         \LWR@forcenewpage
                         \LWR@htmlblocktag{blockquote}
                6803
                6804 }
                6805 {\LWR@htmlblocktag{/blockquote}}
```

6806 \end{warpHTML}

68.3 Verse

When using verse or memoir, always place a \\ after each line.

\attrib

The documentation for the verse and memoir packages suggest defining an \attrib command, which may already exist in current documents, but it will only work for print output. Iwarp provides \attribution, which works for both print and HTML output. To combine the two so that \attrib is used for print and \attribution is used for HTML:

```
\begin{warpHTML}
\let\attrib\attribution
\end{warpHTML}
```

Len \vleftskip
Len \vleftmargini
Len \HTMLvleftskip
Len \HTMLleftmargini

These lengths are used by verse and memoir to control the left margin, and they may already be set by the user for print output. New lengths \HTMLvleftskip and \HTMLleftmargini are provided to control the margins in HTML output. These new lengths may be set by the user before any verse environment, and persist until they are manually changed again. One reason to change \HTMLleftmargini is if there is a wide \flagverse in use, such as the word "Chorus", in which case the value of \HTMLleftmargini should be set to a wide enough length to contain "Chorus". The default is wide enough for a stanza number.

 \triangle spacing

Horizontal spacing relies on *pdftotext*'s ability to discern the layout (-layout option) of the text in the HTML-tagged PDF output. For some settings of \HTMLleftmargini or \HTMLleftskip the horizontal alignment may not work out exactly, in which case a label may be shifted by one space.

68.3.1 LATEX core verse environment

```
for HTML output: 6807 \begin{warpHTML}
```

for HTML & PRINT: 6818 \begin{warpall}

Env verse

```
6808 \renewenvironment{verse}
                   {\let\\\newline% lwarp
6809
6810
                     \list{}{\itemsep
                                            \z@
6811
                             \itemindent
                                            -1.5em%
                             \listparindent\itemindent
6812
6813
                             \rightmargin \leftmargin
6814
                             \advance\leftmargin 1.5em}%
6815
                     \item\relax}
                    {\endlist}
6816
6817 \end{warpHTML}
```

68.3.2 verse and memoir

The following lengths are used by verse and memoir. They may be set in either print or HTML output, but are only used in HTML. This allows the user to set \vleftskip and \leftmargini for print output, and optionally select different values for HTML.

Len \HTMLvleftskip Sets \vleftskip inside a verse environment in HTML.

```
6819 \newlength{\HTMLvleftskip}
6820 \setlength{\HTMLvleftskip}{1em}
```

Len \HTMLleftmargini Sets \leftmargini inside a verse environment in HTML.

```
6821 \newlength{\HTMLleftmargini}
6822 \setlength{\HTMLleftmargini}{4.5em}
6823 \end{warpall}
```

69 Verbatim and tabbing

```
for HTML & PRINT: 6824 \begin{warpall}
```

Len \VerbatimHTMLWidth Width to use in HTML Verbatim environment.

This width is used when placing line numbers to the right. Ignored during print output.

```
6825 \newlength{\VerbatimHTMLWidth}
6826 \setlength{\VerbatimHTMLWidth}{4in}
6827 \end{warpall}
```

for HTML output: 6828 \begin{warpHTML}

Bool LWR@verbtags Used to temporarily turn off verbatim tags while doing \verbatiminput in the HTML

```
6829 \newbool{LWR@verbtags}
6830 \booltrue{LWR@verbtags}
```

\LWR@atbeginverbatim $[\langle 1: style \rangle] \{\langle 2: negative \setminus baselineskip \setminus vspace \rangle\} \{\langle 3: class \rangle\}$

Encloses a verbatim environment with the given css class.

The use of \textquotedbl instead of " improves compatibility with xeCJK.

```
6831 \newcommand*{\LWR@atbeginverbatim}[3][] 6832 {%
```

Avoid excessive space between lines:

```
6833 \setlength{\parskip}{0ex}%
```

Stop generating HTML paragraph tags:

```
6834 \LWR@stoppars%
```

Create a new pre of the given class. The tags may temporarily be turned off for internal use, such as loading the MATHJAX script.

```
6835 \ifbool{LWR@verbtags}{%
6836    \LWR@htmltag{pre class=\textquotedbl#3\textquotedbl%
6837    \ifthenelse{\equal{#1}{}}{} style=\textquotedbl#1\textquotedbl}%
6838    }%
6839    \LWR@orignewline% pre
6840    \leavevmode\unskip\LWR@print@vspace*{-#2\baselineskip}%
6841 }{}%
```

Use a mono-spaced font to preserve horizontal positioning. If horizontal alignment is important for the user, use a mono-spaced font in the css for the verse class.

```
6842 \begingroup%
6843 % \LWR@print@normalsize%
6844 \LWR@origttfamily%
6845 \LWR@print@small%
```

Since inside a , restore the original list processing:

```
6846 \LWR@restoreoriglists%
```

Turn off babel-french extra space before punctuation:

```
6847 \LWR@FBcancel%
```

Do not produce HTML tags for \hspace inside a verse par. Restore plain LATEX \hspace functionality:

```
6848 \LWR@select@print@hspace% 6849 }
```

\LWR@afterendverbatim $\{\langle negative \setminus baselineskip \setminus vspace \rangle\}$

Finishes enclosing a verbatim environment.

```
6850 \newcommand*{\LWR@afterendverbatim}[1]{%
6851 \endgroup%
6852 \par%
```

At the end of the environment, close the pre:

```
6853 \ifbool{LWR@verbtags}{%
6854 \LWR@print@vspace*{-#1\baselineskip}%
```

```
\noindent\LWR@htmltag{/pre}\LWR@orignewline% pre
                  6856 }{}%
                   Resume regular paragraph handling:
                  6857 \LWR@startpars%
                  6858 }
  \verbatiminput \{\langle filename \rangle\}
                   Patch \verbatiminput to add HTML tags:
                  6859 \let\LWRV@origverbatim@input\verbatim@input
                  6861 \renewcommand{\verbatim@input}[2]{%
                  6862 \ \texttt{LWR@verbtags}{\texttt{LWR@forcenewpage}}{} \%
                  6863 \LWR@atbeginverbatim{2.5}{Verbatim}%
                  6864 \LWRV@origverbatim@input{#1}{#2}%
                  6865 \LWR@afterendverbatim{1.5}%
                  6866 }
   Env verbatim
                  6867 \AfterEndPreamble{
                  6868 \LWR@traceinfo{Patching verbatim.}
                  6869 \AtBeginEnvironment{verbatim}{%
                  6870 \LWR@forcenewpage%
                  6871 \LWR@atbeginverbatim{2.5}{verbatim}%
                  6872 }
                  6873 \AfterEndEnvironment{verbatim}{%
                          \LWR@afterendverbatim{1}%
                  6874
                  6875 }
                  6876 }
         tabbing
                  The tabbing environment works, except that svg math and lateximages do not yet
                   work inside the environment.
math in tabbing  If math is used inside tabbing, place tabbing inside a lateximage environment,
                   which will render the entire environment as a single svG image.
                  6877 \newcommand*{\LWR@HTML@tabbing}{%
                  6878 \LWR@forcenewpage%
                  6879 \LWR@atbeginverbatim{3}{tabbing}%
                  6880 \LWR@print@tabbing%
                  6881 }
                  6882
                  6883 \newcommand*{\LWR@HTML@endtabbing}{%
                          \LWR@print@endtabbing%
                          \LWR@afterendverbatim{1}%
                  6885
                  6886 }
```

6887

6888 \LWR@formatted{tabbing} 6889 \LWR@formatted{endtabbing}

6890 \end{warpHTML}

70 Theorems

```
\label{eq:counter} $$\operatorname{dest} {\langle \textit{text} \rangle} [\langle \textit{counter} \rangle] - \operatorname{or-} [\langle \textit{oldname} \rangle] {\langle \textit{text} \rangle}$
```

A few minor changes are made to supply нтмL tags.

- The entire theorem is placed into a <div> of class theoremcontents.
- The label for each theorem is placed inside a of class theoremlabel.
- The contents are placed inside a <div> of class theoremcontents.

```
for HTML output: 6891 \begin{warpHTML}
                           \ensuremath{\mbox{\mbox{$\langle$}}} \ensuremath{\mbox{$\langle$}} \ensuremath{\mbox{$\langle$}} \ensuremath{\mbox{$name$\rangle$}} \ensuremath{\mbox{$\langle$}} \ensuremath{\mbox{$\langle$}} \ensuremath{\mbox{$name$\rangle$}} \ensuremath{\mbox{$\langle$}} \ensuremath{\mbox{$\langle$}} \ensuremath{\mbox{$name$\rangle$}} \ensuremath{\mbox{$\langle$}} \ensur
                                                                                                           6892 \renewcommand{\@begintheorem}[2]{%
                                                                                                           6893 \LWR@forcenewpage
                                                                                                           6894 \BlockClass{theoremcontents}
                                                                                                            6895 \trivlist
                                                                                                            6896 \item[\InlineClass{theoremlabel}{\#1\ \#2\ }]\itshape
\ensuremath{\langle oparg \rangle} \{\langle number \rangle\} \{\langle oparg \rangle\}
                                                                                                           6898 \renewcommand{\@opargbegintheorem}[3]{%
                                                                                                           6899 \LWR@forcenewpage
                                                                                                           6900 \BlockClass{theoremcontents}
                                                                                                            6901 \trivlist
                                                                                                            6902 \item[\InlineClass{theoremlabel}{#1\ #2\ (#3)\ }]\itshape
                                      \@endtheorem
                                                                                                            6904 \renewcommand*{\@endtheorem}{%
                                                                                                           6905 \endtrivlist
                                                                                                            6906 \endBlockClass% theoremcontents
                                                                                                            6907 }
                                                                                                            6908 \end{warpHTML}
```

71 Lists

The environments itemize, enumerate, and description are patched when lwarp is started. These patches support the standard LATEX environments, as well as those

of enumerate, enumitem, and paralist, and at least the French version of babel. Additional patches are done on a package-specific basis.

The LATEX source for itemize and enumerate are found in source2e, but the source for description is found in article.cls, etc.

empty item

To have an empty item, use \mbox{} or a trailing backslash. This forces a new line in print output, matching the new line which will appear in HTML output. Ex:

```
begin{itemize}
item \mbox{}
    \begin{itemize}
    \end{itemize}
item \
    \begin{itemize}
    \end{itemize}
```

\makelabel

While inside a list environment, lwarp nullifies a number of TEX horizontal skip and fill commands, allowing the user to define \makelabel for print mode while HTML mode ignores those commands.

label font When defining \makelabel in a list environment, use \textbf etc. instead of \bfseries.

List environment 71.1

```
for HTML output: 6909 \begin{warpHTML}
\LWR@printcloselist May be locally redefined by enumerate or description.
                   6910 \newcommand*{\LWR@printcloselist}{\LWR@printcloseitemize}
 \LWR@printopenlist May be locally redefined by enumerate or description.
                   6911 \newcommand*{\LWR@printopenlist}{ul style="\LWR@print@mbox{list-style-type:none}"}
            \@mklab Removes PDF spacing.
```

```
6912 \AtBeginDocument{
6913 \def\@mklab#1{%
6914 %
          \hfil %
6915
        #1}
6916 \let\makelabel\@mklab
6917 }
```

\@donoparitem Modified for HTML output by replacing TEX boxes with plain text. Also removes PDF spacing.

```
6918 \def\@donoparitem{%
     \@noparitemfalse
6919
        \label s hbox {\hskip -\leftmargin}
6920 %
6921 %
                                      \unhbox\@labels
6922 %
                                       \hskip \leftmargin}%
6923 %
       \if@minipage\else
6924 %
          \@tempskipa\lastskip
6925 %
          \vskip -\lastskip
          \advance\@tempskipa\@outerparskip
6926 %
6927 %
          \advance\@tempskipa -\parskip
          \vskip\@tempskipa
6928 %
       \fi
6929 %
6930 }
```

Modified for HTML output by replacing TEX boxes with plain text. Also removes PDF spacing.

```
6931 \def\LWR@HTML@item[#1]{%
6932 \LWR@traceinfo{@item}
6933
     \if@noparitem
6934
        \@donoparitem
     \else
6935
          \if@inlabel
6936 %
6937 %
            \indent
6938
             \par
          \fi
6939 %
6940
        \ifhmode
6941 %
             \unskip\unskip
6942
             \par
        \fi
6943
        \if@newlist
6944
          \if@nobreak
6945
6946
             \@nbitem
6947
           \else
               \addpenalty\@beginparpenalty
6948 %
6949 %
               \addvspace\@topsep
6950 %
               \addvspace{-\parskip}%
          \fi
6951
        \else
6952
6953 %
             \addpenalty\@itempenalty
6954 %
             \addvspace\itemsep
        \fi
6955
6956
        \global\@inlabeltrue
      \fi
6957
        \everypar{%
6958 %
        \@minipagefalse
6959
6960
        \global\@newlistfalse
          \if@inlabel
6961 %
6962 %
             \global\@inlabelfalse
```

```
6963 %
                           6964 %
                             \ifvoid\z@
               6965 %
                               \kern-\itemindent
               6966 %
                            \fi}%
               6967 %
                           \box\@labels
               6968 %
                           \left| \right| 
               6969 %
                         \fi
               6970 %
                         \if@nobreak
               6971 %
                           \@nobreakfalse
               6972 %
                           \clubpenalty \@M
                         \else
               6973 %
               6974 %
                           \clubpenalty \@clubpenalty
               6975 %
                           \everypar{}%
               6976 %
                         \fi}%
               6977
                     \if@noitemarg
               6978
                       \@noitemargfalse
                       \if@nmbrlist
               6979
                         \refstepcounter\@listctr
               6980
                       \fi
               6981
                     \fi
               6982
                       \makelabel{#1} % extra space
               6983
               6984 %
                       \sbox\@tempboxa{\makelabel{#1}%
               6985 %
                       \global\setbox\@labels\hbox{%
               6986 %
                         \unhbox\@labels
               6987 %
                         \hskip \itemindent
               6988 %
                         \hskip -\labelwidth
                         \hskip -\labelsep
               6989 %
                         \ifdim \wd\@tempboxa >\labelwidth
               6990 %
               6991 %
                           \box\@tempboxa
               6992 %
                         \else
               6993 %
                           \hbox to\labelwidth {\unhbox\@tempboxa}%
               6994 %
                         \fi
               6995 %
                         \hskip \labelsep}%
               6996 \ignorespaces%
               6997 }
     \@nbitem
               6998 \def\@nbitem{%
               6999 %
                       \@tempskipa\@outerparskip
               7000 %
                       \advance\@tempskipa -\parskip
                       \addvspace\@tempskipa
               7001 %
               7002 }
\LWR@listitem [\langle label \rangle]
```

Handles \item inside a list, itemize, or enumerate.

See \LWR@openparagraph where extra \hspace is used to leave room for the label while inside a list during paragraph construction.

```
7003 \newcommand*{\LWR@listitem}{%
7004 \LWR@stoppars%
7005 \LWR@startnewdepth{\LWR@depthlistitem}{\LWR@printcloselistitem}%
7006 \LWR@htmltag{li}%
7007 \LWR@startpars%
7008 \LWR@origitem%
7009 }
```

\LWR@nulllistfills Nullifies various TEX fill commands, in case they are used inside \makelabel. Problems are caused when these are nullified all the time.

```
7010 \newcommand*{\LWR@nulllistfills}{%
          7011 \renewcommand*{\hss}{}%
          7012 \renewcommand*{\llap}[1]{##1}%
          7013 \renewcommand*{\rlap}[1]{##1}%
          7014 \renewcommand*{\hfil}{}%
          7015 \renewcommand*{\hfilneg}{}%
          7016 \renewcommand*{\hfill}{}%
          7017 }
Env list \{\langle label \rangle\} \{\langle commands \rangle\}
          7018 \newcommand*{\LWR@liststart}{%
          7019 \LWR@traceinfo{LWR@liststart}%
          7020 \LWR@stoppars%
          7021 \LWR@pushoneclose{\LWR@depthlist}{\LWR@printcloselist}%
          7022 \LWR@htmltag{\LWR@printopenlist}\LWR@orignewline%
          7023 \LWR@startpars%
          7024 \setlength{\topsep}{0pt}%
          7025 \setlength{\partopsep}{0pt}%
          7026 \setlength{\itemsep}{0pt}%
          7027 \setlength{\parsep}{0pt}%
          7028 \setlength{\leftmargin}{0pt}%
          7029 \setlength{\rightmargin}{0pt}%
          7030 \setlength{\listparindent}{0pt}%
          7031 \setlength{\itemindent}{0pt}%
          7032 \setlength{\labelsep}{1em}%
          7033 \LWR@nulllistfills%
          7034 }
          7035 \newcommand*{\LWR@listend}{%
          7036 \LWR@traceinfo{LWR@listend}%
          7037 \LWR@stoppars%
          7038 \LWR@closeprevious{\LWR@depthlist}%
          7039 \LWR@startpars%
          7040 }
```

71.2 Itemize

```
\LWR@itemizeitem [\langle label \rangle]
```

Handles \item inside an itemize or enumerate.

See $\LWR@openparagraph$ where extra \hspace is used to leave room for the label while inside a list during paragraph construction.

```
7041 \newcommand*{\LWR@itemizeitem}{%
7042 \LWR@stoppars%
7043 \LWR@startnewdepth{\LWR@depthlistitem}{\LWR@printcloselistitem}%
7044 \LWR@htmltag{li}%
7045 \LWR@startpars%
7046 \LWR@origitem%
7047 }

Env itemize [⟨options⟩]

7048 \newcommand*{\LWR@itemizestart}{%
7049 \renewcommand*{\LWR@printcloselist}{\LWR@printcloseitemize}
7050 \renewcommand*{\LWR@printopenlist}{ul style="\LWR@print@mbox{list-style-type:none}"}
7051 \let\item\LWR@itemizeitem%
7052 \LWR@nulllistfills%
7053 }
```

71.3 Enumerate

An HTML unordered list is used with customized LATEX-generated labels.

```
Env enumerate [⟨options⟩]

7054 \newcommand*{\LWR@enumeratestart}{%
7055 \renewcommand*{\LWR@printcloselist}{\LWR@printcloseitemize}
7056 \renewcommand*{\LWR@printopenlist}{ul style="\LWR@print@mbox{list-style-type:none}"}
7057 \let\item\LWR@itemizeitem%
7058 \LWR@nulllistfills%
7059 }
```

71.4 Description

\LWR@descitem $[\langle label \rangle]$ Handles an \item inside a description.

```
7060 \newcommand*{\LWR@descitem}[1][]%
7061 {%
7062 \LWR@stoppars%
7063 \LWR@setlatestname{#1}%
7064 \LWR@startnewdepth{\LWR@depthlistitem}{\LWR@printclosedescitem}%
```

Temporarily disable \hspace, which article.cls, etc. use per \item for descriptions only. This causes lwarp to mistakenly place an empty span between HTML list tags.

```
7065 \LWR@select@html@nohspace%
```

7067 \LWR@select@html@hspace%

Process the original \item code:

```
7066 \LWR@origitem[]%
```

Restore \hspace for use in the item text:

```
7068 \LWR@htmltag{dt}#1\LWR@htmltag{/dt}%
7069 \LWR@orignewline%
7070 \LWR@htmltag{dd}%
7071 \LWR@startpars%
7072 }
```

```
Env description [\langle options \rangle]
```

```
7073 \newcommand*{\LWR@descriptionstart}{%
7074 \renewcommand*{\LWR@printcloselist}{\LWR@printclosedescription}
7075 \renewcommand*{\LWR@printopenlist}{dl}
7076 \let\item\LWR@descitem%
7077 \LWR@nulllistfills%
7078 }
```

71.5 Patching the lists

\LWR@patchlists Patches list environments.

\LWR@patchlists remembers \item as defined by whatever packages have been loaded, then patches the itemize, enumerate, and description environments and \item. This works with the native LATEX environments, as well as those provided by enumitem, enumerate, and paralist.

```
7079 \newcommand*{\LWR@patchlists}{%
       \LetLtxMacro\item\LWR@listitem%
        \LetLtxMacro\@item\LWR@HTML@item%
7081
       \renewcommand*{\@trivlist}{%
7082
            \LWR@traceinfo{@trivlist start}%
7083
            \LWR@liststart%
7084
            \LWR@orig@trivlist%
7085
            \LWR@traceinfo{@trivlist done}%
7086
7087
       \renewcommand*{\trivlist}{%
7088
            \LWR@traceinfo{trivlist}%
7089
            \LWR@origtrivlist%
7090
       }%
7091
```

```
7092
        \renewcommand*{\endtrivlist}{%
7093
            \LWR@traceinfo{endtrivlist start}%
            \LWR@origendtrivlist\LWR@listend%
7094
            \LWR@traceinfo{endtrivlist done}%
7095
       }%
7096
        \renewcommand*{\itemize}{%
7097
            \LWR@itemizestart\LWR@origitemize%
7098
7099
        \renewcommand*{\enumerate}{%
7100
            \LWR@enumeratestart\LWR@origenumerate%
7101
        }%
7102
7103
        \renewcommand*{\description}{%
7104
            \LWR@descriptionstart\LWR@origdescription%
7105
       }%
7106 }
```

\LWR@restoreoriglists Restores the original trivlist environment.

```
7107 \newcommand*{\LWR@restoreoriglists}{%
7108 \LWR@traceinfo{LWR@restoreoriglists}%
7109 \LetLtxMacro\item\LWR@origitem%
7110 \LetLtxMacro\@item\LWR@orig@item%
7111 \let\@trivlist\LWR@orig@trivlist%
7112 \let\trivlist\LWR@origtrivlist%
7113 \let\endtrivlist\LWR@origendtrivlist%
7114 \LetLtxMacro\itemize\LWR@origitemize%
7115 \LetLtxMacro\enditemize\LWR@endorigitemize%
7116 \LetLtxMacro\enumerate\LWR@origenumerate%
7117 \LetLtxMacro\endenumerate\LWR@endorigenumerate%
7118 \LetLtxMacro\description\LWR@origdescription\%
7119 \LetLtxMacro\enddescription\LWR@endorigdescription%
7120 \let\@mklab\LWR@orig@mklab%
7121 \let\makelabel\LWR@origmakelabel%
7122 \let\@donoparitem\LWR@orig@donoparitem%
7123 \let\@nbitem\LWR@orig@nbitem%
7124 }
7125 \end{warpHTML}
```

72 Tabular

This is arguably the most complicated part of the entire package. Numerous tricks are employed to handle the syntax of the LATEX core and the various tabular-related packages.

72.1 Limitations

Tabular mostly works as expected, but pay special attention to the following, especially if working with environments, macros inside tabulars, multirows, siunitx S columns, or the packages multirow, longtable, supertabular, or xtab.

Defining macros and environments:

Misplaced alignment tab character &

tabular inside another

floatrow

environment

 When defining environments or macros which include tabular and instances of the & character, it may be necessary to make & active before the environment or macro is defined, then restore & to its default catcode after, using the following commands. These are are ignored in print mode.

```
\StartDefiningTabulars
<define macros or environments using tabular and & here>
\StopDefiningTabulars
```

This includes before and after defining any macro which used \ttabbox from floatrow.

 When creating a new environment which contains a tabular environment, lwarp's emulation of the tabular does not automatically resume when the containing environment ends, resulting in corrupted HTML rows. To fix this, use \ResumeTabular as follows. This is ignored in print mode.

```
\StartDefiningTabulars % because & is used in a
definition
\newenvironment{outerenvironment}
{
\tabular{cc}
left & right \\
}
{
\TabularMacro\ResumeTabular
left & right \\
\end{abular}
\StopDefiningTabulars
```

Cell contents:

• Using a custom macro inside a tabular data cell may result in an extra HTML data cell tag, corrupting the HTML table. To avoid this, use \TabularMacro just before the macro. This is ignored in print mode.

```
\TabularMacro\somemacro & more row contents \\
```

Column specifiers:

@ and !

• Only one each of @ and ! is used at each column, and they are used in that order.

\multirow

• In \multirow cells, the print version may have extra instances of <, >, @, and ! cells on the second and later rows in the \multirow which do not appear in the HTML version.

• \newcolumntype is ignored; unknown column types are set to l.

 \wedge

\newcolumntype

Rules:

vertical rules

• Doubled \hlines, \midrules, and vertical rules are supported.

• Vertical rules next to either side of an @ or ! column are displayed on both sides of the column.

• Width options are honored. Trim options are converted to rounded top corners. Trim corners are not rounded with @ or! columns, and full-width rules ignore trim.

• \toprule, \midrule, \bottomrule, and \hline ignore trim. When given an optional width, each cell is styled to create the custom border. Without an optional width, the entire row is given a class to assign the standard border.

• If you wish to use \cmidrule followed by \bottomrule, it may be necessary to use:

 $\cmidrule{2-3} \cline{2-2ex}$ \bottomrule

The optional -2ex is ignored in HTML, but improves the visual formatting in the print output.

• For \toprule and \bottomrule, when combined with a warpprint or warpHTML environment, if a "Misplaced \noalign" error occurs, change

This & That \endhead

to

\warpprintonly{This & That \endhead}

and likewise with the other \end headings. Keep the \endfirsthead row unchanged, as it is still relevent to HTML output.

Other:

- tabularx ignores the width, but X columns do produce paragraph columns or multicolumns.
- For longtable, place headings and footings which do not apply to HTML inside \warpprintonly{}.
- For S columns (from the siunitx package), while producing print output, anything non-numeric must be placed inside { } braces, including commands such as \multirow. While producing HTML output, though, anything placed inside braces is not seen by lwarp's tabular handling algorithm. To resolve this problem, make a copy of the row, with one version for print output, containing the extra braces, and another version for HTML output, without the extra braces, such as:

\warpprintonly{1 & 2 & {\multirow{2}{2cm}{Text}} & 3 \\} \warpHTMLonly{1 & 2 & \multirow{2}{2cm}{Text} & 3 \\}

for HTML output: 7126 \begin{warpHTML}

72.2

These macros are temporary placeholders for macros defined by various packages. If the relevent package is not loaded, these placeholders are used instead.

Temporary package-related macros

full-width rules

width and trim

combined rules

\warpprintonly

Misplaced \noalign

longtable headings

S columns

72.2.1 arydshln

Emualated by the original LATEX non-dashed versions.

7127 \LetLtxMacro\hdashline\hline
7128 \LetLtxMacro\cdashline\cline
7129 \LetLtxMacro\firsthdashline\hline
7130 \LetLtxMacro\lasthdashline\hline

72.3 Token lookahead

Used by $\LWR@futurenonspacelet$ to look at the next token.

\LWR@mynexttoken

7131 \newcommand\LWR@mynexttoken\relax

\futurelet copies the next token then executes a function to analyze

\LWR@futurenonspacelet does the same, but ignores intervening white space

Based on the booktabs style:

\LWR@futurenonspacelet

```
7132 \def\LWR@futurenonspacelet#1{\def\LWR@cs{#1}%
7133 \afterassignment\LWR@fnslone\let\nexttoken= }
7134 \def\LWR@fnslone{\expandafter\futurelet\LWR@cs\LWR@fnsltwo}
7135 \def\LWR@fnsltwo{%
7136 \expandafter\ifx\LWR@cs\@sptoken\let\next=\LWR@fnslthree%
7137 \else\let\next=\nexttoken\fi\next}
7138 \def\LWR@fnslthree{\afterassignment\LWR@fnslone\let\next= }
```

\LWR@getmynexttoken Looks ahead and copies the next token into \LWR@mynexttoken.

```
7139 \newcommand*{\LWR@getmynexttoken}{%
7140 \LWR@traceinfo{LWR@getmynexttoken}%
7141 % nothing must follow this next line
7142 \LWR@futurenonspacelet\LWR@mynexttoken\LWR@tabledatacolumntag
7143 }
```

72.4 Tabular variables

Bool LWR@startedrow True if should print a row tag before this column.

7144 \newbool{LWR@startedrow}
7145 \boolfalse{LWR@startedrow}

Bool LWR@tabularcelladded True if have added a data cell for this position.

7146 \newbool{LWR@tabularcelladded}
7147 \boolfalse{LWR@tabularcelladded}

Ctr LWR@hlines Number of \hlines or \midrules above the next row.

7148 \newcounter{LWR@hlines}

Ctr LWR@hdashedlines Number of arydshln dashed lines above the next row.

7149 \newcounter{LWR@hdashedlines}

Bool LWR@doingtbrule True if the next row will have a top/bottom rule above it.

7150 \newbool{LWR@doingtbrule}
7151 \boolfalse{LWR@doingtbrule}

Bool LWR@doingcmidrule True if the next row will have a cmidrule above it.

This is used by \LWR@tabularfinishrow to force a final empty row to create the border for the \cmidrule.

7152 \newbool{LWR@doingcmidrule}
7153 \boolfalse{LWR@doingcmidrule}

Bool LWR@tableparcell True if are handling a paragraph inside a table cell, so must close the paragraph tag before moving on.

7154 \newbool{LWR@tableparcell}

Bool LWR@skippingmrowcell True if are doing an empty \multirow cell, and thus there is no data tag to close.

7155 \newbool{LWR@skippingmrowcell}

Bool True if are doing an empty \multicolumnrow cell, and thus there is no data tag to LWR@skippingmcolrowcell close, and do not print @ and ! columns.

7156 \newbool{LWR@skippingmcolrowcell}

Bool LWR@usedmultirow Used to error if used \multirow or \multicolumnrow without using \mrowcell or \mcolrowcell.

7157 \newbool{LWR@usedmultirow}

Bool LWR@foundmrowcell Used to error if used \multirow or \multicolumnrow without using \mrowcell or \mcolrowcell.

7158 \newbool{LWR@foundmrowcell}

Bool LWR@skipatbang True if just finished a \multicolumn so should not create the trailing @ or ! columns table data cells.

7159 \newbool{LWR@skipatbang}

LWR@emptyatbang True if finishing a row and should print empty @ or! column table data cells.

7160 \newbool{LWR@emptyatbang}

LWR@intabularmetadata

True if are in a tabular but not in a data cell. Used to prevent extra HTML breaks if not inside table data.

7161 \newbool{LWR@intabularmetadata} 7162 \boolfalse{LWR@intabularmetadata}

LWR@tabularDepth Tracks whether & is being used inside a tabular.

7163 \newcounter{LWR@tabulardepth} 7164 \setcounter{LWR@tabulardepth}{0}

LWR@tabularpardepth

Tracks whether should look ahead at the next token when encountering a \par while processing tabular contents.

When LWR@tabularpardepth is deeper than LWR@tabulardepth then lwarp has started looking at the contents of the tabular, and thus any \pars encountered must be followed by another token lookahead.

7165 \newcounter{LWR@tabularpardepth} 7166 \setcounter{LWR@tabularpardepth}{0}

7167 \newcommand*{\LWR@colsresult}{}%temp storage for column format results 7168 \newcommand*{\LWR@pposition}{} 7169 \newcommand*{\LWR@pleft}{} 7170 \newcommand*{\LWR@pright}{}

LWR@tablecolspec

Holds the parsed column specification, of total width LWR@tabletotalLaTeXcols, not counting @ and ! columns.

Will contain a string such as llrrccpc, exactly one letter per LATEX table column, without @, !, >, <, or the vertical bar.

\LWR@strresult Holds the result of Str functions.

7171 \providecommand*{\LWR@strresult}{} 7172 \providecommand*{\LWR@strresulttwo}{}

\LWR@origcolspec Holds the original column specs given to tabular.

7173 \newcommand*{\LWR@origcolspec}{}

LWR@tablecolspecwidth Holds the number of tokens in the table columns specification.

This is includes one for each @, !, <, > column, and also one for each of the parameters of p, @, !, <, > columns, and three for each D column.

(This is not the total # of LATEX columns in the table.)

7174 \newcounter{LWR@tablecolspecwidth}

LWR@tablecolspecindex While parsing the LATEX table column specification, starts at 1 and is incremented per token of the specification.

7175 \newcounter{LWR@tablecolspecindex}

LWR@tableLaTeXcolindex While producing the table, resets to 1 at the start of the table and also at each end of line, and is incremented by 1 by each ampersand.

7176 \newcounter{LWR@tableLaTeXcolindex}

LWR@tabletotalLaTeXcols While parsing a table column specification, begins at 0 and increments by 1 per LATEX table column. Eventually holds the final number of LATEX table columns in each row, not counting @ and ! columns. (In HTML, @ and ! cells become their own columns, but are not included in LWR@tabletotalLaTeXcols.)

7177 \newcounter{LWR@tabletotalLaTeXcols}

LWR@tabletotalLaTeXcolsnext

Holds the next LATEX table column index while parsing, equal to one more than LWR@tabletotalLaTeXcols.

7178 \newcounter{LWR@tabletotalLaTeXcolsnext}

LWR@colatspec

A data array of specifications for @ columns. The leftmost's index is leftedge, the others are counter values. See section 42.

LWR@colbangspec

A data array of specifications for ! columns. The leftmost's index is leftedge, the others are counter values. See section 42.

LWR@colbeforespec

A data array of specifications for > columns.

LWR@colafterspec

A data array of specifications for < columns.

LWR@colbarspec

A data array of specifications for vertical rules.

72.5 Handling &, @, !, and bar

For technical discussion regarding problems redefining \&, See:

http://tex.stackexchange.com/questions/11638/

where-do-i-find-futurelets-nasty-behaviour-documented/11860#11860

\LWR@instertatbangcols

```
7179 \newcommand*{\LWR@insertatbangcols}{%
7180 \ifbool{LWR@skipatbang}%
7181 {}%
7182 {%
7183
        \LWR@printatbang{at}{\arabic{LWR@tableLaTeXcolindex}}%
```

```
7184
        \LWR@printatbang{bang}{\arabic{LWR@tableLaTeXcolindex}}%
7185 }%
7186 }
```

\LWR@closetabledatacell If LWR@skippingmrowcell or LWR@skippingmcolrowcell then there is no data tag to close. Otherwise, close any paragraphs, then close the data tag.

```
7187 \newcommand*{\LWR@closetabledatacell}{%
7188 \global\booltrue{LWR@intabularmetadata}%
7189 \ifbool{LWR@exitingtabular}%
7190 {%
7191
        \LWR@stoppars%
7192 }%
7193 {% not exiting tabular
7194
        \ifboolexpr{bool{LWR@skippingmrowcell}} or bool{LWR@skippingmcolrowcell}}%
7195
7196
            \LWR@stoppars%
```

If not skipping a \multicolumnrow cell, insert the @ and ! columns after this nonexistant column.

```
7197
            \ifbool{LWR@skippingmcolrowcell}%
7198
                 {\LWR@insertatbangcols}%
7199
7200
        }%
        {% not skippingmrowcell
7201
```

Insert any < then any @ and ! column contents, unless muted for the \bottomrule or a \multicolumn:

```
\unskip%
7202
7203
            \ifboolexpr{%
                bool{LWR@tabularmutemods} or
7204
                bool{LWR@skipatbang} or
7205
                bool{LWR@emptyatbang}
7206
            }%
7207
7208
7209
            {\LWR@getexparray{LWR@colafterspec}{\arabic{LWR@tableLaTeXcolindex}}}%
```

Close paragraphs:

```
7210
            \LWR@stoppars%
            \global\boolfalse{LWR@tableparcell}%
7211
```

Close the table data cell.

Close any color <div>s.

```
\whileboolexpr{test {\ifnumcomp{\value{LWR@cellcolordepth}}{>}{0}}}}{%
7212
                \LWR@htmltag{/div}\LWR@orignewline%
7213
```

```
7214
                \addtocounter{LWR@cellcolordepth}{-1}%
            }%
7215
 Skip the @ and! cells if are closing a multicolumn cell.
            \leavevmode\unskip\LWR@htmltag{/td}\LWR@orignewline%
7216
7217
            \global\booltrue{LWR@tabularcelladded}%
            \LWR@insertatbangcols%
7219
       }% not skipping mrowcell
7220 }% not exiting tabular
7221 \global\boolfalse{LWR@skippingmrowcell}%
7222 \global\boolfalse{LWR@skippingmcolrowcell}%
7223 \global\boolfalse{LWR@skipatbang}%
 Color control. Column is set by >{} for each cell, so it must be cleared here.
7224 \gdef\LWR@cellHTMLcolor{}
7225 \gdef\LWR@columnHTMLcolor{}
7226 \setcounter{LWR@cellcolordepth}{0}
7227 }
 When not used inside a tabular, & performs its original function as recorded here (
 with catcode 4).
7228 \let\LWR@origampmacro&
7229 \end{warpHTML}
```

72.5.1 Handling &

for HTML output: 7230 \begin{warpHTML}

& Will behave depending on whether it is being used inside tabular.

& is redefined to test whether it is inside a tabular environment, in which case it performs special processing for HTML conversion. If not, it behaves normally.

```
7231 \newcommand*{\LWR@tabularampersand}{%
7232 \LWR@traceinfo{LWR@tabularampersand}%
7233 \ifnumcomp{\value{LWR@tabulardepth}}{>}{0}%
7234 {%
```

If not skipping a multirow cell, close the current data cell.

```
7235 \unskip%7236 \LWR@closetabledatacell%
```

Move to the next column.

```
7237 \addtocounter{LWR@tableLaTeXcolindex}{1}%
```

Have not yet added data in this column:

```
7238 \global\boolfalse{LWR@tabularcelladded}%
```

Look at the next token to decide multi or single column data tag.

```
7239 \LWR@getmynexttoken% 7240 }%
```

If not inside a tabular, performs the original action:

```
7241 {\LWR@origampmacro}% 7242 }
```

& is left with its original catcode for now.

tikz package seems to require & be left alone until after tikz has been loaded. Also, cleveref uses the ampersand in one of its options.

& is made active inside a tabular.

& is left alone when in math alignments.

72.5.2 Filling an unfinished row

\LWR@tabularfinishrow

Adds empty table cells if necessary to finish the row.

At the end of the table, if any bottom rules are requested then an empty row must be generated to form the borders which show the rules.

```
7243 \newcommand*{\LWR@tabularfinishrow}{%
```

If not exiting the tabular, or doing a rule, or have already started a row, finish this row:

```
7244 \ifboolexpr{%
7245     not bool {LWR@exitingtabular} or%
7246     bool{LWR@doingtbrule} or%
7247     bool{LWR@doingcmidrule} or%
7248     test{\ifnumcomp{\value{LWR@hlines}}{>}{0}} or%
7249     test{\ifnumcomp{\value{LWR@hdashedlines}}{>}{0}} or%
7250     bool{LWR@startedrow}%
7251 }{%
```

To temporarily turn off LWR@exitingtabular so that table data tags will still be generated:

If generating a final row for the $\$ bottomrule borders, turn off the @, !, <, and > column output:

```
7252 \ifbool{LWR@exitingtabular}{%
7253 \global\booltrue{LWR@tabularmutemods}%
```

```
7254 }{%
7255 \global\boolfalse{LWR@tabularmutemods}%
7256 }%
```

Locally reenable the table data tags until finished with the final row:

```
7257 \global\boolfalse{LWR@exitingtabular}%
```

Generate table data tags and ampersands until the right edge:

```
7258 \whileboolexpr{%
7259
       test {
         \ifnumcomp{\value{LWR@tableLaTeXcolindex}}{<}{\value{LWR@tabletotalLaTeXcols}}
7260
       } or %
7261
        (%
7262
            bool{LWR@intabularmetadata} and%
7263
            not bool{LWR@tabularcelladded} and%
7264
7265
            \ifnumcomp{\value{LWR@tableLaTeXcolindex}}{=}{\value{LWR@tabletotalLaTeXcols}}
7266
7267
            }%
       )%
7268
7269 }%
7270 {%
7271
        \LWR@tabledatasinglecolumntag%
```

The following is essentially \LWR@tabularampersand with LWR@emptyatbang added to empty the following cells:

```
7272 \LWR@closetabledatacell%
7273 \addtocounter{LWR@tableLaTeXcolindex}{1}%
7274 \global\boolfalse{LWR@tabularcelladded}%
7275 \global\booltrue{LWR@emptyatbang}%
```

Starts the next cell:

```
7276 \ifnumcomp{\value{LWR@tableLaTeXcolindex}}{<\ul>
7277 {\LWR@getmynexttoken}%
7278 {}%
7279 }%
```

Reenable the original LWR@exitingtabular to close the entire table:

```
7280 \ifbool{LWR@tabularmutemods}{%

7281 \global\booltrue{LWR@exitingtabular}%

7282 }{%

7283 \global\boolfalse{LWR@exitingtabular}%

7284 }%

7285 \global\boolfalse{LWR@tabularmutemods}%

7286 \global\boolfalse{LWR@emptyatbang}%

7287 }{}% ifboolexpr

7288 }
```

72.6 Handling \\

```
Inside tabular, \\ is redefined to \LWR@tabularendofline
```

Throws away options \\[dim] or *

```
\LWR@tabularendofline
```

```
7289 \MewDocumentCommand{\LWR@tabularendofline}{s o}{\%}
```

Finish the row:

```
7290 \ifnumcomp{\value{LWR@tableLaTeXcolindex}}{<}\value{LWR@tabletotalLaTeXcols}}%
7291 {\LWR@tabularfinishrow}%
7292 {\LWR@closetabledatacell}%
7293 \LWR@htmltag{/tr}\LWR@orignewline%</pre>
```

xcolor row color support:

7294 \@rowc@lors%

No longer inside a data cell:

7295 \global\booltrue{LWR@intabularmetadata}%

Not yet started a table row:

7296 \global\boolfalse{LWR@startedrow}%

Additional setup:

```
7297 \setcounter{LWR@hlines}{0}%
7298 \setcounter{LWR@hdashedlines}{0}%
7299 \global\boolfalse{LWR@doingtbrule}%
7300 \global\boolfalse{LWR@doingcmidrule}%
7301 \LWR@clearmidrules%
7302 \gdef\LWR@rowHTMLcolor{}%
```

Start at first column:

```
7303 \setcounter{LWR@tableLaTeXcolindex}{1}%
```

Have not yet added data in this column:

```
7304 \global\boolfalse\{LWR@tabularcelladded\}\%
```

Allow TEX to flush the pending paragraph. Not doing so causes a slowdown for very large tables.

```
7305 \LWR@stoppars
7306 \LWR@origpar
```

Look at the next token to decide between single column data tag or a special case:

```
7307 \LWR@getmynexttoken% 7308 }
```

72.7 Looking ahead in the column specifications

```
\LWR@columnspeclookahead
```

```
\{\langle offset \rangle\}
```

Looks offset tokens ahead in the column specification, setting \LWR@strresulttwo.

The w column alignment will be seen as a single unit such as {c}.

```
7309 \newcommand*{\LWR@columnspeclookahead}[1]{%
7310 \setcounter{LWR@tempcountone}{\value{LWR@tablecolspecindex}}%
7311 \addtocounter{LWR@tempcountone}{#1}%
7312 \fullexpandarg%
7313 \StrChar{\LWR@origcolspec}{\arabic{LWR@tempcountone}}[\LWR@strresulttwo]%

Get the contents of the first group in \LWR@strresulttwo:
7314 \exploregroups%
7315 \StrChar{\LWR@strresulttwo}{1}[\LWR@strresulttwo]%
7316 \noexploregroups%
7317 }
```

72.8 **Parsing @, >, <, !, bar columns**

Holds the parsed argument for @, >, <, or ! columns:

```
7318 \newcommand*{\LWR@colparameter}{}
```

\LWR@parseatcolumn Handles @{text} columns.

```
7319 \newcommand*{\LWR@parseatcolumn}{%
```

Move to the next token after the '@':

```
7320 \LWR@traceinfo{at column}%
7321 \addtocounter{LWR@tablecolspecindex}{1}%
```

Read the next token into \LWR@colparameter, expanding once:

Store the result into a data array, expanding once out of \LWR@colparameter:

```
7327 \LWR@traceinfo{have now read the next token}%
                     7328 \ifnumcomp{\value{LWR@tabletotalLaTeXcols}}{=}{0}%
                     7329 {% left edge of the table:
                             \LWR@traceinfo{at the left edge}%
                             \LWR@setexparray{LWR@colatspec}{leftedge}{\LWR@colparameter}%
                     7332
                             \LWR@traceinfo{at the left edge: %
                             \LWR@getexparray{LWR@colatspec}{leftedge}}%
                     7333
                     7334 }%
                     7335 {% not at the left edge:
                     7336
                             \LWR@traceinfo{not at the left edge}%
                             \LWR@setexparray{LWR@colatspec}%
                     7337
                                 {\arabic{LWR@tabletotalLaTeXcols}}{\LWR@colparameter}%
                     7338
                     7339
                             \LWR@traceinfo{at \arabic{LWR@tabletotalLaTeXcols}: %
                     7340
                             \LWR@getexparray{LWR@colatspec}{\arabic{LWR@tabletotalLaTeXcols}}}%
                     7341 }%
                     7342 \let\LWR@colparameter\relax%
                     7343 \global\booltrue{LWR@validtablecol}%
\LWR@parsebangcolumn Handles !{text} columns.
                     7345 \newcommand*{\LWR@parsebangcolumn}{%
                      Move to the next token after the '!':
                     7346 \LWR@traceinfo{bang column}%
                     7347 \addtocounter{LWR@tablecolspecindex}{1}%
                      Read the next token into \LWR@colparameter, expanding once:
                     7348 \LWR@traceinfo{about to read the next token:}%
                     7349 \expandarg%
                     7350 \StrChar{\LWR@origcolspec}%
                             {\arabic{LWR@tablecolspecindex}}[\LWR@colparameter]
                     7352 \fullexpandarg%
                      Store the result into a data array, expanding once out of \LWR@colparameter:
                     7353 \LWR@traceinfo{have now read the next token}%
                     7354 \ifnumcomp{\value{LWR@tabletotalLaTeXcols}}{=}{0}%
                     7355 {% left edge of the table:
                     7356
                             \LWR@traceinfo{at the left edge}%
                             \LWR@setexparray{LWR@colbangspec}{leftedge}{\LWR@colparameter}%
                     7357
                     7358 }%
                     7359 {% not at the left edge:
                             \LWR@traceinfo{not at the left edge}%
                     7360
                     7361
                             \LWR@setexparray{LWR@colbangspec}%
                     7362
                                 {\arabic{LWR@tabletotalLaTeXcols}}{\LWR@colparameter}%
                             \LWR@traceinfo{bang \arabic{LWR@tabletotalLaTeXcols}: \LWR@colparameter!}%
                     7363
                     7364 }%
                     7365 \let\LWR@colparameter\relax%
```

7366 \global\booltrue{LWR@validtablecol}%

```
lwarp 403
```

```
7367 }
\LWR@parsebeforecolumn Handles >{text} columns.
                       7368 \newcommand*{\LWR@parsebeforecolumn}{%
                        Move to the next token after the '>':
                       7369 \addtocounter{LWR@tablecolspecindex}{1}%
                        Read the next token, expanding once into \LWR@colparameter:
                       7370 \expandarg%
                       7371 \StrChar{\LWR@origcolspec}%
                               {\arabic{LWR@tablecolspecindex}}[\LWR@colparameter]%
                       7373 \fullexpandarg%
                        Store the result into a data array, expanding once out of \LWR@colparameter:
                       7374 \LWR@setexparray{LWR@colbeforespec}%
                               {\arabic{LWR@tabletotalLaTeXcolsnext}}{\LWR@colparameter}%
                       7376 \let\LWR@colparameter\relax%
                       7377 \global\booltrue{LWR@validtablecol}%
                       7378 }
 \LWR@parseaftercolumn Handles <{text} columns.
                       7379 \newcommand*{\LWR@parseaftercolumn}{%
                        Move to the next token after the '<':
                       7380 \addtocounter{LWR@tablecolspecindex}{1}%
                        Read the next token, expanding once into \LWR@colparameter:
                       7381 \expandarg%
                       7382 \StrChar{\LWR@origcolspec}%
                               {\arabic{LWR@tablecolspecindex}}[\LWR@colparameter]%
                       7384 \fullexpandarg%
                        Store the result into a data array, expanding once out of \LWR@colparameter:
                       7385 \LWR@setexparray{LWR@colafterspec}%
                               {\arabic{LWR@tabletotalLaTeXcols}}{\LWR@colparameter}%
                       7387 \let\LWR@colparameter\relax%
                       7388 \global\booltrue{LWR@validtablecol}%
                       7389 }
                             Handles vertical rules.
   \LWR@parsebarcolumn
                       7390 \newcommand*{\LWR@parsebarcolumn}{%
```

7391 \LWR@traceinfo{LWR@parsebarcolumn}%

Remember the bar at this position:

```
7392 \ifnumcomp{\value{LWR@tabletotalLaTeXcols}}{=}{0}%
7393 {% left edge of the table:
       \edef\LWR@tempone{\LWR@getexparray{LWR@colbarspec}{leftedge}}%
7395
       \ifdefstring{\LWR@tempone}{tvertbarl}%
       {\LWR@setexparray{LWR@colbarspec}{leftedge}{tvertbarldouble}}%
7396
       {\LWR@setexparray{LWR@colbarspec}{leftedge}{tvertbarl}}%
7397
7398 }%
7399 {% not at the left edge:
7400
       \edef\LWR@tempone{%
            \LWR@getexparray{LWR@colbarspec}{\arabic{LWR@tabletotalLaTeXcols}}%
7401
7402
       \ifdefstring{\LWR@tempone}{tvertbarr}%
7403
7404
       {%
            \LWR@setexparray{LWR@colbarspec}%
7405
                {\arabic{LWR@tabletotalLaTeXcols}}{tvertbarrdouble}%
7406
       }%
7407
7408
       {%
            \LWR@setexparray{LWR@colbarspec}%
7409
                {\arabic{LWR@tabletotalLaTeXcols}}{tvertbarr}%
7410
       }%
7411
7412 }%
7413 \global\booltrue{LWR@validtablecol}%
7414 }
```

\LWR@parsecoloncolumn

Handles vertical rules.

```
7415 \newcommand*{\LWR@parsecoloncolumn}{% 7416 \LWR@traceinfo{LWR@parsecoloncolumn}%
```

Remember the bar at this position:

```
7417 \ifnumcomp{\value{LWR@tabletotalLaTeXcols}}{=}{0}%
7418 {% left edge of the table:
7419
       \edef\LWR@tempone{\LWR@getexparray{LWR@colbarspec}{leftedge}}%
7420
        \ifdefstring{\LWR@tempone}{tvertbarldash}%
       {\tt LWR@setexparray\{LWR@colbarspec\}\{leftedge\}\{tvertbarldoubledash\}\}\%}
7421
       {\LWR@setexparray{LWR@colbarspec}{leftedge}{tvertbarldash}}%
7422
7423 }%
7424 {% not at the left edge:
       \edef\LWR@tempone{%
7425
            \LWR@getexparray{LWR@colbarspec}{\arabic{LWR@tabletotalLaTeXcols}}%
7426
7427
       \ifdefstring{\LWR@tempone}{tvertbarrdash}%
7428
       {\LWR@setexparray{LWR@colbarspec}%
7429
            {\arabic{LWR@tabletotalLaTeXcols}}{tvertbarrdoubledash}}%
7430
7431
       {\LWR@setexparray{LWR@colbarspec}%
            {\arabic{LWR@tabletotalLaTeXcols}}{tvertbarrdash}}%
7432
7433 }%
7434 \global\booltrue{LWR@validtablecol}%
7435 }
```

\LWR@parsesemicoloncolumn

Handles vertical rules.

```
7436 \newcommand*{\LWR@parsesemicoloncolumn}{%
 Treat; as a: column:
7437 \LWR@parsecoloncolumn%
 Skip the following width token:
7438 \addtocounter{LWR@tablecolspecindex}{1}%
7439 }
```

Parsing 'l', 'c', or 'r' columns

\LWR@parsenormalcolumn $\{\langle thiscolumn \rangle\}$

Add to the accumulated column specs, advance counters, and pre-clear another column of at, before, and after specs.

```
7440 \newcommand*{\LWR@parsenormalcolumn}[1]{%
7441 \addtocounter{LWR@tabletotalLaTeXcols}{1}%
7442 \addtocounter{LWR@tabletotalLaTeXcolsnext}{1}%
7443 \LWR@setexparray{LWR@tablecolspec}{\arabic{LWR@tabletotalLaTeXcols}}{#1}%
7444 \LWR@traceinfo{normal column \arabic{LWR@tabletotalLaTeXcols}: #1}%
7445 \LWR@setexparray{LWR@colatspec}{\arabic{LWR@tabletotalLaTeXcolsnext}}{}%
7446 \LWR@setexparray{LWR@colbangspec}{\arabic{LWR@tabletotalLaTeXcolsnext}}{}}%
7447 \LWR@setexparray{LWR@colbeforespec}{\arabic{LWR@tabletotalLaTeXcolsnext}}{}}
7448 \LWR@setexparray{LWR@colafterspec}{\arabic{LWR@tabletotalLaTeXcolsnext}}{}}
7449 \LWR@setexparray{LWR@colbarspec}{\arabic{LWR@tabletotalLaTeXcolsnext}}{}%
7450 \global\booltrue{LWR@validtablecol}%
7451 }
```

72.10 Parsing 'p', 'm', or 'b' columns

```
\LWR@parsepcolumn
                   \{\langle thiscolumn \rangle\} The width will be ignored.
                   7452 \newcommand*{\LWR@parsepcolumn}[1]{%
                    Converts to the given column type:
                   7453 \LWR@parsenormalcolumn{#1}%
                    Skips the following width token:
                   7454 \addtocounter{LWR@tablecolspecindex}{1}%
                   7455 }
```

72.11 Parsing 'w' columns

```
\verb|\LWR@parsewcolumn| The width will be ignored.
```

```
7456 \newcommand*{\LWR@parsewcolumn}{%

7457 \LWR@columnspeclookahead{1}%

7458 \expandafter\LWR@parsenormalcolumn\expandafter{\LWR@strresulttwo}%

Skips the following width and alignment tokens:

7459 \addtocounter{LWR@tablecolspecindex}{2}%

7460 }
```

72.12 Parsing '*' columns

\LWR@parsestarcolumn Star columns should already have been expanded, so this should never be used.

```
7461 \newcommand*{\LWR@parsestarcolumn}{%
7462 \addtocounter{LWR@tablecolspecindex}{2}%
7463 }
```

72.13 Parsing 'D' columns

From the dcolumn package.

```
\LWR@parseDcolumn \{\langle thiscolumn \rangle\} The three parameters will be ignored.
```

```
7464 \newcommand*{\LWR@parseDcolumn}[1]{%
```

Converts to the given column type.

```
7465 \LWR@parsenormalcolumn{#1}%
```

Skips the following three parameters.

```
7466 \addtocounter{LWR@tablecolspecindex}{3}%
7467 }
```

72.14 Expanding the star column specifiations

Ctr LWR@starcount Internal count for duplicating star columns.

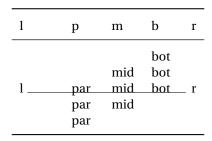
7468 \newcount\LWR@starcount

```
\LWR@expcolspec Temporary storage used to build the expanded column specifier.
                       7469 \newcommand*{\LWR@expcolspec}{}
   LWR@splitstarindex  Indexes into the column specifiers.
                       7470 \newcounter{LWR@splitstarindex}
  LWR@splitstarcopies Number of copies.
                       7471 \newcounter{LWR@splitstarcopies}
\LWR@splitstarcontents Contents to duplicate.
                       7472 \newcommand*{\LWR@splitstarcontents}{}
        \expandcolspec Expands \LWR@origcolspec for star columns.
                       7473 \newcommand*{\expandcolspec}{%
                        Find the position of any star token.
                               \StrPosition{\LWR@origcolspec}{*}[\LWR@tempone]%
                       7474
                        Expand until no stars are found:
                       7475
                               \whileboolexpr{ test {\ifnumgreater{\LWR@tempone}{0}}}%
                       7476
                               {%
                        Begin with any characters to the left of the star.
                                   \setcounter{LWR@splitstarindex}{\LWR@tempone}%
                       7477
                       7478
                                   \addtocounter{LWR@splitstarindex}{-1}%
                                 \StrLeft{\LWR@origcolspec}{\value{LWR@splitstarindex}}[\LWR@expcolspec]%
                       7479
                        Move past the star to remember its number of copies.
                                   \addtocounter{LWR@splitstarindex}{2}%
                       7480
                                   \StrChar{\LWR@origcolspec}{\value{LWR@splitstarindex}}[\LWR@tempone]%
                       7481
                                  \setcounter{LWR@splitstarcopies}{\expandafter\@firstofone\LWR@tempone}%
                       7482
                        Move past the number of copies and remember the contents.
                                   \addtocounter{LWR@splitstarindex}{1}%
                       7483
                       7484
                                \StrChar{\LWR@origcolspec}{\value{LWR@splitstarindex}}[\LWR@splitstarcontents]%
                        For each copy, append the contents.
                                   \ifnumgreater{\value{LWR@splitstarcopies}}{0}%
                       7485
                       7486
                                       \LWR@starcount=\value{LWR@splitstarcopies}%
                       7487
                       7488
                                       \loop
```

\appto\LWR@expcolspec{%

7489

Table 10: Tabular baseline



(Remove the enclosing braces.)

```
7490 \expandafter\@firstofone\LWR@splitstarcontents%
7491 }%
7492 \advance \LWR@starcount -1
7493 \ifnum \LWR@starcount>0 \repeat
7494 }{}%
```

Remove any token to the left, and append the rightmost remainding tokens.

```
7495 \StrGobbleLeft{\LWR@origcolspec}{\value{LWR@splitstarindex}}[\colspecremainder]% 
7496 \appto{\LWR@expcolspec}{\colspecremainder}%
```

Remember the final result.

```
7497 \edef\LWR@origcolspec{\LWR@expcolspec}%
```

See if more stars exist.

```
7498 \StrPosition{\LWR@origcolspec}{*}[\LWR@tempone]%
7499 }%
7500 }
```

72.15 Parsing the column specifications

HTML css cannot exactly match the LATEX concept of a baseline for a table row. Table 10 shows the LATEX results for various vertical-alignment choices, with the baseline of the first column drawn across all the columns for comparison. See the p column specification in table 11 for details.

Table 11 describes how each kind of column is converted to HTML.

Bool LWR@validtablecol True if found a valid table column type.

```
7501 \newbool{LWR@validtablecol}
```

Bool LWR@opttablecol True if found a table column optional argument.

```
7502 \newbool{LWR@opttablecol}
```

Table 11: Tabular html column conversions

l, r, c: Converted to table cells without paragraph tags.

Uses css vertical-align:middle so that top or bottom-aligned cells may go above or below this cell.

p: Converted to table cells with paragraph tags. Ref: Table 10, LaTEX places the top line of a parbox aligned with the rest of the text line, so css vertical-align:bottom is used to have the html result appear with the paragraph extending below the L, R, C cells at the middle, if possible. This may be confusing as a P cell may not top-align with an L,R,C cell in the html conversion, especially in the presence of a B cell, and two P cells side-by-side will be aligned at the bottom instead of the top. Some adjustment of the css may be desired, changing td.tdp, td.tdP, td.tdprule, and td.tdPrule to vertical-align: middle. Another possibility is to change L,R,C, and P to vertical-align: top and not worry about the alignment of B and M cells or trying to approximate LaTEX baselines.

m: With paragraph tags, css vertical-align:middle.

b: With paragraph tags, css vertical-align: top so that the bottom of the text is closest to the middle of the text line.

P, M, B: Horizontally-centered versions.

S: Converted to 'r'. Ignores optional argument. From the siunitx package.

D: Converted to 'c'. From the dcolumn package.

@, !, >, <: One each, in that order.

: Vertical rule.

Unknown: Converted to 'l'.

\newcolumn: Currently treated as unknown.

```
\LWR@parsetablecols \{\langle colspecs \rangle\}
```

Scans the column specification left to right.

Builds \LWR@tablecolspec with the final specification, one LATEX column per entry. The final number of LATEX columns in each row is stored in LWR@tabletotalLaTeXcols, which is the number of & and $\$ in each line, but which does not include @, !, <, > specifications in the count.

```
7503 \newcommand*{\LWR@parsetablecols}[1]{%
7504 \LWR@traceinfo{LWR@parsetablecols}%
```

Remember the original supplied column spec:

```
7505 \renewcommand*{\LWR@origcolspec}{#1}%
```

Remove spaces:

```
7506 \expandarg%
7507 \StrSubstitute{\LWR@origcolspec}{ }{}[\LWR@origcolspec]%
```

Expand any star columns:

```
7508 \expandcolspec%
```

The parsed column spec data array, LWR@tablecolspec, will be overwritten with new values.

Total number of columns found so far. Also pre-initialize the first several columns of specs:

```
7509 \setcounter{LWR@tabletotalLaTeXcols}{0}%
7510 \setcounter{LWR@tabletotalLaTeXcolsnext}{1}%
7511 \LWR@setexparray{LWR@colatspec}{leftedge}{}%
7512 \LWR@setexparray{LWR@colatspec}{1}{}%
7513 \LWR@setexparray{LWR@colatspec}{2}{}%
7514 \LWR@setexparray{LWR@colatspec}{3}{}%
7515 \LWR@setexparray{LWR@colbangspec}{leftedge}{}%
7516 \LWR@setexparray{LWR@colbangspec}{1}{}%
7517 \LWR@setexparray{LWR@colbangspec}{2}{}%
7518 \LWR@setexparray{LWR@colbangspec}{3}{}%
7519 \LWR@setexparray{LWR@colbeforespec}{1}{}}%
7520 \LWR@setexparray{LWR@colbeforespec}{2}{}}%
7521 \LWR@setexparray{LWR@colbeforespec}{3}{}%
7522 \LWR@setexparray{LWR@colafterspec}{1}{}%
7523 \LWR@setexparray{LWR@colafterspec}{2}{}%
7524 \LWR@setexparray{LWR@colafterspec}{3}{}%
7525 \LWR@setexparray{LWR@colbarspec}{leftedge}{}%
7526 \LWR@setexparray{LWR@colbarspec}{1}{}%
7527 \LWR@setexparray{LWR@colbarspec}{2}{}%
7528 \LWR@setexparray{LWR@colbarspec}{3}{}%
```

Starting at the first column specification:

```
7529 \setcounter{LWR@tablecolspecindex}{1}%
```

Place the colspecs string length into \LWR@strresult, and remember the number of characters in the column specification:

```
7530 \expandarg%
7531 \StrLen{\LWR@origcolspec}[\LWR@strresult]%
7532 \fullexpandarg%
7533 \LWR@traceinfo{original column spec length: \LWR@strresult}%
7534 \setcounter{LWR@tablecolspecwidth}{\LWR@strresult}%
```

Haven't seen any optional arguments so far

```
7535 \global\boolfalse{LWR@opttablecol}%
```

Scan through the column specifications:

Place the next single-character column type into \LWR@strresult:

```
7543 \expandarg%
7544 \StrChar{\LWR@origcolspec}{\arabic{LWR@tablecolspecindex}}[\LWR@strresult]%
7545 \LWR@traceinfo{position \arabic{LWR@tablecolspecindex}: \LWR@strresult}%
7546 \fullexpandarg%
```

Not yet found a valid column type:

```
7547 \global\boolfalse{LWR@validtablecol}%
```

Skip over any optional arguments, such as siunitx S column:

Throw away anything found inside the optional argument:

```
7549 \ifbool{LWR@opttablecol}%
7550 {}% inside an optional argument
7551 {% not an optional tabular argument
```

Not inside an optional argument, so consider the column type:

```
\label{thm:continuous} $$7552 \left(LWR@strresult)_{l}_{LWR@parsenormalcolumn_{l}}_{\%} $$7553 \left(LWR@strresult)_{c}_{LWR@parsenormalcolumn_{c}}_{\%} $$7554 \left(LWR@strresult)_{r}_{LWR@parsenormalcolumn_{r}}_{\%} $$7555 \left(LWR@strresult)_{L}_{LWR@parsenormalcolumn_{l}}_{\%} $$7556 \left(LWR@strresult)_{C}_{LWR@parsenormalcolumn_{c}}_{\%} $$
```

```
7557 \IfStrEq{\LWR@strresult}{R}{\LWR@parsenormalcolumn{r}}{}%
7558 \IfStrEq{\LWR@strresult}{J}{\LWR@parsenormalcolumn{l}}{}%
7559 \label{thm:c} $$ TStrEq{\LWR@strresult}{S}{\LWR@parsenormalcolumn{c}}{}% $$ $$ TStrEq{\LWR@strresult}{S}{\LWR@parsenormalcolumn{c}}{}% $$ TStrEq{\LWR@strresult}{S}{\LWR@strresult}{}% $$ TStresult}{}% $$ TStr
7560 \IfStrEq{\LWR@strresult}{s}{\LWR@parsenormalcolumn{c}}{}%
7563 \IfStrEq{\LWR@strresult}{>}{\LWR@parsebeforecolumn}{}%
7564 \IfStrEq{\LWR@strresult}{<}{\LWR@parseaftercolumn}{}%
7565 \IfStrEq{\LWR@strresult}{|}{\LWR@parsebarcolumn}{}%
7566 \IfStrEq{\LWR@strresult}{:}{\LWR@parsecoloncolumn}{}%
7567 \IfStrEq{\LWR@strresult}{;}{\LWR@parsesemicoloncolumn}{}%
7568 \IfStrEq{\LWR@strresult}{p}{\LWR@parsepcolumn{p}}{}%
7570 \IfStrEq{\LWR@strresult}{b}{\LWR@parsepcolumn{b}}{}%
7571 \IfStrEq{\LWR@strresult}{w}{\LWR@parsewcolumn}{}%
7572 \IfStrEq{\LWR@strresult}{W}{\LWR@parsewcolumn}{}%
  A star column:
7573 \IfStrEq{\LWR@strresult}{*}{\LWR@parsestarcolumn}{}%
  From the dcolumn package:
7574 \IfStrEq{\LWR@strresult}{D}{\LWR@parseDcolumn{c}}{}%
  From the tabularx package. X column has no parameter, but will be given paragraph
  tags.
7575 \IfStrEq{\LWR@strresult}{X}{\LWR@parsenormalcolumn{X}}{}%
              Many people define centered versions "P", "M", and "B":
                  \newcolumntype{P}[1]{>{\centering\arraybackslash}p{#1}}
7576 \IfStrEq{\LWR@strresult}{P}{\LWR@parsepcolumn{P}}{}%
7577 \IfStrEq{\LWR@strresult}{M}{\LWR@parsepcolumn{M}}{}
7578 \IfStrEq{\LWR@strresult}{B}{\LWR@parsepcolumn{B}}{}% 
  If this column was an invalid column type, convert it to an 1 column:
7579 \ifbool{LWR@validtablecol}{}{%
               \LWR@traceinfo{invalid column type: \LWR@strresult}%
7581
               \LWR@parsenormalcolumn{l}%
7582 }%
7583 }% not an optional column argument
```

If read the closing bracket, no longer inside the optional argument:

```
7584 \IfStrEq{\LWR@strresult}{]}{\global\boolfalse{LWR@opttablecol}}{}%
```

Move to the next character:

```
7585 \addtocounter{LWR@tablecolspecindex}{1}% 7586 }% whiledo 7587 }%
```

72.16 colortbl and xparse tabular color support

These macros provide a minimal emulation of some colortbl macros which might appear between table cells. If colortbl is loaded, these macros will be replaced with functional versions.

For each of the HTML colors below, the text for the HTML color is set if requested, but the macro is empty if none has been set.

\rownum Reserve a counter register.

7588 \@ifundefined{rownum}{\newcount\rownum}{}

\@rowcolors Emulated in case xcolor is not used.

7589 \newcommand*{\@rowcolors}{}

\@rowc@lors Emulated in case xcolor is not used.

7590 \newcommand*{\@rowc@lors}{}

\LWR@xcolorrowHTMLcolor Emulated xcolor row color.

7591 \newcommand*{\LWR@xcolorrowHTMLcolor}{}

\LWR@columnHTMLcolor HTMLstyle code for the column color.

7592 \def\LWR@columnHTMLcolor{}

\LWR@rowHTMLcolor HTMLstyle code for the row color.

7593 \def\LWR@rowHTMLcolor{}

\LWR@cellHTMLcolor HTMLstyle code for the cell color.

7594 \def\LWR@cellHTMLcolor{}

```
\LWR@ruleHTMLcolor HTMLstyle code for the cell color.
                                   7595 \newcommand*{\LWR@ruleHTMLcolor}{}
                       \rowcolor [\langle model \rangle] \{\langle color \rangle\} [\langle left overhang \rangle] [\langle right overhang \rangle] Print version. The HTML
                                    version is in lwarp-colortbl. Used before starting a tabular data cell, thus \LWR@getmynexttoken.
                                   7596 \newcommand*{\rowcolor}{\LWR@getmynexttoken}%
                \arrayrulecolor [\langle model \rangle] \{\langle color \rangle\}
    \arrayrulecolornexttoken [\langle model \rangle] \{\langle color \rangle\}
                                    Print versions for use outside and inside a tabular:
                                   7597 \newcommand{\arrayrulecolor}[2][named]{}
                                   7598 \newcommand{\arrayrulecolornexttoken}[2][named]{\LWR@getmynexttoken}
           \doublerulesepcolor [\langle model \rangle] \{\langle color \rangle\}
\doublerulesepcolornexttoken [\langle model \rangle] \{\langle color \rangle\}
                                    Print versions for use inside and outside a tabular:
                                   7599 \newcommand{\doublerulesepcolor}[2][named]{}
                                   7600 \newcommand{\doublerulesepcolornexttoken}[2][named]{\LWR@getmynexttoken}
                                    72.17
                                               Starting a new row
```

\LWR@maybenewtablerow If have not yet started a new table row, begin one now. Creates a new row tag, adding a class for hline or tbrule if necessary.

```
7601 \newcommand*{\LWR@maybenewtablerow}
7602 {%
7603 \ifbool{LWR@startedrow}%
7604 {}% started the row
7605 {% not started the row
```

Remember that now have started the row:

```
7606
       \global\booltrue{LWR@startedrow}%
```

Create the row tag, with a class if necessary.

```
7607
       \global\booltrue{LWR@intabularmetadata}%
7608
       \ifboolexpr{%
           test{\ifnumcomp{\value{LWR@hlines}}{>}{0}} or%
           test{\ifnumcomp{\value{LWR@hdashedlines}}{>}{0}}%
```

```
7611
        }%
7612
        {%
            \LWR@htmltag{tr class="hline" }%
7613
            \LWR@orignewline%
7614
        }%
7615
        {% not doing hline
7616
            \ifbool{LWR@doingtbrule}%
7617
7618
                 \ifdefvoid{\LWR@ruleHTMLcolor}{%
                     \LWR@htmltag{tr class="tbrule"}%
7620
                 }{%
7621
                     \LWR@htmltag{%
7622
                         tr class="tbrule" % space
7623
7624
                         style="border-top: 1px solid % space
                              \LWR@origpound\LWR@ruleHTMLcolor "%
                     }%
7626
                 }%
7627
                 \LWR@orignewline%
7628
7629
            }%
            {\LWR@htmltag{tr}\LWR@orignewline}%
7630
        }% end of not doing hline
7631
7632 }% end of not started the row
7633 }
```

72.18 Printing vertical bar tags

```
\LWR@printbartag \{\langle index \rangle\}
```

Adds to a tabular data cell an HTML class name for a left/right vertical bar.

```
7634 \newcommand*{\LWR@printbartag}[1]{%
7635 \LWR@traceinfo{LWR@printbartag !#1!}%
7636 \ifboolexpr{bool{LWR@tabularmutemods} or bool{LWR@emptyatbang}}%
7637 {}% muting or empty
7638 {% not muting
7639 \edef\LWR@tempone{\LWR@getexparray{LWR@colbarspec}{#1}}%
7640 \ifdefempty{\LWR@tempone}{}{ \LWR@tempone}%
7641 }% not muting
7642 \LWR@traceinfo{LWR@printbartag done}%
7643 }
```

72.19 Printing at or bang tags

```
\LWR@printatbang  \{\langle at\text{-}or\text{-}bang\rangle\} \{\langle index\rangle\}  7644 \newcommand*{\LWR@printatbang}[2]{%
```

Fetch the column at or bang spec:

```
7645 \xdef\LWR@atbangspec{\LWR@getexparray{LWR@col#1spec}{#2}}%
                      7646 \LWR@traceinfo{atbang: #2 !\LWR@atbangspec!}%
                       Only generate if is not empty;
                      7647 \ifdefempty{\LWR@atbangspec}%
                      7648 {}%
                      7649 {% not empty
                              \LWR@htmltag{%
                      7650
                                  td class="td#1%
                      7651
                                  \LWR@subaddcmidruletrim{}{}%
                      7652
                                  \LWR@printbartag{#2}%
                      7653
                      7654
                      7655
                                  \LWR@tdstartstyles%
                                  \LWR@addcmidrulewidth%
                      7656
                                  \LWR@addcdashline%
                      7657
                                  \LWR@addtabularrulecolors%
                      7658
                                  \LWR@tdendstyles%
                      7659
                              }%
                      7660
                       Create an empty cell if muting for the \bottomrule:
                      7661
                              7662
                      7663
                              {\LWR@atbangspec}%
                      7664 %
                              \LWR@htmltag{/td}\LWR@orignewline%
                      7665
                              \global\booltrue{LWR@tabularcelladded}%
                      7666
                      7667 }% not empty
                      7668 }%
\LWR@addleftmostbartag
                      7669 \newcommand*{\LWR@addleftmostbartag}{%
                      7670 \ifnumcomp{\value{LWR@tableLaTeXcolindex}}{=}{1}{%
                              \LWR@printbartag{leftedge}%
                      7672 }{}%
                      7673 }
  \LWR@tabularleftedge
                      7674 \newcommand*{\LWR@tabularleftedge}{%
                      7675 \ifnumcomp{\value{LWR@tableLaTeXcolindex}}{=}{1}%
                      7676 {%
                      7677
                              \LWR@printatbang{at}{leftedge}%
                              \LWR@printatbang{bang}{leftedge}%
                      7679}% left edge
                      7680 {}% not left edge
                      7681 }
```

72.20 Data opening tag

\LWR@thiscolspec Temporary storage.

7682 \newcommand*{\LWR@thiscolspec}{}

\LWR@tabledatasinglecolumntag Print a table data opening tag with style for alignment and color.

```
7683 \newcommand*{\LWR@tabledatasinglecolumntag}%
7684 {%
7685 \LWR@traceinfo{LWR@tabledatasinglecolumntag}%
7686 \LWR@maybenewtablerow%
```

Don't start a new paragraph tag if have already started one:

```
7687 \ifbool{LWR@intabularmetadata}%
7688 {%
```

If have found the end of tabular command, do not create the next data cell:

```
7689 \ifbool{LWR@exitingtabular}{}%
7690 {% not exiting tabular
```

Print the @ and! contents before first column:

```
7691 \LWR@tabularleftedge%
```

Fetch the current column's alignment character into \LWR@strresult:

```
7692 \xdef\LWR@strresult{%
7693 \LWR@getexparray{LWR@tablecolspec}{\arabic{LWR@tableLaTeXcolindex}}%
7694 }%
```

print the start of a new table data cell:

```
7695 \LWR@traceinfo{LWR@tabledatasinglecolumntag: about to print td tag}%
7696 \LWR@htmltag{td class="td%
```

append this column's spec:

```
7697 \LWR@strresult%
```

If this column has a cmidrule, add "rule" to the end of the $\mbox{\sc html}$ class tag. Also add vertical bar tags.

```
7698 \LWR@addcmidruletrim%
7699 \LWR@addleftmostbartag%
7700 \LWR@printbartag{\arabic{LWR@tableLaTeXcolindex}}%
7701 "%
```

Add styles for rules, alignment:

```
7702
           \LWR@tdstartstyles%
7703
           \LWR@addcmidrulewidth%
           \LWR@addcdashline%
7704
           \xdef\LWR@thiscolspec{%
7705
7706
              \LWR@getexparray{LWR@tablecolspec}{\arabic{LWR@tableLaTeXcolindex}}%
7707
7708
           \LWR@addformatwpalignment{\LWR@thiscolspec}%
 Add styles for cell and rule colors:
           \LWR@addtabularrowcolor%
7709
7710
           \LWR@addtabularrulecolors%
7711
           \LWR@tdendstyles%
7712
           }% HTML td
7713
           \LWR@traceinfo{LWR@tabledatasinglecolumntag: done printing td tag}%
 If this is a p, m, b, or X column, allow paragraphs:
           \ifboolexpr{%
7714
                test{ \ifdefstring{\LWR@strresult}{p} } or
7715
                7716
                test{ \ifdefstring{\LWR@strresult}{b} } or
7717
                test{ \ifdefstring{\LWR@strresult}{P} } or
7718
                test{ \left\{ \text{M} \right\} } or
7719
                test{ \ifdefstring{\LWR@strresult}{B} } or
7720
                test{ \ifdefstring{\LWR@strresult}{X} }
7721
           }%
7722
7723
           {% allow pars
             \LWR@traceinfo{LWR@tabledatasinglecolumntag: about to LWR@startpars}%
7724
7725
                \global\booltrue{LWR@tableparcell}%
                \LWR@startpars%
7726
            \LWR@traceinfo{LWR@tabledatasinglecolumntag: done with LWR@startpars}%
7727
7728
           }% allow pars
           {}% no pars
7729
 Print the > contents unless muted for the \bottomrule:
           \ifboolexpr{bool{LWR@tabularmutemods} or bool{LWR@emptyatbang}}%
7730
7731
           {}%
           {%
7732
7733
             \LWR@getexparray{LWR@colbeforespec}{\arabic{LWR@tableLaTeXcolindex}}%
7734
7735
           \global\boolfalse{LWR@intabularmetadata}%
       }% not exiting tabular
7737 }{}% in tabular metadata
7738 \LWR@traceinfo{LWR@tabledatasinglecolumntag: done}%
7739 }%
```

72.21 Midrules

LWR@midrules LWR@midrules is a data array (section 42) of columns each containing a non-zero width if a midrule should be created for this column. LWR@trimlrules LWR@trimlrules is a data array (section 42) of columns containing l if a midrule should be left trimmed for each column. LWR@trimrrules LWR@trimrrules is a data array (section 42) of columns containing r if a midrule should be right trimmed for each column. LWR@cdashlines LWR@cdashlines is a data array (section 42) of columns each containing a Y if an arydshln package "cdashed line" should be created for this column. LWR@midrulecounter Indexes across the LWR@midrules and LWR@trim<l/r> 7740 \newcounter{LWR@midrulecounter} \LWR@heavyrulewidth The default width of the rule. 7741 \newlength{\LWR@heavyrulewidth} 7742 \setlength{\LWR@heavyrulewidth}{.08em} \LWR@lightrulewidth The default width of the rule. 7743 \newlength{\LWR@lightrulewidth} 7744 \setlength{\LWR@lightrulewidth}{.05em} \LWR@cmidrulewidth The default width of the rule. 7745 \newlength{\LWR@cmidrulewidth} 7746 \setlength{\LWR@cmidrulewidth}{.03em} \LWR@thiscmidrulewidth The width of the next rule, defaulting to \LWR@cmidrulewidth. If not \LWR@cmidrulewidth, a style will be used to generate the custom width. Assigned from the LWR@midrules array. 7747 \newlength{\LWR@thiscmidrulewidth} 7748 \setlength{\LWR@thiscmidrulewidth}{\LWR@cmidrulewidth} \LWR@clearmidrules Start new midrules. Called at beginning of tabular and also at \\. Clears all LWR@midrules and LWR@trimrules markers for this line. 7749 \newcommand*{\LWR@clearmidrules} 7750 {% 7751 \setcounter{LWR@midrulecounter}{1}% 7752 \whileboolexpr{% not test{% 7753 \ifnumcomp{\value{LWR@midrulecounter}}{>}% 7754

{\value{LWR@tabletotalLaTeXcols}}%

7755

```
7756
       }%
7757 }%
7758 {%
        \LWR@setexparray{LWR@midrules}{\arabic{LWR@midrulecounter}}{0pt}%
7759
        \setlength{\LWR@thiscmidrulewidth}{\LWR@cmidrulewidth}%
7760
       \LWR@setexparray{LWR@trimlrules}{\arabic{LWR@midrulecounter}}{}%
7761
       \LWR@setexparray{LWR@trimrrules}{\arabic{LWR@midrulecounter}}{}%
7762
7763
       \LWR@setexparray{LWR@cdashlines}{\arabic{LWR@midrulecounter}}{N}%
        \addtocounter{LWR@midrulecounter}{1}%
7764
7765 }%
7766 }
```

\LWR@subcmidrule $\{\langle width \rangle\} \{\langle trim \rangle\} \{\langle leftcolumn \rangle\} \{\langle rightcolumn \rangle\}$

Marks LWR@midrules data array elements to be non-zero widths from left to right columns. Also marks trimming for the L and/or R columns.

LWR@doingcmidrule is set to force an empty row at the end of the tabular to create the rule.

```
7767 \newcommand*{\LWR@subcmidrule}[4]{%
7768 \setcounter{LWR@midrulecounter}{#3}%
7769 \whileboolexpr{%
       not test {%
7770
            \ifnumcomp{\value{LWR@midrulecounter}}{>}{#4}%
7771
7772
        }%
7773 }%
7774 {%
7775
        \LWR@setexparray{LWR@midrules}{\arabic{LWR@midrulecounter}}{#1}%
        \addtocounter{LWR@midrulecounter}{1}%
7776
7777 }% whiledo
7778 \IfSubStr{#2}{l}{\LWR@setexparray{LWR@trimlrules}{#3}{l}}{}%
7779 \IfSubStr{\#2{r}{\LWR@setexparray{LWR@trimrrules}{\#4}{r}}{}%
7780 \global\booltrue{LWR@doingcmidrule}%
7781 }
```

\LWR@docmidrule $[\langle width \rangle]$ ($\langle trim \rangle$) { $\langle leftcolumn-rightcolumn \rangle$ }

Marks LWR@midrules array elements to be a non-zero width from left to right columns. Also marks trimming for the L and/or R columns.

```
7782 \NewDocumentCommand{\LWR@docmidrule}
7783 {0{\LWR@cmidrulewidth} D(){} >{\SplitArgument{1}{-}}m}
7784 {\LWR@subcmidrule{#1}{#2}#3}
```

\LWR@subcdashline $\{\langle leftcolumn \rangle\} \{\langle rightcolumn \rangle\}$

Marks LWR@cdashlines data array elements to be Y from left to right columns.

LWR@doingcmidrule is set to force an empty row at the end of the tabular to create the rule.

```
7785 \newcommand*{\LWR@subcdashline}[2]{%
```

```
7786 \setcounter{LWR@midrulecounter}{#1}%
                    7787 \whileboolexpr{%
                            not test {%
                    7788
                                \ifnumcomp{\value{LWR@midrulecounter}}{>}{#2}%
                    7789
                    7790
                            }%
                    7791 }%
                    7792 {%
                            \LWR@setexparray{LWR@cdashlines}{\arabic{LWR@midrulecounter}}{Y}%
                    7793
                    7794
                            \addtocounter{LWR@midrulecounter}{1}%
                    7795 }% whiledo
                   7796 \global\booltrue{LWR@doingcmidrule}%
                   7797 }
  \LWR@docdashline \{\langle leftcolumn-rightcolumn\rangle\}
                     Marks LWR@cdashlines data array elements to be Y from left to right columns.
                    7798 \NewDocumentCommand{\LWR@docdashline}
                            {>{\SplitArgument{1}{-}}m}%
                    7799
                            {%
                    7800
                                \LWR@subcdashline#1%
                    7801
                    7802
                            }
                     Used to compute margins, tabular trims, column offsets:
                    7803 \newlength{\LWR@templengthone}
                    7804 \newlength{\LWR@templengthtwo}
                    7805 \newlength{\LWR@templengththree}
                    7806 \newcounter{LWR@tempcountone}
                     Used to add a style to a table data cell:
                    7807 \newbool{LWR@tdhavecellstyle}
\LWR@tdstartstyles Begins possibly adding a table data cell style.
                   7808 \newcommand*{\LWR@tdstartstyles}{\global\boolfalse{LWR@tdhavecellstyle}}
   \LWR@tdaddstyle Starts adding a table data cell style.
                    7809 \newcommand*{\LWR@tdaddstyle}{%
                    7810 \ifbool{LWR@tdhavecellstyle}%
                   7811 {; }%
                   7812 { style="}%
                    7813 \booltrue{LWR@tdhavecellstyle}%
                   7814 }
  \LWR@tdendstyles Finishes possibly adding a table data cell style. Prints the closing quote.
                    7815 \newcommand*{\LWR@tdendstyles}{%
                    7816 \ifbool{LWR@tdhavecellstyle}{%
```

```
7817
                                  \global\boolfalse{LWR@tdhavecellstyle}%
                          7819 }{}%
                          7820 }
\LWR@subaddcmidruletrim \{\langle lefttrim \rangle\} \{\langle righttrim \rangle\} \} Adds a \cmidrule with optional trim.
                          7821 \newcommand*{\LWR@subaddcmidruletrim}[2]{%
                          7822 \setlength{\LWR@templengthone}{%
                                      \LWR@getexparray{LWR@midrules}{\arabic{LWR@tableLaTeXcolindex}}%
                          7824 }%
                         7825 \ifdimcomp{\LWR@templengthone}{>}{0pt}%
                          7826 {%
                           Print the class with left and right trim letters appended:
                          7827
                                  \LWR@origtilde tdrule#1#2%
                           Remember the width of the rule:
                                  \setlength{\LWR@thiscmidrulewidth}{\LWR@templengthone}%
                          7828
                         7829 }%
                          7830 {%
                          7831
                                  \setlength{\LWR@thiscmidrulewidth}{0pt}%
                         7832 }%
                         7833 }
   \LWR@addcmidruletrim Adds left or right trim to a \cmidrule.
                          7834 \newcommand*{\LWR@addcmidruletrim}{%
                          7835 \LWR@subaddcmidruletrim%
                          7836 {\LWR@getexparray{LWR@trimlrules}{\arabic{LWR@tableLaTeXcolindex}}}%
                         7837 {\LWR@getexparray{LWR@trimrrules}{\arabic{LWR@tableLaTeXcolindex}}}%
                          7838 }
      \LWR@addrulewidth \{\langle thiswidth \rangle\} \{\langle defaultwidth \rangle\}
                           If not default width, add a custom style with width and color depending on
                           thiswidth.
                           Must be placed between \LWR@tdstartstyles and \LWR@tdendstyles.
                          7839 \newcommand{\LWR@addrulewidth}[2]{%
```

Only add a custom width if thiswidth is different than the defaultwidth, or if a color is being used:

```
7840 \ifboolexpr{%
7841    test{\ifdimcomp{#1}{=}{0pt}} or
7842    (
7843    ( test{\ifdimcomp{#1}{=}{#2}} and not bool{FormatWP} )
```

```
7844
                                  and ( test {\ifdefvoid{\LWR@ruleHTMLcolor}} )
                      7845
                              )
                      7846 }%
                      7847 {}% default width and color
                      7848 {% custom width and/or color
                       Ensure that the width is wide enough to display in the browser:
                      7849
                              \LWR@forceminwidth{#1}%
                       Begin adding another style:
                      7850
                              \LWR@tdaddstyle%
                       The style itself:
                              border-top:\LWR@printlength{\LWR@atleastonept} solid %
                      7851
                       If default gray, the darkness of the color depends on the thickness of the rule:
                      7852
                              \ifdefvoid{\LWR@ruleHTMLcolor}{%
                      7853
                                  \ifdimcomp{#1}{<}{\LWR@lightrulewidth}%
                                  {\LWR@origpound{}A0A0A0}%
                      7854
                                  {% lightrule or heaver
                      7855
                                       \ifdimcomp{#1}{<}{\LWR@heavyrulewidth}%
                      7856
                                       {\LWR@origpound{}808080}%
                      7857
                                       {black}%
                      7858
                                  }% lightrule or heavier
                      7859
                      7860
                              }{%
                                  \LWR@origpound\LWR@ruleHTMLcolor%
                      7861
                              }
                      7862
                      7863 }% custom width and/or color
                      7864 }
\LWR@addcmidrulewidth Adds a style for the rule width.
                       Must be placed between \LWR@tdstartstyles and \LWR@tdendstyles.
                      7865 \newcommand{\LWR@addcmidrulewidth}{%
                      7866 \LWR@addrulewidth{\LWR@thiscmidrulewidth}{\LWR@cmidrulewidth}%
                      7867 }
    \LWR@addcdashline Must be placed between \LWR@tdstartstyles and \LWR@tdendstyles.
                      7868 \newcommand{\LWR@addcdashline}{%
                      7869 \edef\LWR@tempone{%
                      7870
                              \LWR@getexparray{LWR@cdashlines}{\arabic{LWR@tableLaTeXcolindex}}%
                      7871 }%
                      7872 \ifdefstring{\LWR@tempone}{Y}{%
                              \LWR@tdaddstyle%
                      7873
```

border-top: 1pt dashed %

{black}%

\ifdefvoid{\LWR@ruleHTMLcolor}%

7874

7875 7876

```
7877
                            {\LWR@origpound\LWR@ruleHTMLcolor}%
              7878 }{}%
              7879 }
\LWR@WPcell \{\langle text-align \rangle\} \{\langle vertical-align \rangle\}
              7880 \newcommand*{\LWR@WPcell}[2]{%
              7881 \LWR@tdaddstyle%
              7882 \LWR@print@mbox{text-align:#1}; \LWR@print@mbox{vertical-align:#2}%
```

\LWR@addformatwpalignment If FormatWP, adds a style for the alignment.

Must be placed between \LWR@tdstartstyles and \LWR@tdendstyles.

```
7884 \newcommand*{\LWR@addformatwpalignment}[1]{%
7885 \ifbool{FormatWP}{%
7886 \IfSubStr{#1}{l}{\LWR@WPcell{left}{middle}}{}%
7887 \IfSubStr{#1}{c}{\LWR@WPcell{center}{middle}}{}%
7888 \IfSubStr{#1}{r}{\LWR@WPcell{right}{middle}}{}%
7889 \IfSubStr{#1}{p}{\LWR@WPcell{left}{bottom}}{}%
7890 \IfSubStr{#1}{m}{\LWR@WPcell{left}{middle}}{}%
7891 \IfSubStr{#1}{b}{\LWR@WPcell{left}{top}}{}%
7892 \IfSubStr{#1}{P}{\LWR@WPcell{center}{bottom}}{}%
7893 \IfSubStr{#1}{M}{\LWR@WPcell{center}{middle}}{}%
7894 \IfSubStr{#1}{B}{\LWR@WPcell{center}{top}}{}%
7895 }{}%
7896 }
```

72.22 Cell colors

\LWR@addtabularrowcolor Adds a cell's row color style, if needed.

No color is added for the final row of empty cells which finishes each tabular.

```
7897 \newcommand*{\LWR@addtabularrowcolor}{%
7898 \ifbool{LWR@tabularmutemods}{}{%
7899
        \ifdefvoid{\LWR@rowHTMLcolor}{%
            \ifdefvoid{\LWR@xcolorrowHTMLcolor}{}%
7900
            {% xcolor row color
7901
                \LWR@tdaddstyle%
7902
7903
                background:\LWR@origpound\LWR@xcolorrowHTMLcolor%
            }%
7904
7905
       }%
        {% explicit row color
7906
            \LWR@tdaddstyle%
7907
7908
            background:\LWR@origpound\LWR@rowHTMLcolor%
7909
       }%
7910 }%
7911 }
```

\LWR@addtabularhrulecolor Adds a cell's horizontal rule color style, if needed.

```
7912 \newcommand*{\LWR@addtabularhrulecolor}{%
```

If either form of horizontal rule is requested:

```
7913 \ifboolexpr{%
7914    test{\ifnumcomp{\value{LWR@hlines}}{>}{0}}    or%
7915    test{\ifnumcomp{\value{LWR@hdashedlines}}{>}{0}}    or%
7916    bool{LWR@doingtbrule}%
7917 }{%
```

If there is a no custom color:

```
7918
       \ifdefvoid{\LWR@ruleHTMLcolor}%
7919
            \ifnumcomp{\value{LWR@hlines}}{>}{1}%
7920
7921
            {%
                \LWR@tdaddstyle%
7922
                border-top: 4px double%
7923
            }{% else
            \ifnumcomp{\value{LWR@hdashedlines}}{>}{1}%
7925
7926
            {%
                \LWR@tdaddstyle%
7927
                border-top: 2px dashed%
7928
            }{% else
7929
            \ifnumcomp{\value{LWR@hdashedlines}}{=}{1}%
7930
7931
7932
                \LWR@tdaddstyle%
                border-top: 1px dashed%
7933
7934
            }{}}}%
```

If no color and not doubled or dashed, then add nothing, since a simpler rule is the default.

```
7935 }%
```

If there is a custom color:

```
7936
        {%
            \ifnumcomp{\value{LWR@hlines}}{>}{1}%
7937
7938
            {%
7939
                \LWR@tdaddstyle%
                border-top: 4px double \LWR@origpound\LWR@ruleHTMLcolor%
7940
            }{% else
7941
            \ifnumcomp{\value{LWR@hdashedlines}}{>}{1}%
7942
7943
            {%
                \LWR@tdaddstyle%
7944
                border-top: 2px dashed \LWR@origpound\LWR@ruleHTMLcolor%
7945
7946
            \ifnumcomp{\value{LWR@hdashedlines}}{=}{1}%
7947
7948
                \LWR@tdaddstyle%
7949
                border-top: 1px dashed \LWR@origpound\LWR@ruleHTMLcolor%
7950
```

\LWR@addtabularrulecolors Adds a cell's rule color styles, if needed.

No color is added for the final row of empty cells which finishes each tabular.

7958 \newcommand*{\LWR@addtabularrulecolors}{%

Custom horizonal rule color:

7959 \LWR@addtabularhrulecolor%

No vertical rules if finishing the tabular with a row of empty cells:

7960 \ifbool{LWR@tabularmutemods}{}{%

If at the leftmost cell, possibly add a leftmost vertical rule:

```
7961 \ifnumequal{\value{LWR@tableLaTeXcolindex}}{1}{%
```

Fetch the left edge's vertical bar specification:

```
7962 \edef\LWR@tempone{\LWR@getexparray{LWR@colbarspec}{leftedge}}%
```

Add a custom style if a vertical bar was requested:

```
\ifdefstring{\LWR@tempone}{tvertbarl}{%
7963
                     \LWR@tdaddstyle%
7964
                    border-left: 1px solid % space
7965
                         \LWR@vertruleHTMLcolor%
7966
            }{}%
7967
            \ifdefstring{\LWR@tempone}{tvertbarldouble}{%
7968
7969
                     \LWR@tdaddstyle%
7970
                    border-left: 4px double % space
                         \LWR@vertruleHTMLcolor%
7971
            }{}%
7972
            \ifdefstring{\LWR@tempone}{tvertbarldash}{%
7973
                     \LWR@tdaddstyle%
7974
                    border-left: 1px dashed % space
7975
                         \LWR@vertruleHTMLcolor%
7976
7977
            \ifdefstring{\LWR@tempone}{tvertbarldoubledash}{%
7978
                     \LWR@tdaddstyle%
7979
7980
                    border-left: 2px dashed % space
                         \LWR@vertruleHTMLcolor%
7981
7982
            }{}%
7983
       }{}%
```

Possibly add a right vertical rule for this cell:

```
7984 \edef\LWR@tempone{%
7985 \LWR@getexparray{LWR@colbarspec}{\arabic{LWR@tableLaTeXcolindex}}%
7986 }%
7987 \ifdefstring{\LWR@tempone}{tvertbarr}{%
```

Add a custom style if a vertical bar was requested:

```
7988
                \LWR@tdaddstyle%
                border-right: 1px solid \LWR@vertruleHTMLcolor%
7989
7990
       }{}%
7991
        \ifdefstring{\LWR@tempone}{tvertbarrdouble}{%
                \LWR@tdaddstyle%
7992
                border-right: 4px double \LWR@vertruleHTMLcolor%
7993
7994
        }{}%
7995
        \ifdefstring{\LWR@tempone}{tvertbarrdash}{%
7996
                \LWR@tdaddstyle%
                border-right: 1px dashed \LWR@vertruleHTMLcolor%
7997
       }{}%
7998
        \ifdefstring{\LWR@tempone}{tvertbarrdoubledash}{%
7999
                \LWR@tdaddstyle%
8000
8001
                border-right: 2px dashed \LWR@vertruleHTMLcolor%
8002
        }{}%
8003 }%
8004 }
```

Ctr LWR@cellcolordepth Counts how many cell color <div>s were added to the current tabular data cell.

```
8005 \newcounter{LWR@cellcolordepth}
```

```
\LWR@subaddtabularcellcolor \{\langle \mathit{HTML}\ color \rangle\}
```

\LWR@addtabularcellcolor Adds a cell color style, if needed.

```
8012 \newcommand*{\LWR@addtabularcellcolor}{%
8013 \ifdefvoid{\LWR@cellHTMLcolor}%
8014 {%
        \ifdefvoid{\LWR@rowHTMLcolor}%
8015
8016
8017
            \ifdefvoid{\LWR@xcolorrowHTMLcolor}%
8018
            {%
                \ifdefvoid{\LWR@columnHTMLcolor}%
8019
8020
                {\LWR@subaddtabularcellcolor{\LWR@columnHTMLcolor}}%
8021
            }%
8022
```

```
8023
            {\LWR@subaddtabularcellcolor{\LWR@xcolorrowHTMLcolor}}%
8024
       }%
       {\LWR@subaddtabularcellcolor{\LWR@rowHTMLcolor}}%
8025
8026 }%
8027 {\LWR@subaddtabularcellcolor{\LWR@cellHTMLcolor}}%
8028 }
```

72.23 **Multicolumns**

72.23.1 Parsing multicolumns

```
8029 \newcounter{LWR@tablemulticolswidth}
```

Indexes into the multicolumn specification:

```
8030 \newcounter{LWR@tablemulticolspos}
```

Remembers multicolumn vertical rules if found in the column spec.

```
8031 \newcounter{LWR@mcolvertbarsl}
8032 \newcounter{LWR@mcolvertbarsr}
8033 \newcounter{LWR@mcolvertbarsldash}
8034 \newcounter{LWR@mcolvertbarsrdash}
8035 \newbool{LWR@mcolvertbaronleft}%
```

\LWR@printmccoltype $\{\langle colspec \rangle\}$ Print any valid column type found. Does not print @, !, >, or < columns or their associated tokens.

This is printed as part of the table data tag's class.

```
8036 \newcommand*{\LWR@printmccoltype}[1]{%
8037 \LWR@traceinfo{lwr@printmccoltype -#1-}%
```

Get one token of the column spec:

```
8038 \StrChar{#1}{\arabic{LWR@tablemulticolspos}}[\LWR@strresult]%
```

Add to the HTML tag depending on which column type is found:

```
8039 \IfStrEq{\LWR@strresult}{l}{l}{}}%
8040 \IfStrEq{\LWR@strresult}{c}{c}{}%
8041 \IfStrEq{\LWR@strresult}{r}{r}{}%
8042 \IfStrEq{\LWR@strresult}{p}{p}{}%
8043 \IfStrEq{\LWR@strresult}{m}{m}{}%
8044 \IfStrEq{\LWR@strresult}{b}{b}{}}
8045 \IfStrEq{\LWR@strresult}{P}{P}{}%
8046 \IfStrEq{\LWR@strresult}{M}{M}{}}%
8047 \IfStrEq{\LWR@strresult}{B}{B}{}%
8048 \IfStrEq{\LWR@strresult}{w}{w}{}%
8049 \IfStrEq{\LWR@strresult}{W}{W}{}}
```

8050 $\IfStrEq{\LWR@strresult}{S}{c}{}$ %

```
8051 \IfStrEq{\LWR@strresult}{s}{c}{}%
                                                                                  8052 \IfStrEq{\LWR@strresult}{X}{p}{}%
                                                                                  8053 \IfStrEq{\LWR@strresult}{|}%
                                                                                  8054 {%
                                                                                  8055
                                                                                                                \ifbool{LWR@mcolvertbaronleft}%
                                                                                                                                {\addtocounter{LWR@mcolvertbarsl}{1}}% left edge
                                                                                  8056
                                                                                                                                {\c {\tt LWR@mcolvertbarsr}\{1\}}\% \  \, {\tt not left edge}
                                                                                  8057
                                                                                  8058 }%
                                                                                  8059 {%
                                                                                  8060
                                                                                                                \IfStrEq{\LWR@strresult}{:}%
                                                                                  8061
                                                                                                               {%
                                                                                                                                \ifbool{LWR@mcolvertbaronleft}%
                                                                                  8062
                                                                                                                                                {\addtocounter{LWR@mcolvertbarsldash}{1}}% left edge
                                                                                  8063
                                                                                                                                                {\del{local} {\del} {\del} {\del} {\del} {\del} {\del} {\del{local} {\del} {\del} {\del} {\del} {\del} {\del} {\del} {\del} {\del} {\del{local} {\del} {\de
                                                                                  8064
                                                                                                                }%
                                                                                  8065
                                                                                  8066
                                                                                                               {%
                                                                                                                                \IfStrEq{\LWR@strresult}{;}%
                                                                                  8067
                                                                                  8068
                                                                                                                                {%
                                                                                                                                                \ifbool{LWR@mcolvertbaronleft}%
                                                                                  8069
                                                                                                                                                                {\addtocounter{LWR@mcolvertbarsldash}{1}}% left edge
                                                                                  8070
                                                                                                                                                                {\del{local} {\del} {\del} {\del} {\del} {\del} {\del} {\del{local} {\del} {\del} {\del} {\del} {\del} {\del} {\del} {\del} {\del} {\del{local} {\del} {\de
                                                                                  8071
                                                                                                                                }%
                                                                                  8072
                                                                                                                                {\boolfalse{LWR@mcolvertbaronleft}}%
                                                                                  8074
                                                                                                               }%
                                                                                  8075 }%
                                                                                  8076 \LWR@traceinfo{lwr@printmccoltype done}%
                                                                                  8077 }
\LWR@multicolpartext \{\langle num \ parameters \rangle\} Print the data with paragraph tags, advance to bypass the given
                                                                                       number of parameters.
                                                                                  8078 \newcommand*{\LWR@multicolpartext}[1]{%
                                                                                  8079 \LWR@startpars%
                                                                                  8080 \LWR@multicoltext%
                                                                                  8081 \addtocounter{LWR@tablemulticolspos}{#1}%
                                                                                  8082 \LWR@stoppars%
                                                                                  8083 }
       \LWR@multicolother \{\langle colspec \rangle\} For @, !, >, <, print the next token without paragraph tags:
                                                                                  8084 \newcommand*{\LWR@multicolother}[1]{%
                                                                                  8085 \addtocounter{LWR@tablemulticolspos}{1}%
                                                                                  8086 \StrChar{#1}{\arabic{LWR@tablemulticolspos}}[\LWR@strresult]%
                                                                                  8087 \LWR@strresult%
                                                                                      A valid column data type was found:
                                                                                  8088 \global\booltrue{LWR@validtablecol}%
                                                                                  8089 }
```

```
\LWR@multicolskip Nothing to print for this column type.
                     8090 \newcommand*{\LWR@multicolskip}{%
                      A valid column data type was found:
                     8091 \global\booltrue{LWR@validtablecol}%
                     8092 }
\LWR@printmccoldata \{\langle colspec \rangle\} Print the data for any valid column type found.
                     8093 \newcommand*{\LWR@printmccoldata}[1]{%
                     8094 \LWR@traceinfo{lwr@printmccoldata -#1}%
                      Not yet found a valid column type:
                     8095 \global\boolfalse{LWR@validtablecol}%
                      Get one token of the column spec:
                     8096 \StrChar{#1}{\arabic{LWR@tablemulticolspos}}[\LWR@strresult]%
                      Print the text depending on which column type is found. Also handles @, >, < as it
                      comes to them.
                     8097 \ \texttt{LWR@strresult}{l}{\text{LWR@multicoltext}}{}\%
                     8098 \IfStrEq{\LWR@strresult}{c}{\LWR@multicoltext}{}%
                     8099 \IfStrEq{\LWR@strresult}{r}{\LWR@multicoltext}{}%
                     8100 \IfStrEq{\LWR@strresult}{D}{%
                     8101 \addtocounter{LWR@tablemulticolspos}{3}% skip parameters
                     8102 \LWR@multicoltext%
                     8103 }{}%
                     8104 \IfStrEq{\LWR@strresult}{p}{\LWR@multicolpartext{0}}{}%
                     8105 \ \texttt{LWR@strresult} \\ \{m\} \\ \{\texttt{LWR@multicolpartext} \\ \{0\}\} \\ \{\} \\ \%
                     8106 \IfStrEq{\LWR@strresult}{b}{\LWR@multicolpartext{0}}{}%
                     8107 \IfStrEq{\LWR@strresult}{P}{\LWR@multicolpartext{0}}{}%
                     8108 \IfStrEq{\LWR@strresult}{M}{\LWR@multicolpartext{0}}{}%
                     8109 \IfStrEq{\LWR@strresult}{B}{\LWR@multicolpartext{0}}{}%
                     8110 \IfStrEq{\LWR@strresult}{w}{\LWR@multicolpartext{3}}{}%
                     8111 \IfStrEq{\LWR@strresult}{W}{\LWR@multicolpartext{3}}{}%
                     8112 \IfStrEq{\LWR@strresult}{S}{\LWR@multicoltext}{}%
                     8113 \IfStrEq{\LWR@strresult}{s}{\LWR@multicoltext}{}%
                     8114 \IfStrEq{\LWR@strresult}{X}{\LWR@multicolpartext{0}}{}%
                     8115 \IfStrEq{\LWR@strresult}{|}{\LWR@multicolskip}{}%
                     8116 \IfStrEq{\LWR@strresult}{:}{\LWR@multicolskip}{}%
                     8117 \IfStrEq{\LWR@strresult}{;}{%
```

\LWR@multicolskip%

```
8119
                                \addtocounter{LWR@tablemulticolspos}{1}% skip parameter
                         8120 }{}%
                         8121 \IfStrEq{\LWR@strresult}{\detokenize{@}}{\LWR@multicolother{#1}}{}%
                         8122 \IfStrEq{\LWR@strresult}{\detokenize{!}}{\LWR@multicolother{#1}}{}%
                         If an invalid column type:
                         8125 \ifbool{LWR@validtablecol}{}{\LWR@multicoltext}%
                          Tracing:
                         8126 \LWR@traceinfo{lwr@printmccoldata done}%
                         8127 }
\parsemulticolumnalignment \{\langle 1: colspec \rangle\} \{\langle 2: printresults \rangle\}
                          Scan the multicolumn specification and execute the printfunction for each entry.
                          Note that the spec for a p{spec} column, or @, >, <, is a token list which will NOT
                          match l, c, r, or p.
                         8128 \newcommand*{\LWR@parsemulticolumnalignment}[2]{%
                         8129 \setcounter{LWR@tablemulticolspos}{1}%
                         8130 \StrLen{#1}[\LWR@strresult]%
                         8131 \setcounter{LWR@tablemulticolswidth}{\LWR@strresult}%
                          Scan across the tokens in the column spec:
                         8132 \whileboolexpr{%
                                not test {%
                         8133
                                    \ifnumcomp{\value{LWR@tablemulticolspos}}{>}%
                         8134
                                        {\value{LWR@tablemulticolswidth}}%
                         8135
                                }%
                         8136
                         8137 }%
                         8138 {%
                          Execute the assigned print function for each token in the column spec:
                         8139 #2{#1}%
                          Move to the next token in the column spec:
                         8140 \addtocounter{LWR@tablemulticolspos}{1}%
                         8141 }%
                         8142 }
```

72.23.2 Multicolumn factored code

8143 \newcommand*{\LWR@addmulticolvertrulecolor}{%

No vertical rules if finishing the tabular with a row of empty cells:

```
8144 \ifbool{LWR@tabularmutemods}{}{%
```

Left side:

```
8145
           \LWR@tdaddstyle%
8146
8147
           border-left: 1px solid \LWR@vertruleHTMLcolor%
8148
       }{}%
       \ifnumcomp{\value{LWR@mcolvertbarsl}}{>}{1}{{%
8149
           \LWR@tdaddstyle%
8150
           border-left: 4px double \LWR@vertruleHTMLcolor%
8151
8152
       }{}%
       \ifnumcomp{\value{LWR@mcolvertbarsldash}}{=}{1}{%
8153
           \LWR@tdaddstyle%
8154
           border-left: 1px dashed \LWR@vertruleHTMLcolor%
8155
       }{}%
8156
       \ifnumcomp{\value{LWR@mcolvertbarsldash}}{>}{1}{%
8157
           \LWR@tdaddstyle%
8158
           border-left: 2px dashed \LWR@vertruleHTMLcolor%
8159
8160
       }{}%
```

Right side:

```
8161
        \ifnumcomp{\value{LWR@mcolvertbarsr}}{=}{1}{%
8162
            \LWR@tdaddstyle%
8163
            border-right: 1px solid \LWR@vertruleHTMLcolor%
8164
       }{}%
        \ifnumcomp{\value{LWR@mcolvertbarsr}}{>}{1}{%
8165
            \LWR@tdaddstyle%
8166
            border-right: 4px double \LWR@vertruleHTMLcolor%
8167
8168
8169
        \ifnumcomp{\value{LWR@mcolvertbarsrdash}}{=}{1}{%
8170
            \LWR@tdaddstyle%
            border-right: 1px dashed \LWR@vertruleHTMLcolor%
8171
8172
        \ifnumcomp{\value{LWR@mcolvertbarsrdash}}{>}{1}{%
8173
            \LWR@tdaddstyle%
8174
            border-right: 2px dashed \LWR@vertruleHTMLcolor%
8175
8176
        }{}%
8177 }%
8178 }
```

8179 \newcommand{\LWR@multicoltext}{}

To find multicolumn right trim:

```
8180 \newcounter{LWR@lastmulticolumn}
```

```
\label{eq:localization} $$ LWR@domulticolumn [(1: vpos)] [(2: #rows)] {(3: numLaTeXcols)} {(4: numHTMLcols)} {(5: colspec)} $$
                    \{\langle 6: text \rangle\}
                    8181 \NewDocumentCommand{\LWR@domulticolumn}{o o m m m +m}{%
                    8182 \LWR@traceinfo{LWR@domulticolumn -#1- -#2- -#4- -#5-}%
                     Remember the text to be inserted, and remember that a valid column type was
                     found:
                    8183 \renewcommand{\LWR@multicoltext}{%
                    8185 \global\booltrue{LWR@validtablecol}%
                    8186 }%
                     Compute the rightmost column to be included. This is used to create the right trim.
                    8187 \setcounter{LWR@lastmulticolumn}{\value{LWR@tableLaTeXcolindex}}%
                    8188 \addtocounter{LWR@lastmulticolumn}{#3}%
                    8189 \addtocounter{LWR@lastmulticolumn}{-1}%
                     Row processing:
                    8190 \LWR@maybenewtablerow%
                     Begin the opening table data tag:
                   8191 \LWR@htmltag{td colspan="#4" %
                   8192 \IfValueT{#2}{ % rows?
                   8193 rowspan="#2" %
                   8194 \IfValueT{#1}{% vpos?
                    8195 \ifstrequal{#1}{b}{style="\LWR@print@mbox{vertical-align:bottom}" }{}%
                    8196 \ifstrequal{#1}{t}{style="\LWR@print@mbox{vertical-align:top}" }{}%
                   8197 }% vpos?
                   8198 }% rows?
                    8199 class="td%
                     Print the column type and vertical bars:
                    8200 \setcounter{LWR@mcolvertbarsl}{0}%
                    8201 \setcounter{LWR@mcolvertbarsr}{0}%
                    8202 \setcounter{LWR@mcolvertbarsldash}{0}%
                    8203 \setcounter{LWR@mcolvertbarsrdash}{0}%
                    8204 \booltrue{LWR@mcolvertbaronleft}%
                    8205 \LWR@parsemulticolumnalignment{#5}{\LWR@printmccoltype}%
                     If this column has a cmidrule, add "rule" to the end of the HTML class tag.
```

If this position had a "Y" then add "rule" for a horizontal rule:

```
8206 \LWR@subaddcmidruletrim%
                    8207 {\LWR@getexparray{LWR@trimlrules}{\arabic{LWR@tableLaTeXcolindex}}}%
                    8208 {\LWR@getexparray{LWR@trimrrules}{\arabic{LWR@lastmulticolumn}}}%
                     Also add vertical bar class.
                    8210 \ifnumcomp{\value{LWR@mcolvertbarsl}}{>}{1}{ tvertbarldouble}{}%
                    8211 \ifnumcomp{\value{LWR@mcolvertbarsr}}{=}{1}{ tvertbarr}{}%
                    8212 \ifnumcomp{\value{LWR@mcolvertbarsr}}{>}{1}{ tvertbarrdouble}{}%
                    8214 \ifnumcomp{\value{LWR@mcolvertbarsldash}}{>}{ tvertbarldoubledash}{}%
                    8215 \ifnumcomp{\value{LWR@mcolvertbarsrdash}}{=}{1}{ tvertbarrdash}{}%
                    8216 \ifnumcomp{\value{LWR@mcolvertbarsrdash}}{>}{1}{ tvertbarrdoubledash}{}%
                     Close the class tag's opening quote: " NOT A TYPO
                    8217 %
                    8218 \LWR@tdstartstyles%
                    8219 \LWR@addtabularrowcolor%
                    8220 \LWR@addcmidrulewidth%
                    8221 \LWR@addcdashline%
                    8222 \LWR@addtabularhrulecolor%
                    8223 \LWR@addmulticolvertrulecolor%
                    8224 \LWR@addformatwpalignment{#5}%
                    8225 \LWR@tdendstyles%
                    8226}% end of the opening table data tag
                    8227 \global\boolfalse{LWR@intabularmetadata}%
                    8228 \LWR@parsemulticolumnalignment{#5}{\LWR@printmccoldata}%
                    8229 }
                     72.23.3 Multicolumn
\LWR@htmlmulticolumn \{\langle numcols \rangle\} \{\langle alignment \rangle\} \{\langle text \rangle\}
                    8230 \NewDocumentCommand{\LWR@htmlmulticolumn}{m m +m}%
                    8231 {%
                     Figure out how many extra HTML columns to add for @ and ! columns:
                    8232 \LWR@tabularhtmlcolumns{\arabic{LWR@tableLaTeXcolindex}}{#1}
                     Create the multicolumn tag:
                    8233 \LWR@domulticolumn{#1}{\arabic{LWR@tabhtmlcoltotal}}{#2}{#3}%
                     Move to the next LATEX column:
```

```
8234 \addtocounter{LWR@tableLaTeXcolindex}{#1}%
                              8235 \addtocounter{LWR@tableLaTeXcolindex}{-1}%
                               Skip any trailing @ or ! columns for this cell:
                              8236 \global\booltrue{LWR@skipatbang}%
                              8237 }
                               72.23.4 Longtable captions
                               longtable captions use \multicolumn.
                              Per the caption pacakge, step the counter if longtable*.
       LWR@starredlongtable
                              8238 \newbool{LWR@starredlongtable}
                              8239 \boolfalse{LWR@starredlongtable}
                               Per the caption package. User-redefinable float type.
                              8240 \providecommand*{\LTcaptype}{table}
\LWR@longtabledatacaptiontag * [\langle toc\ entry \rangle] \{\langle caption \rangle\}
                              8241 \NewDocumentCommand{\LWR@longtabledatacaptiontag}{s o +m}
                              8242 {%
                               Remember the latest name for \nameref:
                              8243 \IfValueTF{#2}{% optional given?
                                      \ifblank{#2}% optional empty?
                              8244
                                      {\LWR@setlatestname{#3}}% empty
                              8245
                                      {\LWR@setlatestname{#2}}% given and non-empty
                              8246
                              8247 }% optional given
                              8248 {\LWR@setlatestname{#3}}% no optional
                               Create a multicolumn across all the columns:
                               Figure out how many extra HTML columns to add for @ and ! columns found between
                               the first and the last column:
                              8249 \LWR@tabularhtmlcolumns{1}{\arabic{LWR@tabletotalLaTeXcols}}
                               Create the multicolumn tag:
                              8250 \LWR@domulticolumn{\arabic{LWR@tabletotalLaTeXcols}}%
                                      {\arabic{LWR@tabhtmlcoltotal}}%
                              8251
                              8252
                                      {P}%
                              8253 {% \LWR@domulticolumn
```

8254 \IfBooleanTF{#1}% star?

Bool

Star version, show a caption but do not make a LOT entry:

Not the star version:

Don't step the counter if \caption[]{A caption.}

```
8261
        \ifbool{LWR@starredlongtable}%
8262
            \ifblank{#2}% TOC entry
8263
            {}%
8264
8265
            {%
                 \refstepcounter{\LTcaptype}%
8266
                 \protected@edef\@currentlabel{%
8267
                     \@nameuse{p@\LTcaptype}\@nameuse{the\LTcaptype}%
8268
                 }%
8269
            }%
8270
8271
        }{}%
```

Create an HTML caption. Afterwards, maybe make a LOT entry.

```
8272 \LWR@figcaption%
8273 \LWR@isolate{\@nameuse{fnum@\LTcaptype}}%
8274 \CaptionSeparator%
8275 \LWR@isolate{#3}%
8276 \endLWR@figcaption%
```

See if an optional caption was given:

```
8277 \ifblank{#2}% TOC entry empty
```

if the optional caption was given, but empty, do not form a TOC entry

```
8278 {}%
```

If the optional caption was given, but might only be []:

```
8279 {% TOC entry not empty
8280 \IfNoValueTF{#2}% No TOC entry?
```

The optional caption is []:

```
8281 {% No TOC entry
8282 \addcontentsline%
8283 {\@nameuse{ext@\LTcaptype}}%
8284 {\LTcaptype}%
8285 {%
8286 \protect\numberline%
```

The optional caption has text enclosed:

```
{% yes TOC entry
8291
8292
                \addcontentsline%
                {\@nameuse{ext@\LTcaptype}}%
8293
8294
                {\LTcaptype}%
8295
                {%
8296
                     \protect\numberline%
8297
                  {\LWR@isolate{\@nameuse{p@\LTcaptype}}\@nameuse{the\LTcaptype}}%
                     {\ignorespaces \LWR@isolate{#2}\protect\relax}%
8298
                }%
8299
            }% end of yes TOC entry
8300
        }% end of TOC entry not empty
8301
8302 }% end of no star
```

Skip any trailing @ or ! columns for this cell:

```
8303 \global\booltrue{LWR@skipatbang}%
8304 }% end of \LWR@domulticolumn
8305
8306 \addtocounter{LWR@tableLaTeXcolindex}{\arabic{LWR@tabletotalLaTeXcols}}
8307 \addtocounter{LWR@tableLaTeXcolindex}{-1}
8308
8309 }
```

72.23.5 Counting HTML tabular columns

The LaTeX specification for a table includes a number of columns separated by the & character. These columns differ in content from line to line. Additional virtual columns may be specified by the special @ and ! columns. These columns are identical from line to line, but may be skipped during a multicolumn cell.

For HTML output, @ and ! columns are placed into their own tabular columns. Thus, a LATEX \multicolumn command may span several additional @ and ! columns in HTML output. These additional columns must be added to the total number of columns spanned by an HTML multi-column data cell.

```
8310 \newcounter{LWR@tabhtmlcolindex}
8311 \newcounter{LWR@tabhtmlcolend}
8312 \newcounter{LWR@tabhtmlcoltotal}
```

\LWR@subtabularhtmlcolumns $\{\langle index \rangle\}$

Factored from \LWr@tabularhtmlcolumns, which follows.

```
8313 \newcommand*{\LWR@subtabularhtmlcolumns}[1]{%
```

Temporarily define a macro equal to the @ specification for this column:

```
8314 \edef\LWR@atbangspec{\LWR@getexparray{LWR@colatspec}{#1}}%
```

If the @ specification is not empty, add to the count:

```
8315 \ifdefempty{\LWR@atbangspec}%
8316 {}%
8317 {\addtocounter{LWR@tabhtmlcoltotal}{1}}%
```

Likewise for the! columns:

\LWR@tabularhtmlcolumns

```
\{\langle starting \ ETEX \ column \rangle\} \{\langle number \ ETEX \ columns \rangle\}
```

Compute the total number of HTML columns being spanned, considering the starting LATEX table column and the number of LATEX tabular columns being spanned. Any @ and ! columns within this span are included in the total count. The resulting number of HTML columns is returned in the counter LWR@tabhtmlcoltotal.

```
8323 \newcommand*{\LWR@tabularhtmlcolumns}[2]{%
```

Count the starting index, compute ending index, and begin with the count being the LATEX span, to which additional @ and ! columns may be added:

```
8324 \setcounter{LWR@tabhtmlcolindex}{#1}%
8325 \setcounter{LWR@tabhtmlcoltotal}{#2}%
8326 \setcounter{LWR@tabhtmlcolend}{#1}%
8327 \addtocounter{LWR@tabhtmlcolend}{#2}%
```

If at the left edge, add the at/bang columns for the left edge:

```
8328 \ifnumcomp{\value{LWR@tabhtmlcolindex}}{=}{1}{%
8329    \LWR@subtabularhtmlcolumns{leftedge}%
8330 }{}%
```

Walk across the LATEX columns looking for @ and ! columns:

```
8331 \whileboolexpr{%
8332    test {%
8333       \ifnumcomp{\value{LWR@tabhtmlcolindex}}{<\value{LWR@tabhtmlcolend}}%
8334    }%
8335 }%
8336 {%
8337    \LWR@subtabularhtmlcolumns{\arabic{LWR@tabhtmlcolindex}}%
8338    \addtocounter{LWR@tabhtmlcolindex}{1}%
8339 }% whiledo
8340 }</pre>
```

```
8341 \end{warpHTML}
```

72.24 Multirow if not loaded

A default defintion in case multirow is not loaded. This is used during table parsing.

```
8342 \begin{warpHTML}
8343 \newcommand{\multirow}[2][c]{}
8344 \end{warpHTML}
```

72.25 Multicolumnrow

A print-mode version is defined here, and is also used during HTML output while inside a lateximage.

See section 334 for the HTML versions.

```
for HTML & PRINT: 8345 \begin{warpall}
```

```
 \begin{tabular}{ll} $$ \mathbf{(1:cols)} {\langle 2:halign\rangle} [\langle 3:vpos\rangle] {\langle 4:numrows\rangle} [\langle 5:bigstruts\rangle] {\langle 6:width\rangle} [\langle 7:fixup\rangle] {\langle 8:text\rangle} \\ \end{tabular}
```

For discussion of the use of \DeclareExpandableDocumentCommand, see: https://tex.stackexchange.com/questions/168434/problem-with-abbreviation-of-multirow-and-multicolumn-latex

\AtBeginDocument to adjust after the user may have loaded multirow, which requires several tests to determine which version is loaded and thus which options are available.

```
8346 \AtBeginDocument{
```

\@ifundefined{@xmultirow} determines if multirow was never loaded.

Null action if not loaded:

```
8347 \@ifundefined{@xmultirow}
8348 {
8349 \DeclareExpandableDocumentCommand{\LWR@print@multicolumnrow}%
8350 {+m +m +0{c} +m +0{0} +m +0{0pt} +m}%
8351 {}%
8352 }% no version of multirow was loaded
8353 {% \@xmultirow defined, so some version of multirow was loaded
```

\@ifpackageloaded{multirow} determines if v2.0 or later of multirow was used, which included the \ProvidesPackage macro.

The print version:

If not $\ensuremath{\texttt{Qxmultirow}}$ but $\ensuremath{\texttt{Qxmultirow}}$ is defined, then this must be v1.6 or earlier, which did not $\ensuremath{\texttt{ProvidesPackage}}$ multirow}, and did not have the vposn option.

72.26 Utility macros inside a table

for HTML output: 8379 \begin{warpHTML}

Used to prevent opening a tabular data cell if the following token is one which does not create tabular data:

```
8380 \newcommand*{\LWR@donothing}{}
```

In case array is not loaded:

```
8381 \let\firsthline\relax
8382 \let\lasthline\relax
8383 \newcommand*{\firsthline}{}
8384 \newcommand*{\lasthline}{}
```

In case bigdelim is not loaded:

```
8385 \newcommand*{\ldelim}{}
8386 \newcommand*{\rdelim}{}
```

8387 \end{warpHTML}

Special-case tabular markers

```
for HTML & PRINT: 8388 \begin{warpall}
```

\TabularMacro Place this just before inserting a custom macro in a table data cell. Doing so tells lwarp not to automatcally start a new HTML table data cell yet. See section 8.10.1.

```
8389 \newcommand*{\TabularMacro}{}
8390 \end{warpall}
```

\ResumeTabular Used to resume tabular entries after resuming an environment.

environment

tabular inside another When creating a new environment which contains a tabular environment, lwarp's emulation of the tabular does not automatically resume when the containing enviroment ends, resulting in corrupted HTML rows. To fix this, use \ResumeTabular as follows. This is ignored in print mode.

```
\StartDefiningTabulars % because & is used in a definition
\newenvironment{outerenvironment}
\tabular{cc}
left & right \\
}
\TabularMacro\ResumeTabular
left & right \\
\endtabular
\StopDefiningTabulars
```

```
for HTML output: 8391 \begin{warpHTML}
                8392 \newcommand*{\ResumeTabular}{%
                8393 \global\boolfalse{LWR@exitingtabular}%
                8394 \global\boolfalse{LWR@tabularmutemods}%
                8395 \LWR@getmynexttoken%
                8396 }
                8397 \end{warpHTML}
for PRINT output: 8398 \begin{warpprint}
                8399 \newcommand*{\ResumeTabular}{}
                8400 \end{warpprint}
```

72.28 Checking for a new table cell

```
for HTML output: 8401 \begin{warpHTML}
    LWR@exitingtabular When \end is found, turns off the next opening data tag.
Bool
                         8402 \newbool{LWR@exitingtabular}
    LWR@tabularmutemods
                          Mutes HTML output for 0, !, < and >.
                          This is used while printing the final row to generate \bottomrules.
                         8403 \newbool{LWR@tabularmutemods}
                          Open a new HTML table cell unless the next token is for a macro which does not
\LWR@tabledatacolumntag
                          create data, such as \hline, \toprule, etc:
                         8404 \newcommand*{\LWR@tabledatacolumntag}%
                         8406 \LWR@traceinfo{LWR@tabledatacolumntag}%
                                    \show\LWR@mynexttoken to see what tokens to look for
                          If not any of the below, start a new table cell:
                         8407 \global\let\LWR@mynextaction\LWR@tabledatasinglecolumntag%
                          If exiting the tabular:
                         8408 \ifdefequal{\LWR@mynexttoken}{\end}%
                                 {\global\booltrue{LWR@exitingtabular}}{}%
                          longtable can have a caption in a cell
                         8410 \ifdefequal{\LWR@mynexttoken}{\caption}%
                                 {\global\let\LWR@mynextaction\LWR@donothing}{}%
                          Look for other things which would not start a table cell:
                         8412 \ifdefequal{\LWR@mynexttoken}{\multicolumn}%
                                 {\cline{Constraint} \{\cline{Constraint} \cline{Constraint} \} \%}
                         8414 \ifdefequal{\LWR@mynexttoken}{\multirow}%
                                 {\global\let\LWR@mynextaction\LWR@donothing}{}%
                         8416 \ifdefequal{\LWR@mynexttoken}{\multicolumnrow}%
                                 {\global\let\LWR@mynextaction\LWR@donothing}{}%
                         8418 \ifdefequal{\LWR@mynexttoken}{\noalign}%
                                 {\global\let\LWR@mynextaction\LWR@donothing}{}%
                          If an \mrowcell, this is a cell to be skipped over:
                         8420 \ifdefequal{\LWR@mynexttoken}{\mrowcell}%
                                 {\global\let\LWR@mynextaction\LWR@donothing}{}%
```

If an \mcolrowcell, this is a cell to be skipped over:

```
8422 \ifdefequal{\LWR@mynexttoken}{\mcolrowcell}%
                                                      {\c {\tt \c lobal\let\LWR@mynextaction\LWR@donothing}}{\c {\tt \c lobal\let\LWR@mynextaction\LWR@mynextaction\LWR@donothing}}{\c {\tt \c lobal\let\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@
 8424 \ifdefequal{\LWR@mynexttoken}{\TabularMacro}%
                                                      {\global\let\LWR@mynextaction\LWR@donothing}{}%
8426 \ifdefequal{\LWR@mynexttoken}{\hline}%
                                                      {\global\let\LWR@mynextaction\LWR@donothing}{}%
8428 \ \texttt{\LWR@mynexttoken} \{\texttt{\LWR@mynexttoken} \} \\
                                                       {\global\let\LWR@mynextaction\LWR@donothing}{}%
 8430 \ifdefequal{\LWR@mynexttoken}{\lasthline}%
                                                      {\cline{Constraint} \{\cline{Constraint} \cline{Constraint} \} \cline{Constraint} \} \cline{Constraint} \clin
8432 \ifdefequal{\LWR@mynexttoken}{\toprule}%
                                                      8434 \ifdefequal{\LWR@mynexttoken}{\midrule}%
                                                      {\global\let\LWR@mynextaction\LWR@donothing}{}%
 8436 \ifdefequal{\LWR@mynexttoken}{\cmidrule}%
                                                      {\cline{Constraint} \{\cline{Constraint} \cline{Constraint} \} \cline{Constraint} \} \cline{Constraint} \clin
8437
 8438 \ifdefequal{\LWR@mynexttoken}{\morecmidrules}%
                                                       {\global\let\LWR@mynextaction\LWR@donothing}{}%
8440 \ifdefequal{\LWR@mynexttoken}{\specialrule}%
                                                       {\global\let\LWR@mynextaction\LWR@donothing}{}%
8442 \ifdefequal{\LWR@mynexttoken}{\cline}%
                                                      {\c {\tt \c lobal\let\LWR@mynextaction\LWR@donothing}}{\c {\tt \c lobal\let\LWR@mynextaction\LWR@mynextaction\LWR@donothing}}{\c {\tt \c lobal\let\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@mynextaction\LWR@
 8444 \ifdefequal{\LWR@mynexttoken}{\bottomrule}%
                                                       {\global\let\LWR@mynextaction\LWR@donothing}{}%
8446 \ifdefequal{\LWR@mynexttoken}{\rowcolor}%
                                                       {\global\let\LWR@mynextaction\LWR@donothing}{}%
8448 \ifdefequal{\LWR@mynexttoken}{\arrayrulecolor}%
                                                      {\global\let\LWR@mynextaction\LWR@donothing}{}%
8450 \ifdefequal{\LWR@mynexttoken}{\doublerulesepcolor}%
                                                       {\cline{Constraint} \{\cline{Constraint} \cline{Constraint} \} \cline{Constraint} \} \cline{Constraint} \clin
{\global\let\LWR@mynextaction\LWR@donothing}{}%
 8454 \ifdefequal{\LWR@mynexttoken}{\warpHTMLonly}%
                                                      {\global\let\LWR@mynextaction\LWR@donothing}{}%
```

```
8456 \ifdefequal{\LWR@mynexttoken}{\ldelim}%
                                                                {\global\let\LWR@mynextaction\LWR@donothing}{}%
                                             8458 \ifdefequal{\LWR@mynexttoken}{\rdelim}%
                                                                 {\global\let\LWR@mynextaction\LWR@donothing}{}%
                                             8459
                                               For arydshln:
                                             8460 \ifdefequal{\LWR@mynexttoken}{\hdashline}%
                                                                 {\global\let\LWR@mynextaction\LWR@donothing}{}%
                                             8462 \ifdefequal{\LWR@mynexttoken}{\cdashline}%
                                             8463
                                                                {\global\let\LWR@mynextaction\LWR@donothing}{}%
                                            8464 \ifdefegual{\LWR@mynexttoken}{\firsthdashline}%
                                                                {\cline{Constraint} \{\cline{Constraint} \cline{Constraint} \} \cline{Constraint} \} \cline{Constraint} \clin
                                             8466 \ \texttt{\LWR@mynexttoken}{\lasthdashline}\%
                                                                 {\global\let\LWR@mynextaction\LWR@donothing}{}%
                                               Ignore an empty line between rows:
                                             8468 \ifdefequal{\LWR@mynexttoken}{\par}%
                                                                {\global\let\LWR@mynextaction\LWR@donothing}{}%
                                               No action for an \end token.
                                               Add similar to the above for any other non-data tokens which might appear in the
                                               table.
                                               Start the new table cell if was not any of the above:
                                             8470 \LWR@traceinfo{LWR@tabledatacolumntag: about to do mynext}%
                                             8471 \LWR@mynextaction%
                                             8472 \LWR@traceinfo{LWR@tabledatacolumntag: done}%
                                            8473 }
                                             8474 \end{warpHTML}
                                                72.29
                                                                       \mrowcell
for HTML & PRINT: 8475 \begin{warpall}
                   \mrowcell The user must insert \mrowcell into any \multirow cells which must be skipped.
      multirow cells This command has no action during print output.
```

8476 \newcommand*{\mrowcell}{}

8477 \end{warpall}

\mcolrowcell 72.30

```
for HTML & PRINT: 8478 \begin{warpall}
```

\mcolrowcell The user must insert \mcolrowcell into any \multicolumnrow cells which must be multirow cells skipped. This command has no action during print output.

```
8479 \newcommand*{\mcolrowcell}{}
8480 \end{warpall}
```

72.31 HTML tabular environment

for HTML output: 8481 \begin{warpHTML}

These are default defininitions in case booktabs is not loaded, and are not expected to used, but must exist as placeholders. They are pre-deleted in case memoir has already loaded booktabs.

```
8482 \LetLtxMacro\toprule\relax
                                8483 \LetLtxMacro\midrule\relax
                                8484 \LetLtxMacro\cmidrule\cline
                                8485 \LetLtxMacro\bottomrule\relax
                                8486 \LetLtxMacro\addlinespace\relax
                                8487 \LetLtxMacro\morecmidrules\relax
                                8488 \LetLtxMacro\specialrule\relax
                                8490 \newcommand*{\toprule}[1][]{\hline}
                                8491 \newcommand*{\midrule}[1][]{\hline}
                                8492 \LetLtxMacro\cmidrule\cline
                                8493 \newcommand*{\bottomrule}[1][]{\hline}
                                8494 \newcommand*{\addlinespace}[1][]{}
                                8495 \newcommand*{\morecmidrules}{}
                                8496 \newcommand*{\specialrule}[3]{\hline}
\noalign \{\langle text \rangle\} Redefined for use inside tabular.
                                8497 \LetLtxMacro\LWR@orignoalign\noalign
                                8499 \newcommand{\LWR@tabularnoalign}[1]{%
                                8500 \begingroup%
                                8501 \global\advance\rownum\m@ne%
                                8502 \ensuremath{\mbox{\lower}} \hborder{\mbox{\lower}} \hbegin{picture}(100,0) \put(0,0){\mbox{\lower}} \put(0,0){\
                                8503 \multicolumn{\value{LWR@tabletotalLaTeXcols}}{l}{#1} \\
                                8504 \endgroup%
                                8505 % \@rowc@lors%
                                8506 \LWR@getmynexttoken%
                                8507 }
```

\LWR@HTMLhline The definition of \hline depends on whether tabls has been loaded. If so, optional space below the line may be specified, but will be ignored.

```
8508 \AtBeginDocument{
                8509 \@ifpackageloaded{lwarp-tabls}
                8511 \newcommand*{\LWR@HTMLhline}[1][]{%
                8512
                        \ifbool{FormatWP}%
                        {\LWR@docmidrule{1-\arabic{LWR@tabletotalLaTeXcols}}}%
                8513
                        {\addtocounter{LWR@hlines}{1}}%
                8514
                8515
                        \LWR@getmynexttoken}%
                8516 }
                8517 {
                8518 \newcommand*{\LWR@HTMLhline}{%
                8519
                        \ifbool{FormatWP}%
                        {\tt \{\LWR@docmidrule\{1-\arabic\{LWR@tabletotalLaTeXcols\}\}\}\%}
                8520
                        {\addtocounter{LWR@hlines}{1}}%
                8521
                8522
                        \LWR@getmynexttoken}%
                8523 }
                8524 }% AtBeginDocument
\LWR@HTMLcline \{\langle columns \rangle\}
                8525 \NewDocumentCommand{\LWR@HTMLcline}{m}%
                8526 {\LWR@docmidrule{#1}\LWR@getmynexttoken}%
```

\LWR@tabular@warpprintonly $\{\langle contents \rangle\}$

Only process the contents if producing printed output. Modified inside a tabular to grab the next token.

```
8527 \newcommand{\LWR@tabular@warpprintonly}[1]{%
8528 \ifbool{warpingprint}{#1}{}%
8529 \LWR@getmynexttoken%
8530 }
```

\LWR@nullifyNoAutoSpacing

For babel-french, turn off auto spacing at the start of the tabular, then nullify the autospacing commands inside the tabular, since they were not compatible with the tabular column parsing code, which uses xstring.

```
8531 \AtBeginDocument{
8532 \@ifundefined{frenchbsetup}%
8533 {% no babel-french
        \newcommand*{\LWR@nullifyNoAutoSpacing}{}
8534
8535 }% no babel-french
8536 {% yes babel-french
        \newcommand*{\LWR@nullifyNoAutoSpacing}{%
8537
8538
            \NoAutoSpacing%
            \renewcommand*{\NoAutoSpacing}{}%
8539
            \renewcommand*{\LWR@FBcancel}{}%
8540
        }
8541
8542 }% yes babel-french
8543 }% AtBeginDocument
```

```
tabular \langle direction \rangle [\langle vertposition \rangle] \{\langle colspecs \rangle\}
         The <direction> is from plext for Japanese documents, and is ignored.
        8544 \StartDefiningTabulars
        8545
        8546 \NewDocumentCommand{\LWR@HTML@@tabular}{d<> o m}
        8547 {%
        8548 \LWR@traceinfo{LWR@HTML@@tabular started}%
        8549 \addtocounter{LWR@tabulardepth}{1}%
         Not yet started a table row:
        8550 \global\boolfalse{LWR@startedrow}%
         Not yet doing any rules:
        8551 \setcounter{LWR@hlines}{0}%
        8552 \setcounter{LWR@hdashedlines}{0}%
        8553 \global\boolfalse{LWR@doingtbrule}%
        8554 \global\boolfalse{LWR@doingcmidrule}%
         For babel-french, turn off auto spacing one time, then nullify the autospacing com-
         mands since were not compatible with the tabular parsing code.
        8555 \LWR@nullifyNoAutoSpacing%
         Have not yet found the end of tabular command. Unmute the @ and ! columns.
        8556 \global\boolfalse{LWR@exitingtabular}%
        8557 \global\boolfalse{LWR@tabularmutemods}%
         Error if failed to use \mrowcell or \mcolrowcell when needed.
        8558 \boolfalse{LWR@usedmultirow}
        8559 \boolfalse{LWR@foundmrowcell}
         Create the table tag:
        8560 \global\booltrue{LWR@intabularmetadata}%
        8561 \LWR@traceinfo{LWR@@tabular: About to LWR@forecenewpage.}%
        8562 \LWR@forcenewpage
        8563 \LWR@htmlblocktag{table}%
         Parse the table columns:
        8564 \LWR@parsetablecols{#3}%
         Table col spec is: \LWR@tablecolspec which is a string of llccrr, etc.
         Do not place the table inside a paragraph:
```

8565 \LWR@stoppars%

```
Track column #:
8566 \setcounter{LWR@tableLaTeXcolindex}{1}%
 Have not yet added data in this column:
8567 \global\boolfalse{LWR@tabularcelladded}%
 Start looking for midrules:
8568 \LWR@clearmidrules%
 \\ becomes a macro to end the table row:
8569 \LetLtxMacro{\\}{\LWR@tabularendofline}%
 \warpprintonly inside a tabular must grab the next token.
8570 \LetLtxMacro\warpprintonly\LWR@tabular@warpprintonly%
 The following adjust for colortbl.
8571 \LetLtxMacro\arrayrulecolor\arrayrulecolornexttoken%
8572 \LetLtxMacro\doublerulesepcolor\doublerulesepcolornexttoken%
8573 \gdef\LWR@columnHTMLcolor{}%
8574 \gdef\LWR@rowHTMLcolor{}%
8575 \gdef\LWR@cellHTMLcolor{}%
8576 \@rowcolors%
 The vertical rules are set to the color active at the start of the tabular. \arrayrulecolor
 will then affect horizontal rules inside the tabular, but not the vertical rules.
8577 \ifdefvoid{\LWR@ruleHTMLcolor}%
       {\edef\LWR@vertruleHTMLcolor{black}}%
8579
       {\edef\LWR@vertruleHTMLcolor{\LWR@origpound\LWR@ruleHTMLcolor}}%
 Tracking the depth of cell color <div>s:
8580 \setcounter{LWR@cellcolordepth}{0}%
 The following may appear before a data cell is created, so after doing their actions,
 we look ahead with \LWR@getmynextoken to see if the next token might create a new
 data cell:
 The optional parameter for \hline supports the table package.
8581 \LWR@traceinfo{LWR@@HTML@tabular: redefining macros}%
8582 \LetLtxMacro\noalign\LWR@tabularnoalign%
8583 \LetLtxMacro\hline\LWR@HTMLhline%
8584 \LetLtxMacro\cline\LWR@HTMLcline%
8585 \DeclareDocumentCommand{\hdashline}{o}{%
```

\ifbool{FormatWP}%

```
8587
            {\LWR@docdashline{1-\arabic{LWR@tabletotalLaTeXcols}}}%
8588
            {\addtocounter{LWR@hdashedlines}{1}}%
        \LWR@getmynexttoken%
8589
8590 }%
8591 \DeclareDocumentCommand{\cdashline}{m}{%
        \LWR@docdashline{##1}\LWR@getmynexttoken%
8593 }%
8594 \DeclareDocumentCommand{\firsthdashline}{o}{%
8595
       \ifbool{FormatWP}%
8596
            {\LWR@docdashline{1-\arabic{LWR@tabletotalLaTeXcols}}}%
            {\addtocounter{LWR@hdashedlines}{1}}%
8598
        \LWR@getmynexttoken%
8599 }%
8600 \DeclareDocumentCommand{\lasthdashline}{o}{%
       \ifbool{FormatWP}%
            {\LWR@docdashline{1-\arabic{LWR@tabletotalLaTeXcols}}}%
8602
8603
            {\addtocounter{LWR@hdashedlines}{1}}%
8604
        \LWR@getmynexttoken%
8605 }%
```

The following create data cells and will have no more data in this cell, so we do not want to look ahead for a possible data cell, so do not want to use \LWR@getmynexttoken.

```
8607 \renewcommand*{\mrowcell}{%
       \LWR@maybenewtablerow%
8608
       \LWR@tabularleftedge%
8609
8610
       \global\booltrue{LWR@skippingmrowcell}%
8611
       \booltrue{LWR@foundmrowcell}%
8612 }%
8613 \renewcommand*{\mcolrowcell}{%
       \LWR@maybenewtablerow%
8614
       \global\booltrue{LWR@skippingmcolrowcell}%
8615
8616
       \booltrue{LWR@foundmrowcell}%
8617 }%
8618 \LetLtxMacro\caption\LWR@longtabledatacaptiontag%
 Reset for new processing:
```

8619 \global\boolfalse{LWR@tableparcell}% 8620 \global\boolfalse{LWR@skippingmrowcell}% 8621 \global\boolfalse{LWR@skippingmcolrowcell}% 8622 \global\boolfalse{LWR@skipatbang}% 8623 \global\boolfalse{LWR@emptyatbang}%

Set & for its special meaning inside the tabular:

```
8624 \StartDefiningTabulars%
8625 \protected\gdef&{\LWR@tabularampersand}%
```

```
Locally force any minipages to be fullwidth, until the end of the tabular:
8626 \booltrue{LWR@forceminipagefullwidth}
 Nest one level deeper of tabular paragraph handling:
8627 \addtocounter{LWR@tabularpardepth}{1}%
 Look ahead for a possible table data cell:
8628 \LWR@traceinfo{LWR@@HTML@tabular: about to LWR@getmynexttoken}%
8629 \LWR@getmynexttoken%
8630 }%
 Ending the environment:
8631 \newcommand*{\LWR@HTML@endtabular}
8633 \LWR@traceinfo{LWR@HTML@endtabular}%
 Unnest one level of tabular paragraph handling:
8634 \addtocounter{LWR@tabularpardepth}{-1}%
8635 \ifboolexpr{%
       test {%
8636
8637
         \ifnumcomp{\value{LWR@tableLaTeXcolindex}}{<\g\underline{LWR@tabletotalLaTeXcols}}
8638
       } or %
8639
        (%
8640
            bool{LWR@intabularmetadata} and%
8641
            not bool{LWR@tabularcelladded} and%
            \ifnumcomp{\value{LWR@tableLaTeXcolindex}}{=}{\value{LWR@tabletotalLaTeXcols}}}%
8643
8644
            }%
       )%
8645
8646 }%
8647 {%
        \LWR@tabularfinishrow%
8648
8649 }%
8650 {%
        \LWR@closetabledatacell%
8651
8652 }%
8653 \LWR@htmlblocktag{/tr}%
 xcolor row color support:
8654 \@rowc@lors%
8655 \LWR@htmlblocktag{/table}%
8656 \global\boolfalse{LWR@intabularmetadata}%
```

8657 \addtocounter{LWR@tabulardepth}{-1}%

Unnest one level of tabular:

Restore & to its usual meaning:

```
8658 \protected\gdef&{\LWR@origampmacro}%
8659 \StopDefiningTabulars%
```

Error if used \multirow or \multicolumnrow without using \mrowcell or \mcolrowcell.

```
8660 \ifbool{LWR@usedmultirow}{%
8661
        \ifbool{LWR@foundmrowcell}%
            {}%
8662
            {%
8663
                \PackageError{lwarp}%
8664
                When using \protect\multirow, \protect\multicolumnrow, \MessageBreak
8666
                     or the bigdelim package,\MessageBreak
8667
                 place \protect\mrowcell\space or \protect\mcolrowcell\MessageBreak
8668
                     in empty cells which are to be skipped.\MessageBreak
8669
                     See the lwarp package documentation:\MessageBreak
8670
8671
                     "Special cases and limitations" -> "Tabular"
8672
                }%
                {%
8673
                     See the lwarp package documentation:\MessageBreak
8674
                     "Special cases and limitations" -> "Tabular".
8675
                }%
8676
            }%
8677
8678 }{}%
8679 \LWR@traceinfo{LWR@HTML@endtabular finished}%
8680 }
8681
8682 \csletcs{LWR@HTML@endtabular*}{LWR@HTML@endtabular}
8684 \StopDefiningTabulars
 siunitx may redefine tabular, so set the following later:
8685 \AtBeginDocument{
        \LetLtxMacro\LWR@origendtabular\endtabular
8686
        \csletcs{LWR@origendtabular*}{endtabular*}
8687
8688
        \LWR@formatted{@tabular}
        \LWR@formatted{endtabular}
8689
        \LWR@formatted{endtabular*}
8690
8691 }
8692 \end{warpHTML}
```

73 Cross-references

Sectioning commands have been emulated from scratch, so the cross-referencing commands are custom-written for them. Emulating both avoids several layers of patches.

File *_html.aux

A new entry in *_html.aux is used to remember section name, file, and lateximage depth and number for each label:

Table 12 shows the data structures related to cross-referencing.

for HTML output: 8693 \begin{warpHTML}

73.1 Setup

\@currentlabelname

To remember the most recently defined section name, description, or caption, for \nameref.

8694 \providecommand*{\@currentlabelname}{}

\LWR@stripperiod $\{\langle text \rangle\}$ [$\langle . \rangle$]

Removes a trailing period.

\LWR@setlatestname $\{\langle object \ name \rangle\}$

Removes \label, strips any final period, and remembers the result.

8696 \newcommand*{\LWR@setlatestname}[1]{%

Remove \label and other commands from the name, the strip any final period. See gettitlestring.

```
8697 \GetTitleStringExpand{#1}%
8698 \edef\@currentlabelname{\detokenize\expandafter{\GetTitleStringResult}}%
8699 \edef\@currentlabelname{%
8700 \expandafter\LWR@stripperiod\@currentlabelname%
8701 \ltx@empty.\ltx@empty\@nil%
8702 }%
8703 }
```

Table 12: Cross-referencing data structures

```
Original LATEX:
                                                                         (print and html)
      \refstepcounter: Steps the couunter and sets \@currentlabel.
      \@currentlabel: \p@<ctr>\the<ctr> Updated by \refstepcounter.
      \label: Writes to the .aux file:
           \newlabel{<label>}{{\@currentlabel}{\thepage}}
      \newlabel: When the .aux file is read, sets \r@<label>.
      \r@<label>: Set to: {{\@currentlabel}{\thepage}}
      \ref: Returns the first part of \re<label>.
      \pageref: Returns the second part of \r@<label>.
Added by lwarp:
                                                                              (html only)
      \label: Adds html tags (section 73.3), and another .aux entry (section 73.2).
      \newlabel: Unchanged. When the .aux file is read, sets \r@<label>@lwarp.
      \re<label>@lwarp: Set to {{section_name}{file_name}{depth}{number}}:
           \LWR@nameref: The section name for this label.
           \LWR@htmlfileref: The filenumber or name for this label.
           \LWR@lateximagedepthref: The lateximagedepth for this label.
           \LWR@lateximagenumberref: The lateximagenumber for this label.
      \nameref: Emualted from hyperref for Iwarp. See section 73.4.
      \ref and \nameref: Adds html tags. See section 73.4.
                                                                         (print and html)
Added by amsmath:
      \label: Execution is delayed until the math environment is completed.
      \ltx@label: LATEX \label, (html: patched by lwarp,) later patched by cleveref.
Added by cleveref:
                                                                         (print and html)
      \refstepcounter: Added: sets \cref@currentlabel.
      \cref@currentlabel: (<type>=<ctr> unless an alias is used):
           [<type>][\arabic{<ctr>}][<parent ctrs>]{\p@<ctr>\the<ctr>} Also see
           section 59.4 for use with footnotes.
      \label: Writes to the .aux file:
           \newlabel{<label>@cref}{{\cref@currentlabel}{\thepage}}
      \newlabel: Unchanged. When the .aux file is read, sets \r@<label>@cref.
      \r@<label>@cref: Set to: {{\cref@currentlabel}{\thepage}}
      Utility functions: See \cref@getlabel, \cref@gettype, \cref@getcounter,
           \cref@getprefix.
      Cross-referencing names: \crefname and \Crefname assign human-readable names
           for references to this counter type.
Additionally patched by lwarp:
                                                                              (html only)
      \cref, etc.: Modified for lwarp. See section 87.
      \label inside math: See section 79.7.1.
Footnotes: See \noteentry in section 59.4.
```

73.2 New lwarp labels.

```
File *_html.aux A new entry in *_html.aux is used to remember section name, file, and lateximage
                            depth and number for each label:
                                 \newlabel{<labelname>@lwarp}{{<section name>}{<filename>}
                                                                          {<limagedepth>}{<limagenumber>}}
                            See:
                            http://tex.stackexchange.com/questions/57194/
                                  extract-section-number-from-equation-reference
              \LWR@setref \{\langle args\ list \rangle\} \{\langle selector \rangle\} \{\langle label \rangle\}
                            \@setref without the \null (\hbox), and without the warning messages. Each caused
                            problems with lwarp references. The regular reference will cause the warning.
                           8704 \def\LWR@setref#1#2#3{%
                                 \ifx#1\relax%
                           8705
                                   ??%
                           8706
                                 \else%
                           8707
                                  \expandafter#2#1%
                           8708
                           8709
                                \fi}
             \LWR@nameref \{\langle label \rangle\} Returns the section name for this label:
                           8710 \newcommand*{\LWR@nameref}[1]{%
                           8711
                                   \expandafter\LWR@setref\csname r@#1@lwarp\endcsname\LWR@firstoffour{#1}%
                           8712 }
        \LWR@htmlfileref \{\langle label \rangle\} Returns the file number or name for this label:
                           8713 \newcommand*{\LWR@htmlfileref}[1]{%
                                   \expandafter\LWR@setref\csname r@#1@lwarp\endcsname\LWR@secondoffour{#1}%
                           8714
                           8715 }
 \LWR@lateximagedepthref \{\langle label \rangle\} Returns the lateximagedepth for this label:
                           8716 \newcommand*{\LWR@lateximagedepthref}[1]{%
                                   \expandafter\LWR@setref\csname r@#1@lwarp\endcsname\LWR@thirdoffour{#1}%
                           8717
                           8718 }
\LWR@lateximagenumberref \{\langle label \rangle\} Returns the lateximagenumber for this label:
                           8719 \newcommand*{\LWR@lateximagenumberref}[1]{%
                                   \expandafter\LWR@setref\csname r@#1@lwarp\endcsname\LWR@fourthoffour{#1}%
                           8721 }
```

\LWR@lwarplabel $\{\langle label \rangle\}$ Sanitize the name and then creates the label:

```
8722 \newcommand*{\LWR@lwarplabel}[1]{%
8723 \LWR@traceinfo{LWR@lwarplabel !#1!}%
8724 \LWR@setlatestname{\@currentlabelname}%
8725
      \@bsphack%
      \protected@write\@auxout{}%
8726
          {\string\newlabel{#1@lwarp}{%
8727
             {\@currentlabelname}%
8728
          8729
             {\arabic{LWR@lateximagedepth}}%
8730
8731
             {\arabic{LWR@lateximagenumber}}%
8732
          }}%
      \@esphack%
8733
8734 }
```

73.3 Labels

\LWR@sublabel $\{\langle label \rangle\}$ Creates an HTML id tag.

\detokenize is used to allow underscores in the labels.

```
8735 \newcommand*{\LWR@sublabel}[1]{%
8736 \LWR@traceinfo{LWR@sublabel !#1!}%
```

Create an HTML id tag unless are inside a lateximage, since it would appear in the image:

```
8737 \ifnumcomp{\value{LWR@lateximagedepth}}{>}{0}%
8738 {}%
8739 {% not lateximage
```

If not doing a lateximage, create an HTML ID tag: (To be factored...)

```
\LWR@sanitize{#1}%
8740
        \ifbool{LWR@doingstartpars}%
8741
8742
        {% pars allowed
8743
            \ifbool{LWR@doingapar}%
8744
            {% par started
             \LWR@htmltag{a \LWR@print@mbox{id="\LWR@sanitized"}}\LWR@htmltag{/a}%
8745
            }% par started
8746
            {% par not started
8747
                \LWR@stoppars%
8748
             \LWR@htmltag{a \LWR@print@mbox{id="\LWR@sanitized"}}\LWR@htmltag{/a}%
8749
                \LWR@startpars%
8750
            }% par not started
8751
       }% pars allowed
8752
        {% pars not allowed
8753
            \LWR@htmltag{a \LWR@print@mbox{id="\LWR@sanitized"}}\LWR@htmltag{/a}%
8754
8755
        }% pars not allowed
8756 }% not lateximage
8757 }
```

\label during HTML output when not in svG math mode, removing extra spaces around the label, as done by a regular LATEX \label.

The is also used during a lateximage, including svG math, since the special label handling is required, but \LWR@sublabel does not generate HTML tags inside a lateximage.

clevereref later encases this to add its own cross-referencing.

The optional (bookmark) is per the memoir class, and is ignored.

The optional $\langle type \rangle$ is per the ntheorem package, and is ignored.

```
8758 \NewDocumentCommand{\LWR@new@label}{d() m o}{%
8759 \LWR@traceinfo{LWR@new@label: starting}%
8760 \LWR@traceinfo{LWR@new@label: !#2!}%
8761 % \@bsphack%
```

Create a traditional LATEX label, as modified by cleveref:

```
8762 \LWR@orig@label{#2}%
```

Create a special label which holds the section number, LWR@htmlfilenumber, LWR@lateximagedepth, and LWR@lateximagenumber:

```
8763 \LWR@traceinfo{LWR@new@label: filesectionnames is \ifbool{FileSectionNames}{true}{false}}%
8764 \LWR@traceinfo{LWR@new@label: LWR@thisfilename is !\LWR@thisfilename!}%
8765 \LWR@traceinfo{LWR@new@label: LWR@htmlfilenumber is \arabic{LWR@htmlfilenumber}}%
8766 \LWR@lwarplabel{#2}%
8767 \LWR@sublabel{#2}%
8768 % \@esphack%
8769 \LWR@traceinfo{LWR@new@label: done}%
8770 }
```

73.4 References

```
\LWR@startref \{\langle label \rangle\} (Common code for \ref and \nameref.)
```

Open an HTML tag reference to a filename, # character, and a label.

```
8771 \newcommand*{\LWR@startref}[1]
8772 {%
8773 \LWR@sanitize{#1}%
8774 \LWR@traceinfo{LWR@startref A: !#1!}%
```

Create the filename part of the link:

```
8775 \LWR@htmltag{a href="%
8776 \LWR@traceinfo{LWR@startref B}%
8777 \LWR@print@mbox{\LWR@htmlrefsectionfilename{#1}}%
8778 \LWR@traceinfo{LWR@startref C}%
8779 \LWR@origpound%
```

Create the destination id:

See if LWR@lateximagedepth is unknown:

```
8780 \LWR@traceinfo{LWR@startref D: !#1!}%
8781 \ifcsundef{r@#1@lwarp}%
```

"??" if LWR@lateximagedepth is unknown, so create a link with an unknown destination:

```
8782 {%

8783 \LWR@traceinfo{LWR@startref D0: ??}%

8784 ??%

8785 }%
```

If LWR@lateximagedepth is known. Use a lateximage if the depth is greater than zero, or a regular link otherwise:

\detokenize is used to allow underscores in the labels:

```
8793 \LWR@print@mbox{\LWR@sanitized}%
8794 }%
8795 }%
8796 \LWR@traceinfo{LWR@startref E}%
```

Closing quote:

```
8797 "}%
8798 \LWR@traceinfo{LWR@startref F}%
8799 }
```

\LWR@subnewref $\{\langle label \rangle\} \{\langle label \ or \ sub@label \rangle\}$

Factored for the subfig package. Uses the original label for the hyper-reference, but prints its own text, such as "1(b)".

```
8800 \NewDocumentCommand{\LWR@subnewref}{m m}{%
8801 \LWR@traceinfo{LWR@subnewref #1 #2}%
8802 \LWR@startref{#1}%
8803 \LWR@print@ref{#2}%
8804 \LWR@htmltag{/a}%
8805 }
```

\ref * $\{\langle label \rangle\}$ \ref is redefined to \LWR@HTML@ref, except inside the text part of a \hyperref, where it is redefined to \LWR@ref@ignorestar.

* {\langle label\rangle} Create an internal document reference link, or without a link if starred \LWR@HTML@ref per hyperref. 8806 \NewDocumentCommand{\LWR@HTML@ref}{s m}{% 8807 \LWR@traceinfo{LWR@HTML@ref !#2!}% 8808 \IfBooleanTF{#1}% 8809 {\LWR@print@ref{#2}}% 8810 {\LWR@subnewref{#2}{#2}}% 8811 } 8812 8813 \LWR@formatted{ref} \LWR@ref@ignorestar * $\{\langle label \rangle\}$ For use inside \hyperref. Ignores the star, then uses the original \ref. 8814 \NewDocumentCommand{\LWR@ref@ignorestar}{s m}{% 8815 \LWR@print@ref{#2}% 8816 } \pagerefPageFor Text for page references. 8817 \newcommand*{\pagerefPageFor}{see } * $\{\langle label \rangle\}$ \pageref Create an internal document reference, or just the unlinked number if starred, per hyperref. 8818 \NewDocumentCommand{\LWR@new@pageref}{s m}{% 8819 \IfBooleanTF{#1}% 8820 {(\pagerefPageFor\LWR@print@ref{#2})}% 8821 {(\cpageref{#2})}% 8822 } \nameref $\{\langle label \rangle\}$ 8823 \newrobustcmd*{\nameref}[1]{% 8824 \LWR@traceinfo{nameref}% 8825 \LWR@startref{#1}% 8826 \LWR@traceinfo{nameref B}% 8827 \LWR@nameref{#1}% 8828 \LWR@traceinfo{nameref C}% 8829 \LWR@htmltag{/a}% 8830 \LWR@traceinfo{nameref: done}% 8831 } \Nameref $\{\langle label \rangle\}$ In print, adds the page number. In HTML, does not. 8832 \LetLtxMacro\Nameref\nameref

73.5 Hyper-references



Note that the code currently only sanitizes the underscore character. Additional characters should be rendered inert as well. See the hyperref.sty definition of \gdef\hyper@normalise for an example.

Pkg hyperref



Do not tell other packages that hyperref is emulated. Some packages patch various commands if hyperref is present, which will probably break something, and the emulation already handles whatever may be emulated anyhow.

8833 % DO NOT TELL OTHER PACKAGES TO ASSUME HYPERREF, lest they attempt to patch it: 8834 % \EmulatesPackage{hyperref}[2015/08/01]% Disabled. Do not do this.

Emulates hyperref:

\@currentHref Added to support backref.

```
8835 \AtBeginDocument{
8836 \def\@currentHref{%
8837 autopage-\theLWR@currentautosec%
8838 }
8839 }
```

\LWR@subhyperref $\{\langle \mathit{URL} \rangle\}$

Starts a link for \LWR@hrefb. A group must have been opened first, with nullified catcodes. The text name is printed afterwards, after the group is closed and catcodes restored.

```
8840 \NewDocumentCommand{\LWR@subhyperref}{m}{%
8841 \LWR@traceinfo{LWR@subhyperref !#1!}%
8842 \LWR@sanitize{#1}%
8843 \LWR@htmltag{%
8844 a href="\LWR@sanitized" % space
8845 target="\_{}blank" % space
8846 }%
8847 }
```

\LWR@subhyperreftext $\{\langle text \rangle\}$

Finishes the hyperref for \LWR@hrefb. Catcodes must have been restored already. To be used after \LWR@subhyperref, and after its group has been closed.

```
8848 \newcommand{\LWR@subhyperreftext}[1]{%
8849 #1%
8850 \LWR@htmltag{/a}%
8851 \LWR@ensuredoingapar%
8852 }
```

```
\LWR@subhyperrefclass \{\langle URL \rangle\} \{\langle text \rangle\} \{\langle htmlclass \rangle\}
                         8853 \NewDocumentCommand{\LWR@subhyperrefclass}{m +m m}{%
                         8854 \LWR@htmltag{%
                         8855
                                 a % space
                                 href="\begingroup\@sanitize#1\endgroup" % space
                         8856
                                 class="#3" % space
                         8858 }\LWR@orignewline%
                         8859 #2\LWR@orignewline%
                         8860 \LWR@htmltag{/a}%
                         8861 \LWR@ensuredoingapar%
                         8862 }
                  \href [\langle options \rangle] \{\langle URL \rangle\}
                          Create a link with accompanying text:
                         8863 \DeclareDocumentCommand{\LWR@hrefb}{0{} m}{%
                         8864 \LWR@ensuredoingapar%
                         8865 \LWR@subhyperref{#2}%
                         8866 \endgroup% restore catcodes
                         8867 \LWR@subhyperreftext%
                         8868 }
                         8869
                         8870 \newrobustcmd*{\href}{%
                         8871 \begingroup%
                         8872 \catcode '\#=12%
                         8873 \catcode '\%=12%
                         8874 \catcode '\&=12%
                         8875 \catcode '\~=12%
                         8876 \catcode '\_=12%
                         8877 \LWR@hrefb%
                         8878 }
            \nolinkurl \{\langle URL \rangle\}
                          Print the name of the link without creating the link:
                         8879 \newcommand*{\LWR@nolinkurlb}[1]{%
                         8880 \LWR@ensuredoingapar%
                         8881 \def\LWR@templink{#1}%
                         8882 \verb|\@onelevel@sanitize\LWR@templink%|
                         8883 \LWR@templink%
                         8884 \endgroup%
                         8885 }
                         8886
                         8887 \newrobustcmd*{\nolinkurl}{%
                         8888 \begingroup%
                         8889 \catcode '\#=12%
                         8890 \catcode '\%=12%
                         8891 \catcode '\&=12%
                         8892 \catcode'\~=12%
                         8893 \catcode'\_=12%
                         8894 \LWR@nolinkurlb%
```

```
8895 } \url \{\langle \textit{URL} \rangle\}
```

Create a link whose text name is the address of the link.

The url package may redefine \url, so it is \let to \LWR@urlahere and also redefined by lwarp-url.

```
8896 \DeclareDocumentCommand{\LWR@urlb}{m}{%
                       8897 \LWR@ensuredoingapar%
                       8898 \def\LWR@templink{#1}%
                       8899 \@onelevel@sanitize\LWR@templink%
                       8900 \href{\LWR@templink}{\LWR@templink}%
                       8901 \endgroup%
                       8902 }
                       8903
                       8904 \newrobustcmd*{\url}{%
                       8905 \begingroup%
                       8906 \catcode '\#=12%
                       8907 \catcode '\%=12%
                       8908 \catcode '\&=12%
                       8909 \catcode '\~=12%
                       8910 \catcode '\_=12%
                       8911 \LWR@urlb%
                       8912 }
\LWR@subinlineimage [\langle alttag \rangle] \{\langle class \rangle\} \{\langle filename \rangle\} \{\langle extension \rangle\} \{\langle style \rangle\}
                       8913 \newcommand*{\LWR@subinlineimage}[5][]{%
                       8914 \ifblank{#1}%
                       8915 {%
                       8916
                                \LWR@htmltag{img \LWR@indentHTML
                       8917
                                     src="#3.#4" \LWR@indentHTML
                       8918
                                     alt="#3" \LWR@indentHTML
                                     style="#5" \LWR@indentHTML
                       8919
                                     class="#2" \LWR@orignewline
                       8920
                       8921
                                }%
                       8922 }%
                       8923 {%
                       8924
                                \LWR@htmltag{img \LWR@indentHTML
                                     src="#3.#4" \LWR@indentHTML
                       8925
                                     alt="#1" \LWR@indentHTML
                       8926
                                     style="#5" \LWR@indentHTML
                       8927
                       8928
                                     class="#2" \LWR@orignewline
                       8929
                                }%
                       8930 }%
                       8931 }
                       8932 \end{warpHTML}
```

Table 13: Float data structures

For each <type> of float (figure, table, etc.) there exists the following:

counter <type>: A counter called <type>, such as figure, table.

\<type>name: Name. \figurename prints "Figure", etc.

\ext@<type>: File extension. \ext@figure prints "lof", etc.

\fps@<type>: Placement.

\the<type>: Number. \thetable prints the number of the table, etc.

\pe<type>: Parent's number. Prints the number of the [within] figure, etc.

\fnum@<type>: Prints the figure number for the caption.

\<type>name \the<type>, "Figure 123".

\<type>: Starts the float environment. \figure or \begin{figure}

\end<type>: Ends the float environment. \endfigure or \end{figure}

\tf@<ext>: The LATEX file identifier for the output file.

LWR@have<type>: A boolean remembering whether a \listof was requested for a float of this type.

File with extension lo<f,t,a-z>: An output file containing the commands to build the \listof<type> "table-of-contents" structure.

Cross-referencing names: For cleveref's \cref and related, \crefname and \Crefname assign human-readable names for references to this float type.

74 Floats

Floats are supported, although partially through emulation.

Table 13 shows the data structure associated with each <type> of float.

\@makecaption is redefined to print the float number and caption text, separated by \CaptionSeparator, which works with the babel package to adjust the caption separator according to the language. French, for example, uses an en-dash instead of a colon: "Figure 123 – Caption text".

74.1 Float environment

for HTML output: 8933 \begin{warpHTML}

\LWR@floatbegin $\{\langle type \rangle\}\ [\langle placement \rangle]$ Begins a \newfloat environment.

```
8934 \NewDocumentCommand{\LWR@floatbegin}{m o}{%}
8935 \ifbool{FormatWP}{\newline}{}%
8936 \LWR@stoppars
 There is a new float, so increment the unique float counter:
8937 \addtocounter{LWR@thisautoid}{1}%
8938 \booltrue{LWR@freezethisautoid}%
8939 \begingroup%
 Settings while inside the environment:
8940 \LWR@print@raggedright%
 Open an HTML figure tag. The figure is assigned a class equal to its type, and
 another class according to the float package style, if used. Note that \csuse returns
 an empty string if \LWR@floatstyle@<type> is not defined.
8941 \LWR@htmltag{%
       figure id="\LWR@print@mbox{autoid-\arabic{LWR@thisautoid}}" % space
8942
       class="#1 \@nameuse{LWR@floatstyle@#1}"%
8943
8944 }%
8945 \ifbool{FormatWP}{%
8946
       \LWR@orignewline%
8947
        \LWR@BlockClassWP{}{}{wp#1}%
8948 }{ }%
 Update the caption type:
8949 \renewcommand*{\@captype}{#1}%
8950 \caption@settype{#1}%
 Mark the float for a word processor conversion:
8951 \LWR@startpars%
8952 \ifboolexpr{bool{FormatWP} and bool{WPMarkFloats}}{%
8953
8954 === begin #1 ===
8955
8956 }{}%
 Look for \centering, etc:
8957 \verb|\LWR@futurenonspacelet\LWR@mynexttoken\LWR@floatalignment\%|
8958 }
 For koma-script. The following does not work for tables.
8959 \AtBeginDocument{
```

8960 \@ifpackageloaded{tocbasic}{
8961 \appto\figure@atbegin{%

```
8962 \verb|\LWR@futurenonspacelet\LWR@mynexttoken\LWR@floatalignment\%|
              8963 }
              8964 }{}
              8965 }
      \@float Support packages which create floats directly.
   \@dlbfloat
              8966 \let\@float\LWR@floatbegin
              8967 \let\@dblfloat\LWR@floatbegin
\LWR@floatend Ends a \newfloat environment.
              8968 \newcommand*{\LWR@floatend}{%
               If saw a \centering, finish the center environment:
              8969 \LWR@endfloatalignment%
               Mark the float end for a word processor conversion:
              8970 \ifboolexpr{bool{FormatWP} and bool{WPMarkFloats}}{%
              8971
              8972 === end ===
              8973
              8974 }{ }%
              8975 \LWR@stoppars%
               Close an HTML figure tag:
              8976 \ifbool{FormatWP}{\endLWR@BlockClassWP}{}%
              8977 \LWR@htmlelementend{figure}%
              8978 \endgroup%
              8979 \boolfalse{LWR@freezethisautoid}%
              8980 \LWR@startpars%
              8981 \ifbool{FormatWP}{\newline}{}%
              8982 }
   \end@float Support packages which create floats directly.
\end@dlbfloat
              8983 \let\end@float\LWR@floatend
              8984 \let\end@dblfloat\LWR@floatend
```

Float tracking 74.2

LWR@thisautoid A sequential counter for all floats and theorems. This is used to identify the float or theorem then reference it from the List of Figures and List of Tables.

```
8985 \newcounter{LWR@thisautoid}
```

Ctr LWR@thisautoidWP

A sequential counter for all word processor conversion <div>s. This is used to convince LibreOffice to form a frame around this element.

```
8986 \newcounter{LWR@thisautoidWP}
```

Bool LWR@freezethisautoid Prevents multiple increments of \LWR@thisautoid inside a float.

```
8987 \newbool{LWR@freezethisautoid}
8988 \boolfalse{LWR@freezethisautoid}
```

\LWR@newautoidanchor Adds a new <autoid> anchor.

```
8989 \newcommand*{\LWR@newautoidanchor}{%
8990 \ifnumcomp{\value{LWR@lateximagedepth}}{>}{0}%
8991 {}%
8992 {%
8993
        \ifbool{LWR@freezethisautoid}{}{%
            \addtocounter{LWR@thisautoid}{1}%
8994
            \LWR@htmltag{a id="\LWR@print@mbox{autoid-\arabic{LWR@thisautoid}}"}%
8995
                \LWR@htmltag{/a}%
8996
        }%
8997
8998 }%
8999 }
```

\@captype Remembers which float type is in use.

```
9000 \newcommand*{\@captype}{}
```

\LWR@floatalignmentname Set to center, flushleft, or flushright if saw \centering, \raggedright, or \raggedleft.

9001 \newcommand*{\LWR@floatalignmentname}{}

\LWR@floatalignment If sees a \centering, \raggedleft, or \raggedright, creates a center, flushright, or flushleft environment.

```
9002 \newcommand*{\LWR@floatalignment}{%
9003 \ifdefstrequal{\LWR@mynexttoken}{\centering}{%
9004
        \center%
9005
        \renewcommand*{\LWR@floatalignmentname}{center}%
9006 }{}%
9007 \ifdefstrequal{\LWR@mynexttoken}{\raggedright}{%}
        \flushleft%
9008
        \renewcommand*{\LWR@floatalignmentname}{flushleft}%
9009
9010 }{}%
9011 \ifdefstrequal{\LWR@mynexttoken}{\raggedleft}{%
        \flushright%
        \renewcommand*{\LWR@floatalignmentname}{flushright}%
9013
9014 }{ }%
9015 }
```

\LWR@endfloatalignment Closes an environment from \LWR@floatalignment.

```
9016 \newcommand*{\LWR@endfloatalignment}{%
9017 \ifdefvoid{\LWR@floatalignmentname}{}{\@nameuse{end\LWR@floatalignmentname}}%
9018 \renewcommand*{\LWR@floatalignmentname}{}%
9019 }
```

74.3 Caption inside a float environment

\CaptionSeparator How to separate the float number and the caption text.

```
9020 \AtBeginDocument{\providecommand*{\CaptionSeparator}{:~}}
```

```
\ensuremath{\mbox{\sc Qmakecaption}} \ \{\langle name\ and\ num \rangle\} \ \{\langle text \rangle\}
```

Prints the float type and number, the caption separator, and the caption text.

```
9021 \AtBeginDocument{\renewcommand{\@makecaption}[2]{%
9022 \LWR@traceinfo{@makecaption}%
9023 \LWR@isolate{#1}\CaptionSeparator\LWR@isolate{#2}%
9024 \LWR@traceinfo{@makecaption: done}%
9025 }%
9026 }
```

74.4 Caption and LOF linking and tracking

When a new HTML file is marked in the LATEX PDF file, the LATEX page number at that point is stored in LWR@latestautopage, (and the associated filename is remembered by the special LATEX labels). This page number is used to generate an autopage HTML <id> in the HTML output at the start of the new HTML file. Meanwhile, there is a float counter used to generate an HTML autoid <id> at the start of the float itself in the HTML file. The autopage and autoid values to use for each float are written to the .lof, etc. files just before each float's entry. These values are used by \l@figure, etc. to create the HTML links in the List of Figures, etc.

```
Ctr LWR@nextautoid
Ctr LWR@nextautopage
```

Tracks autoid for floats. Tracks autopage for floats.

These are updated per float as the .lof, .lot file is read.

```
9027 \newcounter{LWR@nextautoid}
9028 \newcounter{LWR@nextautopage}
```

```
\LWRsetnextfloat \{\langle autopage \rangle\} \{\langle float\ autoid \rangle\}
```

```
File *_html.lof This is written to the *_html.lof or *_html.lot file just before each float's usual entry. The autopage and the float's autoid are remembered for \leftimes to use when creating the HTML links.
```

```
9029 \newcommand*{\LWRsetnextfloat}[2]{%
        \setcounter{LWR@nextautopage}{#1}%
        \setcounter{LWR@nextautoid}{#2}%
9031
9032 }
```

LWR@latestautopage

Updated each time a new HTML file is begun. \LWRsetnextfloat is written with this and the autoid by the modified \addcontentsline just before each float's entry.

```
9033 \newcounter{LWR@latestautopage}
9034 \setcounter{LWR@latestautopage}{1}
```

LWR@figcaption

An HTML <figcaption> is not allowed in places where LATEX does allow a figure caption, such as inside a longtable where the tabular has already started, or inside a center environment. Therefore, a <div> of class figurecaption is used instead.

```
9035 \newenvironment*{LWR@figcaption}
9036
        {
            \ifbool{FormatWP}{%
9037
                 \BlockClass[font-style:italic]{figurecaption}
9038
                   \LWR@print@vspace*{\baselineskip}
9039 %
9040
            }{
9041
                 \BlockClass{figurecaption}
9042
            }%
9043
        {\endBlockClass}
9044
```

\LWR@HTML@caption@begin $\{\langle type \rangle\}$

Low-level code to create HTML tags for captions.

The print versions are from the caption package.

```
9045 \newcommand*{\LWR@HTML@caption@begin}[1]
9046 {%
9047 \LWR@traceinfo{LWR@HTML@caption@begin}%
```

Keep par and minipage changes local:

```
9048 \begingroup%
```

No need for a minipage or \parbox inside the caption:

```
9049 \RenewDocumentEnvironment\{minipage\}\{0\{t\} o 0\{t\} m\}\{\}\{\}\%
9050 \RenewDocumentCommand{\parbox}{0{t} 0{t} m +m}{\#5}%
```

Enclose the original caption code inside an HTML tag:

```
9051 \LWR@figcaption%
9052 \LWR@traceinfo{LWR@HTML@caption@begin: about to LWR@origcaption@begin}%
9053 \LWR@print@caption@begin{#1}%
9054 \LWR@traceinfo{LWR@HTML@caption@begin: done}%
9055 }
```

\LWR@HTML@caption@end Low-level patches to create HTML tags for captions.

```
9056 \newcommand*{\LWR@HTML@caption@end}
9057 {%
9058 \LWR@traceinfo{LWR@HTML@caption@end}%
9059 \LWR@print@caption@end%
 Closing tag:
9060 \endLWR@figcaption%
9061 \endgroup%
9062 % \leavevmode% avoid bad space factor (0) error
9063 \LWR@traceinfo{LWR@HTML@caption@end: done}%
```

\caption@end

\caption@begin Low-level patches to create HTML tags for captions. These are assigned \AtBeginDocument so that other packages which modify captions will have already been loaded before saving the print-mode version.

```
9065 \AtBeginDocument{
9066 \LWR@formatted{caption@begin}
9067 \LWR@formatted{caption@end}
```

\captionlistentry Tracks the float number for this caption used outside a float. Patched to create an HTML anchor.

```
9069 \let\LWR@origcaptionlistentry\captionlistentry
9070
9071 \renewcommand*{\captionlistentry}{%
9072 \LWR@ensuredoingapar%
9073 \LWR@origcaptionlistentry%
9074 }
9075
9076 \def\LWR@LTcaptionlistentry{%
9077 \LWR@ensuredoingapar%
9078 \LWR@htmltag{a id="\LWR@print@mbox{autoid-\arabic{LWR@thisautoid}}"}\LWR@htmltag{/a}%
9079
9080
     \@ifstar{\egroup\LWR@LT@captionlistentry}% gobble *
9081
              {\egroup\LWR@LT@captionlistentry}}%
9082 \def\LWR@LT@captionlistentry#1{%
9083 \caption@listentry\@firstoftwo[\LTcaptype]{#1}}%
```

\addcontentsline

Patched to write the autopage and autoid before each float's entry. No changes if writing .toc For a theorem, automatically defines \ext@<type> as needed, to mimic and reuse the float mechanism.

```
f
9084 \let\LWR@origaddcontentsline\addcontentsline
9086 \renewcommand*{\addcontentsline}[3]{%
9087 \ifstrequal{#1}{toc}{}{% not TOC
```

```
9088 \ifnumcomp{\value{LWR@lateximagedepth}}{>}{0}%
                    {\LWR@newautoidanchor}%
            9090
                    9091
            9092
                    \addtocontents{\@nameuse{ext@#2}}{%
                        \protect\LWRsetnextfloat%
            9093
                        {\arabic{LWR@latestautopage}}%
            9094
                        {\arabic{LWR@thisautoid}}%
            9095
                    }%
            9096
            9097 }% not TOC
            9098 \LWR@origaddcontentsline{#1}{#2}{#3}%
             Either package provides \captionof, which is later patched at the beginning of the
   capt-of
             document.
Pkg
    caption
  \captionof
            Patched to handle paragraph tags.
            9100 \AtBeginDocument{
            9101 \let\LWR@origcaptionof\captionof
            9102
            9103 \renewcommand*{\captionof}{%
            9104 \LWR@stoppars
            9105 \LWR@origcaptionof%
            9106 }
            9107 }
            9108 \end{warpHTML}
```

75 Table of Contents, LOF, LOT

This section controls the generation of the TOC, LOF, and LOT.

The .toc, .lof, and .lot files are named by the source code \jobname.

In HTML, the printed tables are placed inside a <div> of class toc, lof, or lot.

A "sidetoc" is provided which prints a subset of the TOC on the side of each page other than the homepage.

The regular LATEX infrastructure is used for ToC, along with some patches to generate HTML output.

for HTML output: 9109 \begin{warpHTML}

Reading and printing the TOC **75.1**

```
{\langle toc/lof/lot/sidetoc\rangle}
\LWR@myshorttoc
```

Reads in and prints the ToC/LOF/LOT at the current position. While doing so, makes the @ character into a normal letter to allow formatting commands in the section names.

Unlike in regular LATEX, the file is not reset after being read, since the side oc may be referred to again in each HTML page.

```
9110 \newcommand*{\LWR@myshorttoc}[1]{%
9111 \LWR@traceinfo{LWR@myshorttoc: #1}%
9112 \LWR@ensuredoingapar%
 Only if the file exists:
9113 \IfFileExists{\jobname.#1}{%
9114 \LWR@traceinfo{LWR@myshorttoc: loading}%
```

 \triangle

Many of the commands in the file will have @ characters in them, so @ must be made a regular letter.

```
9115 \begingroup%
9116 \makeatletter%
```

Read in the Toc file:

```
9117 \@input{\jobname.#1}%
9118 \endgroup%
9119 }%
9120 {}%
9121 \LWR@traceinfo{LWR@myshorttoc: done}%
9122 }
```

\LWR@subtableofcontents $\{\langle toc/lof/lot \rangle\} \{\langle sectionstarname \rangle\}$

Places a TOC/LOF/LOT at the current position.

Closes previous levels:

```
9124 \@ifundefined{chapter}
9125 {\LWR@closeprevious{\LWR@depthsection}}
9126 {\LWR@closeprevious{\LWR@depthchapter}}
```

Prints any pending footnotes so that they appear above the potentially large TOC:

```
9127 \LWR@printpendingfootnotes
```

Place the list into its own chapter (if defined) or section:

```
9128 \@ifundefined{chapter}{\section*{#2}}{\chapter*{#2}}
                    Create a new HTML nav containing the TOC/LOF/LOT:
                   9129 \LWR@htmlelementclass{nav}{#1}
                    Create the actual list:
                   9130 \LWR@myshorttoc{#1}
                    Close the nav:
                   9131 \LWR@htmlelementclassend{nav}{#1}
                   9132 }
       \@starttoc \{\langle ext \rangle\}
                    Patch \@starttoc to encapsulate the ToC inside HTML tags:
                   9133 \let\LWR@orig@starttoc\@starttoc
                   9135 \renewcommand{\@starttoc}[1]{
                   9136 \LWR@htmlelementclass{nav}{#1}
                   9137 \LWR@orig@starttoc{#1}
                   9138 \LWR@htmlelementclassend{nav}{#1}
                   9139 }
                   Used to only copy the ToC file to the sidetoc a single time.
LWR@copiedsidetoc
                    (listings and perhaps other packages would re-use \tableofcontents for their own
                    purposes, causing the sidetoc to be copied more than once, and thus end up empty.)
                   9140 \newbool{LWR@copiedsidetoc}
                   9141 \boolfalse{LWR@copiedsidetoc}
 \tableofcontents    Patch \tableofcontents, etc. to print footnotes first. newfloat uses \listoffigures
                    for all future float types.
                   9142 \AtBeginDocument{
                   9143 \let\LWR@origtableofcontents\tableofcontents
                   9145 \renewcommand*{\tableofcontents}{%
                    Do not print the table of contents if formatting for a word processor, which will
                    presumably auto-generate its own updated table of contents:
                   9146 \ifboolexpr{bool{FormatWP} and bool{WPMarkTOC}}{
                   9148 === table of contents ===
                   9149
                   9150 }
                   9151 {
```

Bool

Copy the .toc file to .sidetoc for printing the sidetoc. The original .toc file is renewed when \tableofcontents is finished.

```
9152
                       \ifbool{LWR@copiedsidetoc}{}{%
                            \LWR@copyfile{\jobname.toc}{\jobname.sidetoc}%
               9153
                            \booltrue{LWR@copiedsidetoc}%
               9154
               9155
                       \LWR@printpendingfootnotes
               9156
                       \LWR@origtableofcontents
               9157
               9158 }
               9159 }% \tableofcontents
               9160 }% AtBeginDocument
\listoffigures
               9161 \let\LWR@origlistoffigures\listoffigures
               9162
               9163 \renewcommand*{\listoffigures}{
               9164 \ifboolexpr{bool{FormatWP} and bool{WPMarkLOFT}}{
               9166 === list of figures ===
               9167
               9168 }
               9169 {
                       \LWR@printpendingfootnotes
               9170
               9171
                       \LWR@origlistoffigures
               9172 }
               9173 }
\listoftables
               9174 \let\LWR@origlistoftables\listoftables
               9176 \renewcommand*{\listoftables}{
               9177 \ifboolexpr{bool{FormatWP} and bool{WPMarkLOFT}}{
               9179 === list of tables ===
               9180
               9181 }
               9182 {
                       \LWR@printpendingfootnotes
               9183
               9184
                       \LWR@origlistoftables
               9185 }
               9186 }
```

75.2 High-level TOC commands

```
\listof \{\langle type \rangle\} \{\langle title \rangle\}
```

Emulate the $\line 10$ to create lists of custom float types. Also used to redefine the standard $\line 10$ $\line 10$ to the standard $\line 10$ $\line 10$

```
9187 \NewDocumentCommand{\listof}{m +m}{%
9188 \@ifundefined{\@#1}{%
9189 \csdef{\@#1}##1##2{\hypertocfloat{1}{#1}{\@nameuse{ext@#1}}{##1}{##2}}%
9190 }{}%
9191 \LWR@subtableofcontents{\@nameuse{ext@#1}}{#2}
9192 \expandafter\newwrite\csname tf@\csname ext@#1\endcsname\endcsname
9193 \immediate\openout \csname tf@\csname ext@#1\endcsname\endcsname
9194 \jobname.\@nameuse{ext@#1}\relax
9195 }
```

75.3 Side **TOC**

The "side Toc" is a table-of-contents positioned to the side.

It may be renamed by redefining \sidetocname, and may contain paragraphs.

css may be used to format the sidetoc:

```
CSS related to sidetoc:
```

```
div.sidetoccontainer: The entire sidetoc.
div.sidetoctitle: The title.
div.sidetoccontents: The table of contents.
```

```
9196 \end{warpHTML}
```

```
for HTML & PRINT: 9197 \begin{warpall}
```

Ctr SideTOCDepth Controls how deep the side-TOC gets. Use a standard LATEX section level similar to tocdepth.

```
9198 \newcounter{SideTOCDepth}
9199 \setcounter{SideTOCDepth}{1}
```

\sidetocname Holds the default name for the sidetoc.

```
9200 \newcommand{\sidetocname}{Contents}
9201 \end{warpall}
```

```
for HTML output: 9202 \begin{warpHTML}
```

```
\LWR@sidetoc Creates the actual side-TOC.
             9203 \newcommand*{\LWR@sidetoc}{
             9204 \LWR@forcenewpage
             9205 \LWR@stoppars
             9206
              The entire sidetoc is placed into a nav of class sidetoc.
             9207 \LWR@htmlelementclass{div}{sidetoccontainer}
             9208 \LWR@htmlelementclass{nav}{sidetoc}
             9210 \setcounter{tocdepth}{\value{SideTOCDepth}}
             9211
              The title is placed into a <div> of class sidetoctitle, and may contain paragraphs.
             9212 \begin{BlockClass}{sidetoctitle}
             9213 \ifcsvoid{thetitle}{}\InlineClass{sidetocthetitle}{\thetitle}\par}
             9214 \sidetocname
             9215 \end{BlockClass}
              The table of contents is placed into a <div> of class sidetoccontents.
             9216 \begin{BlockClass}{sidetoccontents}
             9217 \LinkHome
             9219 \LWR@myshorttoc{sidetoc}
             9220 \end{BlockClass}
             9221 \LWR@htmlelementclassend{nav}{sidetoc}
             9222 \LWR@htmlelementclassend{div}{sidetoccontainer}
             9223 }
              75.4 Low-level Toc line formatting
 \numberline \{\langle number \rangle\}
              (Called from each line in the .aux, .lof files.)
              Record this section number for further use:
             9224 \newcommand*{\LWR@numberline}[1]{%
             9225 \LWR@sectionnumber{#1}\quad%
             9226 }
             9227
```

\LWR@maybetocdata Replaced by tocdata. Adds author name.

9229 $\mbox{NR@maybetocdata}{}$

9228 \LetLtxMacro\numberline\LWR@numberline

```
\hypertoc \{\langle 1: depth \rangle\} \{\langle 2: type \rangle\} \{\langle 3: name \rangle\} \{\langle 4: page \rangle\}
               Called by \l@section, etc. to create a hyperlink to a section.
               The autopage label is always created just after the section opens.
               #1 is depth
               #2 is section, subsection, etc.
               #3 the text of the caption
               #4 page number
              9230 \NewDocumentCommand{\hypertoc}{m m +m m}{%
              9231 \LWR@traceinfo{hypertoc !#1!#2!#3!#4!}%
               Respond to tocdepth:
              9232 \ifthenelse{\cnttest{\#1}{<=}{\value{tocdepth}}}%
              9233
                      {%
                           \LWR@startpars%
              9234
               Create an HTML link to <filename>#autosec-(page), with the name, of the given
               HTML class.
                           \LWR@subhyperrefclass{%
              9235
                               \LWR@htmlrefsectionfilename{autopage-#4}%
              9236
                                    \LWR@origpound\LWR@print@mbox{autosec-#4}%
              9237
                           }{#3}{toc#2}%
              9238
              9239
                           \LWR@maybetocdata%
                           \LWR@stoppars%
              9240
              9241
                      }%
              9242
                      {}%
              9243 \LWR@traceinfo{hypertoc done}%
              9244 }
Ctr lofdepth TOC depth for figures.
              9245 \@ifclassloaded{memoir}{}{
              9246 \newcounter{lofdepth}
              9247 \setcounter{lofdepth}{1}
              9248 }
Ctr lotdepth TOC depth for tables.
              9249 \@ifclassloaded{memoir}{}{
              9250 \newcounter{lotdepth}
              9251 \setcounter{lotdepth}{1}
```

9252 }

```
\hypertocfloat \{\langle 1: depth \rangle\} \{\langle 2: type \rangle\} \{\langle 3: ext \ of \ parent \rangle\} \{\langle 4: caption \rangle\} \{\langle 5: page \rangle\}
                  #1 is depth
                  #2 is figure, table, etc.
                  #3 is lof, lot, of the parent.
                  #4 the text of the caption
                  #5 page number
                 9253 \newcommand{\hypertocfloat}[5]{%
                9254 \LWR@startpars
                  If some float-creation package has not yet defined the float type's lofdepth counter,
                  etc, define it here:
                 9255 \@ifundefined{c@#3depth}{%
                 9256 \newcounter{#3depth}%
                 9257 \setcounter{#3depth}{1}%
                9258 }{}%
                  Respond to lofdepth, etc.:
                 9259 \LWR@traceinfo{hypertocfloat depth is #1 #3depth is \arabic{#3depth}}%
                 9260 \ifthenelse{\cnttest{#1}{<=}{\arabic{#3depth}}}%
                 9261
                         {%
                              \LWR@startpars%
                 9262
                  Create an HTML link to filename#autoid-(float number), with text of the caption, of
                  the given HTML class.
                 9263
                              \LWR@subhyperrefclass{%
                 9264
                              \LWR@htmlrefsectionfilename{autopage-\arabic{LWR@nextautopage}}%
                 9265
                              \LWR@origpound\LWR@print@mbox{autoid-\arabic{LWR@nextautoid}}}%
                              {#4}{toc#2}%
                 9266
                 9267
                              \LWR@maybetocdata%
                              \LWR@stoppars%
                 9268
                         }%
                 9269
                         {}%
                 9270
                9271 }
                  Automatically called by \contentsline:
       \l@part \{\langle name \rangle\} \{\langle page \rangle\}
                  Uses \DeclareDocumentCommand in case the class does not happen to have a \part.
```

9272 \DeclareDocumentCommand{\l@part}{m m}{\hypertoc{-1}{part}{#1}{#2}}

```
\l@chapter \{\langle name \rangle\} \{\langle page \rangle\}
                      Uses \DeclareDocumentCommand in case the class does not happen to have a \chapter.
                     9273 \@ifundefined{chapter}
                     9274 {}
                     9275 {
                     9276 \DeclareDocumentCommand{\l@chapter}{m m}
                     9277
                              {\hypertoc{0}{chapter}{#1}{#2}}
                     9278 }
       \l@section \{\langle name \rangle\} \{\langle page \rangle\}
                     9279 \renewcommand{\l@section}[2]{\hypertoc{1}{section}{#1}{#2}}
   \l@subsection \{\langle name \rangle\} \{\langle page \rangle\}
                     9280 \renewcommand{\l@subsection}[2]{\hypertoc{2}{subsection}{\#1}{\#2}}
\l@subsubsection \{\langle name \rangle\} \{\langle page \rangle\}
                     9281 \renewcommand{\l@subsubsection}[2]{\hypertoc{3}{subsubsection}{#1}{#2}}
    \l@paragraph \{\langle name \rangle\} \{\langle page \rangle\}
                     9282 \renewcommand{\l@paragraph}[2]{\hypertoc{4}{paragraph}{#1}{#2}}
 \l@subparagraph \{\langle name \rangle\} \{\langle page \rangle\}
                     9283 \renewcommand{\l@subparagraph}[2]{\hypertoc{5}{subparagraph}{#1}{#2}}
        \l@figure \{\langle name \rangle\} \{\langle page \rangle\}
                     9284 \renewcommand{\l@figure}[2]{\hypertocfloat{1}{figure}{lof}{#1}{#2}}
         \l@table \{\langle name \rangle\} \{\langle page \rangle\}
                     9285 \renewcommand{\l@table}[2]{\hypertocfloat{1}{table}{lot}{#1}{#2}}
                     9286 \end{warpHTML}
```

76 Index and glossary

```
See:
http://tex.stackexchange.com/questions/187038/
how-to-mention-section-number-in-index-created-by-imakeidx
```

Index links are tracked by the counter LWR@autoindex. This counter is used to create a label for each index entry, and a reference to this label for each entry in the index listing. This method allows each index entry to link directly to its exact position in the document.

```
for HTML output: 9287 \begin{warpHTML}
                      9288 \newcounter{LWR@autoindex}
                      9289 \setcounter{LWR@autoindex}{0}
                      9290
                      9291 \newcounter{LWR@autoglossary}
                      9292 \setcounter{LWR@autoglossary}{0}
       Env theindex
                      9293 \@ifundefined{chapter}
                      9294 {\newcommand*{\LWR@indexsection}[1]{\section*{#1}}}
                      9295 {\newcommand*{\LWR@indexsection}[1]{\chapter*{#1}}}
                      9296
                      9297 \AtBeginDocument{
                      9298 \renewenvironment*{theindex}{%
                      9299
                              \LWR@indexsection{\indexname}%
                              \let\item\LWR@indexitem%
                      9300
                              \let\subitem\LWR@indexsubitem%
                      9301
                              \let\subsubitem\LWR@indexsubsubitem%
                      9302
                      9303 }{}
                      9304 }% AtBeginDocument
                                           The optional argument is added to support repeatindex.
      \LWR@indexitem [\langle index \ key \rangle]
                      9305 \newcommand{\LWR@indexitem}[1][\@empty]{
                      9307 \InlineClass{indexitem}{}#1%
                      9308 }
   \LWR@indexsubitem
                      9309 \newcommand{\LWR@indexsubitem}{
                      9311 \InlineClass{indexsubitem}{}
                      9312 }
\LWR@indexsubsubitem
                      9313 \newcommand{\LWR@indexsubsubitem}{
                      9315 \InlineClass{indexsubsubitem}{}
                      9316 }
           \@wrindex \{\langle term \rangle\}
                                      Redefined to write the LWR@autoindex counter instead of page.
```

```
9317 \def\LWR@wrindex#1{%
                             9318 \addtocounter{LWR@autoindex}{1}%
                             9319 \LWR@new@label{LWRindex-\arabic{LWR@autoindex}}%
                              9320 \protected@write\@indexfile{}%
                             9321 {\string\indexentry{#1}{\arabic{LWR@autoindex}}}%
                              9322 \endgroup
                             9323 \@esphack}
                             9324
                             9325 \AtBeginDocument{
                             9326 \let\@wrindex\LWR@wrindex
                             9327 }
                \@wrglossary \{\langle term \rangle\}
                                             Redefined to write the LWR@latestautopage counter instead of page.
                              9328 \def\@wrglossary#1{%
                             9329 \addtocounter{LWR@autoglossary}{1}%
                             9330 \LWR@new@label{LWRglossary-\theLWR@autoglossary}%
                             9331 \protected@write\@glossaryfile{}%
                              9332 {\string\glossaryentry{#1}{\theLWR@autoglossary}}%
                              9333 \endgroup
                              9334 \@esphack}
          \LWR@indexnameref \{\langle LWR@autoindex\rangle\}
                               Creates a hyperlink based on the given entry's autoindex.
                             9335 \newcommand*{\LWR@indexnameref}[1]{\nameref{LWRindex-#1}}
          \LWR@doindexentry \{\langle LWR@autoindex, or macros.\rangle\}
                               Creates a hyperlink, or handles \see, \textbf, etc.
                              9336 \newrobustcmd{\LWR@doindexentry}[1]{%
                              9337 \IfInteger{#1}%
                              9338
                                      {\LWR@indexnameref{#1}}%
                              9339
                                      {#1}%
                              9340 }
\LWR@hyperindexrefnullified Handles macros commonly seen inside an \index entry. Each macro is redefined to
                               create and format a link to its entry.
           index formatting To handle additional macros:
                                    \appto\LWR@hyperindexrefnullified{...}
                              9341 \newcommand{\LWR@hyperindexrefnullified}{%
                             9342 \renewrobustcmd{\emph}[1]{\LWR@HTML@emph{\LWR@doindexentry{##1}}}%
                              9343 \ \texttt{\LWR@doindexentry} \{1] \{ \texttt{\LWR@HTML@textbf} \{ \texttt{\LWR@doindexentry} \{ \#1 \} \} \} \}
                              9344 \renewrobustcmd{\textrm}[1]{\LWR@HTML@textrm{\LWR@doindexentry{##1}}}%
                              9345 \renewrobustcmd{\textsf}[1]{\LWR@HTML@textsf{\LWR@doindexentry{##1}}}%
                              9346 \renewrobustcmd{\texttt}[1]{\LWR@HTML@texttt{\LWR@doindexentry{##1}}}%
                              9347 \renewrobustcmd{\textup}[1]{\LWR@HTML@textup{\LWR@doindexentry{##1}}}%
```

```
9348 \renewrobustcmd{\textsc}[1]{\LWR@HTML@textsc{\LWR@doindexentry{##1}}}% 9349 \renewrobustcmd{\textsi}[1]{\LWR@HTML@textsi{\LWR@doindexentry{##1}}}% 9350 \renewrobustcmd{\textit}[1]{\LWR@HTML@textit{\LWR@doindexentry{##1}}}% 9351 \renewrobustcmd{\textsl}[1]{\LWR@HTML@textsl{\LWR@doindexentry{##1}}}% 9352 }
```

\hyperindexref $\{\langle LWR@autoindex\rangle\}$

\hyperindexref{LWR@autoindex} is inserted into *.ind by the makeindex style file lwarp.ist or the xindy style file lwarp.xdy.

```
9353 \newcommand{\hyperindexref}[1]{%
```

In long index lines with numerous entries, *makeindex* can insert a newline before the page number, resulting in an extra space before the first digit. If the first character is a space, remove it first.

```
9354 \def\LWR@tempone{#1}%
9355 \IfBeginWith{\LWR@tempone}{ }{%
9356 \StrGobbleLeft{\LWR@tempone}{1}[\LWR@tempone]%
9357 }{}%
```

If a numeric entry, create a link. If not numeric, such as \see, use the entry as-is. \emph, \textit, etc. have been redefined above to create and format the entry.

```
9358 \IfInteger{\LWR@tempone}%
        {\LWR@indexnameref{\LWR@tempone}}%
9359
9360
9361
             \begingroup%
9362
             \LWR@hyperindexrefnullified
             #1%
9363
             \endgroup%
9364
        }%
9365
9366 }
9367 \end{warpHTML}
```

for PRINT output:

A null command for print mode, in case hyperref was not used:

```
9368 \begin{warpprint}
9369 \newcommand{\hyperindexref}[1]{#1}
9370 \end{warpprint}
```

for HTML & PRINT:

For the glossaries package, try to prevent an error where \glo@name was not found:

```
9371 \begin{warpall}
9372 \providecommand{\glo@name}{}
9373 \end{warpall}
```

77 Bibliography presentation

```
for HTML output: 9374 \begin{warpHTML}
         \bibliography \{\langle filenames \rangle\}
                                                                                                    Modified to use the base jobname instead of the _html jobname.
                                                                                              9375 \def\bibliography#1{%
                                                                                                                                           \if@filesw
                                                                                              9376
                                                                                                                                            \immediate\write\@auxout{\string\bibdata{#1}}%
                                                                                              9377
                                                                                              9378
                                                                                                                                                         \@input@{\jobname.bbl}% original
                                                                                              9379 %
                                                                                              9380
                                                                                                                                             \begingroup%
                                                                                                                                             \@input@{\BaseJobname.bbl}% lwarp
                                                                                             9381
                                                                                                                                             \endgroup%
                                                                                              9382
                                                                                              9383 }
                             \ensuremath{\mbox{\@biblabel}} \ensuremath{\mbox{\@biblabel}
                                                                                             9384 \renewcommand{\@biblabel}[1]{[#1]\quad}
```

Env thebibliography

To emphasize document titles in the bibliography, the following redefines \em inside the bibliography to gather everything until the next closing brace, then display these tokens with \textit.

```
Adapted from embracedef.sty, which is by TAKAYUKI YATO:
     https://gist.github.com/zr-tex8r/b72555e3e7ad2f0a37f1
9385 \AtBeginDocument{
9386 \AtBeginEnvironment{thebibliography}{
9387 \providecommand*{\LWR@newem}[1]{\textit{#1}}
9388
9389 \renewrobustcmd{\em}{%
      \begingroup
        \gdef\LWR@em@after{\LWR@em@finish\LWR@newem}%
9391
9392
        \afterassignment\LWR@em@after
9393
        \toks@\bgroup
9394 }
9395
9396 \def\LWR@em@finish#1{%
9397
        \xdef\LWR@em@after{\noexpand#1{\the\toks@}}%
      \endgroup
9398
9399
      \LWR@em@after\egroup
9400 }
9401 }% \AtBeginEnvironment{thebibliography}
9402 }% \AtBeginDocument
9403 \end{warpHTML}
```

Restoring original formatting

\LWR@restoreorigformatting

Used to temporarily restore the print-mode meaning of a number of formatting, graphics, and symbols-related macros while generating svg math or a lateximage.

Must be used inside a group.

Sets \LWR@formatting to print until the end of the group.

A number of packages will \appto additional actions to this macro.

Various packages add to this macro using \appto.

```
for HTML output: 9404 \begin{warpHTML}
```

```
9405 \newcommand*{\LWR@restoreorigformatting}{%
9406 \LWR@traceinfo{LWR@restoreorigformatting}%
```

9431 \LetLtxMacro\sishape\LWR@origsishape%

Numerous macros change their print/HTML meaning depending on \LWR@formatting:

```
9407 \renewcommand*{\LWR@formatting}{print}%
9408 \linespread{1}%
9409 \let\par\LWR@origpar%
9410 \LWR@select@print@hspace%
9411 \LetLtxMacro\hfil\LWR@orighfil%
9412 \let\hss\LWR@orighss%
9413 \let\llap\LWR@origllap%
9414 \let\rlap\LWR@origrlap%
9415 \let\hfilneg\LWR@orighfilneg%
9416 \let\,\LWR@origcomma% disable HTML short unbreakable space
9417 \let\thinspace\LWR@origthinspace% disable HTML short unbreakable space
9418 \let\negthinspace\LWR@orignegthinspace% disable HTML negative short unbreakable space
9419 \let\textellipsis\LWR@origtextellipsis%
9420 \let\textless\LWR@origtextless%
9421    \let\textgreater\LWR@origtextgreater%
9422 \let\&\LWR@origampersand%
9423 \LetLtxMacro\rmfamily\LWR@origrmfamily%
9424 \LetLtxMacro\sffamily\LWR@origsffamily%
9425 \LetLtxMacro\ttfamily\LWR@origttfamily%
9426 \LetLtxMacro\bfseries\LWR@origbfseries%
9427 \LetLtxMacro\mdseries\LWR@origmdseries%
9428 \LetLtxMacro\upshape\LWR@origupshape%
9429 \LetLtxMacro\slshape\LWR@origslshape%
9430 \LetLtxMacro\scshape\LWR@origscshape%
```

```
9432 \LetLtxMacro\itshape\LWR@origitshape%
9433 \LetLtxMacro\em\LWR@origem%
9434 \LetLtxMacro\normalfont\LWR@orignormalfont%
9435 \let\sp\LWR@origsp%
9436 \let\sb\LWR@origsb%
9437 \LetLtxMacro\textsuperscript\LWR@origtextsuperscript%
9438 \LetLtxMacro\textsuperscript\LWR@origtextsuperscript%
9439 \LetLtxMacro\textsubscript\LWR@origtextsubscript%
9440 \LetLtxMacro\textsubscript\LWR@origtextsubscript%
9441 \LetLtxMacro\underline\LWR@origunderline%
9442 \let~\LWR@origtilde%
9443 \let\enskip\LWR@origenskip%
9444 \let\quad\LWR@origquad%
9445 \let\qquad\LWR@origqquad%
```

\endtabular must be restored to its original, instead of relying on lwarp's \LWR@formatted mechanism:

```
9446 \LetLtxMacro\endtabular\LWR@origendtabular%
9447 \csletcs{endtabular*}{LWR@origendtabular*}%

9448 \LetLtxMacro\noalign\LWR@orignoalign%
9449 \LetLtxMacro\hline\LWR@orighline%

9450 \let\newline\LWR@orignewline%

9451 \LetLtxMacro\includegraphics\LWR@origincludegraphics%

9452 \LetLtxMacro\@ensuredmath\LWR@origensuredmath%

9453 %

9454 \LWR@restoreorigaccents%

9455 \LWR@restoreoriglists%

9456 %

9457 \LWR@FBcancel%

9459 \end{warpHTML}
```

79 Math

79.1 Limitations

79.1.1 Math in section names

math in section names

If using named HTML files, in section names use paren math (x+y) instead of dollar math x+y. (Dollar math works, but appears in the filename.) Or, use a short name for the TOC entry without the math, or use texorpdfstring:

```
\section{A name with math
  \texorpdfstring{$1+2=3$}{text description}}
```

79.1.2 Rendering tradeoffs

Math rendering

Math may be rendered as svg graphics or using the MathJax JavaScript display engine.

SVG files

Rendering math as images creates a new svg file for each expression, except that an MD5 hash is used to combine identical duplicates of the same inline math expression into a single file, which must be converted to svg only once. Display math is still handled as individual files, since it may contain labels or references which are likely to change.

SVG inline

The svg images are currently stored separately, but they could be encoded in-line directly into the HTML document. This may reduce the number of files and potentially speed loading the images, but slows the display of the rest of the document before the images are loaded.

PNG files

Others LATEX-to-HTML converters have used PNG files, sometimes pre-scaled for print resolution but displayed on-screen at a scaled down size. This allows high-quality print output at the expense of larger files, but svG files are the preferred approach for scalable graphics.

MathML

Conversion to Mathml might be a better approach, among other things allowing a more compact representation of math than svG drawings. Problems with Mathml include limited browser support and some issues with the fine control of the appearance of the result. Also see section 10 regarding EPUB output with MATHJAX.

79.1.3 svg option

SVG math option

For svg math, math is rendered as usual by LaTeX into the initial PDF file using the current font¹⁸, then is captured from the PDF and converted to svg graphics via a number of utility programs. The svg format is a scalable-vector web format, so math may be typeset by LaTeX with its fine control and precision, then displayed or printed at any size, depending on (sometimes broken) browser support. An html alt attribute carries the LaTeX code which generated the math, allowing copy/paste of the LaTeX math expression into other documents.

SVG image font size

For the lateximage environment, the size of the math and text used in the svG image may be adjusted by setting \LateximageFontSizeName to a font size name — without the backslash, which defaults to:

\renewcommand{\LateximageFontSizeName}{normalsize}

For inline svg math, font size is instead controlled by \LateximageFontScale, which defaults to:

\newcommand*{\LateximageFontScale}{.75}

SVG math copy/paste

For svg math, text copy/paste from the HTML <alt> tags lists the equation number or tag for single equations, along with the LATEX code for the math expression. For $\mathcal{A}_{M}\mathcal{S}$ environments with multiple numbers in the same environment, only the first and

 $^{^{18}\}mbox{See}$ section 508 regarding fonts and fractions.

last is copy/pasted, as a range. No tags are listed inside a starred \mathcal{F}_{MS} environment, although the \t tag macro will still appear inside the \t TEX math expression.

SVG math in TFX boxes

SVG math does not work inside TEX boxes, since a \newpage is required before and after each image.

79.1.4 MATHJAX option

MathJax math option

The popular MathJax alternative (mathjax.org) may be used to display math.

Prog MathJax

When MATHJAX is enabled, math is rendered twice:

- 1. As regular LATEX PDF output placed inside an HTML comment, allowing equation numbering and cross referencing to be almost entirely under the control of LATEX, and
- 2. As detokenized printed LATEX commands placed directly into the HTML output for interpretation by the MathJax display scripts. An additional script is used to pre-set the equation number format and value according to the current LATEX values, and the MathJax cross-referencing system is ignored in favor of the LATEX internal system, seamlessly integrating with the rest of the LATEX code.

79.1.5 Customizing MATHJAX

MATHJAX does not have preexisting support every possible math function. Additional MATHJAX function definitions may be defined. These will be declared at the start of each HTML page, and thus will have a global effect.

Examples:

```
\CustomizeMathJax{
     \newcommand{\expval}[1]{\langle#1\rangle}
     \newcommand{\abs}[1]{\lvert#1\rvert}
}
\CustomizeMathJax{\newcommand{\arsinh}{\text{arsinh}}}
\CustomizeMathJax{\newcommand{\arcosh}{\text{arcosh}}}
\CustomizeMathJax{\newcommand{\NN}{\mathbb{N}}}
```

79.1.6 MATHJAX limitations

MathJax limitations
Prog MathJax

MathJax limitations Limitations when using MathJax include:

subequations

• MathJax itself does not support subequations. This may be improved by parsing the LATEX math expression to manually insert tags, but this has not yet been done.

footnotes in math

• Footnotes inside equations are not yet supported while using MATHJAX.

Λ

lateximage

 Math appearing inside a lateximage, and therefore also inside a Tikz or picture environment, is rendered as SVG math even if MATHJAX is used in the rest of the document.

siunitx

siunitx inside an

• Usage of siunitx inside a math equation is supported via a third-party MATHJAX extension. While inside a math expression, do not use \SI or \si inside \text, where it will be rendered as normal text.

https://github.com/burnpanck/MathJax-siunitx Also see section 8.7.11.

tabbing

equation

• A tabbing environment is emulated using an HTML While MathJax is enabled inside tabbing, the browser may not correctly render the horizontal alignment of the math and text following after on the same line.

other macros and packages • Other math-related macros and packages are not supported by MATHJAX, including \ensuremath and bigdelim, along with occasionally-used macros such as \relax. Iwarp emulates footnotes, units, and nicefrac for MathJax.

79.1.7 Catcode changes

preamble macros with math The math shift character \$ is not set for HTML output until after the preamble. Macros defined in the preamble which contain \$ must be enclosed between \StartDefiningMath and \StopDefiningMath to temporarily change to the HTML meaning of \$:

```
\StartDefiningMath
\newcommand{...}
\StopDefiningMath
```

As an alternative, use \(and \) instead of \$, in which case \StartDefiningMath and \StopDefiningMath are not necessary.

If a package defines macros using \$, it may be nessary to use \StartDefiningMath and \StopDefiningMath before and after loading the package.

79.1.8 Complicated inline math objects

\inlinemathnormal \inlinemathother

changing contents complicated alt tag An inline math expression is usually converted to a reusable hashed svg math image, or a MathJax expression. The hash or expression depends on the contents of the math expression. In most cases this math expression is static, such as \$x+1\$, so the image can be reused for multiples instances of the same expression. In some cases, the math expression includes a counter or other object which may change between uses. Another problem is complicated contents which do not expand well in an alt tag. The macro \inlinemathother may be used before a dynamic math expression, and \inlinemathnormal after. Doing so tells lwarp to use an unhashed svg math image, even if MathJax is in use. See section 44.

79.1.9 Complicated display math objects

\displaymathnormal

By default, or when selecting \displaymathnormal, Mathjax math display environments print their contents as text into HTML, and svG display math environments render their contents as svG images and use their contents as the alt tag of HTML output. To do so, the contents are loaded into a macro for reuse. In some cases, such as complicated Tikz pictures, compilation will fail.

\displaymathother MathJax unsupported complicated alt tag When selecting \displaymathother, it is assumed that the contents are more complicated than "pure" math. An example is an elaborate Tikz picture, which will not render in MathJax and will not make sense as an HTML alt tag. In this mode, MathJax is turned off, math display environments become svg images, even if MathJax is selected, and the HTML alt tags become simple messages. The contents are internally processed as an environment instead of a macro argument, so complicated objects such as Tikz pictures are more likely to compile successfully.

79.2 HTML alt tag names

Redefinable names for the HTML alt tags, for translation according to the reader's native language.

for HTML & PRINT: 9460 \begin{warpall}

\mathimagename The HTML alt tag for an svG math image. Default: ''math image''

9461 \newcommand*{\mathimagename}{math image}

\packagediagramname Appended to the lateximage HTML alt tag for the images generated by many packagediagram'' ages.

9462 \newcommand*{\packagediagramname}{diagram}

9463 \end{warpall}

79.3 Inline and display math

for HTML output: 9464 \begin{warpHTML}

tr LWR@externalfilecnt Counter for the external files which are generated and then referenced from the HTML:

9465 \newcounter{LWR@externalfilecnt}

Bool LWR@indisplaymathimage

True if processing display math for svG output. Inside a lateximage, display math is only set to print-mode output if LWR@indisplaymathimage is false. Used to avoid nullifying display math before it has been completed.

9466 \newbool{LWR@indisplaymathimage}

Bool LWR@xfakebold True if xfakebold \setBold is in use.

9467 \newbool{LWR@xfakebold} 9468 \boolfalse{LWR@xfakebold}

\LWR@orig@setBold Redefined by lwarp-xfakebold.

9469 \newcommand*{\LWR@orig@setBold}{}

\LWR@orig@unsetBold Redefined by lwarp-xfakebold.

9470 \newcommand*{\LWR@orig@unsetBold}{}

\LWR@applyxfakebold Redefined by lwarp-xfakebold.

9471 \newcommand*{\LWR@applyxfakebold}{}

\\$ Plain dollar signs appearing in the HTML output may be interpreted by MATHJAX to be math shifts. For a plain text dollar \\$, use an HTML entity to avoid it being interpreted by MATHJAX, unless are inside a lateximage, in which case it will not be seen by MATHJAX.

```
9472 \let\LWR@origtextdollar\$
9473
9474 \renewcommand*{\$}{%
9475 \ifnumcomp{\value{LWR@lateximagedepth}}{>}{0}%
9476 {\LWR@origtextdollar}%
9477 {\HTMLentity{dollar}}%
9478 }
```

lwarp_baseline_marker.png

lwarp_baseline_marker.eps

A marker to be used to help *pdfcrop* identify the inline math baseline and width. If either graphicx or graphics is loaded, this marker is placed at the lower left and lower right corners of the inline math. *pdfcrop* is then able to identify the width of the image, and also the height of an image such as a horizontal dash which does not otherwise touch the baseline.

A marker with alpha or opacity of 0% is not registered by *pdfcrop*, so the marker is a small square block of 1% alpha, which seems to work while still being effectively invisible in the final SVG image.

If graphicx is loaded, this marker is sized as a tiny 1 sp square. If graphics is loaded, this marker is used at its default size of around .25 pt. If neither graphics package is loaded, the marker is replaced by a 10 sp horizontal space, and there is no assistance for determining baseline or width of the inline math image. The best results are obtained when using graphicx.

\LWR@addbaselinemarker

Places a small marker in an svG inline image. If graphics or graphicx are loaded, the marker is a mostly transparent image. If neither is loaded, no marker is used.

```
9479 \AtBeginDocument{
9481 \ifpdf
9482
        \newcommand*{\LWR@baselinename}{lwarp_baseline_marker.png}
9483 \else
        \ifXeTeX
9484
            \newcommand*{\LWR@baselinename}{lwarp_baseline_marker.png}
9485
        \else
9486
            \newcommand*{\LWR@baselinename}{lwarp_baseline_marker.eps}
9487
9488
        \fi
9489 \fi
9490
9491 \IfFileExists{\LWR@baselinename}%
9492 {
9493
        \@ifpackageloaded{graphicx}{
            \newcommand*{\LWR@addbaselinemarker}{%
9494
9495
                 \LWR@origincludegraphics{\LWR@baselinename}%
            }
9496
9497
        }{
            \@ifpackageloaded{graphics}{
9498
9499
                \newcommand*{\LWR@addbaselinemarker}{%
                     \LWR@origincludegraphics{\LWR@baselinename}%
9500
9501
            }{
9502
                \PackageWarningNoLine{lwarp}{Load graphicx or graphics
9503
                     for improved SVG math baselines,}
9504
9505
                \newcommand*{\LWR@addbaselinemarker}{}
9506
            }
9507
9508 }{% lwarp_baseline_marker.png or .eps is not present
       \PackageWarningNoLine{lwarp}{File \LWR@baselinename\space is not installed alongside
9509
            the lwarp-*.sty files, so SVG math baselines may not be accurate,}
9510
        \newcommand*{\LWR@addbaselinemarker}{}
9511
9512 }
9513
9514 }% AtBeginDocument
```

\LWR@subsingledollar * $\{\langle 2: alt \ text \rangle\} \{\langle 3: add'l \ hashing \rangle\} \{\langle 4: math \ expression \rangle\}$

For inline math. Uses MathJax, or for svg math the image is measured and ajusted to the baseline of the HTML output, and placed inside a lateximage.

image filename hashing

If starred, a hashed filename is used. If so, the hash is based on the alt tag and also the additional hashing argument.

This may be used to provide an expression with a simple alt tag but also enough additional information to provide a unique hash.

An example is when the expression is a complicated TEX expression, which would not copy/paste well. A simplified tag may be used, while the complicated expression is duplicated in the additional hashing argument.

Another example is when the expression is simple, but the image depends on options. These options may be decoded into text form and included in the additional hashing

argument in order to make the hash unique according to the set of options, even if the simple alt tag is still the same.

```
9515 \newlength{\LWR@singledollarwidth}
9516 \newlength{\LWR@singledollarheight}
9517 \newlength{\LWR@singledollardepth}
9518
9519 \newsavebox{\LWR@singledollarbox}
9520
9521 \NewDocumentCommand{\LWR@subsingledollar}{s m m m}{%
9522 \LWR@traceinfo{LWR@subsingledollar}%
9523 \ifnumcomp{\value{LWR@lateximagedepth}}{>}{0}%
9524 {%
9525 \LWR@traceinfo{LWR@subsingledollar: already in a lateximage}%
9526
        #4% contents
9527 }%
9528 {% not in a lateximage
9529 \begingroup%
```

Support for xfakebold:

```
9530 \LWR@applyxfakebold%
```

MathJax cannot parse the often complicated TEX expressions which appear in the various uses of \ensuredmath. \ensuremath forces the alt tag to "(math image)", as translated according to \mathimagename. If this is the case, force the use of a lateximage even if MathJax. Likewise for siunitx if parse-numbers=false.

If MathJax, or if formatting math for a word processor, and not \ensuredmath, and not a dynamic math expression, print the math expression:

For MathJax, print the math between \(and \):

```
9539 {%
9540     \LWR@traceinfo{LWR@subsingledollar: Mathjax}%
9541     {\textbackslash(\LWR@HTMLsanitize{#4}\textbackslash)}%
9542 }% mathjax
```

For SVG, print the math inside a lateximage, with an <alt> tag of the LATEX code, and a css style to control the baseline adjustment.

```
9543 {% not mathjax 9544 \LWR@traceinfo{LWR@subsingledollar: NOT mathjax, or is ensuremath, or is dynamic}%
```

Measure the depth, width, and height of the math image:

```
9545 \begingroup%
```

Temporarily disable formatting while measuring the image parameters:

```
9546 \LWR@restoreorigformatting%
9547 \RenewDocumentEnvironment{lateximage}{s o o o}{}{}% inside group
9548 \LWR@print@normalsize%
```

Temporarily set font for the HTML PDF output:

```
UWR@traceinfo{Using font family \LWR@f@family}%

\@nameuse{LWR@orig\LWR@f@family family}%

\LWR@traceinfo{Using font series \LWR@f@series}%

\@nameuse{LWR@orig\LWR@f@series series}%

\LWR@traceinfo{Using font shape \LWR@f@shape}%

\@nameuse{LWR@orig\LWR@f@shape shape}%
```

lateximagedepth must be nested to avoid generating paragraph tags. \mathcal{F}_{MS} math modifies the \text macro such that \addtocounter does not always occur as expected. Lower-level code is used instead.

```
9555 \global\advance\c@LWR@lateximagedepth 1\relax%
```

Typeset and save the contents, depending on how they were generated:

SVG math: \LWR@origensuredmath is part of argument #4.

SVG math \ensuremath: \LWR@origensuredmath is part of argument #4.

SVG dynamic math: \LWR@origensuredmath is part of argument #4.

Mathjax: Argument #4 is the contents of the math expression without \LWR@origensuredmath. This case is handled above.

Mathjax \ensuremath: \LWR@origensuredmath is part of argument #4.

Mathjax dynamic math: Argument #4 is the contents of the math expression without \LWR@origensuredmath, so \LWR@origensuredmath is added below.

\ifmmode: Included "just in case".

```
\ifmmode%
9556
            \global\sbox{\LWR@singledollarbox}{#4}%
9557
9558
            \ifbool{LWR@dynamicmath}{%
9559
                \ifbool{mathjax}{%
9560
9561
                     \global\sbox{\LWR@singledollarbox}{\LWR@origensuredmath{#4}}%
9562
                }{%
                     \global\sbox{\LWR@singledollarbox}{#4}%
9563
                }%
9564
9565
            }{%
9566
                \global\sbox{\LWR@singledollarbox}{#4}%
```

```
9567 }%
9568 \fi%
```

Add a small and almost transparent marker at the depth of the image.

A math minus sign has the same depth as a plus, even though it does not draw anything below the baseline. This means that *pdfcrop* would crop the image without depth. The marker below the baseline is seen by *pdfcrop* and preserves the depth.

```
9569 \global\sbox{\LWR@singledollarbox}{%
9570 \usebox{\LWR@singledollarbox}%
9571 \raisebox{-\dp\LWR@singledollarbox}{%
9572 \LWR@addbaselinemarker%
9573 }%
9574 }%
```

More low-level code to undo the counter change.

```
9575 \global\advance\c@LWR@lateximagedepth -1\relax% Due to AmS \text macro.
```

Measure the depth:

```
9576 \setlength{\LWR@singledollardepth}{%
9577 \LateximageFontScale\dp\LWR@singledollarbox%
9578 }%
```

Make the length a global change:

```
9579 \global\LWR@singledollardepth=\LWR@singledollardepth%
```

Likewise for width:

```
9580 \setlength{\LWR@singledollarwidth}{%
9581 \LateximageFontScale\wd\LWR@singledollarbox%
9582 }%
9583 \global\LWR@singledollarwidth=\LWR@singledollarwidth%
```

Likewise for total height:

```
9584 \setlength{\LWR@singledollarheight}{%
9585 \LateximageFontScale\ht\LWR@singledollarbox%
9586 }%
9587 \addtolength{\LWR@singledollarheight}{%
   \LateximageFontScale\dp\LWR@singledollarbox%
9588 }%
9590 \global\LWR@singledollarheight=\LWR@singledollarheight%
9591 \endgroup%
```

Set a style for the height or width. The em unit is used so that the math scales according to the user's selected font size.

Start with the greater of the width or the height, biased towards the width:

```
9592
      9593
         \def\LWR@singledollarstyle{%
            width:\LWR@convertto{em}{\the\LWR@singledollarwidth} em%
9594
         }%
9595
      }{%
9596
         \def\LWR@singledollarstyle{%
9597
            height:\LWR@convertto{em}{\the\LWR@singledollarheight} em%
9598
9599
         }%
      }%
9600
```

If a very narrow width, use the height.

```
9601 \ifdimless{\LWR@singledollarwidth}{.2em}%
9602 {%
9603 \def\LWR@singledollarstyle{%
9604 height:\LWR@convertto{em}{\the\LWR@singledollarheight} em%
9605 }%
9606 }%
9607 {}%
```

If very wide and short, use the width:

```
9608 \ifdimless{\LWR@singledollarheight}{.2em}%
9609 {%
9610 \def\LWR@singledollarstyle{%
9611 width:\LWR@convertto{em}{\the\LWR@singledollarwidth} em%
9612 }%
9613 }%
9614 {}%
```

If there is significant text depth, add the depth to the style.

```
\ifdimgreater{\LWR@singledollardepth}{0.05ex}{%
9615
9616
            \def\LWR@singledollardepthstyle{%
9617
                \ ; % extra space
9618
                \LWR@print@mbox{%
9619
                vertical-align:-\LWR@convertto{em}{\the\LWR@singledollardepth} em%
9620
                } % extra space
            }%
9621
9622
        }{%
            \def\LWR@singledollardepthstyle{}%
9623
9624
        }%
```

Create the lateximage using the alternate tag and the computed size and depth. The star causes lateximage to use an MD5 hash as the filename. When hashing, also include the current font and color in the hash.

```
9625 \ifbool{LWR@dynamicmath}{%
9626 \LWR@traceinfo{subsingledollar: dynamic}%
9627 \begin{lateximage}% no hashing
9628 [(\mathimagename)]% alt tag
9629 []% no add'l hashing
9630 [\LWR@singledollarstyle \LWR@singledollardepthstyle]% CSS
9631 }{%
```

```
9632 \LWR@traceinfo{subsingledollar: static}%
9633 \IfValueTF{#1}{%
9634 \LWR@findcurrenttextcolor% sets \LWR@tempcolor
```

Support for xfakebold:

```
9635
                \ifbool{LWR@xfakebold}%
                     {\def\LWR@tempone{Y}}%
9636
                     {\def\LWR@tempone{N}}%
9637
9638
                \begin{lateximage}*% use hashing
9639
                     [#2]% alt
                     [% addl' hashing
9640
                         #3%
9641
                         FM\LWR@f@family%
9642
                         SR\LWR@f@series%
9643
                         SH\LWR@f@shape%
9644
9645
                         CL\LWR@tempcolor%
                         FB\LWR@tempone% xfakebold
9646
9647
                     [\LWR@singledollarstyle \LWR@singledollardepthstyle]% CSS
9648
            }{%
9649
                \begin{lateximage}% no hashing
9650
9651
                     [#2]% alt
9652
                     []% no add'l hashing
                     [\LWR@singledollarstyle \LWR@singledollardepthstyle]% CSS
9653
9654
            }%
       }%
9655
```

Place small and almost transparent markers on the baseline at the left and right edges of the image. These markers are seen by *pdfcrop*, and force vertically-centered objects such as a dash to be raised off the baseline in the cropped image, and also force the total width and left/right margins to be correct. (Except that in some fonts a character may exceed the bounding box, and thus may appear wider than expected when converted to an image.)

```
9656 \LWR@addbaselinemarker%
```

Support for xfakebold:

```
9657 \LWR@applyxfakebold%
```

Typeset the contents:

```
9658 \usebox{\LWR@singledollarbox}%
```

The closing baseline marker:

```
9659 \LWR@addbaselinemarker%
9660 \end{lateximage}%
9661 %
9662 }% not mathjax
```

```
9663 \endgroup%
                  9664}% not in a lateximage
                  9665 \LWR@traceinfo{LWR@subsingledollar: done}%
                  9666 }
                  9667 \LetLtxMacro\LWR@origdollar$
                  9668 \LetLtxMacro\LWR@secondorigdollar$% balance for editor syntax highlighting
                  9669 \LetLtxMacro\LWR@origopenparen\(
                  9670 \LetLtxMacro\LWR@origcloseparen\)
                  9671 \LetLtxMacro\LWR@origopenbracket\[
                  9672 \LetLtxMacro\LWR@origclosebracket\]
                    Redefine the dollar sign to place math inside a lateximage, or use MATHJAX:
                  9673 \begingroup
                  9674 \catcode'\$=\active%
                  9675 \protected\gdef${\@ifnextchar$\LWR@doubledollar\LWR@singledollar}%
                   Used by chemformula to escape single-dollar math:
                  9676 \protected\gdef\LWR@newsingledollar{\@ifnextchar$\LWR@doubledollar\LWR@singledollar}%
\LWR@doubledollar Redefine the double dollar sign to place math inside a lateximage, or use MATHJAX:
                  9677 \protected\gdef\LWR@doubledollar$#1$${%
                   If MathJax or formatting for a word processor, print the LATEX expression:
                  9678 \ifboolexpr{bool{mathjax} or ( bool{FormatWP} and bool{WPMarkMath} ) }%
                   For MathJax, print the math between \[ and \]:
                  9679 {
                  9680
                  9681
                          \textbackslash[%
                          \LWR@HTMLsanitize{#1}%
                  9682
                          \textbackslash]
                  9683
                  9684
                  9685 }% mathjax
                   For SVG, print the math inside a lateximage, with an <alt> tag of the LATEX code:
                  9686 {% not mathjax
                          \begin{BlockClass}{displaymath}%
                  9687
                          \LWR@newautoidanchor%
                  9688
                          \booltrue{LWR@indisplaymathimage}%
                  9689
                  9690
                          \begin{lateximage}%
                  9691
                          [%
```

\textbackslash{[] % extra space

\textbackslash{]}%

\LWR@HTMLsanitize{#1} % extra space

9692

9693

9694 9695

]%

\$

Support for xfakebold:

```
9696
                            \LWR@applyxfakebold%
                   9697
                            \LWR@origdollar\LWR@origdollar#1\LWR@origdollar\LWR@origdollar%
                   9698
                            \end{lateximage}%
                   9699
                            \end{BlockClass}%
                   9700 }% not mathjax
                   9701 }%
\LWR@singledollar \{\langle alt\ text \rangle\} \{\langle math\ expression \rangle\}
                   9702 \protected\gdef\LWR@singledollar#1${%
                   9703 \ifbool{mathjax}{%
                            \LWR@subsingledollar*%
                   9704
                   9705
                           {% alt tag
                                \textbackslash( %
                   9706
                                \LWR@HTMLsanitize{#1} % extra space
                   9707
                                \textbackslash)%
                   9708
                   9709
                           }%
                   9710
                           {singledollar}% add'l hashing
                   9711
                           {#1}% contents
                   9712 }{% not mathjax
                           \LWR@subsingledollar*%
                   9713
                   9714
                           {% alt tag
                                \textbackslash( %
                   9715
                   9716
                                \LWR@HTMLsanitize{#1} % extra space
                   9717
                                \textbackslash)%
                   9718
                           {singledollar}% add'l hashing
                   9719
                           {\LWR@origensuredmath{#1}}% contents
                   9720
                   9721 }% not mathjax
                   9722 }
                \( Redefine to the above dollar macros.
                1
                   9723 \AtBeginDocument{
                   9724 \protected\gdef\(#1\){$#1$}
                   9725 \protected\gdef\[#1\]{$$#1$$}
                   9726 }
                   9727
                   9728 \endgroup
                   9729 \AtBeginDocument{
                   9730 \LetLtxMacro\LWR@openbracketnormal\[
                   9731 \LetLtxMacro\LWR@closebracketnormal\]
                   9732 }
    \ensuremath \{\langle expression \rangle\}
```

If MathJax, a lateximage is used, since \ensuremath is often used for complex TEX expressions which MathJax may not render. If svg math, a hashed file is used with a simple alt tag, but additional hashing provided by the contents.

```
9733 \LetLtxMacro\LWR@origensuredmath\@ensuredmath
9734

9735 \renewcommand{\@ensuredmath}[1]{%

9736 \ifbool{mathjax}{%

9737 \LWR@subsingledollar*{(\mathimagename)}{%

9738 \protect\LWR@HTMLsanitize{\detokenize\expandafter{#1}}%

9739 }{\relax%

9740 \LWR@origensuredmath{#1}%

9741 }%

9742 }{% SVG math
```

If already inside a lateximage in math mode, continue as-is.

```
9743 \ifmmode%
9744 \LWR@origensuredmath{#1}%
9745 \else%
```

Create an inline math lateximage with a simple alt tag and additional hashing according to the contents.

```
9746
        \ifnumcomp{\value{LWR@lateximagedepth}}{>}{0}%
        {\LWR@origensuredmath{#1}}%
9747
        {%
9748
9749
            \LWR@subsingledollar*{(\mathimagename)}{%
9750
                \protect\LWR@HTMLsanitize{\detokenize\expandafter{#1}}%
9751
            }{%
9752
                 \LWR@origensuredmath{#1}%
            }%
9753
9754
        }%
9755 \fi%
9756 }%
9757 }
```

Remove the old math and displaymath environments:

```
9758 \let\math\relax

9759 \let\endmath\relax

9760 \let\displaymath\relax

9761 \let\enddisplaymath\relax
```

Env math Set math mode then typeset the body of what was between the begin/end. See the environ package for \BODY.

```
9762 \NewEnviron{math}{\expandafter\(\BODY\)}
```

LWR@displaymathnormal Set math mode then typeset the body of what was between the begin/end. See the environ package for \BODY.

```
9763 \NewEnviron{LWR@displaymathnormal}{\expandafter\[\BODY\]\@ignoretrue}
```

Set the default displaymath to the normal version:

```
9764 \LetLtxMacro\[\LWR@openbracketnormal%

9765 \LetLtxMacro\]\LWR@closebracketnormal%

9766 \LetLtxMacro\displaymath\LWR@displaymathnormal%

9767 \LetLtxMacro\enddisplaymath\endLWR@displaymathnormal%
```

 ${\tt Env} \quad {\tt LWR@displaymathother}$

A version of displaymath which can handle complicated objects, but does not supply MATHJAX or HTML alt tags.

```
9768 \newenvironment{LWR@displaymathother}
9769 {%
9770
        \begin{BlockClass}{displaymath}%
9771
        \LWR@newautoidanchor%
9772
        \booltrue{LWR@indisplaymathimage}%
9773
        \begin{lateximage}%
9774
        [(display math)]%
        \LWR@origdollar\LWR@origdollar%
9775
9776 }
9777 {%
        \LWR@origdollar\LWR@origdollar%
9778
9779
        \end{lateximage}%
        \end{BlockClass}%
9780
9781 }
```

Env LWR@equationother

A version of displaymath which can handle complicated objects, but does not supply MathJax or html alt tags.

```
9782 \newenvironment{LWR@equationother}
9783 {%
        \begin{BlockClass}{displaymathnumbered}%
9784
        \LWR@newautoidanchor%
9785
9786
        \booltrue{LWR@indisplaymathimage}%
9787
        \begin{lateximage}%
9788
        [(display math)]%
9789
        \LWR@origequation%
9790 }
9791 {%
9792
        \LWR@origendequation%
9793
        \end{lateximage}%
9794
        \end{BlockClass}%
9795 }
```

79.4 MATHJAX support

Ctr LWR@nextequation Used to add one to compute the next equation number.

```
9796 \newcounter{LWR@nextequation}
```

\LWR@syncmathjax Sets the MATHJAX equation format and number for the following equations.

These MathJax commands are printed inside "\(" and "\)" characters. They are printed to html output, not interpreted by LATEX.

```
9797 \newcommand*{\LWR@syncmathjax}{%
```

If using chapters, place the chapter number in front of the equation. Otherwise, use the simple equation number.

```
9798 \ifcsdef{thechapter}{
9799    \InlineClass{hidden}{
9800         \textbackslash(
9801         \textbackslash{}seteqsection \{\thechapter\}
9802         \textbackslash)
9803    }
9804 }
9805 {}% not using chapters
```

MATHJAX doesn't allow setting the equation number to 1:

```
9806 \ifthenelse{\cnttest{\value{equation}}>0}
9807 {
```

Tell MathJax that the next set of equations begins with the current LATEX equation number, plus one.

```
9808 \setcounter{LWR@nextequation}{\value{equation}}
9809 \addtocounter{LWR@nextequation}{1}
```

Place the MathJax command inside "\(" and "\)" characters, to be printed to html, not interpreted by LATEX.

```
9810 \InlineClass{hidden}{
9811    \textbackslash(
9812    \textbackslash{}seteqnumber \{\arabic{LWR@nextequation}\}
9813    \textbackslash)
9814    }
9815 }{}% not eq > 0
9816 }
```

\LWR@hidelatexequation $\{\langle environment \rangle\} \{\langle contents \rangle\}$

Creates the LATEX version of the equation inside an HTML comment.

```
9817 \NewDocumentCommand{\LWR@hidelatexequation}{m +m}{%}
```

Stop HTML paragraph handling and open an HTML comment:

```
9818 \LWR@stoppars
9819 \LWR@htmlopencomment
9820
```

Start the \LaTeX math environment inside the \LaTeX

```
9821 \begingroup
                9822 \@nameuse{LWR@orig#1}
                 While in the math environment, restore various commands to their LATEX meanings.
                9823 \LWR@restoreorigformatting
                 See \LWR@htmlmathlabel in section 79.7.1.
                 Print the contents of the equation:
                9824 #2
                 End the LATEX math environment inside the HTML comment:
                9825 \@nameuse{LWR@origend#1}
                9826 \endgroup
                9827
                 Close the HTML comment and resume HTML paragraph handling:
                9828 \LWR@htmlclosecomment
                9829 \LWR@startpars
                9830 }
\LWR@addmathjax \{\langle environment \rangle\} \{\langle contents \rangle\}
                 Given the name of a math environment and its contents, create a MATHJAX instance.
                 The contents are printed to HTML output, not interpreted by LATEX.
                9831 \NewDocumentCommand{\LWR@addmathjax}{m +m}{%
                 Enclose the MathJax environment inside printed "\(" and "\)" characters.
                9832 \LWR@origtilde\LWR@orignewline
                9833 \textbackslash{}begin\{#1\}
                 Print the contents, sanitizing for HTML special characters.
                9834 \LWR@HTMLsanitizeexpand{\detokenize\expandafter{#2}}
                 Close the MathJax environment:
                9835 \textbackslash{}end\{#1\}
                9836 \LWR@orignewline
                9837 }
```

79.5 Equation environment

Remember existing equation environment, after redefined by amsmath, if loaded.

```
9838 \AtBeginDocument{
9839 \let\LWR@origequation\equation
9840 \let\LWR@origendequation\endequation
9841 \csletcs{LWR@origequation*}{equation*}
9842 \csletcs{LWR@origendequation*}{endequation*}
9843 }
```

\LWR@doequation $\{\langle env \ contents \rangle\} \ \{\langle env \ name \rangle\}$

For svG math output, the contents are typeset using the original equation inside a lateximage, along with an <alt> tag containing a detokenized copy of the LATEX source for the math.

For MathJax output, the contents are typeset in an original equation environment placed inside a HTML comment, with special processing for \labels. The contents are also printed to the HTML output for processing by the MathJax script.

```
9844 \newcommand*{\LWR@doequation}[2]{%
9845

If mathjax or FormatWP, print the LATEX expression:
9846 \ifboolexpr{bool{mathjax} or ( bool{FormatWP} and bool{WPMarkMath} ) }%

MATHJAX output:
```

Print commands to syncronize MathJax's equation number and format to the current LATEX chapter/section and equation number:

```
9848 \LWR@syncmathjax
```

9847 {

Print the LATEX math inside an HTML comment:

```
9849 \LWR@hidelatexequation{#2}{#1}
9850 }
```

SVG output: Create the lateximage along with an HTML <alt> tag having an equation number, the LATEX equation environment commmands, and the contents of the environment's \BODY.

```
9851 {% not mathjax
```

Begin the lateximage with an <alt> tag containing the math source:

```
9852 \ifstrequal{#2}{equation*}{%
9853 \begin{BlockClass}{displaymath}%
9854 \}{%
9855 \begin{BlockClass}{displaymathnumbered}%
9856 \}%
9857 \LWR@newautoidanchor%
9858 \booltrue{LWR@indisplaymathimage}%
```

```
9859
      \begin{lateximage}[%
9860
         \ifstrequal{#2}{equation*}{%
            9861
9862 %
                               no tag was given
            }{%
9863
               (\LWR@equationtag) \% tag was given
9864
            }%
9865
9866
         }{%
            (\LWR@equationtag) % automatic numbering
9867
         }%
9868
         \text{textbackslash{begin}{#2}} % extra space
9869
         9870
         \textbackslash{end\{\#2\}}\%
9871
      ]% alt tag
9872
```

Support for xfakebold:

```
9873 \LWR@applyxfakebold%
```

Create the actual LATEX-formatted equation inside the lateximage using the contents of the environment.

```
9874 \@nameuse{LWR@orig#2}%
9875 #1% contents collected by \collect@body
9876 \@nameuse{LWR@origend#2}%
9877 \end{lateximage}%
9878 \end{BlockClass}%
9879 }% not mathjax
9880 }
```

After the environment, if MathJax, print the math to the HTML output for MathJax processing:

```
9881 \newcommand*{\LWR@doendequation}[1]{%
9882  \ifboolexpr{bool{mathjax} or ( bool{FormatWP} and bool{WPMarkMath} ) }%
9883   {%
9884   \LWR@addmathjax{#1}{\BODY}%
9885  }{}%
9886
9887}
```

Remove existing equation environment:

```
9888 \AtBeginDocument{
9889 \let\equation\relax
9890 \let\endequation\relax
9891 \csletcs{equation*}{relax}
9892 \csletcs{endequation*}{relax}
9893 }
```

nv equation The new equation environment is created with \NewEnviron (from the environ package), which stores the contents of its environment in a macro called \BODY.

```
9894 \AtBeginDocument{
               9895 \NewEnviron{equation}%
               9896 {\LWR@doequation{\BODY}{equation}}%
               9897 [\LWR@doendequation{equation}]
               9899 \LetLtxMacro\LWR@equationnormal\equation
               9900 \LetLtxMacro\endLWR@equationnormal\endequation
               9901 }
    equation*
Env
               9902 \AtBeginDocument{
               9903 \NewEnviron{equation*}%
               9904 {\LWR@doequation{\BODY}{equation*}}%
               9905 [\LWR@doendequation{equation*}]
               9907 \csletcs{LWR@equationnormalstar}{equation*}
               9908 \csletcs{LWR@endequationnormalstar}{endequation*}
               9909 }
```

Remember the "less" version of equation, which uses MATHJAX and alt tags, but does not support complicated contents such as some Tikz expressions.

```
9910 \AtBeginDocument{
9911 \LetLtxMacro\LWR@equationless\equation
9912 \LetLtxMacro\endLWR@equationless\endequation
9913 \csletcs{LWR@equationlessstar}{equation*}
9914 \csletcs{LWR@endequationlessstar}{endequation*}
9915 }
```

79.6 \displaymathnormal and \displaymathother

\displaymathnormal

By default, or when selecting \displaymathnormal, Mathjax math display environments print their contents as text into HTML, and svg display math environments render their contents as svg images and use their contents as the alt tag of HTML output. To do so, the contents are loaded into a macro for reuse. In some cases, such as complicated Tikz pictures, compilation will fail.

\displaymathother MathJax unsupported complicated alt tag When selecting \displaymathother , it is assumed that the contents are more complicated than "pure" math. An example is an elaborate $\displaymathat{Ti}kz$ picture, which will not render in MathJax and will not make sense as an HTML alt tag. In this mode, MathJax is turned off, math display environments become svg images, even if MathJax is selected, and the HTML alt tags become simple messages. The contents are internally processed as an environment instead of a macro argument, so complicated objects such as $\displaymathat{Ti}kz$ pictures are more likely to compile successfully.

\displaymathnormal simple math objects

Use when display math environments have simple math which is to sent to MATHJAX or included in HTML alt tags.

```
9917 \ifbool{LWR@origmathjax}{\booltrue{mathjax}}{\boolfalse{mathjax}}%
9918 \LetLtxMacro\[\LWR@openbracketnormal%
9919 \LetLtxMacro\]\LWR@closebracketnormal%
9920 \LetLtxMacro\displaymath\LWR@displaymathnormal%
9921 \LetLtxMacro\enddisplaymath\endLWR@displaymathnormal%
9922 \LetLtxMacro\equation\LWR@equationnormal%
9923 \LetLtxMacro\endequation\endLWR@equationnormal%
9924 \csletcs{equation*}{LWR@equationnormalstar}%
9925 \csletcs{endequation*}{LWR@endequationnormalstar}%
9926 }
```

\displaymathother complicated math objects

Use when display math environments have complicated objects which will not work with MathJax or should not be included in HTML alt tags. Complicated contents are more likely to compile correctly.

```
9927 \newcommand*{\displaymathother}{%
                9928 \boolfalse{mathjax}%
                9929 \LetLtxMacro\displaymath\LWR@displaymathother%
                9930 \verb|\LetLtxMacro\enddisplaymath\endLWR@displaymathother\%|
                9931 \LetLtxMacro\[\LWR@displaymathother%
                9932 \LetLtxMacro\]\endLWR@displaymathother%
                9933 \LetLtxMacro\equation\LWR@equationother%
                9934 \LetLtxMacro\endequation\endLWR@equationother%
                9935 \csletcs{equation*}{displaymath}%
                9936 \csletcs{endequation*}{enddisplaymath}%
                9937 }
                9938 \end{warpHTML}
for PRINT output: 9939 \begin{warpprint}
                 Print-mode versions:
                9940 \newcommand*{\displaymathnormal}{}
                9941 \newcommand*{\displaymathother}{}
                9942 \end{warpprint}
for HTML output: 9943 \begin{warpHTML}
```

AMS Math environments

79.7.1 Support macros

LWR@amsmultline True if processing a multline environment.

To compensate for multline-spefific code, LWR@amsmultline is used to add extra horizontal space in \LWR@htmlmathlabel if is used in an amsmath environment which is not a multline environment and not an equation.

```
9944 \newbool{LWR@amsmultline}
9945 \boolfalse{LWR@amsmultline}
```

```
\LWR@htmlmathlabel \{\langle label \rangle\}
```

lwarp points \ltx@label here. This is used by \label when inside a LATEX AMS math environment's math display environment.

\LWR@origltx@label points to the LATEX original, modified by lwarp, then by amsmath, then by cleveref.

```
9946 \newcommand*{\LWR@htmlmathlabel}[1]{%
9947 \LWR@traceinfo{LWR@htmlmathlabelb #1}%
```

If mathjax or FormatWP, print the LATEX expression:

```
9948 \ensuremath{\mboulter}\xspace \ensuremath{\mboulter}\xspace
```

The combined LATEX & HTML label is printed in a \text field:

```
9950 \text{%
```

Shift the label over to the right side of the environment to avoid over-printing the math:

```
9951 \ifbool{LWR@amsmultline}{}{\hspace*{\totwidth@}}%
```

Temporarily end the HTML comment, insert the LATEX & HTML label, then resume the HTML comment. \@firstofone is required to remove extra braces introduced by the amsmath package.)

\LWR@beginhideamsmath Starts hiding LATEX math inside an HTML comment.

```
9961 \newcommand*{\LWR@beginhideamsmath}{
9962 \LWR@stoppars
9963 \LWR@origtilde\LWR@orignewline
9964 \LWR@htmlopencomment
9965
9966 \begingroup
9967 \LWR@restoreorigformatting
9968 }
```

```
9969 \newcommand*{\LWR@endhideamsmath}{
9970 \endgroup
9971
9972 \LWR@htmlclosecomment
9973 \LWR@orignewline
9974 \LWR@startpars
9975 }
```

79.7.2 Environment patches

The amsmath environments already collect their contents in $\ensuremath{\mbox{\tt @envbody}}$ for further processing, eqnarray is not an $\ensuremath{\mathcal{F}_{\!M\!S}}$ package, and thus requires special handling.

For svg math: Each environment is encapsulated inside a lateximage environment, along with a special optional argument of \LWR@amsmathbody or \LWR@amsmathbodynumbered telling lateximage to use as the HTML <alt> tag the environment's contents which were automatically captured by the $\mathcal{A}_{M}\mathcal{S}$ environment.

For MathJax: Each environment is syched with LATEX's equation numbers, typeset with LATEX inside an HTML comment, then printed to HTML output for MathJax to process.

Env eqnarray

This environment is not an \mathcal{F}_{MS} environment and thus its body is not automatically captured, so the environ package is used to capture the environment into \BODY.

```
9976 \let\LWR@origeqnarray\eqnarray
9977 \let\LWR@origendeqnarray\endeqnarray
```

To remember whether the starred environment was used, and thus whether to number the equations:

```
9978 \newbool{LWR@numbereqnarray}
9979 \booltrue{LWR@numbereqnarray}
```

Common code used by egnarray and Begnarray (from fancybox):

```
9980 \newcommand{\LWR@eqnarrayfactor}{%
```

If mathjax or FormatWP, print the LATEX expression:

```
9981 \ or ( bool{FormatWP} and bool{WPMarkMath} ) }% 9982 \ %
```

If MATHJAX, the environment contents (the \BODY) are executed in a HTML comment to trigger the correct equation number increment (if not starred), then are included verbatim in the output for MATHJAX to interpret:

```
9983 \LWR@syncmathjax
9984 \boolfalse{LWR@amsmultline}
```

```
9985 \ifbool{LWR@numbereqnarray}
9986 {
```

If numbering the equations, execute a copy inside an HTML comment block:

```
9987 \LWR@beginhideamsmath
9988 \LWR@origeqnarray
9989 \BODY
9990 \LWR@origendeqnarray
9991 \LWR@endhideamsmath
```

Then print the (sanitized) contents to the output for MATHJAX to interpret:

```
9992 \LWR@addmathjax{eqnarray}{\BODY}
9993 }%
9994 {% not LWR@numbereqnarray
```

If not numbering equations, just create the contents for MATHJAX:

```
9995 \LWR@addmathjax{eqnarray*}{\BODY}
9996 }% LWR@numbereqnarray
9997 }% mathjax
9998 {% not mathjax
9999 \ifbool{LWR@numbereqnarray}
10000 {
```

For numbered svG equations, first create a lateximage with an alt attribute containing sanitized copy of the source code:

Support for xfakebold:

```
10006 \LWR@applyxfakebold%
```

Create the image contents using an actual eqnarray:

If not numbered, do the same, but an extra \nonumber seems to be required:

```
10014 \begin{BlockClass}{displaymath}
10015 \LWR@newautoidanchor%
10016 \booltrue{LWR@indisplaymathimage}%
```

```
10017 \begin{lateximage}[\LWR@addmathjax{eqnarray*}{\BODY}]
```

Support for xfakebold:

```
\LWR@applyxfakebold%
10018
             \LWR@origeqnarray
10019
             \BODY
10020
10021
             \nonumber
             \LWR@origendeqnarray
10022
             \end{lateximage}
10023
10024
             \end{BlockClass}
10025
         }% LWR@numbereqnarray
10026}% not mathjax
```

Default to number equations in the future:

```
10027 \booltrue{LWR@numbereqnarray}
10028 }
```

eqnarray itself is made with a blank line before and after to force it to be on its own line:

```
10029 \RenewEnviron{eqnarray}
10030 {%
10031
10032 \LWR@eqnarrayfactor
10033
10034 }
```

The starred version is patched to turn off the numbering:

```
10035 \csgpreto{eqnarray*}{\boolfalse{LWR@numbereqnarray}}
10036 \end{warpHTML}
```

80 Lateximages

80.1 Description

Env lateximage

A lateximage is a piece of the document which is typeset in LATEX then included in the HTML output as an image. This is used for math if svg math is chosen, and also for the picture, tikzpicture, and other environments.

Before typesetting the lateximage a large number of formatting, graphics, and symbols-related macros are temporarily restored to their print-mode meaning by \LWR@restoreorigformatting. (See section 78.)

A lateximage is typeset on its own PDF page inside an HTML comment which starts on the preceding page and ends on following page, and instructions are written

to lateximage.txt for *lwarpmk* to extract the lateximage from the page of the PDF file then generate an accompanying .svg file image file. Meanwhile, instructions to show this image are placed into the HTML file after the comment.

An HTML is created to hold both the HTML comment, which will have the *pdftotext* conversion, and also the link to the final .svg image.

A LATEX label is used to remember which PDF page has the image. A label is used because footnotes, endnotes, and pagenotes may cause the image to appear at a later time. The label is declared along with the image, and so it correctly remembers where the image finally ended up.

html alt tag

The HTML alt tag is set to the LATEX source for svG math, some chemistry expressions, and perhaps some other expressions which make sense for text copy/paste. In some other cases, the alt tag is set according to the package name.

When creating an svG math image, its alt tag may be set to the math expression, which may be hashed for image reuse. In the case of \ensuremath or after \inlinemathother, where the contents require a unique image for each instance of the same expression, the alt tag is set to \mathimagename, and the image is not reused.

This expression is visible in the browser if images are not loaded, and appears when the text is copied and pasted. The default is "math image", and it may be changed according to the document's language. This may be set in the preamble, or changed as necessary inside the document, where it will affect the following svg math images.

For many packages, the output is placed inside a lateximage with an HTML alt tag set to the package name followed by \packagediagramname. For example:

```
(-xy- diagram)
```

This expression is visible in the browser if images are not loaded, and appears when the text is copied and pasted. The default is "diagram", and may it be changed according to the document's language. This may be set in the preamble, or changed as necessary inside the document, where it will affect the following lateximages.

SVG image font size

For the lateximage environment, the size of the math and text used in the svg image may be adjusted by setting \LateximageFontSizeName to a font size name — without the backslash, which defaults to:

```
\renewcommand{\LateximageFontSizeName}{normalsize}
```

For inline svg math, font size is instead controlled by \LateximageFontScale, which defaults to:

\newcommand*{\LateximageFontScale}{.75}

80.2 Support counters and macros

for HTML output: 10037 \begin{warpHTML}

Sequence the images. LWR@lateximagenumber

> 10038 \newcounter{LWR@lateximagenumber} 10039 \setcounter{LWR@lateximagenumber}{0}

LWR@lateximagedepth Do not create \lateximage inside of \lateximage.

10040 \newcounter{LWR@lateximagedepth} 10041 \setcounter{LWR@lateximagedepth}{0}

A few utility macros to write special characters:

10042 \edef\LWR@hashmark{\string#} % for use in \write 10043 \edef\LWR@percent{\@percentchar} % for use in \write

Ctr LWR@LIpage Used to reference the PDF page number of a lateximage to be written into <project>-images.txt.

10044 \newcounter{LWR@LIpage} 10045 \end{warpHTML}

80.3 Font size

for HTML & PRINT: 10046 \begin{warpall}

\LateximageFontSizeName Declares how large to write text in \lateximages. The .svg file text size should blend well with the surrounding HTML text size.

no backslash Do not include the leading backslash in the name.

10047 \newcommand*{\LateximageFontSizeName}{normalsize}

Declares how large to scale inline svg math images. The .svg file text size should \LateximageFontScale blend well with the surrounding HTML text size. The default is .75, but it may be redefined as needed depending on the HTML font.

> 10048 \newcommand*{\LateximageFontScale}{.75} 10049 \end{warpall}

80.4 Sanitizing math expressions for HTML

```
for HTML output: 10050 \begin{warpHTML}
```

\LWR@HTMLsanitize $\{\langle text \rangle\}$

Math expressions are converted to lateximages, and some math environments may contain &, <, or >, which should not be allowed inside an HTML <alt> tag, so must convert them to HTML entities.

Two versions follow, depending on expansion needs. There may be a better way...

```
10051 \newrobustcmd{\LWR@HTMLsanitize}[1]{%
```

Cancel French babel character handling, and fully expand the strings:

```
10052 \begingroup%
10053 \LWR@FBcancel%
10054 \fullexpandarg%
```

The &, <, and > may be interpreted by the browser:

```
10055 \protect\StrSubstitute{\detokenize{#1}}%
10056 {\detokenize{&}}{\detokenize{&}}[\LWR@strresult]%
10057 \protect\StrSubstitute{\detokenize\expandafter{\LWR@strresult}}%
10058 {\detokenize{<}}{\detokenize{&lt;}}[\LWR@strresult]%
10059 \protect\StrSubstitute{\detokenize\expandafter{\LWR@strresult}}%
10060 {\detokenize{>}}{\detokenize{&gt;}}[\LWR@strresult]%
```

The double quote occasionally causes problems.

```
\label{thm:condition} $$10061 \operatorname{\label{thm:condition} } $$10062 {\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize{\detokenize
```

MathJax allows expressions to be defined with \newcommand. These expressions would appear with ## for each argument, and each must be changed to a single #. This must be done after all the above changes. Attempting another conversion after this causes an error upon further expansion.

```
10063 \protect\StrSubstitute{\detokenize\expandafter{\LWR@strresult}}%
10064 {\detokenize{##}}{\LWR@origpound}[\LWR@strresult]%
10065 \LWR@strresult%
10066 \endgroup%
10067 }
```

\LWR@HTMLsanitizeexpand $\{\langle text \rangle\}$

This version expands the argument before sanitizing it.

Cancel French babel character handling, and fully expand the strings:

```
10069 \begingroup%
10070 \LWR@FBcancel%
10071 \fullexpandarg%
```

The difference between this and \LWR@HTMLsanitize (without "expand") is the following \expandafter:

```
10072 \protect\StrSubstitute{\detokenize\expandafter{#1}}%
10073 {\detokenize{&}}{\detokenize{&}}[\LWR@strresult]%
10074 \protect\StrSubstitute{\detokenize\expandafter{\LWR@strresult}}%
10075 {\detokenize{<}}{\detokenize{&lt;}}[\LWR@strresult]%
10076 \protect\StrSubstitute{\detokenize\expandafter{\LWR@strresult}}%
10077 {\detokenize{>}}{\detokenize{&gt;}}[\LWR@strresult]%
10078 \protect\StrSubstitute{\detokenize\expandafter{\LWR@strresult}}%
10079 {\detokenize{"}}{\detokenize{&quot;}}[\LWR@strresult]%

\LWR@HTMLsanitizeexpand is not used for defining new MathJax macros, so the ## conversion is not needed here.

10080 \LWR@strresult%
10081 \endgroup%
```

80.5 Equation numbers

10082 }

Ctr LWR@startingequation

For use with lateximage and multi-line numbered equations. Remembers the next equation number so that it may be printed in the alt tag.

```
10083 \newcounter{LWR@startingequation}
10084
10085 \@ifundefined{chapter}
10086 {
10087 \renewcommand{\theLWR@startingequation}{%
10088 \arabic{LWR@startingequation}%
10089 }
10090 }
10091 {% chapter defined
10092 \renewcommand{\theLWR@startingequation}{%
10093 \ifnumcomp{\value{chapter}}{>}{0}{\arabic{chapter}.}{}}%
10094 \arabic{LWR@startingequation}%
10095 }
10096 }
```

Bool LWR@isstartingequation True for the first equation tag, false for later tags in the same environment.

10097 \newbool{LWR@isstartingequation}

\LWR@startingequationtag Prints the starting equation number or tag.

 ${\tt 10098 \ let LWR@startingequationtag \ the LWR@startingequation}$

\LWR@equationtag

Prints the ending equation number or tag.

This is reset by lateximage, may be temporarily overwritten by \tag calling \LWR@remembertag.

```
10099 \newcommand*{\LWR@equationtag}{}
```

Only if svg math, patch \tag after packages have loaded, in case someone else modified \tag.

```
10100 \AtBeginDocument{
10101
10102 \ifbool{mathjax}{}% not mathjax
```

```
\LWR@remembertag \{\langle tag \rangle\}
```

For use inside the math environments while using svg math. Sets \theLWR@startingequation and \theequation to the given tag.

```
10103 \NewDocumentCommand{\LWR@remembertag}{m}{%
10104 \ifbool{LWR@isstartingequation}%
10105 {%
10106 \global\boolfalse{LWR@isstartingequation}%
10107 \xdef\LWR@startingequationtag{#1}%
10108 }{}%
10109 \xdef\LWR@equationtag{#1}%
10110 }%
10111 }% not mathjax
10112 }% AtBeginDocument
```

80.6 HTML alt tags

\LWR@amsmathbody {

 $\{\langle envname \rangle\}$ For use inside the optional argument to a lateximage to add the contents of a AMS math environment to the $\{alt> tag\}$.

```
10113 \newcommand*{\LWR@amsmathbody}[1]
10114 {%
10115 \textbackslash\{begin\}\{#1\} % extra space
10116 \LWR@HTMLsanitizeexpand{\detokenize\expandafter{\the\@envbody}}%
10117 \textbackslash\{end\}\{#1\}%
10118 }
```

\LWR@amsmathbodynumbered

 $\{\langle envname \rangle\}$ For use inside the optional argument to a lateximage to add the contents of a AMS math environment to the alt tag, prefixed by the equation numbers.

```
10119 \newcommand*{\LWR@amsmathbodynumbered}[1]
10120 {%
10121 \ifnumcomp{\value{LWR@startingequation}}{=}{\value{equation}}}%
```

```
10122 {(\LWR@equationtag)}%
10123 {(\LWR@startingequationtag--\LWR@equationtag)} % extra space
10124 \LWR@amsmathbody{#1} % extra space
10125 }
```

80.7 lateximage environment

```
Env lateximage * [\langle 2: \langle alt \rangle tag \rangle] [\langle 3: add'l hashing \rangle] [\langle 4: css style \rangle]
```

Typesets the contents and then renders the result as an svg file. Star causes the image to be hashed for reuse.

The optional <alt> tag is included in the HTML code for use with copy/paste.

image filename hashing

If starred, a hashed filename is used. If so, the hash is based on the alt tag and also the additional hashing argument.

This may be used to provide an expression with a simple alt tag but also enough additional information to provide a unique hash.

An example is when the expression is a complicated TEX expression, which would not copy/paste well. A simplified tag may be used, while the complicated expression is duplicated in the additional hashing argument.

Another example is when the expression is simple, but the image depends on options. These options may be decoded into text form and included in the additional hashing argument in order to make the hash unique according to the set of options, even if the simple alt tag is still the same.

File *_html.aux A new label is placed into the file *_html.aux:

```
\newlabel{LWRlateximage-<BaseJobname>-<number>}{{<x>}}
```

This is used to find the image in the PDF file, according to its name.

File *-images.txt

A list of images to generate is created in <jobname>-images.txt. Each line has three pipe-delimited fields, containing the PDF page number from <jobname>_html.pdf, where the image is located, a boolean indicating whether the image is hashed, and the filename of the image. The last line has "end" in each field, and is used to detect an incomplete compile.

```
10126 \catcode'\$=\active%
10127
10128 \NewDocumentEnvironment{lateximage}{s O{(image)} O{} O{}}
10129 {%
10130 \LWR@traceinfo{lateximage: starting on \jobname.pdf page \arabic{page}}%
10131 \LWR@traceinfo{lateximage: entering depth is \arabic{LWR@lateximagedepth}}%
```

Nested lateximages remain one large lateximage:

```
10132 \ifnumcomp{\value{LWR@lateximagedepth}}{>}{0}%
```

If nesting inside an already-existing lateximage, simply record one more level. \mathcal{AMS} packages redefine \addtocounter to do nothing if inside a \text, so lower-level T_EX macros are used for tracking nested lateximages.

```
10133 {%
10134 % \addtocounter{LWR@lateximagedepth}{1}%
10135 \global\advance\c@LWR@lateximagedepth 1\relax% Due to AmS \text macro.
10136 }%
```

Otherwise, this is the outer-most lateximage:

```
10137 {% start of outer-most lateximage
```

Remember the next equation number to be allocated, in case it must be printed in a multi-equation environment:

```
10138 \LWR@traceinfo{lateximage: starting outer-most lateximage}%
10139 \setcounter{LWR@startingequation}{\value{equation}}%
10140 \addtocounter{LWR@startingequation}%
10141 \booltrue{LWR@isstartingequation}%
10142 \let\LWR@startingequationtag\theLWR@startingequation%
```

The default equation tag, unless overwritten by \tag:

```
10143 \let\LWR@equationtag\theequation%
```

Starting a new lateximage:

```
10144 \addtocounter{LWR@lateximagenumber}{1}%
10145 \LWR@traceinfo{lateximage: LWR@lateximagenumber is \arabic{LWR@lateximagenumber}}%
```

While inside a lateximage, locally do not use mathjax:

```
10146 \boolfalse{mathjax}%
```

Be sure that are doing a paragraph:

```
10147 \LWR@ensuredoingapar%
```

Next file:

```
\label{local-prop} $$10148 \quad \texttt{LWR@externalfilecnt}_{1}\% $$ LWR@externalfilecnt is \arabic_{LWR@externalfilecnt}_{\%}$
```

Figure out what the next page number will be. \setcounterpageref assigns LWR@LIpage to the page number for the reference LWRlateximage-BaseJobname-XXX:

```
10150 \setcounterpageref{LWR@LIpage}{%
10151    LWRlateximage-\BaseJobname-\arabic{LWR@lateximagenumber}%
10152  }%
10153   \LWR@traceinfo{lateximage: LWR@LIpage is \arabic{LWR@LIpage}}%
```

Create an HTML span which will hold the comment which contains the *pdftotext* translation of the image's page, and also will hold the link to the .svg file:

```
10154 \LWR@htmltag{span\LWR@indentHTML%

10155 id="lateximage-\BaseJobname-\arabic{LWR@lateximagenumber}"\LWR@indentHTML

10156 class="lateximagesource"\LWR@orignewline

10157 }%
```

Write instructions to the <ImagesDirectory>.txt file:

Compute and save the hashed file name for later use:

```
10163 \edef\LWR@hashedname{%
10164 \LWR@mdfive{\detokenize\expandafter{#2}-!-#3}%
10165 }%
10166 \LWR@traceinfo{lateximage: hash is \LWR@hashedname}%
```

Write the page, hashing, and hashed name:

No hash, so write the page, no hashing, and the image number:

Place an open comment tag. This will hide any traces of the lateximage PDF page which were picked up by *pdftotext*.

```
10177 \LWR@traceinfo{lateximage: about to create open comment}% 10178 \LWR@htmlopencomment%
```

One level deeper. At this outer-most lateximage, it is known that this is not being used inside an \mathcal{FMS} \text, since the outer-most level will never be in math mode.

Start the new PDF page:

```
10180 \LWR@traceinfo{lateximage: about to create a new page}% 10181 \LWR@orignewpage%
```

Typeset the image in a "standard" width page and font size:

Temporarily restore formatting to its PDF definitions: Do not produce HTML tags for \hspace, etc. inside a lateximage.

```
10185 \LWR@traceinfo{lateximage: about to temporarily restore formatting}% 10186 \LWR@restoreorigformatting%
```

Use full-page footnotes instead of minipage footnotes. These become HTML footnotes

```
10187 \def\@mpfn{footnote}%
10188 \def\thempfn{\thefootnote}%
10189 \LetLtxMacro\@footnotetext\LWR@footnotetext%
```

Create the LWRlateximage<number> label:

```
10190 \LWR@traceinfo{lateximage: about to create label}%
10191 \LWR@orig@label{LWRlateximage-\BaseJobname-\arabic{LWR@lateximagenumber}}%
10192 \LWR@traceinfo{lateximage: finished creating the label}%
```

Enable print-mode math functions:

```
10193 \LetLtxMacro$\LWR@origdollar%
10194 \catcode'\$=3% math shift
10195 \LetLtxMacro\(\LWR@origopenparen%
10196 \LetLtxMacro\)\LWR@origcloseparen%
```

Only enable print-mode display math if are not already inside display math:

```
\ifbool{LWR@indisplaymathimage}{}{% not in display math
10197
             \LetLtxMacro\[\LWR@origopenbracket%
10198
             \LetLtxMacro\]\LWR@origclosebracket%
10199
             \let\equation\LWR@origequation%
10200
             \let\endequation\LWR@origendequation%
10201
             \csletcs{equation*}{LWR@origequation*}%
10202
             \csletcs{endequation*}{LWR@origendequation*}%
10203
        }% not in display math
10204
```

For chemformula:

```
10205 \LetLtxMacro\LWR@newsingledollar$%
10206 \LetLtxMacro\LWR@newsingledollar$% syntax highlighting
10207 }% end of outer-most lateximage
10208 \LWR@traceinfo{lateximage: finished start of environment}%
10209 }% end of \begin{lateximage}
```

```
10210 {% start of \end{lateximage}
10211 \LWR@traceinfo{lateximage: starting end of lateximage}%
```

Nested more than one deep?

```
\label{localization} $$10212 \LWR@traceinfo{lateximage: internal depth was \arabic{LWR@lateximagedepth}}% $$10213 \left\end{2.5}$
```

If nesting inside an already existing lateximage, simply record one less level. Uses a lower-level TEX macro due to \mathcal{FMS} \text change of \addtocounter.

If this is the outer-most lateximage:

```
10218 {% end of outer-most lateximage
```

Finish the lateximage minipage and start a new PDF page:

```
10219 \LWR@traceinfo{lateximage: ending outer-most lateximage}%
10220 \endLWR@print@minipage%
10221 \LWR@orignewpage%
```

Close the HTML comment which encapsulated any traces of the lateximage picked up by *pdftotext*:

```
10222 \LWR@print@vspace*{.5\baselineskip}%
10223 \LWR@htmlclosecomment%
10224 \LWR@traceinfo{lateximage: The page after the image is \arabic{page}}%
```

Create a link to the lateximage, allowing its natural height:

```
\IfBooleanTF{#1}% starred
10225
         {% hash
10226
             \LWR@subinlineimage[#2]{lateximage}%
10227
             {%
10228
10229
                 \LWR@ImagesDirectory\OSPathSymbol%
                 \LWR@print@mbox{\LWR@hashedname}%
10230
10231
             }{svg}{#4}%
        }% hash
10232
         {% no hash
10233
             \LWR@subinlineimage[#2]{lateximage}%
10234
10235
10236
                 \LWR@ImagesDirectory\OSPathSymbol%
10237
                 \LWR@print@mbox{\LWR@ImagesName\theLWR@externalfilecnt}%
10238
             }{svg}{#4}%
10239
         }% no hash
```

Be sure that are doing a paragraph:

```
10240 \LWR@ensuredoingapar%
```

Close the HTML span which has the pdftotext comment and also the link to the .svg image:

Undo one lateximage level. This is not inside an \mathcal{F}_{MS} \text, so regular \addtocounter may be used here.

```
10245 \addtocounter{LWR@lateximagedepth}{-1}%
10246 }% end of outer-most lateximage
10247 \LWR@traceinfo{lateximage: exiting depth is \arabic{LWR@lateximagedepth}}%
10248 \LWR@traceinfo{lateximage: done}%
10249 }%
10250 \catcode'\$=3% math shift
10251 \end{warpHTML}
```

for PRINT output: 10252 \begin{warpprint}

```
Env lateximage [\langle \text{calt} > tag \rangle] [\langle css \, style \rangle]
```

varwidth is used to create a box of the natural width of its contents.

81 center, flushleft, flushright

```
for HTML output: 10257 \begin{warpHTML}
```

Env center Replace center functionality with css tags:

```
10258 \renewenvironment*{center}
10259 {
10260 \LWR@forcenewpage
10261 \ifbool{FormatWP}
10262 {\BlockClass[\LWR@print@mbox{text-align:center}]{center}}
10263 {\BlockClass{center}}
10264 }
10265 {\endBlockClass}
```

```
Env flushright
```

```
10266 \renewenvironment*{flushright}
            10268 \LWR@forcenewpage
            10269 \ifbool{FormatWP}
            10270 {\BlockClass[\LWR@print@mbox{text-align:right}]{flushright}}
            10271 {\BlockClass{flushright}}
            10272 }
            10273 {\endBlockClass}
 flushleft
            10274 \renewenvironment*{flushleft}
            10275 {
            10276 \LWR@forcenewpage
            10277 \ifbool{FormatWP}
            10278 {\BlockClass[\LWR@print@mbox{text-align:left}]{flushleft}}
            10279 {\BlockClass{flushleft}}
            10280 }
            10281 {\endBlockClass}
              \centering, \raggedleft, and \raggedright usually have no effect on the HTML
              output, but they may be used to compare with the next token to identify their use
               at the start of a float. See \LWR@floatalignment.
  \centering
            10282 \newcommand*{\LWR@HTML@centering}{%
            10283 \ifbool{HTMLDebugComments}{%
            10284
                      \LWR@htmlcomment{centering}%
            10285 }{}%
            10286 }
            10287 \LWR@formatted{centering}
 \raggedleft
            10288 \newcommand*{\LWR@HTML@raggedleft}{%
            {\tt 10289 \setminus ifbool\{HTMLDebugComments\}\{\%}
            10290
                     \LWR@htmlcomment{raggedleft}%
            10291 }{}%
            10292 }
            10293 \LWR@formatted{raggedleft}
\raggedright
            10294 \newcommand*{\LWR@HTML@raggedright}{%
            10295 \ifbool{HTMLDebugComments}{%
                      \LWR@htmlcomment{raggedright}%
            10296
            10297 }{}%
            10298 }
            10299 \LWR@formatted{raggedright}
```

82 Preloaded packages

for HTML output: 10304 \begin{warpHTML}

If the given package was loaded before or by lwarp, load the lwarp version as well.

\LWR@PreloadedPackage $\{\langle packagename \rangle\}$

If inputtre was loaded before lwarp, as is usually done, explicitly load the lwarp patches now:

```
10314 \LWR@PreloadedPackage{inputtrc}
```

If textcomp was loaded before lwarp, perhaps as part of the font-related packages, explicitly load the lwarp patches now:

```
10315 \LWR@PreloadedPackage{textcomp}
```

If xunicode was loaded before lwarp, perhaps as part of the font-related packages, explicitly load the lwarp patches now:

```
10316 \LWR@PreloadedPackage{xunicode}
```

If graphics or graphicx were loaded before lwarp, perhaps by xunicode, explicitly

```
load the lwarp patches now:
10317 \LWR@PreloadedPackage{graphics}
10318 \LWR@PreloadedPackage{graphicx}
  ulem may be preloaded by ctex, ctexart, and related classes.
10319 \LWR@PreloadedPackage{ulem}
 xetexko-vertical may be preloaded by xetexko.
10320 \LWR@PreloadedPackage{xetexko-vertical}
 geometry is preloaded by lwarp, and perhaps by various classes.
10321 \LWR@PreloadedPackage{geometry}
  plext is preloaded by some CJK classes.
10322 \LWR@PreloadedPackage{plext}
  stfloats is preloaded by ltj* classes.
10323 \LWR@PreloadedPackage{stfloats}
 Iltjext is preloaded by ltj* classes.
10324 \LWR@PreloadedPackage{lltjext}
10325 \end{warpHTML}
```

83 siunitx

Pkg siunitx The lwarp core passes a few options to siunitx.

fractions Due to *pdftotext* limitations, fraction output is replaced by symbol output for per-mode and quotient-mode.

math mode required Some units will require that the expression be placed inside math mode.

NOTE: As of this writing, the siunitx extension for MathJax is not currently hosted at any public CDN, thus siunitx is not usable with MathJax unless a local copy of this extension is created first. See \MathJaxFilename to select a custom MathJax script.

tabular Tabular S columns are rendered as simple c columns, and tabular s columns are not supported. These may be replaced by c columns with each cell contained in \num or \si.

for HTML output: 10326 \begin{warpHTML}

Options for siunitx:

```
10327 \newrobustcmd{\LWR@siunitx@textcelsius}{\HTMLentity{deg}C}
10328 \newrobustcmd{\LWR@siunitx@textdegree}{\HTMLentity{deg}}
10329 \newrobustcmd{\LWR@siunitx@textprime}{\HTMLunicode{2032}}
10330 \newrobustcmd{\LWR@siunitx@textdblprime}{\HTMLunicode{2033}}
10331 \newrobustcmd{\LWR@siunitx@textplanckbar}{\text{\textit{\HTMLunicode{0127}}}}}
10332
10333 \appto\LWR@restoreorigformatting{%
10334 \renewrobustcmd{\LWR@siunitx@textcelsius}{\text{\ensuremath{^\circ}C}}%
10335 \renewrobustcmd{\LWR@siunitx@textdegree}{\text{\ensuremath{^\circ}}}}
10338 \ensurement {\hbar}} % The constant of the constant of
10339 }
10340
10341 \PassOptionsToPackage{
                      detect-mode=true,
10342
10343
                      per-mode=symbol,% fraction is not seen by pdftotext
                      text-celsius = {\LWR@siunitx@textcelsius},
10344
10345
                      text-degree = {\LWR@siunitx@textdegree},
                      text-arcminute = {\LWR@siunitx@textprime} ,
10346
                      text-arcsecond = {\LWR@siunitx@textdblprime} ,
10347
10348 }{siunitx}
10349 \end{warpHTML}
```

84 Graphics print-mode modifications

84.1 General limitations

scale Avoid using the \includegraphics scale option. Change:

```
\includegraphics[scale=<xx>]{ . . . }
\includegraphics[width=<yy>\linewidth]{ . . . }
```

\includegraphics file formats

to:

For \includegraphics with .pdf or .eps files, the user must provide a .pdf or .eps image file for use in print mode, and also a .svg, .png, or .jpg version of the same image for use in HTML.

```
\includegraphics{filename} % print:.pdf/.eps HTML:.svg, etc.
```

For print output, lwarp will automatically choose the .pdf or .eps format if available, or some other format otherwise. For HTML, one of the other formats is used instead.

If a .pdf or .eps image is referred to with its file extension, the extension will be changed to .svg for HTML:

\includegraphics{filename.pdf} % uses .svg in html \includegraphics{filename.eps} % uses .svg in html

Prog pdftocairo To convert a PDF image to svg, use the utility pdftocairo:

PDF to SVG

pdftocairo -svg filename.pdf

lwarpmk pdftosvg Prog

For a large number of images, use *lwarpmk*:

Enter \Rightarrow lwarpmk pdftosvg *.pdf (or a list of filenames)

lwarpmk epstopdf

For EPS images converted to PDF using the package epstopdf, use

Prog epstopdf epstopdf package

lwarpmk pdftosvg *.PDF

to convert to svg images.

DVI latex When using DVI latex, it is necessary to convert EPS to PDF and then to SVG:

lwarpmk epstopdf *.eps (or a list of filenames) Enter \Rightarrow

lwarpmk pdftosvg *.pdf (or a list of filenames) Enter \Rightarrow

For PNG or JPGwhile using pdflatex, lualatex, or xelatex, the same file may be used in both print or HTML versions, and may be used with a file extension, but will also be used without the file extension if it is the only file of its base name.

GIF files may be used for HTML, but another format must also be provided for print output.

file extension priorities

If a file extension is not used, for HTML the file extension priorities are: svg, GIF, PNG, then IPG.

graphics vs. graphicx

If using the older graphics syntax, use both optional arguments for \includegraphics. A single optional parameter is interpreted as the newer graphicx syntax. Note that viewports are not supported by lwarp—the entire image will be shown.

viewport viewport units

For \includegraphics, avoid px and % units for width and height, or enclose them inside warpHTML environments. For font-proportional image sizes, use ex or em. For fixed-sized images, use cm, mm, in, pt, or pc. Use the keys width=.5\linewidth, or similar for \textwidth or \textheight to give fixed-sized images proportional to a 6 by 9 inch text area. Do not use the scale option, since it is not well supported by HTML browsers.

\includegraphics accepts width and height, origin, rotate and scale, plus new class and alt keys.

html class With HTML output, \includegraphics accepts an optional class=xyz keyval combination, and if this is given then the HTML output will include that class for the image. The class is ignored for print output.

Likewise, the \includegraphics alt key adds an HTML alt tag to an image, and is html alt tags ignored for print output. If not assigned, each image is given an alt tag of "(image)".

\rotatebox \rotatebox accepts the optional origin key.



browser support \rotatebox, \scalebox, and \reflectbox depend on modern browser support. The css3 standard declares that when an object is transformed the whitespace which they occupied is preserved, unlike LATFX, so expect some ugly results for scaling and rotating.

Print-mode modifications

for PRINT output:

For print output, accept and then discard the new class key:

```
10350 \begin{warpprint}
10351 \define@key{Gin}{class}{}
10352 \define@key{Gin}{alt}{}
```

Print-mode additions for the overpic package. See section 354 for the HTML version.

```
10353 \AtBeginDocument{
10354 \@ifpackageloaded{overpic}{
10355 \newcommand*{\overpicfontsize}{12}
10356 \newcommand*{\overpicfontskip}{14}
10357 }{}
10358 }
10359 \end{warpprint}
```

xcolor boxes 85

A few new definitions are provided for enhanced HTML colored boxes, and \fcolorbox is slightly modified. Print-mode version are also provided.

Print-mode versions of new xcolor defintions. These are defined inside warpall because they are also used for HTML while inside a lateximage. They are defined \AtBeginDocument so that the xcolor originals may first be loaded and saved for reuse.

The framed versions are modified to allow a background color of none, in which case only the frame is drawn, allowing the background page color to show.

```
for HTML & PRINT: 10360 \begin{warpall}
```

After xparse may have been loaded ...

```
10361 \AtBeginDocument{
```

... and only if xcolor was loaded:

```
10362 \@ifpackageloaded{xcolor}{
10363 \LWR@traceinfo{patching xcolor}
```

The print version:

\colorboxBlock \colorboxBlock is the same as \colorbox:

```
10364 \LetLtxMacro\colorboxBlock\colorbox
```

The original definition is reused by the new versions:

```
10365 \LetLtxMacro\LWR@orig@print@fcolorbox\fcolorbox
```

```
\lceil \langle framemodel \rangle \rceil  {\langle framecolor \rangle \}  [\langle boxmodel \rangle \rceil  {\langle text \rangle \}
```

In print mode, \fcolorbox is modified to accept a background color of none.

(\fcolorbox is particular about its optional arguments, thus the elaborate combinations of \ifthenelse.)

```
10366 \newsavebox{\LWR@colorminipagebox}
10367
10368 \NewDocumentCommand{\LWR@print@fcolorbox}{o m o m +m}{%
10369 \LWR@traceinfo{LWR@print@fcolorbox #2 #4}%
```

Pre-load the contents into an LR box so that they can be used inside a \fcolorbox:

```
10370 \begin{lrbox}{\LWR@colorminipagebox}%
10371 #5%
10372 \end{lrbox}%
```

Sort out the various optional arguments and the background color of none. In each case, the LRbox is placed inside a \fcolorbox.

The current color is remembered, then set to the frame, then the current color is used for the contents.

```
10373 \ifstrequal{#4}{none}%
10374 {% #4 none
        \LWR@traceinfo{background is none}%
10376
         {% scope the \colorlet
10377
             \colorlet{LWR@currentcolor}{.}%
             \color{#2}%
10378
             \fbox{%
10379
                 \color{LWR@currentcolor}%
10380
                 \usebox{\LWR@colorminipagebox}%
10381
10382
             }% fbox
        }% colorlet
10383
10384 }% #4 none
10385 {% #4 not none
10386 \LWR@traceinfo{background not none}%
10387 \IfValueTF{#1}%
10388 {%
10389
        \IfValueTF{#3}%
       {\LWR@orig@print@fcolorbox[#1]{#2}[#3]{#4}{\usebox{\LWR@colorminipagebox}}}%
10390
10391
        {\LWR@orig@print@fcolorbox[#1]{#2}{#4}{\usebox{\LWR@colorminipagebox}}}%
10392 }%
10393 {% no value #1
        \IfValueTF{#3}%
10394
```

```
10395
                                                                                                 \label{localize} $$ \LWR@colorbox{#2}[#3]{#4}{\usebox{\LWR@colorminipagebox}}}% $$
                                                                  10396
                                                                                                {\LWR@orig@print@fcolorbox{#2}{#4}{\usebox{\LWR@colorminipagebox}}}%
                                                                  10397 }% no value #1
                                                                  10398 }% #4 not none
                                                                  10399 \LWR@traceinfo{LWR@print@fcolorbox done}%
                                                                  10400 }
                                                                  10401
                                                                  10402 \renewcommand*{\fcolorbox}{\LWR@print@fcolorbox}
              \footnote{\colorboxBlock} [\langle framemodel \rangle] {\langle framecolor \rangle} [\langle boxmodel \rangle] {\langle boxcolor \rangle} {\langle text \rangle}
                                                                         In print mode, \fcolorboxBlock is the same as \fcolorbox.
                                                                  10403 \newcommand*{\LWR@print@fcolorboxBlock}{\LWR@print@fcolorbox}
                                                                  10404 \newcommand*{\fcolorboxBlock}{\LWR@print@fcolorboxBlock}
                 fcolorminipage \quad [\langle 1:framemodel \rangle] \\ \{\langle 2:framecolor \rangle\} \\ [\langle 3:boxmodel \rangle] \\ \{\langle 4:boxcolor \rangle\} \\ [\langle 5:align \rangle] \\ [\langle 6:height \rangle] \\ [\langle 6:heig
Env
                                                                         [\langle 7:inner-align \rangle] \{\langle 8:width \rangle\}
                                                                         In print mode, becomes a \fcolorbox containing a minipage:
                                                                  10407 \LWR@traceinfo{*** fcolorminipage: #2 #4 #8}%
                                                                         Pre-load the contents into an LR box so that they can be used inside a \fcolorbox:
                                                                  10408 \begin{lrbox}{\LWR@colorminipagebox}%
                                                                         If inner alignment is not given, use the outer alignment instead:
                                                                  10409 \IfValueTF{#7}%
                                                                  10410 {\begin{minipage}[#5][#6][#7]{#8}}%
                                                                  10411 {\begin{minipage}[#5][#6][#5]{#8}}%
                                                                  10412 }%
                                                                  10413 {%
                                                                  10414 \end{minipage}%
                                                                  10415 \end{lrbox}%
                                                                  10416 \LWR@traceinfo{*** starting end fcolorminipage #1 #2 #3 #4 #8}%
                                                                         Sort out the various optional arguments and the background color of none. In each
                                                                         case, the LRbox is placed inside a \fcolorbox.
```

The current color is remembered, then set to the frame, then the current color is used for the contents.

```
10424
                 \usebox{\LWR@colorminipagebox}%
10425
             }% fbox
        }% colorlet
10426
10427 }% #4 none
10428 {% #4 not none
        \IfValueTF{#1}%
10429
10430
        {%
        \IfValueTF{#3}%
10431
       {\LWR@orig@print@fcolorbox[#1]{#2}[#3]{#4}{\usebox{\LWR@colorminipagebox}}}%
10432
        {\LWR@orig@print@fcolorbox[#1]{#2}{#4}{\usebox{\LWR@colorminipagebox}}}%
10433
10434
        {% no value #1
10435
        \IfValueTF{#3}%
10436
        {\LWR@orig@print@fcolorbox{#2}[#3]{#4}{\usebox{\LWR@colorminipagebox}}}%
10437
10438
         {\LWR@orig@print@fcolorbox{#2}{#4}{\usebox{\LWR@colorminipagebox}}}%
        }% no value #1
10439
10440 }% #4 not none
10441 \LWR@traceinfo{*** finished end fcolorminipage}%
10442 }
10443
10444 \newenvironment*{fcolorminipage}
10445
        {\LWR@print@fcolorminipage}
        {\endLWR@print@fcolorminipage}
10446
10447 \LWR@traceinfo{xcolor patches done}
10448 }{}% xcolor loaded
10449 }% AtBeginDocument
10450 \end{warpall}
```

86 chemmacros environments

\makepolymerdelims and redox reactions must be enclosed in a lateximage during HTML output. These environments are provided here in print mode, and in the chemmacros code in HTML mode, as a high-level semantic syntax which automatically embeds the contents in a lateximage with an appropriate alt tag.

For print output, extra space is include above and below the image, and a lateximage is not necessary. This extra space must be enforced, even inside a float, so zero-width rules are used.

For the HTML version, see section 167.4.

87 cleveref

Pkg cleveref cleveref package is used as-is with minor patches.

cleveref page numbers

cleveref and varioref are supported, but printed page numbers do not map to HTML, so a section name or a text phrase are used for \cpageref and \cpagerefrange. This phrase includes \cpagerefFor, which defaults to "for".

Ex:

```
\cpageref{tab:first,tab:second}
in html becomes:
    "pages for table 4.1 and for table 4.2"
```

See \cpagerefFor at page 530 to redefine the message which is printed for page number references.

loading order

cleveref and the following associated macro patches are automatically preloaded at the end of the preamble via \AtEndPreamble and \AfterEndPreamble. This is done because the HTML conversion requires cleveref. The user's document may not require cleveref, thus the user may never explicitly load it, so during HTML output lwarp loads it last. If the user's document preamble uses cleveref options, or functions such as \crefname, then cleveref may be loaded in the user's preamble near the end, and lwarp's additional loading of cleveref will have no effect.

Table 12 on page 453 shows the data structure of the label/reference system as revised by lwarp and cleveref.

A few patches allow cleveref to work as-is:

for HTML output: 10461 \begin{warpHTML}

\AtEndPreable forces cleveref to be loaded last:

```
10462 \AtEndPreamble{
10463 \RequirePackage{cleveref}
10464 }
```

The following patches are applied after cleveref has loaded, and after \AtBeginDocument. Print-mode versions are not required since they all come down to \ref eventually, and \ref has a print-mode version.

```
10465 \AfterEndPreamble{
                                                                                                      10466 \LWR@traceinfo{Patching cleveref.}
                                \ensuremath{\mbox{000esetcref}} \ \{\langle kindofref \rangle\} \ \{\langle label \rangle\}
                                                                                                                   \@templabel becomes the section number.
                                                                                                      10467 \def\LWR@orig@@@setcref#1#2{\cref@getlabel{#2}{\@templabel}\#1{\@templabel}\}}}
                                                                                                      10468
                                                                                                      10469 \ifdefequal{\@@setcref}{\LWR@orig@@@setcref}{% before v0.21
                                                                                                                                                             10470
                                                                                                      10471 }{
                                                                                                                                                            \ifdefequal{\@@esetcref}{\LWR@orig@e@esetcref}{% as of v0.21
                                                                                                      10472
                                                                                                      10473
                                                                                                                                                                                      \renewcommand*{\@@setcref}[2]{#1{\ref{#2}}{}}}
                                                                                                      10474
                                                                                                                                                           }{
                                                                                                      10475
                                                                                                                                                                                      \PackageWarning{lwarp-cleveref}{
                                                                                                                                                                                                               Unknown version of cleveref.
                                                                                                      10476
                                                                                                      10477
                                                                                                                                                                                                                \protect\cref\space will fail.
                                                                                                      10478
                                                                                                                                                                                      }%
                                                                                                      10479
                                                                                                                                                           }
                                                                                                      10480 }
\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath}\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath{\mbox{\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremath}\ensuremat
                                                                                                      10481 \def\LWR@orig@@@setcrefrange#1#2#3{%
                                                                                                      10482
                                                                                                                                               \cref@getlabel{#2}{\@labela}%
                                                                                                                                               \cref@getlabel{#3}{\@labelb}%
                                                                                                      10483
                                                                                                      10484
                                                                                                                                              #1{\@labela}{\@labelb}{}{}{}}}%
                                                                                                      10485
                                                                                                      10486 \ifdefequal{\@@setcrefrange}{\LWR@orig@@@setcrefrange}{
                                                                                                                                                            \renewcommand{\@@setcrefrange}[3]{%
                                                                                                      10487
                                                                                                      10488
                                                                                                                                                                                      #1{\ref{#2}}{\ref{#3}}{}{}{}%
                                                                                                                                                           }
                                                                                                      10489
                                                                                                      10490 }{
                                                                                                                                                            \ifdefequal{\@@setcrefrange}{\LWR@orig@@@setcrefrange}{
                                                                                                      10491
                                                                                                      10492
                                                                                                                                                                                      \renewcommand{\@@setcrefrange}[3]{%
                                                                                                                                                                                                               #1{\left\{ 2\right\} }{\left\{ 3\right\} 
                                                                                                      10493
                                                                                                      10494
                                                                                                       10495
                                                                                                                                                           }{
                                                                                                                                                                                      \PackageWarning{lwarp-cleveref}{
                                                                                                      10496
                                                                                                                                                                                                               Unknown version of cleveref.
                                                                                                      10497
                                                                                                                                                                                                               \protect\crefrange\space will fail.
                                                                                                      10498
                                                                                                                                                                                      }
                                                                                                      10499
                                                                                                                                                           }
                                                                                                      10500
                                                                                                      10501 }
                                                                                                      10502
```

\cpagerefFor Redefinable word between "page(s)" and the page numbers.

10503 \newcommand*{\cpagerefFor}{for}

```
\@@setcpageref \{\langle typeofref \rangle\} \{\langle label \rangle\}, where typeofref is "page" or "pages"
                                   10504 \def\LWR@orig@@setcpageref#1#2{% before v0.21
                                   10505
                                                  \cref@getpageref{#2}{\@temppage}#1{\@temppage}{}{}}%
                                   10506
                                   10507 \def\LWR@orig@@@setcpageref#1#2{% as of v0.21
                                                   \cpageref@getlabel{#2}{\@temppage}#1{\@temppage}{}{}}%
                                   10508
                                   10509
                                   10510 \ifdefequal{\@@setcpageref}{\LWR@orig@@setcpageref}{
                                                        \renewcommand*{\@@setcpageref}[2]{%
                                   10511
                                                                 #1{\cpagerefFor\ \cref{#2}}{}{}%
                                   10512
                                   10513
                                   10514 }{
                                   10515
                                                        \ifdefequal{\000setcpageref}{\LWR0orig000setcpageref}{
                                   10516
                                                                 \renewcommand*{\@@setcpageref}[2]{%
                                                                           #1{\operatorname{cpagerefFor} \operatorname{ff}{#2}}{}{}%
                                   10517
                                   10518
                                                                 }
                                   10519
                                                       }
                                    10520
                                                       {
                                                                 \PackageWarning{lwarp-cleveref}{
                                   10521
                                                                           Unknown version of cleveref.
                                   10522
                                                                           \protect\cpageref\space will fail.
                                   10523
                                                                 }
                                   10524
                                   10525
                                                        }
                                   10526 }
                                   10527 \def\LWR@orig@@setcpagerefrange#1#2#3{% before v0.21
                                   10528
                                                   \cref@getpageref{#2}{\@pagea}%
                                   10529
                                                   \cref@getpageref{#3}{\@pageb}%
                                                   $1{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\
                                   10530
                                   10531
                                   10532 \def\LWR@orig@@@setcpagerefrange#1#2#3{% as of v0.21
                                   10533
                                                   \cpageref@getlabel{#2}{\@pagea}%
                                   10534
                                                   \cpageref@getlabel{#3}{\@pageb}%
                                   10535
                                                   #1{\@pagea}{\@pageb}{}{}{}}%
                                   10536
                                   10537 \ifdefequal{\@0setcpagerefrange}{\LWR@orig@0setcpagerefrange}{
                                                        \renewcommand*{\@@setcpagerefrange}[3]{%
                                   10538
                                   10539
                                                                 #1{\cpagerefFor\ \cref{#2}}{\cref{#3}}{}{}{}{}
                                   10540
                                                        }
                                   10541 }{
                                                        \ifdefequal{\@@@setcpagerefrange}{\LWR@orig@@@setcpagerefrange}{
                                   10542
                                                                 \renewcommand*{\@@@setcpagerefrange}[3]{%
                                   10543
                                                                           1{\operatorname{cpagerefFor} \operatorname{42}}{\operatorname{43}}{}{}
                                   10544
                                                                 }
                                   10545
                                   10546
                                                       }
                                   10547
                                                       {
                                   10548
                                                                 \PackageWarning{lwarp-cleveref}{
                                   10549
                                                                           Unknown version of cleveref.
                                                                           \protect\cpagerefrange\space will fail.
                                   10550
                                                                 }
                                   10551
                                   10552
                                                        }
                                   10553 }
```

```
10554
10555 }% AfterEndPreamble
```

Remember and patch some label-related defintions. These will be further encased and patched by other packages later.

\label and \pageref do NOT change their behavior according to print or HTML output, and thus do not use the \LWR@formatted system.

```
10556 \LetLtxMacro\LWR@orig@label\label
10557 \RenewDocumentCommand{\label}{}{\LWR@new@label}
10558
10559 \LetLtxMacro\LWR@orig@pageref\pageref
10560 \RenewDocumentCommand{\pageref}{}{\LWR@new@pageref}
10561 \end{warpHTML}
```

88 picture environment

Env picture The picture environment is enclosed inside a \lateximage.

```
for HTML output: 10562 \begin{warpHTML}

Env picture

10563 \BeforeBeginEnvironment{picture}{\begin{lateximage}[(picture)]}
10564
10565 \AfterEndEnvironment{picture}{\end{lateximage}}
```

89 Minipages and Boxes

10566 \end{warpHTML}

A css flexbox is used for minipages and parboxes, allowing external and internal vertical positioning.

⚠ inline

A line of text with an inline minipage or \parbox will have the minipage or \parbox placed onto its own line, because a paragraph is a block element and cannot be made inline-block.

placement minipages and \parboxes will be placed side-by-side in HTML unless you place a \newline between them.

side-by-side Side-by-side minipages may be separated by \quad, \quad, \enskip, \hspace, \hfill, or a \rule. When inside a center environment, the result is similar in print and HTML. Paragraph tags are suppressed between side-by-side minipages and these spacing commands, but not at the start or end of the paragraph.

minipage in a span

There is limited support for minipages inside an HTML . An HTML <div> cannot appear inside a . While in a , minipages, and \parboxes, and any enclosed lists have limited HTML tags, resulting in an "inline" format, without markup except for HTML breaks. Use \newline or \par for an HTML break.

minipage size

When using \linewidth, \textwidth, and \textheight, widths and heights in HTML are scaled proportionally to a 6×9 inch text area, and inside a multicols \linewidth is divided by the specified number of columns.

if width is \linewidth

If a minipage or \parbox is assigned a width of exactly \linewidth, in HTML it is automatically given no HTML width, thus allowed to fill the line as needed, similar to how it appears in print output.

full-width if html A new macro \minipagefullwidth requests that, during HTML output, the next single minipage or \parbox be generated without an HTML width attribute, allowing it to be the full width of the display rather than the declared print-output width. This may be useful where the printed version's width makes no sense in HTML.

tabular, multicols

\UseMinipageWidths \IgnoreMinipageWidths Inside a tabular or multicols environment, where the width depends on the browser window, \minipagefullwidth is effectively used by default for every minipage or \parbox inside the environment. \UseMinipageWidths may be used to tell \| \text{lwarp} to honor the specified widths of all following minipages and \parboxes until the end of the local scope, and \IgnoreMinipageWidths may be used to tell lwarp to ignore the specified widths.

text alignment

Nested minipages adopt their parent's text alignment in HTML, whereas in regular LATEX PDF output they do not. Use a flushleft or similar environment in the child minipage to force a text alignment.

for HTML output: 10567 \begin{warpHTML}

Counters and lengths

Used to only reset the line width at the outermost minipage. LWR@minipagedepth

> 10568 \newcounter{LWR@minipagedepth} 10569 \setcounter{LWR@minipagedepth}{0}

\LWR@minipagewidth Used to convert the width into printable units.

10570 \newlength{\LWR@minipagewidth}

\LWR@minipageheight Used to convert the height into printable units.

10571 \newlength{\LWR@minipageheight}

89.2 Footnote handling

Also see section 59 for other forms of footnotes. Minipage footnotes are gathered in section 59.5, and then placed into the document in section 89.3.

89.3 Minipage handling

Bool LWR@minipagefullwidth Should the next minipage have no HTML width?

```
10572 \newbool{LWR@minipagefullwidth}
10573 \boolfalse{LWR@minipagefullwidth}
```

LWR@forceminipagefullwidth

Should the next minipage have no HTML width? Used to force full width for all minipages in an environment such as tabular or multicols, where the actual width depends on the browser width. Controlled by \useminipagewidths and \ignoreminipagewidths.

```
10574 \newbool{LWR@forceminipagefullwidth}
10575 \boolfalse{LWR@forceminipagefullwidth}
```

\minipagefullwidth Requests that the next minipage have no width tag in HTML:

```
for HTML output: 10576 \newcommand*{\minipagefullwidth}{\global\booltrue{LWR@minipagefullwidth}}
```

\UseMinipageWidths Locally requests that minipage widths be honored.

```
10577 \verb|\newcommand*{\UseMinipageWidths}{\boolfalse{LWR@forceminipagefullwidth}}| \\
```

\IgnoreMinipageWidths Locally requests that minipage widths be honored.

```
\label{locality} $$10578 \end{warpHTML} $$10579 \end{warpHTML}$
```

for HTML output: 10585 \begin{warpHTML}

LWR@minipagethispar Has a minipage been seen this paragraph? If true, prevents paragraph tags around horizontal space between minipages.

```
10586 \newbool{LWR@minipagethispar}
10587 \boolfalse{LWR@minipagethispar}
```

```
Env minipage [\langle vert\ position \rangle] [\langle height \rangle] [\langle inner\ vert\ position \rangle] \{\langle width \rangle\}
```

The vertical positions may be 'c', 't', or 'b'. The inner position may also be 's'.

When using \linewidth , \textwidth , or \textheight , these are scaled proportionally to a 6×9 inch text area.

```
10588 \NewDocumentEnvironment{LWR@HTML@sub@minipage}{m m m m}
```

```
10589 {%
10590 \LWR@traceinfo{minipage}%
```

Temporarily open a group, in which width and height is computed based on a virtual page size instead of the extra-large PDF page used during HTML tag generation.

The following used to be an actual LATEX minipage.

```
10591 \begingroup
```

Compute width, adjusted for frames:

```
10592 \setlength{\LWR@minipagewidth}{#4}%
10593 \ifthenelse{\cnttest{\value{LWR@minipagedepth}}{=}{0}}{%
```

Only create a new page if not yet nested:

```
10594 \LWR@orignewpage%
```

Adjust virtual page size:

```
10595 \addtolength{\LWR@minipagewidth}{3em}% room for frames
10596 \setlength{\linewidth}{6in}%
10597 \setlength{\textwidth}{6in}%
10598 \setlength{\textheight}{9in}%
10599 }{}%
10600 \LWR@traceinfo{computed width is \LWR@printlength{\LWR@minipagewidth}}%
```

Compute height:

```
\label{thm:local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local
```

Track nesting depth:

LATEX wants to start a paragraph for the virtual minipage, then start a paragraph again for the contents of the minipage, so cancel the paragraph tag handling until the minipage has begun.

```
10604 \ifbool{FormatWP}{\newline}{}%
10605 \LWR@stoppars%
```

If FormatWP, add a text frame:

```
10613
10614 }{}%
```

Create the <div> tag with optional alignment style:

```
10615 \LWR@traceinfo{minipage: creating div class}%
10616 \LWR@htmltag{div class="minipage" style="%
10617 \ifthenelse{\equal{#1}{t}}{\LWR@print@mbox{vertical-align:bottom}; }{}%
10618 \ifthenelse{\equal{#1}{c}}{\LWR@print@mbox{vertical-align:middle}; }{}%
10619 \ifthenelse{\equal{#1}{b}}{\LWR@print@mbox{vertical-align:top}; }{}%
10620 \ifthenelse{\equal{#3}{t}}{\LWR@print@mbox{justify-content:flex-start}; }{}%
10621 \ifthenelse{\equal{#3}{c}}{\LWR@print@mbox{justify-content:center}; }{}%
10622 \ifthenelse{\equal{#3}{b}}{\LWR@print@mbox{justify-content:flex-end}; }{}%
10623 \ifthenelse{\equal{#3}{s}}{\LWR@print@mbox{justify-content:space-between}; }{}%
```

Print the width and optional height styles:

```
10624 \LWR@traceinfo{minipage: about to print the width of \LWR@printlength{\LWR@minipagewidth}}%
10625 \ifbool{LWR@minipagefullwidth}%
10626 {\global\boolfalse{LWR@minipagefullwidth}}%
10627 {%
10628
         \ifbool{LWR@forceminipagefullwidth}%
             {}%
10629
10630
             {%
10631
                 \ifthenelse{\lengthtest{#4}=\linewidth}%
10632
                     {width:\LWR@printlength{\LWR@minipagewidth} ; }%
10633
             }%
10634
10635 }%
10636 \LWR@traceinfo{minipage: about to print the height}%
10637 \ifblank{#2}{}{height:\LWR@printlength{\LWR@minipageheight}; }%
10638 "}%
```

Finish with an empty line to start the contents on a new line.

```
10639 10640 \% The preceding empty line is required.
```

Set the user-accessible line and text width and height values inside the virtual minipage. These do not affect the actual size of the PDF output, but are used by any reference to \linewidth, etc. inside the virtual minipage being created here.

```
10641 \setlength{\linewidth}{#4}% the original width
10642 \setlength{\textwidth}{6in}%
10643 \setlength{\textheight}{9in}%
```

\raggedright cancels hyphenation, which will be done by HTML instead.

```
10644 \LWR@print@raggedright%
```

Set minipage footnotes:

```
10645 \def\@mpfn{mpfootnote}%
10646 \def\thempfn{\thempfootnote}\c@mpfootnote\z@%
```

10647 \let\@footnotetext\@mpfootnotetext%

Resume paragraph tag handling for the contents of the minipage:

```
10648 \LWR@startpars%
10649 \ifboolexpr{bool{FormatWP} and bool{WPMarkMinipages}}{%
10650
10651 === begin minipage ===
10652
10653 }{}%
10654 \LWR@traceinfo{minipage: finished starting the minipage}%
10655 }% finished \minipage
10656 {% \endminipage
```

Print pending minipage footnotes:

10657 \LWR@printpendingmpfootnotes%

End the environment with closing tag:

```
10658 \ifboolexpr{bool{FormatWP} and bool{WPMarkMinipages}}{%
10659
10660 === end minipage ===
10661
10662 }{}%
10663 \LWR@stoppars%
```

The following used to be an actual LATEX minipage.

```
10664 \endgroup%
10665
10666 \ifbool{FormatWP}{%
10667
10668 \LWR@htmlelementend{div}%
10669
10670 }{}%
10671 \LWR@htmldivclassend{minipage}%
10672
10673 \addtocounter{LWR@minipagedepth}{-1}%
10674 \LWR@startpars%
10675 \ifbool{FormatWP}{\newline}{}%
```

Prevent paragraph tags around horizontal white space until the start of the next paragraph:

89.4 \parbox, \mbox, \makebox, \framebox, \fbox, \raisebox

```
for HTML output:
             \parbox
                       [\langle pos \rangle] [\langle height \rangle] [\langle inner-pos \rangle] \{\langle width \rangle\} \{\langle text \rangle\}
                       A parbox uses the minipage code:
                     10685 \NewDocumentCommand{\LWR@HTML@parbox}\{0\{t\}\ 0\{\}\ m\ +m\}
                     10686 {
                     10687 \LWR@traceinfo{parbox of width #4}%
                     10688 \begin{minipage}[#1][#2][#3]{#4}%
                     10689 #5
                     10690 \end{minipage}%
                     10691 }
                     10692
                     10693 \LWR@formatted{parbox}
               \mbox \{\langle text \rangle\}
                                     Nullified for HTML.
                     10694 \newcommand*{\LWR@HTML@mbox}[1]{#1}
                     10696 \LWR@formatted{mbox}
\LWR@@makebox@paren \{\langle width \rangle\}, \{\langle height \rangle\}
                       Adds to the style in \LWR@temptwo.
                     10697 \NewDocumentCommand{\LWR@@makebox@paren}{m m}{%
                     10698 \IfValueTF{#2}{%
                              10699
                     10700
                               \setlength{\LWR@tempheight}{#2\unitlength}%
                               \appto{\LWR@temptwo}{%
                     10701
                     10702
                                   \LWR@print@mbox{width:\LWR@printlength{\LWR@tempwidth}} ; % space
                     10703
                                   \LWR@print@mbox{height:\LWR@printlength{\LWR@tempheight}}; % space
                              }%
                     10704
                     10705 }{%
                     10706
                              \PackageError{lwarp}%
                     10707
                                   {(width,height) is missing a comma ',' character}%
                     10708
                                   {\protect\makebox\space and \protect\framebox\space accept
                     10709
                                       a size in the format (width, height).}%
                     10710 }%
                     10711 }
\LWR@@makebox@align \{\langle alignment\ character \rangle\}
                       Adds to the style in \LWR@temptwo.
                     10712 \newcommand*{\LWR@@makebox@align}[1]{%
                     10713
                              \def\LWR@align{center}%
                              \ifstrequal{#1}{l}{\def\LWR@align{left}}{}%
                     10714
                              \ifstrequal{#1}{r}{\def\LWR@align{right}}{}%
                     10715
                     10716
                              \ifstrequal{#1}{s}{\def\LWR@align{justify}}{}%
```

```
10717
                                                 \appto{\LWR@temptwo}{%
                        10718
                                                             \LWR@print@mbox{text-align:\LWR@align}; %
                        10719
                        10720 }
\makebox (\langle width, height \rangle) [\langle width \rangle] [\langle pos \rangle] \{\langle text \rangle\}
                        10721 \NewDocumentCommand{\LWR@HTML@makebox}{\{\SplitArgument\{1\},\}\d() o o +m\}\{\%\}
                             Build the style depending on arguments:
                        10722 {% scope
                                                 \def\LWR@temptwo{}%
                                                 \IfValueTF{#1}%
                        10724
                                                 {% (width, height) ..
                        10725
                                                             \LWR@@makebox@paren #1%
                        10726
                                                             \IfValueT{#2}%
                        10727
                                                             {% (width, height) [posn]
                        10728
                        10729
                                                                         \LWR@@makebox@align{#2}%
                        10730
                                                             }%
                                                }%
                        10731
                                                 {% [width]
                        10732
                                                             \IfValueT{#2}% [width]
                        10733
                        10734
                                                                         \strut_{LWR@tempwidth}{\#2}%
                        10735
                        10736
                                                                         \ifdimgreater{\LWR@tempwidth}{0pt}{%
                                                                                     \appto{\LWR@temptwo}{%
                        10737
                                                                                                width:\LWR@printlength{\LWR@tempwidth} ; % space
                        10738
                                                                                     }%
                        10739
                                                                         }{}%
                        10740
                                                            }%
                        10741
                        10742
                                                 }%
                        10743
                                                 \IfValueT{#3}%
                                                 {% [width] [posn]
                        10744
                        10745
                                                             \LWR@@makebox@align{#3}%
                        10746
                                                }%
                        10747
                                                 \InlineClass[%
                                                             \LWR@print@mbox{display:inline-block} ; %
                        10748
                        10749
                                                             \LWR@temptwo%
                                                 ]%
                        10750
                        10751
                                                 {makebox}%
                                                 {#4}%
                        10752
                        10753 }% scope
                        10754 }
                        10755 \LWR@formatted{makebox}
                            (\langle width, height \rangle) [\langle width \rangle] [\langle pos \rangle] \{\langle text \rangle\}
                        \label{localization} 10756 \end{\colored} $$10756 \end{\colored} $
                        10757
                                                 \fbox{\makebox(#1)[#2][#3]{#4}}%
                        10758 }
                        10759
                        10760 \LWR@formatted{framebox}
```

```
\LWR@forceminwidth \{\langle legth \rangle\}
```

Sets \LWR@atleastonept to be at least 1pt.

```
10761 \newlength{\LWR@atleastonept}
10762
10763 \newcommand*{\LWR@forceminwidth}[1]{%
10764 \setlength{\LWR@atleastonept}{#1}%
10765 \ifthenelse{%
10766 \lengthtest{\LWR@atleastonept>0pt}\AND%
10767 \lengthtest{\LWR@atleastonept<1pt}%
10768 }%
10769 {\setlength{\LWR@atleastonept}{1pt}}%
10770 {}%
10771 }</pre>
```

\LWR@fboxstyle Prints the HTML attributes for a black border and padding.

\LWR@forceminwidth must be used first in order to set the border width.

```
10772 \newcommand*{\LWR@fboxstyle}{%
10773 \LWR@findcurrenttextcolor%
10774 border:\LWR@printlength{\LWR@atleastonept} solid \LWR@origpound\LWR@tempcolor; %
10775 padding:\LWR@printlength{\fboxsep}; %
10776 color:\LWR@origpound\LWR@tempcolor%
10777 }
```

Creates a framed inline span enclosing the text.

Create a new HTML version, but don't use it until after xcolor may have loaded:

```
10778 \newcommand{\LWR@HTML@fbox}[1]{%
10779 \LWR@traceinfo{HTML fbox}%
10780 \LWR@forceminwidth{\fboxrule}%
10781 \InlineClass[%
10782 \LWR@print@mbox{display:inline-block}; %
10783 \LWR@fboxstyle%
10784 ]{fbox}{#1}%
10785 }
```

xcolor \lets things to \fbox when it is loaded, and this must remain even for HTML output while in a lateximage, so \fbox is not modified until \AtBeginDocument:

```
10786 \AtBeginDocument{\LWR@formatted{fbox}}
```

\fboxBlock $\{\langle text \rangle\}$ Creates a framed HTML <div> of the text.

First, a print-mode version. This is newly defined for print mode, so it is defined inside warpall.

```
for HTML & PRINT: 10787 \end{warpHTML}
```

\fbox $\{\langle text \rangle\}$

```
10788 \begin{warpall}
10789 \let\fboxBlock\fbox
10790 \end{warpall}
10791
10792 \begin{warpHTML}
```

for HTML output:

Next, an HTML version:

```
10793 \newcommand{\LWR@HTML@fboxBlock}[1]{%
10794 \LWR@forceminwidth{\fboxrule}%
10795 \begin{BlockClass}[%
10796 \LWR@fboxstyle%
10797 ]{fboxBlock}
10798 #1
10799 \end{BlockClass}
10800 }
10800 \LWR@formatted{fboxBlock}
10803
10804 \end{warpHTML}
```

```
Env fminipage [\langle align \rangle] [\langle height \rangle] [\langle align \rangle] \{\langle width \rangle\}
```

Creates a framed HTML <div> around its contents.

for HTML & PRINT: Print version:

```
10805 \begin{warpall}
10806
10807 \newsavebox{\LWR@fminipagebox}
10808
10809 \NewDocumentEnvironment{LWR@print@fminipage}{O{t} o O{t} m}
10810 {%
```

An outer minipage will be used for vertical alignment. An inner minipage will be framed with \fbox.

If the optional inner alignment is not given, use the outer instead:

```
10811 \IfValueTF{#3}%
10812 {\def\LWR@thisalign{#3}}
10813 {\def\LWR@thisalign{#1}}%
```

Form the outer minipage depending on whether a height was given. Make the outer minipage larger to compensate for the frame.

Capture the contents of the environment:

```
10817 \begin{lrbox}{\LWR@fminipagebox}%
```

```
Nest the contents inside an inner minipage of the desired size:
               10818 \IfValueTF{#2}%
               10819 {\minipage[#1][#2][\LWR@thisalign]{#4}}%
               10820 {\minipage[#1]{#4}}%
               10821 }
               10822 {%
                 Close the inner minipage and the LR box with the contents:
               10823 \endminipage%
               10824 \end{ lrbox }%
                 Create a frame around the contents of the environment:
               10825 \fbox{\usebox{\LWR@fminipagebox}}%
                 The entire thing is placed inside the outer minipage:
               10826 \endminipage%
               10827 }
               10828
               10829 \LetLtxMacro\fminipage\LWR@print@fminipage
               10830 \LetLtxMacro\endfminipage\endLWR@print@fminipage
               10831 % \newenvironment{fminipage}{\LWR@print@fminipage}{\endLWR@print@fminipage}
               10833 \end{warpall}
                 HTML version:
for HTML output: 10834 \begin{warpHTML}
               10836 \NewDocumentEnvironment{LWR@HTML@fminipage}{O{t} o O{t} m}
               10837 {%
               10838 \LWR@traceinfo{fminipage #1 #2 #3 #4}%
               10839 \LWR@forceminwidth{\fboxrule}%
               10840 \setlength{\LWR@tempwidth}{#4}%
               10841 \IfValueT{#2}{\setlength{\LWR@tempheight}{#2}}%
               10842 \LWR@stoppars%
               10843 \begin{BlockClass}[%
               10844 \LWR@fboxstyle ; %
               10845 \IfValueT{#2}{height:\LWR@printlength{\LWR@tempheight} ; }%
               10846 \ifbool{LWR@minipagefullwidth}%
               10847 {\global\boolfalse{LWR@minipagefullwidth}}%
               10848 {%
               10849
                        \ifbool{LWR@forceminipagefullwidth}%
               10850
                            {}%
               10851
                             {%
                                 \ifthenelse{\lengthtest{\LWR@tempwidth}=\linewidth}%
               10852
               10853
```

{width:\LWR@printlength{\LWR@tempwidth} ; }%

10854

10855

}%

```
10856 }%
10857 ]{fminipage}%
10858 }
10859 {%
10860 \end{BlockClass}%
```

Prevent paragraph tags around horizontal white space until the start of the next paragraph:

```
10861 \global\booltrue{LWR@minipagethispar}%
10862 \LWR@traceinfo{fminipage done}%
10863 }
10864
10865 \LWR@formattedenv{fminipage}

\raisebox {\(raiselen\)\} [\(\deltaepth\)] [\(\deltaepth\)] {\(\text\)\}

10866 \NewDocumentCommand{\LWR@HTML@raisebox}{m o o m}{%
10867 #4%
10868 }
10869
10870 \LWR@formatted{raisebox}

10871 \end{\warpHTML}
```

90 Direct formatting

♠ \bfseries, etc. \textbf, etc. are supported, but \bfseries, etc. work only in some situations.

⚠ HTML special chars

&, <, and > have special meanings in HTML. If \&, \textless, and \textgreater are used, proper HTML entities will be used, but there may be HTML parsing problems if these special characters occur unescaped in program listings or other verbatim text.

program listings

For program listings, the listings package is supported, and its literate option is used to convert &, <, and > to proper HTML entities.

verbatim

The various verbatim-related environments do not convert &, <, and >, so care must be taken to avoid accidentally including valid HTML code inside these environments. Adding a space on either side may be sufficient.

For high-level block and inline custom css classes, see section 51.9.

```
for HTML output: 10872 \begin{warpHTML}
```

```
10877
        10878 }
        10879 \LWR@formatted{emph}
        10880
        10881 \DeclareRobustCommand{\LWR@null@emph}[1]{#1}
\textmd \{\langle text \rangle\}
        10882 \DeclareRobustCommand{\LWR@HTML@textmd}[1]{%
        10883
                 {%
                      \mdseries%
        10884
                      \InlineClass(font-weight:normal){textmd}{#1}%
        10885
        10886
                 }%
        10887 }
        10888 \LWR@formatted{textmd}
        10890 \DeclareRobustCommand{\LWR@null@textmd}[1]{#1}
\textbf \{\langle text \rangle\}
        10891 \DeclareRobustCommand{\LWR@HTML@textbf}[1]{%
                 {%
        10892
        10893
                      \bfseries%
                      \LWR@htmlspan{b}{#1}%
        10894
        10895
        10896 }
        10897 \LWR@formatted{textbf}
        10899 \DeclareRobustCommand{\LWR@null@textbf}[1]{#1}
\textrm \{\langle text \rangle\}
        10900 \DeclareRobustCommand{\LWR@HTML@textrm}[1]{%
        10901
                      \rmfamily%
        10902
                      \InlineClass(font-family:serif){textrm}{#1}%
        10903
                 }%
        10904
        10905 }
        10906 \verb|\LWR@formatted{textrm}|
        10908 \DeclareRobustCommand{\LWR@null@textrm}[1]{#1}
\textsf \{\langle text \rangle\}
        10909 \DeclareRobustCommand{\LWR@HTML@textsf}[1]{%
        10910
                 {%
        10911
                      \sffamily%
        10912
                      \InlineClass(font-family:sans){textsf}{#1}%
        10913
                 }%
        10914 }
        10915 \LWR@formatted{textsf}
        10917 \DeclareRobustCommand{\LWR@null@textsf}[1]{#1}
```

```
\texttt \{\langle text \rangle\}
                                      10918 \DeclareRobustCommand{\LWR@HTML@texttt}[1]{%
                                      10919
                                                                                  {%
                                                                                                        \ttfamily%
                                      10920
                                                                                                        \label{local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-local-loc
                                      10921
                                      10922
                                      10923 }
                                      10924 \LWR@formatted{texttt}
                                      10925
                                      \textup \{\langle text \rangle\}
                                      10927 \DeclareRobustCommand{\LWR@HTML@textup}[1]{%
                                      10929
                                                                                                        \upshape%
                                                                                                        \InlineClass(font-style:normal){textup}{#1}%
                                      10930
                                                                                  }%
                                      10931
                                      10932 }
                                      10933 \LWR@formatted{textup}
                                      10935 \DeclareRobustCommand{\LWR@null@textup}[1]{#1}
\textit \{\langle text \rangle\}
                                      10936 \DeclareRobustCommand{\LWR@HTML@textit}[1]{%
                                      10937
                                                                                  {%
                                                                                                        \itshape%
                                      10938
                                                                                                        \label{local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_loc
                                      10939
                                      10940
                                                                                  }%
                                      10941 }
                                      10942 \LWR@formatted{textit}
                                      10943
                                      10944 \DeclareRobustCommand{\LWR@null@textit}[1]{#1}
\textsc \{\langle text \rangle\}
                                      10946
                                      10947
                                                                                                        \scshape%
                                      10948
                                                                                                        \InlineClass(
                                                                                                                              font-variant: small-caps ;
                                      10949
                                                                                                                              font-variant-numeric: oldstyle-nums ;
                                      10950
                                                                                                        ){textsc}{#1}%
                                      10951
                                                                                  }%
                                      10952
                                      10953 }
                                      10954 \LWR@formatted{textsc}
                                      10956 \DeclareRobustCommand{\LWR@null@textsc}[1]{#1}
\textsi \{\langle text \rangle\}
```

```
10957 \@ifundefined{textsi}{
                                                  \LetLtxMacro\LWR@print@textsi\LWR@print@textsc
                            10959 }{}
                            10960
                            10961 \DeclareRobustCommand{\LWR@HTML@textsi}[1]{%
                            10962
                                                 {%
                                                            \sishape%
                            10963
                                                            \InlineClass(
                            10964
                                                                      font-style: italic;
                            10965
                            10966
                                                                      font-variant: small-caps ;
                                                                      font-variant-numeric: oldstyle-nums ;
                            10967
                                                            ){textsi}{#1}%
                            10968
                                                 }%
                            10969
                            10970 }
                            10971 \LWR@formatted{textsi}
                            10973 \DeclareRobustCommand{\LWR@null@textsi}[1]{#1}
         \textsl \{\langle text \rangle\}
                            10974 \DeclareRobustCommand{\LWR@HTML@textsl}[1]{%
                            10975
                                                 {%
                                                             \slshape%
                            10976
                                                            \InlineClass(font-style:oblique){textsl}{#1}%
                            10977
                                                  }%
                            10978
                            10979 }
                            10980 \LWR@formatted{textsl}
                            10982 \DeclareRobustCommand{\LWR@null@textsl}[1]{#1}
\textnormal \{\langle text \rangle\}
                            \label{localized} $$10983 \end{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\comma
                            10984 \LWR@formatted{textnormal}
                            10986 \DeclareRobustCommand{\LWR@null@textnormal}[1]{#1}
                            10987 \DeclareRobustCommand{\LWR@null@rmfamily}{}
                            10988 \DeclareRobustCommand{\LWR@null@sffamily}{}
                            10989 \DeclareRobustCommand{\LWR@null@ttfamily}{}
                            10990 \DeclareRobustCommand{\LWR@null@bfseries}{}
                            10991 \DeclareRobustCommand{\LWR@null@mdseries}{}
                            10992 \DeclareRobustCommand{\LWR@null@upshape}{}
                            10993 \DeclareRobustCommand{\LWR@null@slshape}{}
                            10994 \DeclareRobustCommand{\LWR@null@scshape}{}
                            10995 \DeclareRobustCommand{\LWR@null@itshape}{}
                            10996 \DeclareRobustCommand{\LWR@null@normalfont}{}
                            10997 \DeclareRobustCommand{\LWR@null@em}{}
```

\LWR@nullfonts Removes formatting during filename operations, file references, and HTML comments.

The following are *not* made robust, since they must be expanded to their nullified versions.

```
10998 \catcode'\$=\active% redefining $ below
10999 \catcode'\_=12% redefining \_ below
11000 \newcommand*{\LWR@nullfonts}{%
11001 \LetLtxMacro\emph\LWR@null@emph%
11002 \LetLtxMacro\textmd\LWR@null@textmd%
11003 \LetLtxMacro\textbf\LWR@null@textbf%
11004 \LetLtxMacro\textrm\LWR@null@textrm%
11005 \LetLtxMacro\textsf\LWR@null@textsf%
11006 \LetLtxMacro\texttt\LWR@null@texttt%
11007 \LetLtxMacro\textup\LWR@null@textup%
11008 \LetLtxMacro\textit\LWR@null@textit%
11009 \LetLtxMacro\textsc\LWR@null@textsc%
11010 \LetLtxMacro\textsi\LWR@null@textsi%
11011 \LetLtxMacro\textsl\LWR@null@textsl%
11012 \LetLtxMacro\textnormal\LWR@null@textnormal%
11013 \LetLtxMacro\rmfamily\LWR@null@rmfamily%
11014 \LetLtxMacro\sffamily\LWR@null@sffamily%
11015 \LetLtxMacro\ttfamily\LWR@null@ttfamily%
11016 \LetLtxMacro\bfseries\LWR@null@bfseries%
11017 \LetLtxMacro\mdseries\LWR@null@mdseries%
11018 \LetLtxMacro\upshape\LWR@null@upshape%
11019 \LetLtxMacro\slshape\LWR@null@slshape%
11020 \LetLtxMacro\scshape\LWR@null@scshape%
11021 \LetLtxMacro\sishape\LWR@null@sishape%
11022 \LetLtxMacro\itshape\LWR@null@itshape%
11023 \LetLtxMacro\normalfont\LWR@null@normalfont%
11024 \LetLtxMacro\em\LWR@null@em%
```

Various built-in symbols.

```
11025 \renewcommand*{\$}{-}%
11026 \renewcommand*{\%}{-}%
11027 \renewcommand*{\_}{{-}}%
11028 \renewcommand*{\}}{-}%
11029 \renewcommand*{\{}{-}%
11030 \renewcommand*{\&}{and}%
11031 \renewcommand*{\\#}{-}\%
11032 \renewcommand*{\,}{-}%
11033 \renewcommand*{~}{-}%
11034 \renewcommand*\{\^\}[1]\{-\}\%
11035 \renewcommand*{\~}[1]{-}%
11036 \renewcommand*{\newline}{-}%
11037 \renewcommand*{\textasciicircum}{-}%
11038 \renewcommand*{\textasciitilde}{-}%
11039 \renewcommand*{\textasteriskcentered}{-}%
11040 \renewcommand*{\textbackslash}{-}%
11041 \renewcommand*{\textbar}{-}%
11042 \renewcommand*{\textbardbl}{-}%
11043 \renewcommand*{\textbigcircle}{-}%
```

```
11044 \renewcommand*{\textbraceleft}{-}%
11045 \renewcommand*{\textbraceright}{-}%
11046 \renewcommand*{\textbullet}{-}%
11047 \renewcommand*{\textcopyright}{-}%
11048 \renewcommand*{\textdagger}{-}%
11049 \renewcommand*{\textdaggerdbl}{-}%
11050 \renewcommand*{\textdollar}{-}%
11051 \renewcommand*{\textellipsis}{-}%
11052 \renewcommand*{\textemdash}{-}%
11053 \renewcommand*{\textendash}{-}%
11054 \renewcommand*{\textexclamdown}{-}%
11055 \renewcommand*{\textgreater}{-}%
11056 \renewcommand*{\textless}{-}%
11057 \renewcommand*{\textordfeminine}{-}%
11058 \renewcommand*{\textordmasculine}{-}%
11059 \renewcommand*{\textparagraph}{-}%
11060 \renewcommand*{\textperiodcentered}{-}%
11061 \renewcommand*{\textpertenthousand}{-}%
11062 \renewcommand*{\textperthousand}{-}%
11063 \renewcommand*{\textquestiondown}{-}%
11064 \renewcommand*{\textquotedblleft}{-}%
11065 \renewcommand*{\textquotedblright}{-}%
11066 \renewcommand*{\textquoteleft}{-}%
11067 \renewcommand*{\textquoteright}{-}%
11068 \renewcommand*{\textregistered}{-}%
11069 \renewcommand*{\textsection}{-}%
11070 \renewcommand*{\textsterling}{-}%
11071 \renewcommand*{\texttrademark}{-}%
11072 \renewcommand*{\textunderscore}{-}%
11073 \renewcommand*{\textvisiblespace}{-}%
11074 \renewcommand*{\copyright}{-}%
11075 \renewcommand*{\dag}{-}%
11076 \renewcommand*{\ddag}{-}%
11077 \renewcommand*{\dots}{-}%
11078 \renewcommand*{\P}{-}%
11079 \renewcommand*{\pounds}{-}%
11080 \renewcommand*{\S}{-}%
11081 \renewcommand*{\aa}{a}%
11082 \renewcommand*{\AA}{A}%
11083 \renewcommand*{\AE}{AE}%
11084 \renewcommand*{\ae}{ae}%
11085 \renewcommand*{\dh}{d}%
11086 \renewcommand*{\DH}{D}%
11087 \renewcommand*{\DJ}{D}%
11088 \renewcommand*{\dj}{d}%
11089 \renewcommand*{\IJ}{IJ}%
11090 \renewcommand*{\ij}{ij}%
11091 \renewcommand*{\L}{L}%
11092 \renewcommand*{\l}{l}%
11093 \renewcommand*{\NG}{NG}%
11094 \renewcommand*{\ng}{ng}%
11095 \renewcommand*{\0}{0}%
11096 \renewcommand*{\o}{o}%
11097 \renewcommand*{\oe}{oe}%
11098 \renewcommand*{\OE}{OE}%
```

```
11099 \renewcommand*{\ss}{ss}%
11100 \renewcommand*{\SS}{SS}%
11101 \renewcommand*{\th}{th}%
11102 \renewcommand*{\TH}{TH}%
11103 \renewcommand*{\guillemotleft}{}%
11104 \renewcommand*{\guilsinglleft}{}%
11105 \renewcommand*{\quotedblbase}{}%
11106 \renewcommand*{\textquotedbl}{}%
11107 \renewcommand*{\guillemotright}{}%
11108 \renewcommand*{\guilsinglright}{}%
11109 \renewcommand*{\quotesinglbase}{}%
11110 \renewcommand*{\HTMLunicode}[1]{}%
11111 \renewcommand*{\HTMLentity}[1]{}%
11112 \renewcommand{\textsuperscript}[1]{##1}%
11113 \renewcommand{\textsubscript}[1]{##1}%
11114 \renewcommand{\underline}[1]{##1}%
11115 \RenewDocumentCommand{\LWR@htmlspanclass}{o m +m}{##3}%
\label{liminoclass} $$ D_{()} o m +m_{\#4}\% $$ IllieClass_{D_{()}} o m +m_{\#4}\% $$ IllieClass_{D_{()}} $$ o m +m_{\#4}\% $$ IllieClass_{D_{()}} $$ o m +m_{\#4}\% $$ o m +m_{\#4}\%
    Nullify math macros.
11117 \def\(##1\){}%
11118 \def\[##1\]{}%
11119 \RenewDocumentCommand{\LWR@subsingledollar}{s m m m}{}%
11120 \protected\def$##1${}%
    Nullify logos:
11121 \renewcommand*{\TeX}{TeX}%
11122 \renewcommand*{\LaTeX}{LaTeX}%
11123 \renewcommand*{\LaTeXe}{LaTeX2e}%
11124 \renewcommand*{\LuaTeX}{LuaTeX}%
11125 \renewcommand*{\LuaLaTeX}{LuaLaTeX}%
11126 \renewcommand*{\XeTeX}{XeTeX}%
11127 \renewcommand*{\XeLaTeX}{XeLaTeX}%
11128 \renewcommand*{\ConTeXt}{ConTeXt}%
11129 \renewcommand*{\BibTeX}{BibTeX}%
11130 \renewcommand*{\MakeIndex}{MakeIndex}%
11131 \renewcommand*{\AmS}{AmS}%
11132 \renewcommand*{\MiKTeX}{MiKTeX}%
11133 \renewcommand*{\LyX}{LyX}%
    Use the simpler form with \texorpdfstring:
11134 \let\texorpdfstring\relax%
11135 \newcommand{\texorpdfstring}[2]{##2}%
11136 }
11137 \catcode '\$=3%
11138 \catcode '\_=8%
```

```
\FilenameNullify \{\langle redefinitions \rangle\}
```

Adds more nullifying definitions for filename generation.

```
11139 \newcommand*{\FilenameNullify}[1]{%
11140 \appto{\LWR@nullfonts}{#1}%
11141 }
```

Remembers the current font family, series, and shape.

```
11142 \newcommand*{\LWR@f@family}{rm}
11143 \newcommand*{\LWR@f@series}{md}
11144 \newcommand*{\LWR@f@shape}{up}
```

\LWR@textcurrentfont $\{\langle text \rangle\}$

Prints the text with the current font choices. Avoids nesting repeated font selections.

```
11145 \newcounter{LWR@textcurrentfontdepth}
11146 \setcounter{LWR@textcurrentfontdepth}{0}
11147
11148 \newcommand*{\LWR@textcurrentfont}[1]{%
        \ifnumcomp{\value{LWR@textcurrentfontdepth}}{>}{0}%
11149
11150
             {%
                 \addtocounter{LWR@textcurrentfontdepth}{1}%
11151
11152
                 \addtocounter{LWR@textcurrentfontdepth}{-1}%
11153
             }%
11154
             {%
11155
                 \addtocounter{LWR@textcurrentfontdepth}{1}%
11156
                 \InlineClass{%
11157
                          text\LWR@f@family\LWR@origtilde{}%
11158
                          text\LWR@f@series\LWR@origtilde{}%
11159
                          text\LWR@f@shape%
11160
                     }%
11161
11162
                      {#1}%
                 \addtocounter{LWR@textcurrentfontdepth}{-1}%
11163
             }%
11164
11165 }
```

LWR@blocktextcurrentfont Prints the contents with the current font choices.

\mdseries

11173 \renewrobustcmd*{\mdseries}{\renewcommand*{\LWR@f@series}{md}}

```
\bfseries
                                                           \label{lem:limit} $$11174 \ensurement{\command*{\cMR@f@series}{bf}}$
          \rmfamily
                                                           {\tt 11175 \ lemostcmd*{\ lwR@f@family}{\ renewcommand*{\ lwR@f@family}{\ rm}}}
          \sffamily
                                                           \ttfamily
                                                           \upshape
                                                           \label{lem:limit} $$11178 \ensurement $$ \operatorname{\label{limit} limit} {\label{limit} $$11178 \ensurement $$1178 \ensurement $$ \ensurement $$11178 \en
               \itshape
                                                           \label{limin_limit} $$11179 \ensurement $$ \operatorname{\label{limin_limit} limit} {\label{limin_limit} $$11179 \ensurement $$ it} $$
               \scshape
                                                           11180 \renewrobustcmd*{\scshape}{\renewcommand*{\LWR@f@shape}{sc}}
               \sishape
                                                           11181 \@ifundefined{sishape}{
                                                                                                       11183 }{
                                                                                                        11184
                                                           11185 }
               \slshape
                                                           \label{lem:limit} $$11186 \end{{\tt \command*{\tt \comm}}}}}}}}}}}}}}}}}}}}}}}}}
\normalfont
                                                           11187 \renewrobustcmd*{\normalfont}{\rmfamily\mdseries\upshape}
                                          \sp \{\langle text \rangle\}
                                                                      For siunitx. Must work in math mode.
                                                           11188 \renewcommand{\sp}[1]{\text{<sup>#1</sup>}{}}
```

```
\sb \{\langle text \rangle\}
                                                        For siunitx. Must work in math mode.
                                                  11189 \renewcommand{\sb}[1]{\text{<sub>#1</sub>}{}}
  \textsuperscript \{\langle text \rangle\}
                                                  \label{lem:local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local
\ensuremath{\texttt{(dext)}}
                                                  11191 \renewcommand{\@textsuperscript}[1]{\LWR@htmlspan{sup}{#1}}
        \textsubscript \{\langle text \rangle\}
                                                  11192 \AtBeginDocument{
                                                  11193 \renewrobustcmd{\textsubscript}[1]{\LWR@htmlspan{sub}{#1}}
                                                  11194 }
     \ensuremath{\texttt{(dext)}}
                                                  11195 \AtBeginDocument{
                                                  11196 \renewcommand{\@textsubscript}[1]{\LWR@htmlspan{sub}{#1}}
                                                  11197 }
                                         \up \{\langle text \rangle\} Prints superscript.
                                                        This is \let at the beginning of the document in case some other package has
                                                        changed the definition.
                                                  11198 \AtBeginDocument{\let\up\textsuperscript}
                                      \fup \{\langle text \rangle\} Prints superscript.
                                                        Supports fmtcount package.
                                                        This is \let at the beginning of the document in case some other package has
                                                        changed the definition.
                                                  11199 \AtBeginDocument{\let\fup\textsuperscript}
                    \underline \{\langle text \rangle\}
                                                  11200 \renewcommand{\underline}[1]{%
                                                  11201
                                                                           \InlineClass%
                                                  11202
                                                                                       (text-decoration:underline; text-decoration-skip: auto)%
                                                  11203
                                                                                       {underline}{#1}%
                                                  11204 }
```

```
\LWR@overline \{\langle text \rangle\}
                           11205 \newcommand{\LWR@overline}[1]{%
                                    \InlineClass%
                           11206
                                        (text-decoration:overline; text-decoration-skip: auto)%
                           11207
                           11208
                                        {overline}{#1}%
                           11209 }
    \LWR@currenttextcolor The color to use for text and \rule, defaulting to black:
                           11210 \newcommand*{\LWR@currenttextcolor}{black}
           \LWR@tempcolor The color converted to HTML colorspace.
        \LWR@tempcolortwo
                           11211 \newcommand*{\LWR@tempcolor}{}
                           11212 \newcommand*{\LWR@tempcolortwo}{}
\LWR@findcurrenttextcolor Sets \LWR@tempcolor to the current color.
                           11213 \newcommand*{\LWR@findcurrenttextcolor}{%
                           11214 \renewcommand{\LWR@tempcolor}{000000}%
                           11215 }
    \LWR@textcurrentcolor \{\langle text \rangle\} Like \textcolor but uses the current \color instead.
                           11216 \NewDocumentCommand{\LWR@textcurrentcolor}{m}{%
                                    \renewcommand*{\LWR@currenttextcolor}{black}%
                           11217
                           11218
                                    #1%
                           11219 }
                           11220 \end{warpHTML}
          for PRINT output: 11221 \begin{warpprint}
     \LWR@textcurrentfont \{\langle text \rangle\}
                             Prints the text with the current font choices.
                           11222 \newcommand*{\LWR@textcurrentfont}[1]{#1}
LWR@blocktextcurrentfont Prints the contents with the current font choices.
                           11223 \newenvironment*{LWR@blocktextcurrentfont}{}{}
         \FilenameNullify \{\langle macros\ to\ nullify\rangle\}
                           11224 \newcommand*{\FilenameNullify}[1]{}
                           11225 \end{warpprint}
```

91 Skips, spaces, font sizes

for HTML output: 11226 \begin{warpHTML}

\, and \thinspace may be redefined by other packages, so are redefined \AtBeginDocument here

Direct-formatting space commands become HTML entities:

```
11227 \AtBeginDocument{
11228 \renewrobustcmd*{\,}{\HTMLunicode{202f}} % HTML thin non-breakable space
11229 \renewrobustcmd*{\thinspace}{\HTMLunicode{202f}} % HTML thin non-breakable space
11230 \renewrobustcmd*{\negthinspace}{\HTMLunicode{202f}} % HTML thin non-breakable space
11231 \renewrobustcmd*{\^}{\HTMLentity{nbsp}}
11232 \renewrobustcmd*{\textellipsis}{\HTMLunicode{2026}}
11233 }
```

Direct-formatting font sizes are ignored:

```
11234 \newrobustcmd*{\LWR@HTML@normalsize}{}
11235 \LWR@formatted{normalsize}
11237 \newrobustcmd*{\LWR@HTML@small}{}
11238 \LWR@formatted{small}
11240 \newrobustcmd*{\LWR@HTML@footnotesize}{}
11241 \LWR@formatted{footnotesize}
11243 \newrobustcmd*{\LWR@HTML@scriptsize}{}
11244 \LWR@formatted{scriptsize}
11245
11246 \newrobustcmd*{\LWR@HTML@tiny}{}
11247 \LWR@formatted{tiny}
11249 \newrobustcmd*{\LWR@HTML@large}{}
11250 \LWR@formatted{large}
11251
11252 \newrobustcmd*{\LWR@HTML@Large}{}
11253 \LWR@formatted{Large}
11255 \newrobustcmd*{\LWR@HTML@LARGE}{}
11256 \LWR@formatted{LARGE}
11258 \newrobustcmd*{\LWR@HTML@huge}{}
11259 \LWR@formatted{huge}
11261 \newrobustcmd*{\LWR@HTML@Huge}{}
11262 \LWR@formatted{Huge}
11263 \DeclareDocumentCommand{\onecolumn}{}{}
11265 \DeclareDocumentCommand{\twocolumn}{0{}}{
11266
```

```
11267 #1
              11268
              11269 }
        \hfill
              11270 \newcommand*{\LWR@HTML@hfill}{\qquad}
              11271 \LWR@formatted{hfill}
    \hrulefill
              11272 \newcommand*{\LWR@HTML@hrulefill}{\rule{1in}{1pt}}
              11273 \LWR@formatted{hrulefill}
     \dotfill
              11274 \newcommand*{\LWR@HTML@dotfill}{\dots}
              11275 \LWR@formatted{dotfill}
     \newpage
              11276 \renewcommand*{\newpage}{
              11277
              11278 }
     \newline Uses the HTML <br /> element.
              \label{lem:linear} $$11279 \enskip\WR@newlinebr}{\wronger} \label{linear} $$1279 \enskip\WR@newline} $$
              11280 \LetLtxMacro\newline\LWR@newlinebr
            \\ Redefined to \LWR@endofline or \LWR@tabularendofline.
\LWR@endofline * [\langle len \rangle]
                \\ is assigned to \LWR@endofline at \LWR@LwarpStart.
                Inside tabular, \\ is temporarily changed to \LWR@tabularendofline.
              11281 \LetLtxMacro\LWR@origendofline\\
              11282 \MewDocumentCommand{\LWR@endofline}{s O{0pt}}
              11283 {%
              11284 \newline%
              11285 \setlength{\LWR@templengthone}{#2}%
              11287 }
```

\LWR@minipagestartpars Minipages are often placed side-by-side inside figures, with a bit of horizontal space to separate them. Since HTML does not allow a <div> to be inside a p, paragraphs

\hspace \enskip \quad \qquad must be turned off during the generation of the minipage, then turned on after the minipage is complete. When this occurs between side-by-side minipages, lwarp correctly suppresses the paragraph tags between the minipages, unless some other text is between the minipages. Such text forms its own paragraph, resulting in text after a minipage to be on its own line. Since people often place small horizontal space between minipages, it is desirable to maintain this space if possible. lwarp tries to do this by remembering that a minipage has been seen, in which case paragraph tags are suppressed around \hspace, \enskip, \quad, and \quad until the end of the paragraph, when the closing p tag is created.

When a minipage is seen, the boolean LWR@minipagethispar is set, telling the following horizontal whitespace commands to try to suppress their surrounding paragraph tags. LWR@minipagethispar is cleared at the next end of paragraph, when the HTML paragraph closing tag is generated.

Placed just before \hspace, \quad, or \qquad's HTML output.

```
11288 \newcommand*{\LWR@minipagestartpars}{%
11289 \ifbool{LWR@minipagethispar}{\LWR@startpars}{}%
11290 }
```

\LWR@minipagestoppars Placed just after \hspace, \quad, or \qquad's HTML output.

```
11291 \newcommand*{\LWR@minipagestoppars}{%
11292 \ifbool{LWR@minipagethispar}{\LWR@stoppars}{}%
11293 }
```

\quad Handles special minipage & horizontal space interactions. Uses 2003 EM SPACE to pass validation.

```
11294 \renewrobustcmd*{\quad}{%
11295 \LWR@minipagestoppars%
11296 \HTMLunicode{2003}%
11297 \LWR@minipagestartpars%
11298 }
```

\qquad Handles special minipage & horizontal space interactions.

```
11299 \renewrobustcmd*{\quad}{\quad\quad}
```

\enskip Handles special minipage & horizontal space interactions.

```
11300 \renewrobustcmd*{\enskip}{%
11301 \LWR@minipagestoppars%
11302 \HTMLunicode{2002}%
11303 \LWR@minipagestartpars%
11304 }
```

```
Len \LWR@tempheight
11305 \newlength{\LWR@tempwidth}
Len \LWR@tempraise
```

```
11306 \newlength{\LWR@tempheight}
11307 \newlength{\LWR@tempraise}
```

\LWR@select@html@hspace \hspace

```
* \{\langle length \rangle\} * \{\langle length \rangle\}
```

Handles special minipage & horizontal space interactions.

Prints a span of a given width. Ignores the optional star.

\hspace{\fill} is converted to \hspace{2em}, equal to \qquad.

```
11308 \newcommand{\LWR@select@html@hspace}{%
11309 \RenewDocumentCommand{\hspace}{$ m}{%
11310 \setlength{\LWR@tempwidth}{##2}%
```

If \fill, change to \qquad:

```
11311 \ifnum\gluestretchorder\LWR@tempwidth>0%
11312 \setlength{\LWR@tempwidth}{2em}%
11313 \fi%
```

Only if the width is not zero:

```
11314 \ifdimcomp{\LWR@tempwidth}{=}{0pt}{}{%
```

If had a minipage this paragraph, try to inline the white space without generating paragraph tags:

```
11315 \LWR@minipagestoppars%
```

Support the HTML thin wrappable space:

Print the span with the converted width. Not rounded.

If formatting for a word processor, approximate with a number of \quads, in case a span of a given width is not supported:

```
11325 \ifbool{FormatWP}{%
11326 \setlength{\LWR@templengthone}{\LWR@tempwidth}%
11327 \whiledo{\lengthtest{\LWR@templengthone>1em}}{%
11328 \quad%
11329 \addtolength{\LWR@templengthone}{-1em}%
```

```
11330
                                              }%
                            11331
                                         }{}%
                              Close the span:
                                         \LWR@htmltagc{/span}%
                            11332
                            11333
                                     }%
                              If had a minipage this paragraph, try to inline the white space without generating
                              paragraph tags:
                            11334
                                     \LWR@minipagestartpars%
                            11335 }% width not 0
                            11336 }%
                            11337 }
\LWR@select@html@nohspace * \{\langle length \rangle\}
                   \hspace
                              Used to disable \hspace while creating description \items.
                            11338 \newcommand{\LWR@select@html@nohspace}{%
                            11339
                                     \RenewDocumentCommand{\hspace}{s m}{}%
                            11340 }
\LWR@select@print@hspace
                            11341 \newcommand*{\LWR@select@print@hspace}{%
                                     \renewrobustcmd\hspace{\@ifstar\@hspacer\@hspace}%
                            11342
                            11343 }
                   \hspace * \{\langle length \rangle\}
                              Handles special minipage & horizontal space interactions.
                            11344 \LWR@select@html@hspace
               \LWR@vspace * \{\langle length \rangle\} Nullified vspace.
                            11345 \NewDocumentCommand{\LWR@HTML@vspace}{s m}{}
                            11347 \LWR@formatted{vspace}
                \linebreak [\langle num \rangle]
                                             Inserts an HTML br tag.
                            11348 \renewcommand*{\linebreak}[1][]{\newline}
              \nolinebreak [\langle num \rangle]
                            11349 \renewcommand*{\nolinebreak}[1][]{}
```

```
\pagebreak [\langle num \rangle]
                                   Starts a new paragraph.
                  11350 \renewcommand*{\pagebreak}[1][]{
                  11351
                  11352 }
    \nopagebreak [\langle num \rangle]
                  11353 \renewcommand*{\nopagebreak}[1][]{}
\enlargethispage * \{\langle len \rangle\}
                  11354 \RenewDocumentCommand{\enlargethispage}{s m}{}
      \clearpage
\cleardoublepage
                  11355 \renewcommand*{\clearpage}{}
                  11356 \renewcommand*{\cleardoublepage}{}
            \rule [\langle raise \rangle] \{\langle width \rangle\} \{\langle height \rangle\}
                    Handles special minipage & horizontal space interactions.
                    Creates a span of a given width and height. Ignores the optional star.
                    \fill is zero-width, so \hspace{\fill} is ignored.
                  11357 \newcommand*{\LWR@HTML@rule}[3][]{%
                    The width is copied into a temporary LATEX length, from which comparisons and
                    conversions may be made:
                  11358 \setlength{\LWR@tempwidth}{#2}%
                    If it's zero-width then skip the entire rule:
                  11359 \ifthenelse{\lengthtest{\LWR@tempwidth=0pt}}%
                  11360 {}% zero- width
                  11361 {% non-zero width
                    If it's non-zero width, set a minimal thickness so that it more reliably shows in the
                    browser:
                           \ifthenelse{%
                  11362
                               \lengthtest{\LWR@tempwidth>0pt}\AND%
                  11363
                               \lengthtest{\LWR@tempwidth<1pt}%
                  11364
                  11365
                               {\setlength{\LWR@tempwidth}{1pt}}%
                  11366
                  11367
                               {}%
```

Likewise with height:

```
11368 \setlength{\LWR@tempheight}{#3}%
11369 \ifthenelse{%
11370 \lengthtest{\LWR@tempheight>0pt}\AND%
11371 \lengthtest{\LWR@tempheight<1pt}%
11372 }%
11373 {\setlength{\LWR@tempheight}{1pt}}%
11374 {}%</pre>
```

If had a minipage this paragraph, try to inline the rule without generating paragraph tags:

```
11375 \LWR@minipagestoppars%
```

Print the span with the converted width and height. The width and height are NOT rounded, since a height of less than 1pt is quite common in LATEX code.

The background color is used to draw the filled rule. The color may be changed by \textcolor.

```
11380 \ifbool{FormatWP}{}{background:\LWR@currenttextcolor;}%
```

The width and height are printed, converted to PT:

```
uidth:\LWR@printlength{\LWR@tempwidth}; %
height:\LWR@printlength{\LWR@tempheight}; %
```

The raise height is converted to a css transform. The *2 raise multiplier is to approximately match HTML output's X height. Conversion to a LATEX length allows a typical LATEX expression to be used as an argument for the raise, whereas printing the raise argument directly to HTML output without conversion to a LATEX length limits the allowable syntax. To do: A superior method would compute a ratio of LATEX ex height, then print that to HTML with an ex unit.

```
\ifblank{#1}%
11383
11384
        {}%
        {%
11385
             \setlength{\LWR@tempraise}{0pt-#1}%
11386
             \setlength{\LWR@tempraise}{\LWR@tempraise*2}%
11387
             \LWR@indentHTML%
11388
             -ms-transform: translate(0pt,\LWR@printlength{\LWR@tempraise}); %
11389
11390
             \LWR@indentHTML%
11391
             -webkit-transform: translate(0pt,\LWR@printlength{\LWR@tempraise}); %
11392
             \LWR@indentHTML%
             transform: translate(0pt,\LWR@printlength{\LWR@tempraise}); %
11393
             \LWR@indentHTML%
11394
11395
        }%
```

Display inline-block to place the span inline with the text:

```
11396 display:inline-block;"\LWR@orignewline%
11397 }%
```

If formatting for a word processor, approximate with a number of underscores, in case a span of a given width is not supported:

Close the span:

```
11405 \LWR@htmltagc{/span}%
```

If had a minipage this paragraph, try to inline the white space without generating paragraph tags:

92 \phantomsection

for HTML output: 11412 \begin{warpHTML}

\phantomsection Emulate the hyperref \phantomsection command, often used to insert the bibliography into the table of contents. Ignores \ForceHTMLTOC.

```
11413 \DeclareDocumentCommand{\phantomsection}{}{%
11414 \begingroup%
11415 \boolfalse{LWR@forcinghtmltoc}%
11416 \section*{}%
11417 \endgroup%
11418 }
11419 \end{\warpHTML}
```

93 \LaTeX and other logos

Logos for HTML and print modes:

562 September 1997

Some of these logos may be redefined in a later package, so after loading other packages, and at the beginning of the document, their definitions are finally set by \LWR@formatted.

For css conversions, see: http://edward.oconnor.cx/2007/08/tex-poshlet http://nitens.org/taraborelli/texlogo and the spacing described in the metafont package documentation.

```
for HTML & PRINT: 11420 \begin{warpall}
                 11421 \newrobustcmd*{\Xe}
                          {X\hspace}{-.1667em}\raisebox{-.5ex}{E}}
                 11422
                 11423
                 11424 \AtBeginDocument{
                 11425 \@ifpackageloaded{graphics}{
                          \@ifpackageloaded{metalogo}{}{
                              \renewrobustcmd*{\Xe}
                 11427
                 11428
                                  {X\hspace}_{-.1667em}\raisebox{-.5ex}{\reflectbox{E}}}
                          }
                 11429
                 11430 }{
                          \PackageWarningNoLine{lwarp}{Load graphicx or graphics
                 11431
                              for improved XeTeX logo}
                 11432
                 11433 }
                 11434 }
                 11435
                 11436 \providerobustcmd*{\XeTeX}{\mbox{\Xe\hspace{-.125em}\TeX}}
                 11437 \providerobustcmd*{\XeLaTeX}{\mbox{\Xe\hspace{-.125em}\LaTeX}}
                 11438 \providerobustcmd*{\AmS}{%
                          \leavevmode\hbox{$\mathcal A\kern-.2em\lower.376ex%
                 11439
                          \hbox{$\mathcal M$}\kern-.2em\mathcal S$}%
                 11440
                 11441 }
                 11442 \newrobustcmd*{\LyX}{\textsf{LyX}}
                 11443 \providerobustcmd*{\LuaTeX}{\mbox{Lua\TeX}}
                 11444 \providerobustcmd*{\LuaLaTeX}{\mbox{Lua\LaTeX}}
                 11445 \providerobustcmd*{\BibTeX}{\mbox{B\textsc{ib}\TeX}}
                 11446 \providerobustcmd*{\MakeIndex}{\mbox{\textit{MakeIndex}}}
                 11447 \providerobustcmd*{\ConTeXt}{\mbox{Con\TeX{}t}}
                 11448 \providerobustcmd*{\MiKTeX}{\mbox{MiK\TeX}}
                 11449 \end{warpall}
```

for HTML output: 11450 \begin{warpHTML}

The print-mode versions of the following may be changed by metalogo, so their print formatting is recorded \AtBeginDocument.

```
\TeX TEX
```

latexlogo is a css class used to properly typeset the E and A in LATEX and friends.

latexlogofont is a css class used to select the font for the rest of the logo in LateX, LuaTeX, ConTeXt, etc.

```
11451 \newrobustcmd*{\LWR@HTML@TeX}
11452 {%
```

```
11453
                 \InlineClass{latexlogofont}%
         11454
                      \InlineClass{latexlogo}%
         11455
                      {%
         11456
                          Т%
         11457
                          \InlineClass{latexlogosub}{e}%
         11458
         11459
         11460
                      }%
                 }%
         11461
         11462 }
         11463 \land AtBeginDocument{\LWR@formatted{TeX}}\% may have been patched by metalogo
  \LaTeX \angle ATEX, \angle ATEX 2_{\mathcal{E}}
  \LaTeXe
         11464 \newrobustcmd*{\LWR@HTML@LaTeX}
         11465 {%
                 \InlineClass{latexlogofont}%
         11466
         11467
                      \InlineClass{latexlogo}%
         11468
                      {%
         11469
         11470
                          L%
                          \InlineClass{latexlogosup}{a}%
         11471
         11472
                          \InlineClass{latexlogosub}{e}%
         11473
         11474
                      }%
         11475
                 }%
         11476
         11477 }
         11478
         11479 \AtBeginDocument{\LWR@formatted{LaTeX}}% may have been patched by metalogo
         11480
         11481
         11482 \newrobustcmd*{\LWR@HTML@LaTeXe}
         11483 {%
                 \LaTeX%
         11484
                 \InlineClass{latexlogofont}{%
         11485
         11486
                      \InlineClass{latexlogotwoe}{%
         11487
                          \InlineClass{latexlogotwoesub}{\HTMLunicode{03B5}}%
         11488
                      }%
         11489
                 }%
         11490
         11491 }
         11492 \AtBeginDocument{\LWR@formatted{LaTeXe}}% may have been patched by metalogo
 \LuaTeX LuaTeX, LuaLATeX
\LuaLaTeX
         {\tt 11493 \ hewrobustcmd*{LWR@HTML@LuaTeX}{\ latexlogofont}{Lua}\ TeX}
         11494 \AtBeginDocument{\LWR@formatted{LuaTeX}}% may have been patched by metalogo
         11495
         11497 \AtBeginDocument{\LWR@formatted{LuaLaTeX}}% may have been patched by metalogo
```

```
\XeTeX X\(\frac{1}{2}\)TEX, X\(\frac{1}{2}\)EX
  \XeLaTeX
             xetexlogo is a css class which aligns the backwards E in X<sub>3</sub>T<sub>E</sub>X and spaces T<sub>E</sub>X
             appropriately.
             xelatexlogo is a css class which aligns the backwards E in XHATEX and spaces LATEX
             appropriately.
           11498 \newrobustcmd*{\LWR@HTML@Xe}
           11499
                    {%
           11500
           11501
                        \InlineClass{xelatexlogosub}{\HTMLunicode{18e}}%
           11502
           11503 AtBeginDocument{\LWR@formatted{Xe}}\% may have been patched by metalogo
           11504
           \label{limineClass} $$11505 \end*{\LWR@HTML@XeTeX}_{\InlineClass}(xelatexlogo)_{\Xe}\TeX}$
           11506 \AtBeginDocument{\LWR@formatted{XeTeX}}% may have been patched by metalogo
           11508 \newrobustcmd*{\LWR@HTML@XeLaTeX}{\InlineClass{xelatexlogo}{\Xe}\LaTeX}
           11509 \AtBeginDocument{\LWR@formatted{XeLaTeX}}% may have been patched by metalogo
  \ConTeXt ConTEXt
           11510 \newrobustcmd*{\LWR@HTML@ConTeXt}{%
                    \InlineClass{latexlogofont}{Con}\TeX{}%
           11512
                    \InlineClass{latexlogofont}{t}%
           11513 }
           11514 \LWR@formatted{ConTeXt}
   \BibTeX BibTeX, MakeIndex
\MakeIndex
           11515 \newrobustcmd*{\LWR@HTML@BibTeX}
                    {\InlineClass{latexlogofont}{B\textsc{ib}}\TeX}
           11516
           11517 \LWR@formatted{BibTeX}
           11518
           11519 \newrobustcmd*{\LWR@HTML@MakeIndex}
                    {\InlineClass{latexlogofont}{\textit{MakeIndex}}}
           11521 \LWR@formatted{MakeIndex}
      \AmS AMS
             amslogo is a css class used for the \mathcal{F}_{MS} logo.
           11522 \AtBeginDocument{%
           11523 \newrobustcmd*{\LWR@HTML@AmS}
           11524 {%
                    \InlineClass{amslogo}{%
           11525
```

11526

11527

11528

11529

11530

11531

\textit{%

S%

}%

}%

\InlineClass{latexlogosub}{M}%

```
11532 }%
11533 \LWR@formatted{AmS}
11534 }

\MiKTeX MiKTEX

11535 \newrobustcmd*{\LWR@HTML@MiKTeX}{\InlineClass{latexlogofont}{MiK}\TeX}
11536 \LWR@formatted{MiKTeX}

\LyX LyX

\text{LyX}

\text{lyxlogo is a Css class used for the LyX logo.}

11537 \newrobustcmd*{\LWR@HTML@LyX}{\InlineClass{lyxlogo}{LyX}}
11538 \LWR@formatted{LyX}

11539 \end{warpHTML}
```

94 \AtBeginDocument, \AtEndDocument

```
for HTML output: 11540 \begin{warpHTML}

\LWR@LwarpStart Automatically sets up the HTML-related actions for the start and end of the document.
\LWR@LwarpEnd

11541 \AfterEndPreamble{\LWR@LwarpStart}

11542 \AtEndDocument{\LWR@LwarpEnd}

11543 \end{warpHTML}
```

95 Loading Koma-script class patches

Load patches to koma-script.

```
for HTML output: 11544 \begin{warpHTML}

11545 \@ifclassloaded{scrbook}{\RequirePackage{lwarp-patch-komascript}}{}

11546 \@ifclassloaded{scrartcl}{\RequirePackage{lwarp-patch-komascript}}{}

11547 \@ifclassloaded{scrreprt}{\RequirePackage{lwarp-patch-komascript}}{}

11548 \end{warpHTML}
```

96 Loading Memoir class patches

Load patches to memoir.

```
for HTML output: 11549 \begin{warpHTML}

11550 \@ifclassloaded{memoir}{\RequirePackage{lwarp-patch-memoir}}{}

11551 \end{warpHTML}
```

97 ut* class patches

Load patches to uj* and ut* classes, as well as ltj* classes.

```
for HTML output: 11552 \begin{warpHTML}
                11553 \newcommand*{\LWR@patchujtclasses}{
                  uj/t does not use \partname
                11554
                         \def\@partnameformat{}
                         \def\@partcntformat##1{%
                11555
                11556
                             \prepartname%
                             \csname the##1\endcsname%
                11557
                             \postpartname%
                11558
                             \quad%
                11559
                11560
                11561
                         \@ifundefined{chapter}{}{
                11562
                             \def\@chapcntformat##1{%
                11563
                                 \prechaptername%
                                 \csname the##1\endcsname%
                11564
                                 \postchaptername%
                11565
```

}

11566

11567

11568

Use decimal points instead of centered dots:

\quad%

```
\renewcommand{\thepart}{\@Roman\c@part}
11569
11570
        \@ifundefined{chapter}{
            \renewcommand{\thesection}{\@arabic\c@section}
11571
11572
        }{
            \renewcommand{\thechapter}{\@arabic\c@chapter}
11573
            \renewcommand{\thesection}{\thechapter.\@arabic\c@section}
11574
11575
        \renewcommand{\thesubsection}{\thesection.\@arabic\c@subsection}
11576
11577
        \renewcommand{\thesubsubsection}{%
11578
        \thesubsection.\@arabic\c@subsubsection}
```

```
11579
                    \renewcommand{\theparagraph}{%
11580
                    \thesubsubsection.\@arabic\c@paragraph}
                    \renewcommand{\thesubparagraph}{%
11581
                    \theparagraph.\@arabic\c@subparagraph}
11582
                    \@ifundefined{chapter}{
11583
                              \renewcommand{\thefigure}{\@arabic\c@figure}
11584
                              \renewcommand{\thetable}{\@arabic\c@table}
11585
                    }{
11586
                              \renewcommand{\thefigure}{%
11587
                              \ifnum\c@chapter>\z@\thechapter.\fi\@arabic\c@figure}
11588
                              \renewcommand{\thetable}{%
11589
                              \ifnum\c@chapter>\z@\thechapter.\fi\@arabic\c@table}
11590
                    }
11591
11592 }
11593
11594 \@ifclassloaded{ujarticle}{\LWR@patchujtclasses}{}
11595 \@ifclassloaded{ujbook}{\LWR@patchujtclasses}{}
11596 \@ifclassloaded{ujreport}{\LWR@patchujtclasses}{}
11597 \@ifclassloaded{utarticle}{\LWR@patchujtclasses}{}
11598 \@ifclassloaded{utbook}{\LWR@patchujtclasses}{}
11599 \@ifclassloaded{utreport}{\LWR@patchujtclasses}{}
11600 \@ifclassloaded{ltjarticle}{\LWR@patchujtclasses}{}
11601 \@ifclassloaded{ltjbook}{\LWR@patchujtclasses}{}
11602 \@ifclassloaded{ltjreport}{\LWR@patchujtclasses}{}
11603 \@ifclassloaded{ltjsarticle}{\LWR@patchujtclasses}{}
11604 \@ifclassloaded{ltjsbook}{\LWR@patchujtclasses}{}
11605 \@ifclassloaded{ltjsreport}{\LWR@patchujtclasses}{}
11606 \@ifclassloaded{ltjskiyou}{\LWR@patchujtclasses}{}
11607 \@ifclassloaded{ltjspf}{\LWR@patchujtclasses}{}
11608 \@ifclassloaded{ltjtarticle}{\LWR@patchujtclasses}{}
11609 \@ifclassloaded{ltjtbook}{\LWR@patchujtclasses}{}
{\tt 11610 \endown{ltjtreport}{\lower.eng} } \{to a set of the constant of the 
11611 \end{warpHTML}
```

98 CTEX patches

Patches for ctex and related classes, which are loaded before lwarp.

All CTEX classes and the ctex package seem to load ctexpatch, so its presence is used to decide whether to have lwarp patch CTEX.

for HTML output: 11612 \begin{warpHTML}

\AtBeginDocument in case the user set FileSectionNames in the preamble.

```
11613 \AtBeginDocument{
11614 \@ifpackageloaded{ctexpatch}{%
11615 \def\@partcntformat#1{%
11616 \LWR@isolate{\CTEX@partname}~%
11617 \CTEX@part@aftername%
11618 }%
```

```
11619
11620
             \def\@partnameformat{}
11621
             \def\@chapcntformat#1{%
11622
                  \LWR@isolate{\CTEX@chaptername}~%
11623
                  \CTEX@chapter@aftername%
11624
             }%
11625
11626
         }{}
11627 }
11628 \end{warpHTML}
```

99 kotexutf patches

Patch for kotexutf, which is loaded before lwarp.

kotexutf's \@setref was conflicting with lwarp's cross references.

for HTML output: 11629 \begin{warpHTML}

If kotexutf's version of \@setref is detected, it is reverted to the original.

```
11630 \AtBeginDocument{
11631 \@ifpackageloaded{kotexutf}{%
11632
         \def\LWR@kotexutf@setref#1#2#3{%
11633
              \ensuremath{\verb| @setref@dhucs@orig{#1}{#2}{#3}| } \\
           \ifx#1\relax\else
11634
              \bgroup
11635
              \dhucs@make@cjkchar@null
11636
              \edef\@temp{\expandafter#2#1}\global\josatoks\expandafter{\@temp}%
11637
11638
              \egroup
           \fi%
11639
         }%
11640
11641
         \ifdefequal{\@setref}{\LWR@kotexutf@setref}{
11642
              \let\@setref\@setref@dhucs@orig
11643
11644
         }{}
11645 }{}
11646 }
11647 \end{warpHTML}
```

```
File 2 lwarp-2in1.sty
         Package
§ 100
        Pkg 2in1
                   2in1 is ignored.
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{2in1}
            File 3 lwarp-2up.sty
         Package 2up
§ 101
                   2up is ignored.
         Pkg
             2up
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{2up}[2010/05/15]
                    2 \def\source#1#2#3{}
                    3 \def\target#1#2#3{}
                    4 \def\targetlayout#1{}
                    5 \newdimen\pageseplength
                    6 \newdimen\pagesepwidth
                    7 \newdimen\pagesepoffset
                    8 \def\twoupemptypage{}
                    9 \def\twoupclearpage{}
                   10 \def\twoupeject{}
                   11 \def\twouparticle{}
                   12 \def\twoupplain{}
                   13 \def\twouplegaltarget{}
                   14 \def\twouplandscape{}
                   15 \def\TwoupWrites{}
            File 4 lwarp-a4.sty
         Package a4
§ 102
                   a4 is ignored.
          Pkg a4
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{a4}[2004/04/15]
                    2 \newcommand*{\WideMargins}{}
```

File 5 lwarp-a4wide.sty

§ 103 Package a4wide

Pkg a4wide a4wide is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{a4wide}[1994/08/30]

File 6 lwarp-a5comb.sty

§ 104 Package a5comb

Pkg a5comb a5comb is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{a5comb}

File 7 lwarp-abstract.sty

§ 105 Package abstract

(Emulates or patches code by Peter Wilson.)

Pkg abstract abstract is supported and patched by lwarp.

 \triangle missing toc

If using the number option with file splits, be sure to place the table of contents before the abstract. The number option causes a section break which may cause a file split, which would put a table of contents out of the home page if it is after the abstract.

for HTML output:

memoir provides an abstract environment even though it is not an article or report class. Meanwhile, lwarp loads book to emulate memoir, but book does not have an abstract environment, so when the abstract package is loaded for emulation there is no pre-existing abstract to redefine, which would cause an error. Thus, a null abstract is provide here:

1 \ProvideDocumentEnvironment{abstract}{}{}{}{

Accept all options for lwarp-abstract:

- 2 \LWR@ProvidesPackagePass{abstract}[2009/06/08]
- 3 \AtBeginDocument{
- 4 \BeforeBeginEnvironment{abstract}{
- 5 \LWR@forcenewpage
- 6 \BlockClass{abstract}

```
8 \AfterEndEnvironment{abstract}{\endBlockClass}
9 }
11 \renewcommand{\@bsrunintitle}{%
12 \hspace*{\abstitleskip}%
13 {\abstractnamefont%
14 \InlineClass{abstractrunintitle}{\abstractname}%
15 \@bslabeldelim}%
16 }
17
18 \@ifclassloaded{memoir}
19 {
    \renewenvironment{abstract}{%
20
21 %
        \titlepage
      \null\vfil
22
      \@beginparpenalty\@lowpenalty
23
      \if@bsrunin
24
      \else
25
        \if@bsstyle
26
          \abstitlestyle{\BlockClassSingle{abstracttitle}{\abstractname}}
27
28
        \else
          \ifnumber@bs
29
            \num@bs
30
          \else
31
             \begin{\absnamepos}%
32
33
    \abstractnamefont \BlockClassSingle{abstracttitle}{\abstractname}
34
              \@endparpenalty\@M
             \end\absnamepos%
35
36 %%
            \vspace{\abstitleskip}%
          \fi
37
        \fi
38
        \vspace{\abstitleskip}%
39
40
41
      \put@bsintoc%
      \begin{@bstr@ctlist}\if@bsrunin\@bsrunintitle\fi\abstracttextfont}%
42
43
      {\par\end{@bstr@ctlist}\vfil\null%\endtitlepage
44
45 }{% not memoir
46 \if@titlepage
   \renewenvironment{abstract}{%
48 %
        \titlepage
49
      \null\vfil
      \@beginparpenalty\@lowpenalty
50
      \if@bsrunin
51
      \else
52
53
        \if@bsstyle
          \abstitlestyle{\BlockClassSingle{abstracttitle}{\abstractname}}
54
55
        \else
          \ifnumber@bs
56
            \num@bs
57
          \else
58
59
             \begin{\absnamepos}%
60
    \abstractnamefont \BlockClassSingle{abstracttitle}{\abstractname}
61
              \@endparpenalty\@M
```

```
\end\absnamepos%
63 %%
             \vspace{\abstitleskip}%
64
65
        \vspace{\abstitleskip}%
66
      \fi
67
      \put@bsintoc%
68
      \begin{@bstr@ctlist}\if@bsrunin\@bsrunintitle\fi\abstracttextfont}%
69
70
      {\par\end{@bstr@ctlist}\vfil\null%\endtitlepage
71
      }
72 \else
    \renewenvironment{abstract}{%
73
      \if@bsrunin
74
75
      \else
76
        \if@bsstyle
77
          \abstitlestyle{\BlockClassSingle{abstracttitle}{\abstractname}}
78
79
          \ifnumber@bs
             \num@bs
80
          \else
81
82 \begin{\absnamepos}%
83 \abstractnamefont\BlockClassSingle{abstracttitle}{\abstractname}%
84 \end\absnamepos%
85 %%
            \vspace{\abstitleskip}%
          \fi
86
        \fi
87
88
        \vspace{\abstitleskip}%
      \put@bsintoc%
90
      \begin{@bstr@ctlist}\if@bsrunin\@bsrunintitle\fi\abstracttextfont}%
91
      {\par\end{@bstr@ctlist}}
92
93 \fi
94 }% not memoir
```

File 8 lwarp-academicons.sty

§ 106 Package academicons

(Emulates or patches code by Diogo A. B. Fernandes.)

Pkg academicons academicons is patched for use by lwarp.

If \aiicon is used, the name of the icon is used in the alt tag. Otherwise, for each of the individual icon macros, a generic alt tag is used.

\begin{lateximage}*[(academicon)][academicons#1]%

```
for HTML output: 1 \LWR@ProvidesPackagePass{academicons}[2018/06/27]

2 \LetLtxMacro\LWR@orig@symbol\symbol
3
4 \let\LWR@academicons@orig@AI\AI
5
6 \newcommand*{\LWR@academicons@symbol}[1]{%
```

```
8
      \begingroup%
      \LWR@academicons@orig@AI%
      \LWR@orig@symbol{#1}%
10
      \endgroup%
11
      \end{lateximage}%
12
13 }
14
15 \renewcommand*{\AI}{%
      \LetLtxMacro\symbol\LWR@academicons@symbol%
17 }
18
19 \renewcommand*{\aiicon}[1]
20 {%
      \begin{lateximage}*[(#1 icon)][academicons#1]%
21
22
      \AI\csname aiicon@#1\endcsname%
23
      \end{lateximage}%
24 }
```

File 9 lwarp-accsupp.sty

```
§ 107 Package accsupp
```

```
Pkg accsupp is ignored.
```

```
for HTML output: 1 \LWR@ProvidesPackageDrop{accsupp}[2018/03/28]
```

```
2 \newcommand*{\BeginAccSupp}[1]{}
3 \newcommand*{\EndAccSupp}[1]{}
```

File 10 lwarp-acro.sty

§ 108 Package **acro**

(Emulates or patches code by Clemens Niederberger.)

Pkg acro is patched for use by lwarp.

```
for HTML output: 1 \LWR@ProvidesPackagePass{acro}[2017/01/30]
```

\DeclareAcronym is used in the preamble, where lwarp has not yet made the dollar active, so temporarily enable lwarp math catcode just for this definition:

```
2 \ExplSyntaxOn
3 \NewDocumentCommand \LWR@DeclareAcronym {mm}
4 {
5    \acro_declare_acronym:nn {#1} {#2}
6    \catcode'\$=3% lwarp
7 }
8 \ExplSyntaxOff
```

```
9
10 \RenewDocumentCommand{\DeclareAcronym}{}{
       \catcode'\$=\active% lwarp
11
       \LWR@DeclareAcronym
12
13 }
Modified to activate the current font:
14 \ExplSyntaxOn
15 \cs_gset_protected:Npn \acro_write_short:nn #1#2
16 {
       \mode_if_horizontal:F { \leavevmode }
17
18
       \group_begin:
19
        \bool_if:NTF \l__acro_custom_format_bool
          { \l__acro_custom_format_tl }
20
           { \l_acro_short_format_tl }
21
        {\LWR@textcurrentfont{#2}}% lwarp
22
23
       \group_end:
24
25
26 \cs_gset_protected:Npn \acro_write_alt:nn #1#2
27
       \mode_if_horizontal:F { \leavevmode }
28
       \group_begin:
29
        \bool_if:NTF \l__acro_custom_format_bool
30
31
          { \l_acro_custom_format_tl }
32
           { \l__acro_alt_format_tl }
        {\LWR@textcurrentfont{#2}}% lwarp
33
       \group_end:
34
    }
35
36
37 \cs_gset_protected:Npn \acro_write_long:nn #1#2
38
    {
39
       \mode_if_horizontal:F { \leavevmode }
       \group_begin:
40
        \bool_if:NTF \l__acro_custom_long_format_bool
41
          { \l__acro_custom_long_format_tl }
42
           { \use:n }
43
44
        {
45
           \use:x
46
             {
               \exp_not:n {#1}
47
48
                 \bool_if:NTF \l__acro_first_upper_bool
49
                   { \exp_not:N \__acro_first_upper_case:n { \exp_not:n {
50
                       \LWR@textcurrentfont{#2}% lwarp
51
52
                   { \exp_not:n {\LWR@textcurrentfont{#2}} }% lwarp
53
               }
54
             }
55
        }
56
57
       \group_end:
   }
59 \ExplSyntaxOff
```

File 11 lwarp-acronym.sty

§ 109 Package acronym

(Emulates or patches code by Tobias Oetiker.)

Pkg acronym acronym is patched for use by lwarp.

multiply-defined labels

\acresetall does not work with cleveref, causing multiply-defined labels. lwarp patches acronym for HTML, but not for print mode.

for HTML output:

1 \LWR@ProvidesPackagePass{acronym}[2015/03/21]

Uses \textit instead of \itshape:

```
2 \renewcommand{\acfia}[1]{%
3 {\textit{\AC@acl{#1}}} (\ifAC@starred\acs*{#1}\fi)}
```

Removes the mbox to allow math inside:

```
4 \renewcommand*\AC@acs[1]{%
5 % \mbox{
6 \expandafter\AC@get\csname fn@#1\endcsname\@firstoftwo{#1}}
7 % }
```

Fix for acronym labels in the captions of floats.

```
8 \renewcommand{\@starttoc}[1]{
9 \LWR@htmlelementclass{nav}{#1}
10 \LetLtxMacro\@verridelabel\@gobble
11 \LWR@orig@starttoc{#1}
12 \LWR@htmlelementclassend{nav}{#1}
13 }
```

Modified for cleveref and lwarp:

```
14 \renewcommand*\AC@und@newl@bel[3]{%
      \@ifundefined{#1@#3}%
16
      {%
          \global\expandafter\let\csname#2@#3\endcsname\@nnil
17
          \global\expandafter\let\csname#2@#3@lwarp\endcsname\@nnil% lwarp
18
          \global\expandafter\let\csname#2@#3@cref\endcsname\@nnil% lwarp
19
      }%
20
21
22
          \global\expandafter\let\csname#1@#3\endcsname\relax
23
          \global\expandafter\let\csname#1@#3@lwarp\endcsname\relax% lwarp
24
          \global\expandafter\let\csname#1@#3@cref\endcsname\relax% lwarp
      }%
25
26 }%
```

File 12 lwarp-adjmulticol.sty

§110 Package adjmulticol

(Emulates or patches code by Boris Veytsman.)

Pkg adjmulticol adjmulticol is emulated.

Emulation similar to multicols is used, with adjusted margins. If the number of columns is specified as 1, it is set so, but if two or greater are used, lwarp allows a variable number of columns up to three.

```
\label{lem:providesPackageDrop{adjmulticol}[2012/01/20]} $$ 1 \LWR@ProvidesPackageTrop{adjmulticol}[2012/01/20] $$ 2 \RequirePackage{multicol} $$ adjmulticols * { \lambda numcols \rangle } { \lambda left margir \rangle } { \lambda right margin \rangle } $$ 3 \NewDocumentEnvironment{adjmulticols}{s m m m} $$ 4 {\%} $$
```

Compute the margins, and limit to positive only:

```
\label{thm:comp} $$ \operatorname{LWR@templengthone}_{3}% $$ \left( \operatorname{LWR@templengthone}_{0}t\right)_{3}% $$ \operatorname{LWR@templengthone}_{0}t_{3}% $$ \operatorname{LWR@templengthone}_{4}% $$ \left( \operatorname{LWR@templengthtwo}_{4} \right)_{0}t_{3}% $$ \left( \operatorname{LWR@templengthtwo}_{0}t_{3}% \right)_{3}% $$ \left( \operatorname
```

If one column is specified, use a <div> of class singlecolumn, else use multicols:

```
9 \newcommand*{\LWR@mcolstype}{multicols}%
10 \ifnumcomp{#2}{=}{1}{\renewcommand*{\LWR@mcolstype}{singlecolumn}}{}%
```

Help avoid page overflow:

11 \LWR@forcenewpage%

Create the <div> with the given margin and class:

```
12 \BlockClass[%
13 \LWR@print@mbox{margin-left:\LWR@printlength{\LWR@templengthone}}; %
14 \LWR@print@mbox{margin-right:\LWR@printlength{\LWR@templengthtwo}}%
15 ]{\LWR@mcolstype}%
16 }
17 {\endBlockClass}
```

File 13 lwarp-addlines.sty

§ 111 Package addlines

(Emulates or patches code by Will Robertson.)

Pkg addlines addlines is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{addlines}[2018/12/05]

3 \newcommand\addlines@a[1][1]{}

4 \let\addline\addlines

5 \newcommand\removelines{\@ifstar\removelines@a\removelines@a}

6 \newcommand\removelines@a[1][1]{}

7 \let\removeline\removelines

8 \newcommand\squeezepage[1][0]{}

File 14 lwarp-afterpage.sty

§112 Package afterpage

 $(Emulates\ or\ patches\ code\ by\ {\tt DAVID}\ {\tt CARLISLE.})$

Pkg afterpage Emulated.

for HTML output: Discard all options for lwarp-afterpage:

 ${\tt 1 \ LWR@ProvidesPackageDrop\{afterpage\}[2014/10/28]}$

File 15 lwarp-algorithm2e.sty

§113 Package algorithm2e

(Emulates or patches code by Christophe Fiorio.)

Pkg algorithm2e is patched for use by lwarp.

For print output, captions are placed according to package options, but for HTML output captions are placed where used. Therefore, to have captions appear at the top of the algorithms for both print and HTML, place each captions at the top of each algorithm.

for HTML output: 1 \LWR@ProvidesPackagePass{algorithm2e}[2017/07/18]

```
For the list-of entries:
```

Select the lwarp float style according to the algorithm2e style:

```
3 \newcommand*{\LWR@floatstyle@algocf}{ruled}
4
5 \ifdefstring{\algocf@style}{boxed}{%
6 \renewcommand*{\LWR@floatstyle@algocf}{boxed}
7 }{}
8
9 \ifdefstring{\algocf@style}{boxruled}{%
10 \renewcommand*{\LWR@floatstyle@algocf}{boxruled}
11 }{}
12
13 \ifdefstring{\algocf@style}{plain}{%
14 \renewcommand*{\LWR@floatstyle@algocf}{plain}
15 }{}
```

Paragraph handling to allow line numbers under certain conditions:

```
16 \newbool{LWR@algocf@dopars}
17 \booltrue{LWR@algocf@dopars}
18
19 \renewcommand{\algocf@everypar}{%
20 \ifbool{LWR@algocf@dopars}{%
      \ifbool{LWR@doingstartpars}{%
22
          \ifnumcomp{\value{LWR@lateximagedepth}}{>}{0}%
23
               {}%
24
               {%
25
                   \algocf@everyparnl\algocf@everyparhanging%
26
               }%
27
      }{}%
28 }{}%
29 }
```

lwarp caption handling:

```
30 \renewcommand{\algocf@makecaption}[2]{%
31 \LWR@HTML@caption@begin{algocf}%
32 \LWR@isolate{\algocf@captiontext{#1}{#2}}%
33 \LWR@HTML@caption@end%
34 }
```

Print any caption where it is declared:

```
35 \renewcommand{\algocf@makecaption@plain}[2]{%
36  \LWR@HTML@caption@begin{algocf}%
37  \LWR@isolate{\algocf@captiontext{#1}{#2}}%
38  \LWR@HTML@caption@end%
39 }
40
41 \renewcommand{\algocf@makecaption@boxed}[2]{%
42  \LWR@HTML@caption@begin{algocf}%
```

Turn off line numbering while making the caption:

```
52 \long\def\algocf@latexcaption#1[#2]#3{% original definition of caption
53 \boolfalse{LWR@algocf@dopars}% lwarp
                    \addcontentsline{\csname ext@#1\endcsname}{#1}%
55
56 \ {\protect\numberline{\csname the #1\ends name}{\csname {\csname {\cs
                     \begingroup%
                     \@parboxrestore%
                     \if@minipage%
                               \@setminipage%
60
61
                    \normalsize%
62
                   \@makecaption{\csname fnum@#1\endcsname}{\ignorespaces #3}\par%
                    \endgroup%
65 \booltrue{LWR@algocf@dopars}%
                                                                                                                                                                                     lwarp
66 }
```

Line numbers are printed in a of class alg2elinenumber:

```
67 \renewcommand{\algocf@printnl}[1]{%
68 \InlineClass{alg2elinenumber}{\NlSty{#1}}~%
69 }%
```

While initializing an algorithm environment, locally declare the style of a regular figure to be the same as the algorithm style, in case the figure option was used.

```
70 \preto\@algocf@init{%
71 \edef\LWR@floatstyle@figure{\LWR@floatstyle@algocf}%
72 }
```

For lwarp, the algorithm is not assembled inside a box, since lateximages would not work, so the captions are printed where declared.

```
73 \renewcommand{\@algocf@start}{%
74  \let\@mathsemicolon=\;\def\;{\ifnmode\@mathsemicolon\else\@endalgoln\fi}%
75 %  \raggedright%
76  \AlFnt{}%
77  \booltrue{LWR@algocf@dopars}% lwarp
78 }
79
80 \renewcommand{\@algocf@finish}{%
81  \boolfalse{LWR@algocf@dopars}% lwarp
82  \lineskip\normallineskip\setlength{\skiptotal}{\@defaultskiptotal}%
```

```
83
       \let\;=\@mathsemicolon%
       \left| \right| = \ensuremathdisplay%
 85 }
Use an HTML break:
86 \renewcommand{\BlankLine}{%
87 \LWR@stoppars%
 88 \LWR@htmltagc{br /}%
 89 \LWR@startpars%
90 }
Simplified for HTML. The paragraph handling must be preserved.
91 \renewcommand{\SetKwInOut}[2]{%
    \algocf@newcommand{#1}[1]{%
 93
       \ifthenelse{\boolean{algocf@hanginginout}}%
 94
           {\relax}%
 95
           {\algocf@seteveryparhanging{\relax}}%
 96
       \ifthenelse{\boolean{algocf@inoutnumbered}}%
           {\relax}%
 97
 98
           {\algocf@seteveryparnl{\relax}}%
 99
       {%
100
               \KwSty{#2\algocf@typo:}%
           ~##1\par%
101
102
       }%
       \algocf@linesnumbered% reset the numbering of the lines
103
       \ifthenelse{\boolean{algocf@hanginginout}}%
104
105
           {\relax}%
106
           {\algocf@reseteveryparhanging}%
107
108 }%
109
110 \renewcommand{\ResetInOut}[1]{}%
Each of the following creates a <div> of a given class, and turns off line numbering
while creating the <div> tags:
111 \renewcommand{\algocf@Vline}[1]{%
112 \boolfalse{LWR@algocf@dopars}%
113 \begin{BlockClass}{alg2evline}
114 \booltrue{LWR@algocf@dopars}%
116 \boolfalse{LWR@algocf@dopars}%
117 \end{BlockClass}
118 \booltrue{LWR@algocf@dopars}%
119 }
120 \renewcommand{\algocf@Vsline}[1]{%
121 \boolfalse{LWR@algocf@dopars}%
122 \begin{BlockClass}{alg2evsline}
123 \booltrue{LWR@algocf@dopars}%
124 #1
```

125 \boolfalse{LWR@algocf@dopars}%

126 \end{BlockClass}

```
127 \booltrue{LWR@algocf@dopars}%
128 }

129 \renewcommand{\algocf@Noline}[1]{%
130 \boolfalse{LWR@algocf@dopars}%
131 \begin{BlockClass}{alg2enoline}
132 \booltrue{LWR@algocf@dopars}%
133 #1
134 \boolfalse{LWR@algocf@dopars}%
135 \end{BlockClass}
136 \booltrue{LWR@algocf@dopars}%
137 }
```

The [H] environment is converted to a regular float, which in HTML is placed where declared. Reusing the regular float allows the [H] version to reuse the ruled and boxed options.

```
138 \LetLtxMacro\algocf@Here\algocf
139 \LetLtxMacro\endalgocf@Here\endalgocf
```

File 16 lwarp-algorithmicx.sty

§114 Package algorithmicx

(Emulates or patches code by Szász János.)

Pkg algorithmicx algorithmicx is supported with minor adjustments.

for HTML output: 1 \LWR@ProvidesPackagePass{algorithmicx}[2005/04/27]

Inside the algorithmic environment, level indenting is converted to a of the required length, and comments are placed inside a which is floated right.

 If using \newfloat, trivfloat, and/or algorithmicx together, see section 477.1.

```
for HTML output: 2 \begin{warpHTML}
```

```
3 \AtBeginEnvironment{algorithmic}{%
4 %
5 \let\origALG@doentity\ALG@doentity%
6 %
7 \renewcommand*{\ALG@doentity}{%
8 \origALG@doentity%
9 \LWR@htmltagc{%
10 span style="width:\LWR@printlength{\ALG@thistlm}; display:inline-block;"%
11 }%
12 \ifbool{FormatWP}{%
13 \setlength{\LWR@templengthone}{\the\ALG@thistlm}%
14 \whiledo{\lengthtest{\LWR@templengthone>1em}}{%
15 \quad%
16 \addtolength{\LWR@templengthone}{\-1em}%
17 }%
```

```
18 }{}%
19 \LWR@htmltagc{/span}%
20 }%
21
22 \let\LWR@origComment\Comment%
23
24 \renewcommand{\Comment}[1]{%
25 \InlineClass{floatright}{\LWR@origComment{#1}}%
26 }%
27 }
28
29 \renewcommand\algorithmiccomment[1]{%
30 \hfill\HTMLunicode{25B7} #1% white right triangle
31 }%
32 \end{warpHTML}
```

File 17 lwarp-alltt.sty

§115 Package alltt

(Emulates or patches code by Johannes Braams.)

Pkg alltt alltt is patched for use by lwarp.

```
for HTML output: 1 \LWR@ProvidesPackagePass{alltt}[1997/06/16]

2 \AfterEndPreamble{
3 \LWR@traceinfo{Patching alltt.}
4 \AtBeginEnvironment{alltt}{%
5 \LWR@forcenewpage
6 \LWR@atbeginverbatim{3}{alltt}%
7 }
8 \AfterEndEnvironment{alltt}{%
9 \LWR@afterendverbatim{2}%
```

File 18 lwarp-amsmath.sty

§116 Package amsmath

10 } 11 }

(Emulates or patches code by American Mathematical Society, LATEX3 Project.)

Pkg amsmath amsmath is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{amsmath}[2017/09/02]

Patches to allow \eqref inside a caption:

```
3 \def\tagform@#1{\maketag@@@{(\ignorespaces#1\unskip)}}
                         Patches for \mathcal{F}_{MS} math \tag macro to remember the first tag:
                          4 \ifbool{mathjax}{}{% not mathjax
                          6 \LetLtxMacro\LWR@origmake@df@tag@@\make@df@tag@@
                          7 \LetLtxMacro\LWR@origmake@df@tag@@@\make@df@tag@@@
                          9 \renewcommand*{\make@df@tag@@}[1]{%
                         10 \LWR@remembertag{#1}%
                         11 \LWR@origmake@df@tag@@{#1}%
                         14 \renewcommand*{\make@df@tag@@@}[1]{%
                         15 \LWR@remembertag{#1}%
                         16 \LWR@origmake@df@tag@@@{#1}%
                         17 }
                         19 }% not mathjax
                         The following \mathcal{F}_{MS} environments are patched in-place:
                          \{\langle environment\ name \rangle\}
\LWR@amsmathenv@@before
                         Embeds the environment inside a lateximage.
                         20 \newcommand*{\LWR@amsmathenv@@before}[1]{%
                               \begin{BlockClass}{displaymathnumbered}
                         22
                               \LWR@newautoidanchor%
                               \booltrue{LWR@indisplaymathimage}%
                               \begin{lateximage}[\LWR@amsmathbodynumbered{#1}]
                         24
                               \LWR@applyxfakebold%
                         25
                         26 }
                          \{\langle environment\ name \rangle\}
\LWR@amsmathenv@before
                         Embeds the environment with MATHJAX or a lateximage.
                         27 \newcommand*{\LWR@amsmathenv@before}[1]{%
                               28
                         29
                               {
                                   \LWR@syncmathjax
                         30
                                   \boolfalse{LWR@amsmultline}
                         31
                                   \ifstrequal{#1}{multline}{\booltrue{LWR@amsmultline}}{}
                         32
                                   \ifstrequal{#1}{multline*}{\booltrue{LWR@amsmultline}}{}
                         autonum's "+" environments are not supported by MATHJAX.
                                   \LWR@beginhideamsmath
                         34
                               }
                         35
                         36
                               {
                                   \LWR@amsmathenv@@before{multline}
                         37
                               }
                         38
                         39 }
```

2 \def\maketag@@@#1{\text{#1}}

```
\LWR@amsmathenv@@after
                       Embeds the environment inside a lateximage.
                       40 \newcommand*{\LWR@amsmathenv@@after}{%
                             \end{lateximage}\end{BlockClass}
                       42 }
\LWR@amsmathenv@after
                        \{\langle environment\ name \rangle\}
                       Embeds the environment with MATHJAX or a lateximage.
                       43 \newcommand*{\LWR@amsmathenv@after}[1]{%
                             44
                       45
                       46
                                 \LWR@endhideamsmath
                                 \boolfalse{LWR@amsmultline}
                       47
                                 \LWR@addmathjax{#1}{\the\@envbody}
                       48
                       49
                             {\LWR@amsmathenv@@after}
                       50
                       51 }
         Env multline
                       52 \BeforeBeginEnvironment{multline}{\LWR@amsmathenv@before{multline}}
                       54 \AfterEndEnvironment{multline}{\LWR@amsmathenv@after{multline}}
            multline*
                       55 \BeforeBeginEnvironment{multline*}{\LWR@amsmathenv@before{multline*}}
                       57 \AfterEndEnvironment{multline*}{\LWR@amsmathenv@after{multline*}}
               gather
          Env
                       59 \BeforeBeginEnvironment{gather}{\LWR@amsmathenv@before{gather}}
                       61 \AfterEndEnvironment{gather}{\LWR@amsmathenv@after{gather}}
         Env gather*
                       62 \BeforeBeginEnvironment{gather*}{\LWR@amsmathenv@before{gather*}}
                       64 \AfterEndEnvironment{gather*}{\LWR@amsmathenv@after{gather*}}
               align
                       65 \BeforeBeginEnvironment{align}{\LWR@amsmathenv@before{align}}
                       67 \AfterEndEnvironment{align}{\LWR@amsmathenv@after{align}}
```

```
Env
          align*
                   68 \BeforeBeginEnvironment{align*}{\LWR@amsmathenv@before{align*}}
                   70 \AfterEndEnvironment{align*}{\LWR@amsmathenv@after{align*}}
         flalign
     Env
                   71 \BeforeBeginEnvironment{flalign}{\LWR@amsmathenv@before{flalign}}
                   73 \AfterEndEnvironment{flalign}{\LWR@amsmathenv@after{flalign}}
    Env flalign*
                   74 \BeforeBeginEnvironment{flalign*}{\LWR@amsmathenv@before{flalign*}}
                   76 \AfterEndEnvironment{flalign*}{\LWR@amsmathenv@after{flalign*}}
         alignat
                   77 \BeforeBeginEnvironment{alignat}{\LWR@amsmathenv@before{alignat}}
                   79 \AfterEndEnvironment{alignat}{\LWR@amsmathenv@after{alignat}}
    Env alignat*
                   80 \BeforeBeginEnvironment{alignat*}{\LWR@amsmathenv@before{alignat*}}
                   82 \AfterEndEnvironment{alignat*}{\LWR@amsmathenv@after{alignat*}}
           File 19 lwarp-amsthm.sty
                   amsthm
         Package
$117
                   (Emulates or patches code by Publications Technical Group—American Mathematical Society.)
                   The original source code is located in amsclass.dtx, and printed in amsclass.pdf.
      Pkg
          amsthm
                   amsthm is patched for use by lwarp.
                   amsthm must be loaded before mdframed:
  for HTML output:
                    1 \@ifpackageloaded{mdframed}{
                         \PackageError{lwarp}
                    3
                         {Package mdframed must be loaded after package amsthm}
                         {%
                             Move \detokenize{\usepackage}{amsthm} before
                    5
                             \detokenize{\usepackage}{mdframed}.\MessageBreak
                    6
                             Package amsthm may be loaded by something else,\MessageBreak
                    7
                             which must also be moved before mdframed.%
```

8

Table 14: amsthm package—css styling of theorems and proofs

Theorem: <div> of class amsthmbody<theoremstyle>

Theorem Name: of class amsthmname<theoremtyle>

Theorem Number: of class amsthmnumber<theoremstyle>

Theorem Note: of class amsthmnote<theoremstyle>

Proof: <div> of class amsthmproof

Proof Name: of class amsthmproofname

where <theoremstyle> is plain, definition, etc.

```
9      }
10 }
11 {}
12 \LWR@ProvidesPackagePass{amsthm}[2017/10/31]
```

Storage for the style being used for new theorems:

```
13 \newcommand{\LWR@newtheoremstyle}{plain}
```

Patched to remember the style being used for new theorems:

```
14 \renewcommand{\theoremstyle}[1]{%
   \PackageWarning{amsthm}{Unknown theoremstyle '#1'}%
16
17
     \thm@style{plain}%
     \renewcommand{\LWR@newtheoremstyle}{plain}% lwarp
18
19
   }{%
     \thm@style{#1}%
20
     \renewcommand{\LWR@newtheoremstyle}{#1}% lwarp
21
22
23 }
```

Patched to remember the style for this theorem type:

```
24 \def\@xnthm#1#2{%
                                   \csedef{LWR@thmstyle#2}{\LWR@newtheoremstyle}% lwarp
                                   \let\@tempa\relax
                                      \@xp\@ifdefinable\csname #2\endcsname{%
27
                                                          \verb|\global@xp\let\csname| end #2\end csname \end theorem|
28
                                                          \ifx *#1% unnumbered, need to get one more mandatory arg
29
30
                                                                             \edef\@tempa##1{%
31
                                                                                                 \gdef\ensuremath{@xp\ensuremath{@xp\ensuremath{@xp\ensuremath{@xp\ensuremath{@xp}}}}
                                                                                                                      \ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ens
32
                                                                                                                                        {}{##1}}}%
33
                                                          \else % numbered theorem, need to check for optional arg
34
                                                                             \def\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}\ensuremath{\def}
35
```

```
\fi
36
37
    \AtBeginEnvironment{#2}{\edef\LWR@thisthmstyle{\@nameuse{LWR@thmstyle#2}}}% lwarp
38
39
    \@tempa
40 }
Patched to enclose with css:
41 \newcommand{\LWR@haveamsthmname}{
43 }
44
46 \renewcommand{\thmnumber}[1]{\InlineClass{amsthmnumber\LWR@thisthmstyle}{##1}}
47 }
48
49 \newcommand{\LWR@haveamsthmnote}{
50 \renewcommand{\thmnote}[1]{\InlineClass{amsthmnote\LWR@thisthmstyle}{##1}}
53 \LWR@haveamsthmname
54 \LWR@haveamsthmnumber
55 \LWR@haveamsthmnote
Patches for css:
56 \def\@begintheorem#1#2[#3]{%
      \item[
57
      \deferred@thm@head{
58 %
        \the\thm@headfont \thm@indent
59 %
      \@ifempty{#1}{\let\thmname\@gobble}{\LWR@haveamsthmname}% lwarp
60
      \@ifempty{#2}{\let\thmnumber\@gobble}{\LWR@haveamsthmnumber}% lwarp
61
      \@ifempty{#3}{\let\thmnote\@gobble}{\LWR@haveamsthmnote}% lwarp
62
      \t \mbox{thm@swap}\swappedhead\thmhead}{#1}{#2}{#3}%
63
64
      \the\thm@headpunct~
      \thmheadnl % possibly a newline.
65
66
      \hskip\thm@headsep
67 %
      }%
68
   \ignorespaces}
Patched for css:
70 \def\@thm#1#2#3{%
    \ifhmode\unskip\unskip\par\fi
71
    \normalfont
72
    \LWR@forcenewpage% lwarp
    \verb|\BlockClass{amsthmbody\LWR@thisthmstyle}| % lwarp \\
    \trivlist
76
    \let\thmheadnl\relax
77
    \let\thm@swap\@gobble
    \thm@notefont{\fontseries\mddefault\upshape}%
    \thm@headpunct{.}% add period after heading
    \thm@headsep 5\p@ plus\p@ minus\p@\relax
    \thm@space@setup
```

```
#1% style overrides
                             \@topsep \thm@preskip
                                                                                                                                                                                                                                                                                                    % used by thm head
                             \@topsepadd \thm@postskip
                                                                                                                                                                                                                                                                                                    % used by \@endparenv
                             \def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\ensuremath{\def}\def\en
85
                                          86
87
                                          \refstepcounter{#2}%
88
                                          89
90
91
                             \@tempa
92 }
```

cleveref patches \@thm to do \cref@thmoptarg if an optional argument is given. lwarp then patches \cref@thmoptarg \AtBeginDocument.

```
93 \AtBeginDocument{%
94 \def\cref@thmoptarg[#1]#2#3#4{%
      \ifhmode\unskip\unskip\par\fi%
       \normalfont%
96
      \LWR@forcenewpage% lwarp
97
      \BlockClass{amsthmbody\LWR@thisthmstyle}% lwarp
98
99
      \trivlist%
100
      \let\thmheadnl\relax%
101
      \let\thm@swap\@gobble%
      \thm@notefont{\fontseries\mddefault\upshape}%
102
103
      \thm@headpunct{.}% add period after heading
      \thm@headsep 5\p@ plus\p@ minus\p@\relax%
104
      \thm@space@setup%
105
106
      #2% style overrides
107
      \@topsep \thm@preskip
                                         % used by thm head
108
       \@topsepadd \thm@postskip
                                         % used by \@endparenv
       \def\@tempa{#3}\ifx\@empty\@tempa%
109
          \def\ensuremath{\def\def}{\def\def}
110
      \else%
111
          \refstepcounter[#1]{#3}% <<< cleveref modification</pre>
112
          113
      \fi%
114
       \@tempa
115
116 }%
117 }% AtBeginDocument
119 \def\@endtheorem{\endtrivlist\endBlockClass\@endpefalse }
Proof QED symbol:
120 \AtBeginDocument{
121 \@ifundefined{LWR@orig@openbox}{
122 \LetLtxMacro\LWR@orig@openbox\openbox
123 \LetLtxMacro\LWR@orig@blacksquare\blacksquare
124 \LetLtxMacro\LWR@orig@Box\Box
126 \def\openbox{\text{\HTMLunicode{25A1}}}% UTF-8 white box
```

127 $\def \black quare{\text{HTMLunicode{220E}}}\% \ UTF-8 \ end-of-proof$

128 $\def\Box{\text{\HTMLunicode{25A1}}}\% \ UTF-8 \ white box$

129

```
130 \appto\LWR@restoreorigformatting{%
131 \LetLtxMacro\openbox\LWR@orig@openbox%
132 \LetLtxMacro\blacksquare\LWR@orig@blacksquare%
133 \LetLtxMacro\Box\LWR@orig@Box%
134 }% appto
135 }{}% @ifundefined
136 }% AtBeginDocument
Patched for css:
137 \renewenvironment{proof}[1][\proofname]{\par
138 \LWR@forcenewpage% lwarp
139
       \BlockClass{amsthmproof}% lwarp
140
     \pushQED{\qed}%
     \normalfont \topsep6\p@\@plus6\p@\relax
141
    \trivlist
142
    \item[
143
           \label{lineClass} $$ \prod_{m=0}^{\#1\@addpunct\{.\}}]\simeq \ changes $$
144
145 }{%
     \InlineClass{theoremendmark}{\popQED}\endtrivlist%
     \endBlockClass% lwarp
    \@endpefalse
148
149 }
```

File 20 lwarp-anonchap.sty

§118 Package anonchap

(Emulates or patches code by Peter Wilson.)

Pkg anonchap anonchap is emulated.

Pkg tocloft

tocloft & other
packages

If using tocloft with tocbibind, anonchap, fncychap, or other packages which change chapter title formatting, load tocloft with its titles option, which tells tocloft to use standard LATEX commands to create the titles, allowing other packages to work with it.

The code is shared by tocbibind.

```
for HTML output: 1 \LWR@ProvidesPackageDrop{anonchap}[2009/08/03]
```

```
2 \newcommand{\simplechapter}[1][\@empty]{%
3  \def\@chapcntformat##1{%
4  #1~\csname the##1\endcsname\simplechapterdelim\quad%
5  }%
6 }
7
8 \newcommand{\restorechapter}{%
9 \let\@chapcntformat\@seccntformat%
10 }
```

File 21 lwarp-anysize.sty

§119 Package anysize

(Emulates or patches code by Michael Salzenberg, Thomas Esser.)

Pkg anysize anysize is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{anysize}[1994/08/13]

2 \def\papersize#1#2{}
3 \def\marginsize#1#2#3#4{}

File 22 lwarp-appendix.sty

§ 120 Package appendix

(Emulates or patches code by Peter Wilson.)

Pkg appendix appendix is patched for use by lwarp.

incorrect toc link

During HTML conversion, the option toc without the option page results in a TOC link to whichever section was before the appendices environment. It is recommended to use both toc and also page at the same time.

for HTML output: 1 \LWR@ProvidesPackagePass{appendix}[2009/09/02]

```
2 \renewcommand*{\@chap@pppage}{%
3 \part*{\appendixpagename}
4 \if@dotoc@pp
5 \addappheadtotoc
6 \fi
7 }
8
9 \renewcommand*{\@sec@pppage}{%
10 \part*{\appendixpagename}
11 \if@dotoc@pp
12 \addappheadtotoc
13 \fi
14 }
```

File 23 lwarp-ar.sty

§ 121 Package **ar**

(Emulates or patches code by Agostino De Marco.)

```
Pkg ar ar is patched for use by lwarp.
```

for HTML output:

```
1 \LWR@ProvidesPackagePass{ar}[2012/01/23]
```

Measure and print the width of the supplied glyph.

```
2 \newlength{\LWR@ar@width}
3
4 \newcommand*{\LWR@ar@printwidth}[1]{%
5 \setlength{\LWR@ar@width}{\widthof{#1}}%
6 width:%
7 \LWR@convertto{em}{\the\LWR@ar@width}em%
8 }
```

The HTML version of \AR:

```
9 \newrobustcmd*{\LWR@HTML@AR}{%
```

Start a hashed lateximage, additionally hashed by the font series, with a width depending on the given glyph:

```
10 \begin{lateximage}*[AR][\LWR@f@series][\LWR@ar@printwidth{\LWR@print@AR}]%
```

For text mode, set the font series according to the HTML font series:

```
11 \ifmmode\else\csuse{LWR@orig\LWR@f@series series}\fi%
```

Print the original glyph using the newly set font series:

```
12 \LWR@print@AR%
```

Done.

```
13 \end{lateximage}%
14 }
```

Combine the print and HTML versions:

```
15 \LWR@formatted{AR}
16 \newrobustcmd*{\LWR@HTML@ARb}{%
      \begin{lateximage}*[AR][b][\LWR@ar@printwidth{\LWR@print@ARb}]%
      \LWR@print@ARb%
18
      \end{lateximage}%
19
20 }
21 \LWR@formatted{ARb}
22 \newrobustcmd*{\LWR@HTML@ARss}{%
     \begin{lateximage}*[ARss][\LWR@f@series][\LWR@ar@printwidth{\LWR@print@ARss}]%
      \ifmmode\else\csuse{LWR@orig\LWR@f@series series}\fi%
24
      \LWR@print@ARss%
25
      \end{lateximage}%
26
27 }
28 \LWR@formatted{ARss}
```

```
29 \newrobustcmd*{\LWR@HTML@ARssb}{%
      \begin{lateximage}*[AR][ssb][\LWR@ar@printwidth{\LWR@print@ARssb}]%
      \LWR@print@ARssb%
31
      \end{lateximage}%
32
33 }
34 \LWR@formatted{ARssb}
35 \newrobustcmd*{\LWR@HTML@ARtt}{%
      \begin{lateximage}*[AR][tt][\LWR@ar@printwidth{\LWR@print@ARtt}]%
37
      \LWR@print@ARtt%
      \end{lateximage}%
38
39 }
40 \LWR@formatted{ARtt}
```

File 24 lwarp-arabicfront.sty

§ 122 Package arabicfront

Pkg arabicfront arabicfront is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{arabicfront}[2006/09/03]

File 25 lwarp-array.sty

§ 123 Package **array**

Pkg array array is used as-is for print output, and emulated for HTML.

plarray and plextarray do not affect \firsthline or \lasthline, and so are not affected by the following.

for HTML output: Remove the default nullfied macros:

```
1 \let\firsthline\relax
2 \let\lasthline\relax
3
4 \LWR@ProvidesPackagePass{array}[2018/12/30]
5 \newcommand*{\LWR@HTML@firsthline}{\LWR@HTMLhline}%
6 \LWR@expandableformatted{firsthline}
7
8 \newcommand*{\LWR@HTML@lasthline}{\LWR@HTMLhline}%
9 \LWR@expandableformatted{lasthline}
10 \providecommand*{\LWR@HTML@tabularnewline}{\LWR@tabularendofline}
11 \LWR@formatted{tabularnewline}
```

lwarp-arydshln.sty File 26

arydshln Package **§ 124**

(Emulates or patches code by Hiroshi Nakashima.)

arydshln

arydshln heavily patches tabular code, so the actual package is not used. arydshln is emulated for HTML tabular, and reverts to solid rules for svg math array and tabular in a lateximage.

css is not able to display a double-dashed border, so a single-dashed rule is displayed as a single-dashed border, and a double-dashed rule is displayed as a thicker singledashed border.

for HTML output:

array is required to allow \newcolumn below.

```
1 \RequirePackage{array}
```

2 \LWR@ProvidesPackageDrop{arydshln}[2018/09/26]

Ignored, but included for source compatibility:

```
3 \newdimen\dashlinedash \dashlinedash4pt %
 4 \newdimen\dashlinegap \dashlinegap4pt %
 5 \let\hdashlinewidth\dashlinedash
 6 \let\hdashlinegap\dashlinegap
 8 \def\ADLnullwide{}
 9 \def\ADLsomewide{}
10 \def\ADLnullwidehline{}
11 \def\ADLsomewidehline{}
12
13 \def\ADLactivate{}
14 \def\ADLinactivate{}
15 \newcommand*{\ADLdrawingmode}[1]{}
16 \newcommand*{\ADLnoshorthanded}{}
17 \newcommand*{\dashgapcolor}[2][]{}
18 \newcommand*{\nodashgapcolor}{}
In a lateximage, revert to solid vertical rules:
```

```
19 \appto\LWR@restoreorigformatting{%
20 \newcolumntype{:}{|}%
21 \newcolumntype{;}[1]{|}%
22 \LetLtxMacro\hdashline\hline%
```

Some of these macros are already defined as temporary placeholders in the lwarp core, so they must be redefined here.

The emulated defaults also work for an emulated print mode inside a lateximage:

```
24 \def\hdashline{
        \adl@hdashline\adl@ihdashline
25 %
26
      \adl@hdashline\adl@inactivehdl
28 \def\adl@hdashline#1{\noalign{\ifnum0='}\fi
            \ifadl@zwhrule \vskip-\arrayrulewidth
29 %
             \else
30 %
                 \adl@hline\adl@connect\arrayrulewidth
31 %
                   \hrule \@height \arrayrulewidth% lwarp
32
            \fi
33 %
          \@ifnextchar[%]
                        {#1}%
35
                        {#1[%
36
                               \dashlinedash/\dashlinegap
37 %
                           1pt/1pt
38
39
                        ]}}
40 % \def\adl@ihdashline[#1/#2]{\ifnum0='{\fi}%
            \multispan{\adl@columns}\unskip \adl@hcline\z@[#1/#2]%
41 %
42 %
            \noalign{\ifnum0='}\fi
43 %
            \futurelet\@tempa\adl@xhline}
44 \def\adl@inactivehdl[#1/#2]{
            \ifadl@zwhrule \vskip-\arrayrulewidth \fi
45 %
          \hrule\@height\arrayrulewidth
          \futurelet\@tempa\adl@xhline}
48 \def\adl@xhline{\ifx\@tempa\hline \adl@ixhline\fi
          \ifx\@tempa\hdashline \adl@ixhline\fi
          \ifnum0='{\fi}}
51 \def\adl@ixhline{\vskip\doublerulesep \adl@hline\relax\doublerulesep}
52 \def\adl@hline#1#2{%
53 % \@tempcnta#2
54 %
             \global\advance\adl@totalheight\@tempcnta
             \xdef\adl@rowsL{\adl@rowsL
55 %
56 %
                     (#1/\number\@tempcnta);}%
             \xdef\adl@rowsR{\adl@rowsR
57 %
                     (#1/\number\@tempcnta);}
58 %
59 }
61 \def\cdashline#1{\noalign{\ifnum0='}\fi
          \@ifnextchar[%]
62
63 %
                          {\adl@cdline[#1]}%
64 %
                          {\adl@cdline[#1][\dashlinedash/\dashlinegap]}
65
                        {\adl@inactivecdl[#1]}%
66
                        {\adl@inactivecdl[#1][\dashlinedash/\dashlinegap]}
67 }
69 \def\adl@inactivecdl[#1-#2][#3]{\ifnum0='{\fi}\cline{#1-#2}}
```

File 27 lwarp-asymptote.sty asymptote Package **§ 125** (Emulates or patches code by Andy Hammerlindl, John Bowman, Tom Prince.) asymptote is patched for use by lwarp. Pkg asymptote To compile: pdflatex project.tex asy project-*.asy pdflatex project.tex lwarpmk print asy project-*.asy lwarpmk print1 lwarpmk print1 lwarpmk html asy project_html-*.asy lwarpmk html1 lwarpmk html1 lwarpmk limages for HTML output: 1 \LWR@ProvidesPackagePass{asymptote}[2016/11/26] 2 \BeforeBeginEnvironment{asy}{\begin{lateximage}[(-asymptote-~\packagediagramname)]} 3 \AfterEndEnvironment{asy}{\end{lateximage}} 5 \xpatchcmd{\asyinclude} {\begingroup} {\begin{lateximage}[(-asymptote-~\packagediagramname)]} 8 {\LWR@patcherror{asymptote}{asyinclude-begingroup}} 10 11 \xpatchcmd{\asyinclude} {\endgroup} 13 {\end{lateximage}} 14 {\LWR@patcherror{asymptote}{asyinclude-endgroup}} 15

File 28 lwarp-atbegshi.sty

§ 126 Package atbegshi

(Emulates or patches code by Неїко Овекдієк.)

Pkg atbegshi Emulated.

for HTML output:

Discard all options for lwarp-atbegshi:

1 \LWR@ProvidesPackageDrop{atbegshi}[2011/10/05]

```
2 \newcommand*{\AtBeginShipout}[1]{}
3 \newbox\AtBeginShipoutBox
4 \newcommand*{\AtBeginShipoutNext}[1]{}
5 \newcommand*{\AtBeginShipoutFirst}[1]{}
6 \newcommand*{\AtBeginShipoutDiscard}{}
7 \newcommand*{\AtBeginShipoutInit}{}
8 \newcommand*{\AtBeginShipoutAddToBox}[1]{}
9 \newcommand*{\AtBeginShipoutAddToBoxForeground}[1]{}
10 \newcommand*{\AtBeginShipoutUpperLeft}[1]{}
11 \newcommand*{\AtBeginShipoutUpperLeftForeground}[1]{}
12 \newcommand*{\AtBeginShipoutOriginalShipout}[1]{}
13 \def\AtBeginShipoutBoxWidth{0pt}}
14 \def\AtBeginShipoutBoxHeight{0pt}}
15 \def\AtBeginShipoutBoxDepth{0pt}}
16
```

File 29 lwarp-attachfile.sty

§ 127 Package attachfile

(Emulates or patches code by Scott Pakin.)

Pkg attachfile attachfile is patched for use by lwarp.

 \triangle

Metadata is ignored for now.

for HTML output:

1 \LWR@ProvidesPackagePass{attachfile}[2016/09/18]

Encloses each icon:

```
2 \newenvironment*{LWR@attachfile@icon}
3 {
      \begin{lateximage}*%
4
          [-attachfile-]%
5
          [%
7
               \detokenize\expandafter{\atfi@icon@icon}-%
               \detokenize\expandafter{\atfi@color@rgb}%
8
          ٦%
9
10 }
11 {
12
      \end{lateximage}
13 }
```

Each icon is enclosed inside a LWR@attachfile@icon environment:

```
14 \xpretocmd{\atfi@acroGraph}{\LWR@attachfile@icon}{}{}
```

```
15 \xapptocmd{\atfi@acroGraph}{\endLWR@attachfile@icon}{}{}
              17 \xpretocmd{\atfi@acroPaperclip}{\LWR@attachfile@icon}{}{}
              18 \xapptocmd{\atfi@acroPaperclip}{\endLWR@attachfile@icon}{}{}
              20 \xpretocmd{\atfi@acroPushPin}{\LWR@attachfile@icon}{}{}
              21 \xapptocmd{\atfi@acroPushPin}{\endLWR@attachfile@icon}{}{}
              23 \xpretocmd{\atfi@acroTag}{\LWR@attachfile@icon}{}{}
              24 \xapptocmd{\atfi@acroTag}{\endLWR@attachfile@icon}{}{}
              Disable PDF file embedding:
              25 \DeclareRobustCommand{\atfi@embedfile}[1]{}
              The displayed output for an \attachfile reference:
              26 \newcommand*{\LWR@attachfile@appearance}{}
              28 \DeclareRobustCommand{\atfi@set@appearance}[1]{%
                     \def\LWR@attachfile@appearance{#1}%
              30 }
              A file annotation becomes a reference:
              31 \DeclareRobustCommand{\atfi@insert@file@annot}[1]{%
                     \href{#1}{\LWR@attachfile@appearance}%
              33 }
              lwarp-attachfile2.sty
             attachfile2
    Package
              (Emulates or patches code by Heiko Oberdiek.)
attachfile2 attachfile2 is patched for use by lwarp.
              Metadata is ignored for now.
               1 \LWR@ProvidesPackagePass{attachfile2}[2016/05/16]
              Adds memory of the selected color:
               2 \def\LWR@attachfiletwo@color{}%
```

lwarp

\atfi@color@tex\atfi@color@inline\atfi@color@annot

File 30

 Λ

6 7

8

9 }

4 \define@key{AtFi}{color}{%

\def\LWR@attachfiletwo@color{#1}%

{attachfile2}{color}%

\HyColor@AttachfileColor{#1}%

for HTML output:

§ 128

```
Encloses each icon:
```

```
10 \newenvironment*{LWR@attachfile@icon}
11 {
12
      \begin{lateximage}*%
13
          [-attachfile-]%
14
              \detokenize\expandafter{\atfi@icon@icon}-%
15
              \detokenize\expandafter{\LWR@attachfiletwo@color}%
16
          ]%
17
18 }
19 {
      \end{lateximage}
20
21 }
Each icon is enclosed inside a LWR@attachfile@icon environment:
22 \xpretocmd{\atfi@acroGraph}{\LWR@attachfile@icon}{}{}
23 \xapptocmd{\atfi@acroGraph}{\endLWR@attachfile@icon}{}{}
25 \xpretocmd{\atfi@acroPaperclip}{\LWR@attachfile@icon}{}{}
26 \xapptocmd{\atfi@acroPaperclip}{\endLWR@attachfile@icon}{}{}
28 \xpretocmd{\atfi@acroPushPin}{\LWR@attachfile@icon}{}{}
29 \xapptocmd{\atfi@acroPushPin}{\endLWR@attachfile@icon}{}{}
31 \xpretocmd{\atfi@acroTag}{\LWR@attachfile@icon}{}{}
32 \xapptocmd{\atfi@acroTag}{\endLWR@attachfile@icon}{}{}
Disable PDF file embedding:
33 \DeclareRobustCommand{\atfi@embedfile}[1]{}
The displayed output for an \attachfile reference:
34 \newcommand*{\LWR@attachfile@appearance}{}
36 \def\atfi@set@appearance@icon{%
37
      \atfi@set@appearance{\csname atfi@acro\atfi@icon@icon\endcsname}%
38 }
40 \DeclareRobustCommand{\atfi@set@appearance}[1]{%
      \def\LWR@attachfile@appearance{#1}%
41
42 }
A file annotation becomes a reference:
43 \DeclareRobustCommand{\atfi@insert@file@annot}[1]{%
      \href{#1}{\LWR@attachfile@appearance}%
44
45 }
Modified for text color:
```

```
\begingroup
48
      \atfi@setup{#1}%
      \ifatfi@print
49
        \leavevmode
50
        \begingroup
51
          \HyColor@UseColor\atfi@color@tex
52
          \LWR@textcurrentcolor{#2}%
                                             lwarp
53
54% \strut
        \endgroup
55
56 %
57 %
          \sbox\ltx@zero{#2\strut}%
58 %
          \mbox[\wd0]{}%
      \fi
59
60
    \endgroup
61 }
```

Modified to draw the icon:

```
62 \DeclareRobustCommand{\noattachfile}[1][]{%
    \begingroup
      \atfi@setup{#1}%
64
      \atfi@set@appearance@icon
65
      \ifatfi@print
66
          \LWR@attachfile@appearance%
                                            lwarp
67
          \expandafter
68 %
          \atfi@refxform\csname atfi@appobj@\atfi@icon@icon\endcsname
69 %
70 %
          \makebox[\atfi@appearancewidth]{}%
71 %
      \fi
72
    \endgroup
73
74 }
```

File 31 lwarp-authblk.sty

§ 129 Package authblk

(Emulates or patches code by Patrick W. Daly.)

Pkg authblk authblk is patched for HTML.

package support

load order

lwarp supports the native LATEX titling commands, and also supports the packages authblk and titling. If both are used, authblk should be loaded before titling.

\published and \subtitle If using the titling package, additional titlepage fields for \published and \subtitle may be added by using \AddSubtitlePublished in the preamble. See section 66.8.

(Emulates or patches code by Patrick W. Daly.)

for HTML output: Require that authblk be loaded before titling:

```
1 \@ifpackageloaded{titling}{
2 \PackageError{lwarp-authblk}
3 {Package authblk must be loaded before titling}
```

Iwarp 600

```
4 {Titling appends authblk's author macro, so authblk must be loaded first.}
 6 { }
Load authblk:
 7 \LWR@ProvidesPackagePass{authblk}[2001/02/27]
Patch to add a class for the affiliation:
 8 \LetLtxMacro\LWRAB@affil\affil
10 \renewcommand{\affil}[2][]{%
11 \LWRAB@affil[#1]{\protect\InlineClass{affiliation}{#2}}
12 }
Create an HTML break for an \authorcr:
13 \renewcommand*{\authorcr}{\protect\LWR@newlinebr}
```

File 32 lwarp-autonum.sty

autonum § 130 Package

autonum autonum is ignored.

numbering All equations are numbered in HTML output.

MATHJAX does not support the "+" environments.

for HTML output: 1 \LWR@ProvidesPackageDrop{autonum}[2015/01/18]

```
2 \RequirePackage{amsmath}
 5 \newenvironment{equation+}{\equation}{\endequation}
8 \newenvironment{gather+}{\gather}{\endgather}
10 \BeforeBeginEnvironment{gather+}{\LWR@amsmathenv@@before{gather+}}
12 \AfterEndEnvironment{gather+}{\LWR@amsmathenv@@after}
13
14
15 \newenvironment{multline+}{\multline}{\endmultline}
17 \BeforeBeginEnvironment{multline+}{\LWR@amsmathenv@@before{multline+}}
19 \AfterEndEnvironment{multline+}{\LWR@amsmathenv@@after}
20
21
```

24 \BeforeBeginEnvironment{flalign+}{\LWR@amsmathenv@@before{flaline+}}

22 \newenvironment{flalign+}{\flalign}{\endflalign}

§ 131

§ 132

for HTML output:

for HTML output:

```
26 \AfterEndEnvironment{flalign+}{\LWR@amsmathenv@@after}
                   29 \newenvironment{align+}{\align}{\endalign}
                   31 \BeforeBeginEnvironment{align+}{\LWR@amsmathenv@@before{aline+}}
                   33 \AfterEndEnvironment{align+}{\LWR@amsmathenv@@after}
                   36 \newenvironment{alignat+}{\alignat}{\endalignat}
                   38 \BeforeBeginEnvironment{alignat+}{\LWR@amsmathenv@@before{alineat+}}
                   40 \AfterEndEnvironment{alignat+}{\LWR@amsmathenv@@after}
                   41
                   43 \newenvironment{split+}{\split}{\endsplit}
          File 33 lwarp-axessibility.sty
                 axessibility
         Package
Pkg axessibility axessibility is ignored.
                    1 \LWR@ProvidesPackageDrop{axessibility}
                    2 \newcommand{\wrap}[1]{}
          File 34 lwarp-axodraw2.sty
         Package axodraw2
                  (Emulates or patches code by John C. Collins, J.A.M. Vermaseren.)
   Pkg axodraw2
                  axodraw2 is patched for use by lwarp.
                   1 \LWR@ProvidesPackagePass{axodraw2}[2018/02/15]
                   2 \BeforeBeginEnvironment{axopicture}{\begin{lateximage}[(-axopicture-~\packagediagramname)]}
                    4 \AfterEndEnvironment{axopicture}{\end{lateximage}}
```

File 35 lwarp-backref.sty

§ 133 Package backref

(Emulates or patches code by David Carlisle and Sebastian Rahtz.)

Pkg backref backref is patched for use by lwarp.

loading Note that backref must be explicitly loaded, and is not automatically loaded by hyperref when generating HTML output.

for HTML output: 1 \LWR@ProvidesPackagePass{backref}[2016/05/21]

Force the hyperref option:

2 \def\backref{}\let\backrefxxx\hyper@section@backref

File 36 lwarp-balance.sty

§ 134 Package balance

(Emulates or patches code by Patrick W. Daly.)

Pkg balance Emulated.

for HTML output: Discard all options for lwarp-balance:

1 \LWR@ProvidesPackageDrop{balance}[1999/02/23]

2 \newcommand*{\balance}{}
3 \newcommand*{\nobalance}{}

File 37 lwarp-bbding.sty

§ 135 Package **bbding**

(Emulates or patches code by Karel Horak, Peter Møller Neergaard.)

Pkg bbding bbding is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{bbding}[1999/04/15]

2 \newcommand*{\LWR@bbdingsymbol}[2]{\HTMLunicode{#2}}

4 \newcommand{\LWR@HTML@ScissorRightBrokenBottom}{\LWR@bbdingsymbol{000} {2701}}

ICAL MIDOLITATION 1 P. 1 (2) CALMIDOLI II I I I COMP.	6070022
5 \newcommand{\LWR@HTML@ScissorRight}{\LWR@bbdingsymbol{001}	{2702}}
6 \newcommand{\LWR@HTML@ScissorRightBrokenTop}{\LWR@bbdingsymbol{002}	{2703}}
7 \newcommand{\LWR@HTML@ScissorLeftBrokenBottom}{\LWR@bbdingsymbol{003}	{2701}}
8 \newcommand{\LWR@HTML@ScissorLeft}{\LWR@bbdingsymbol{004}	{2702}}
9 \newcommand{\LWR@HTML@ScissorLeftBrokenTop}{\LWR@bbdingsymbol{005}	{2703}}
10 \newcommand{\LWR@HTML@ScissorHollowRight}{\LWR@bbdingsymbol{006}	{2704}}
<pre>11 \newcommand{\LWR@HTML@ScissorHollowLeft}{\LWR@bbdingsymbol{007}</pre>	{2704}}
<pre>12 \newcommand{\LWR@HTML@Phone}{\LWR@bbdingsymbol{010}</pre>	{260E}}
<pre>13 \newcommand{\LWR@HTML@PhoneHandset}{\LWR@bbdingsymbol{011}</pre>	{2706}}
14 \newcommand{\LWR@HTML@Tape}{\LWR@bbdingsymbol{012}	{2707}}
<pre>15 \newcommand{\LWR@HTML@Plane}{\LWR@bbdingsymbol{013}</pre>	{2708}}
<pre>16 \newcommand{\LWR@HTML@Envelope}{\LWR@bbdingsymbol{014}</pre>	{2709}}
17 \newcommand{\LWR@HTML@HandCuffRight}{\LWR@bbdingsymbol{015}	{261B}}
<pre>18 \newcommand{\LWR@HTML@HandCuffLeft}{\LWR@bbdingsymbol{016}</pre>	{261A}}
<pre>19 \newcommand{\LWR@HTML@HandCuffRightUp}{\LWR@bbdingsymbol{017}</pre>	{261D}}
<pre>20 \newcommand{\LWR@HTML@HandCuffLeftUp}{\LWR@bbdingsymbol{020}</pre>	{261F}}
<pre>21 \newcommand{\LWR@HTML@HandRight}{\LWR@bbdingsymbol{021}</pre>	{261E}}
<pre>22 \newcommand{\LWR@HTML@HandLeft}{\LWR@bbdingsymbol{022}</pre>	{261C}}
23 \newcommand{\LWR@HTML@HandRightUp}{\LWR@bbdingsymbol{023}	{261D}}
24 \newcommand{\LWR@HTML@HandLeftUp}{\LWR@bbdingsymbol{024}	{261F}}
25 \newcommand{\LWR@HTML@Peace}{\LWR@bbdingsymbol{025}	{270C}}
26 \newcommand{\LWR@HTML@HandPencilLeft}{\LWR@bbdingsymbol{026}	{270D}}
27 \newcommand{\LWR@HTML@PencilRight}{\LWR@bbdingsymbol{027}	{270F}}
28 \newcommand{\LWR@HTML@PencilLeft}{\LWR@bbdingsymbol{030}	{270F}}
<pre>29 \newcommand{\LWR@HTML@PencilRightUp}{\LWR@bbdingsymbol{031}</pre>	{2710}}
30 \newcommand{\LWR@HTML@PencilLeftUp}{\LWR@bbdingsymbol{032}	{2710}}
31 \newcommand{\LWR@HTML@PencilRightDown}{\LWR@bbdingsymbol{033}	{270E}}
32 \newcommand{\LWR@HTML@PencilLeftDown}{\LWR@bbdingsymbol{034}	{270E}}
33 \newcommand{\LWR@HTML@NibRight}{\LWR@bbdingsymbol{035}	{2711}}
34 \newcommand{\LWR@HTML@NibLeft}{\LWR@bbdingsymbol{036}	{2711}}
35 \newcommand{\LWR@HTML@NibSolidRight}{\LWR@bbdingsymbol{037}	{2712}}
36 \newcommand{\LWR@HTML@NibSolidLeft}{\LWR@bbdingsymbol{040}	{2712}}
37 \newcommand{\LWR@HTML@Checkmark}{\LWR@bbdingsymbol{041}	{2713}}
$38 \ensuremath{\label{lwRehtMLecheckmarkBold}{\lwRebbdingsymbol{042}}$	{2714}}
<pre>39 \newcommand{\LWR@HTML@XSolid}{\LWR@bbdingsymbol{043}</pre>	{2715}}
40 \newcommand{\LWR@HTML@XSolidBold}{\LWR@bbdingsymbol{044}	{2716}}
41 \newcommand{\LWR@HTML@XSolidBrush}{\LWR@bbdingsymbol{045}	{2717}}
42 \newcommand{\LWR@HTML@PlusOutline}{\LWR@bbdingsymbol{046}	{2719}}
43 \newcommand{\LWR@HTML@Plus}{\LWR@bbdingsymbol{047}	{271A}}
44 \newcommand{\LWR@HTML@PlusCenterOpen}{\LWR@bbdingsymbol{050}	{271C}}
45 \newcommand{\LWR@HTML@PlusThinCenterOpen}{\LWR@bbdingsymbol{051}	{271B}}
46 \newcommand{\LWR@HTML@Cross}{\LWR@bbdingsymbol{052}	{271D}}
47 \newcommand{\LWR@HTML@CrossOpenShadow}{\LWR@bbdingsymbol{053}	{271E}}
48 \newcommand{\LWR@HTML@CrossOutline}{\LWR@bbdingsymbol{054}	{271F}}
49 \newcommand{\LWR@HTML@CrossBoldOutline}{\LWR@bbdingsymbol{055}	{271F}}
50 \newcommand{\LWR@HTML@CrossMaltese}{\LWR@bbdingsymbol{056}	{2720}}
<pre>51 \newcommand{\LWR@HTML@DavidStarSolid}{\LWR@bbdingsymbol{057}</pre>	{2721}}
52 \newcommand{\LWR@HTML@DavidStar}{\LWR@bbdingsymbol{060}	{2721}}
53 \newcommand{\LWR@HTML@FourAsterisk}{\LWR@bbdingsymbol{061}	{2722}}
54 \newcommand{\LWR@HTML@JackStar}{\LWR@bbdingsymbol{062}	{2723}}
55 \newcommand{\LWR@HTML@JackStarBold}{\LWR@bbdingsymbol{063}	{2724}}
56 \newcommand{\LWR@HTML@CrossClowerTips}{\LWR@bbdingsymbol{064}	{2725}}
57 \newcommand{\LWR@HTML@FourStar}{\LWR@bbdingsymbol{065}	{2726}}
58 \newcommand{\LWR@HTML@FourStarOpen}{\LWR@bbdingsymbol{066}	{2727}}
59 \newcommand{\LWR@HTML@FiveStarLines}{\LWR@bbdingsymbol{067}	{2729}}

```
60 \newcommand{\LWR@HTML@FiveStar}{\LWR@bbdingsymbol{070}
                                                                                                                  {2605}}
 61 \newcommand{\LWR@HTML@FiveStarOpen}{\LWR@bbdingsymbol{071}
                                                                                                                  {2729}}
 62 \newcommand{\LWR@HTML@FiveStarOpenCircled}{\LWR@bbdingsymbol{072}
                                                                                                                  {272A}}
 63 \newcommand{\LWR@HTML@FiveStarCenterOpen}{\LWR@bbdingsymbol{073}
                                                                                                                  {272B}}
 {\tt 64 \ lwR@hTML@FiveStarOpenDotted} \\ {\tt LWR@bbdingsymbol\{074\}} \\
                                                                                                                  {272C}}
 {\tt 65 \ le Command \{LWR@HTML@FiveStarOutline\} \{LWR@bbdingsymbol \{075\} \} }
                                                                                                                  {272D}}
 66 \newcommand{\LWR@HTML@FiveStarOutlineHeavy}{\LWR@bbdingsymbol{076}
                                                                                                                  {272E}}
 67 \newcommand{\LWR@HTML@FiveStarConvex}{\LWR@bbdingsymbol{077}
                                                                                                                  {272F}}
 68 \newcommand{\LWR@HTML@FiveStarShadow}{\LWR@bbdingsymbol{100}
                                                                                                                  {2730}}
 69 \newcommand{\LWR@HTML@AsteriskBold}{\LWR@bbdingsymbol{101}
                                                                                                                  {2731}}
 70 \newcommand{\LWR@HTML@AsteriskCenterOpen}{\LWR@bbdingsymbol{102}
                                                                                                                  {2732}}
 71 \newcommand{\LWR@HTML@AsteriskThin}{\LWR@bbdingsymbol{103}
                                                                                                                  {273B}}
 \label{lem:command} $$ \operatorname{LWR@HTML@AsteriskThinCenterOpen}_{\LWR@bbdingsymbol{104}} $$
                                                                                                                   {273C}}
 73 \newcommand{\LWR@HTML@EightStarTaper}{\LWR@bbdingsymbol{105}
                                                                                                                  {2733}}
 74 \newcommand{\LWR@HTML@EightStarConvex}{\LWR@bbdingsymbol{106}
                                                                                                                  {2735}}
 75 \newcommand{\LWR@HTML@SixStar}{\LWR@bbdingsymbol{107}
                                                                                                                  {2736}}
 76 \newcommand{\LWR@HTML@EightStar}{\LWR@bbdingsymbol{110}}
                                                                                                                  {2737}}
 77 \mbox{\command{\LWR@HTML@EightStarBold}{\LWR@bbdingsymbol{111}}}
                                                                                                                  {2738}}
 78 \mbox{\command{\LWR@HTML@TwelweStar}{\LWR@bbdingsymbol{112}}}
                                                                                                                  {2739}}
 79 \newcommand{\LWR@HTML@SixteenStarLight}{\LWR@bbdingsymbol{113}
                                                                                                                  {273A}}
 80 \newcommand{\LWR@HTML@SixFlowerPetalRemoved}{\LWR@bbdingsymbol{114}
                                                                                                                  {273B}}
 81 \newcommand{\LWR@HTML@SixFlowerOpenCenter}{\LWR@bbdingsymbol{115}
                                                                                                                  {273C}}
 82 \newcommand{\LWR@HTML@Asterisk}{\LWR@bbdingsymbol{116}
                                                                                                                  {273D}}
 83 \newcommand{\LWR@HTML@SixFlowerAlternate}{\LWR@bbdingsymbol{117}
                                                                                                                  {273E}}
 84 \ensuremath{\label{lwR@HTML@FiveFlowerPetal}{\lwR@bbdingsymbol{120}} \\
                                                                                                                  {273F}}
 85 \end{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\c
                                                                                                                  {2740}}
 86 \newcommand{\LWR@HTML@FiveFlowerOpen}{\LWR@bbdingsymbol{122}
                                                                                                                  {2740}}
 87 \newcommand{\LWR@HTML@EightFlowerPetal}{\LWR@bbdingsymbol{123}
                                                                                                                  {2741}}
 88 \newcommand{\LWR@HTML@SunshineOpenCircled}{\LWR@bbdingsymbol{124}
                                                                                                                  {2742}}
 89 \newcommand{\LWR@HTML@SixFlowerAltPetal}{\LWR@bbdingsymbol{125}
                                                                                                                  {2743}}
                                                                                                                  {273F}}
 90 \newcommand{\LWR@HTML@FourClowerOpen}{\LWR@bbdingsymbol{126}}
 91 \newcommand{\LWR@HTML@FourClowerSolid}{\LWR@bbdingsymbol{127}
                                                                                                                  {273F}}
 92 \newcommand{\LWR@HTML@AsteriskRoundedEnds}{\LWR@bbdingsymbol{130}
                                                                                                                  {2749}}
 93 \newcommand{\LWR@HTML@EightFlowerPetalRemoved}{\LWR@bbdingsymbol{131}
                                                                                                                    {274A}}
 94 \newcommand{\LWR@HTML@EightAsterisk}{\LWR@bbdingsymbol{132}
                                                                                                                  {274B}}
 95 \newcommand{\LWR@HTML@SixFlowerRemovedOpenPetal}{\LWR@bbdingsymbol{133} {2740}}
 96 \newcommand{\LWR@HTML@SparkleBold}{\LWR@bbdingsymbol{134}
                                                                                                                  {2748}}
 97 \newcommand{\LWR@HTML@Sparkle}{\LWR@bbdingsymbol{135}
                                                                                                                  {2747}}
 98 \newcommand{\LWR@HTML@SnowflakeChevron}{\LWR@bbdingsymbol{136}
                                                                                                                  {2744}}
 99 \newcommand{\LWR@HTML@SnowflakeChevronBold}{\LWR@bbdingsymbol{137}
                                                                                                                  {2746}}
100 \newcommand{\LWR@HTML@Snowflake}{\LWR@bbdingsymbol{140}
                                                                                                                  {2744}}
101 \newcommand{\LWR@HTML@CircleSolid}{\LWR@bbdingsymbol{141}
                                                                                                                  {25CF}}
102 \newcommand{\LWR@HTML@Ellipse}{\LWR@bbdingsymbol{142}
                                                                                                                  {274D}}
103 \newcommand{\LWR@HTML@EllipseSolid}{\LWR@bbdingsymbol{143}
                                                                                                                  {25CF}}
104 \newcommand{\LWR@HTML@CircleShadow}{\LWR@bbdingsymbol{144}
                                                                                                                  {274D}}
105 \newcommand{\LWR@HTML@EllipseShadow}{\LWR@bbdingsymbol{145}
                                                                                                                  {274D}}
106 \newcommand{\LWR@HTML@Square}{\LWR@bbdingsymbol{146}
                                                                                                                  {25A1}}
107 \newcommand{\LWR@HTML@SquareSolid}{\LWR@bbdingsymbol{147}
                                                                                                                  {25A0}}
108 \newcommand{\LWR@HTML@SquareShadowBottomRight}{\LWR@bbdingsymbol{150}}
                                                                                                                   {2751}}
109 \newcommand{\LWR@HTML@SquareShadowTopRight}{\LWR@bbdingsymbol{151}
                                                                                                                  {2752}}
{2752}}
111 \newcommand{\LWR@HTML@SquareCastShadowBottomRight}{\LWR@bbdingsymbol{153} {2751}}
{\tt 112 \ lowcommand \{LWR@HTML@SquareCastShadowTopRight\} \{LWR@bbdingsymbol \{154\}\} \}} \\
                                                                                                                    {2752}}
113 \newcommand{\LWR@HTML@SquareCastShadowTopLeft}{\LWR@bbdingsymbol{155}
                                                                                                                    {2752}}
114 \newcommand{\LWR@HTML@TriangleUp}{\LWR@bbdingsymbol{156}
                                                                                                                  {25B2}}
```

```
115 \newcommand{\LWR@HTML@TriangleDown}{\LWR@bbdingsymbol{157}
                                                                            {25BC}}
116 \newcommand{\LWR@HTML@DiamondSolid}{\LWR@bbdingsymbol{160}
                                                                            {25C6}}
117 \newcommand{\LWR@HTML@OrnamentDiamondSolid}{\LWR@bbdingsymbol{161}
                                                                            {2756}}
118 \newcommand{\LWR@HTML@HalfCircleRight}{\LWR@bbdingsymbol{162}
                                                                            {25D7}}
{\tt 119 \ hewcommand \{LWR@HTML@HalfCircleLeft\} \{LWR@bbdingsymbol \{163\} \}}
                                                                            {25D6}}
{2758}}
121 \newcommand{\LWR@HTML@Rectangle}{\LWR@bbdingsymbol{165}
                                                                            {2759}}
122 \newcommand{\LWR@HTML@RectangleBold}{\LWR@bbdingsymbol{166}
                                                                            {275A}}
123 \newcommand{\LWR@HTML@ArrowBoldRightStrobe}{\LWR@bbdingsymbol{167}
                                                                            {27A0}}
124 \newcommand{\LWR@HTML@ArrowBoldUpRight}{\LWR@bbdingsymbol{170}
                                                                            {27A6}}
125 \newcommand{\LWR@HTML@ArrowBoldDownRight}{\LWR@bbdingsymbol{171}
                                                                            {27A5}}
126 \newcommand{\LWR@HTML@ArrowBoldRightShort}{\LWR@bbdingsymbol{172}
                                                                            {27A7}}
127 \newcommand{\LWR@HTML@ArrowBoldRightCircled}{\LWR@bbdingsymbol{173}
                                                                            {27B2}}
128
130 \LWR@formatted{ScissorRightBrokenBottom}
131 \LWR@formatted{ScissorRight}
132 \LWR@formatted{ScissorRightBrokenTop}
133 \LWR@formatted{ScissorLeftBrokenBottom}
134 \LWR@formatted{ScissorLeft}
135 \LWR@formatted{ScissorLeftBrokenTop}
136 \LWR@formatted{ScissorHollowRight}
137 \LWR@formatted{ScissorHollowLeft}
138 \LWR@formatted{Phone}
139 \LWR@formatted{PhoneHandset}
140 \LWR@formatted{Tape}
141 \LWR@formatted{Plane}
142 \LWR@formatted{Envelope}
143 \LWR@formatted{HandCuffRight}
144 \LWR@formatted{HandCuffLeft}
145 \LWR@formatted{HandCuffRightUp}
146 \LWR@formatted{HandCuffLeftUp}
147 \LWR@formatted{HandRight}
148 \LWR@formatted{HandLeft}
149 \LWR@formatted{HandRightUp}
150 \LWR@formatted{HandLeftUp}
151 \LWR@formatted{Peace}
152 \LWR@formatted{HandPencilLeft}
153 \LWR@formatted{PencilRight}
154 \LWR@formatted{PencilLeft}
155 \LWR@formatted{PencilRightUp}
156 \LWR@formatted{PencilLeftUp}
157 \LWR@formatted{PencilRightDown}
158 \LWR@formatted{PencilLeftDown}
159 \LWR@formatted{NibRight}
160 \LWR@formatted{NibLeft}
161 \LWR@formatted{NibSolidRight}
162 \LWR@formatted{NibSolidLeft}
163 \LWR@formatted{Checkmark}
164 \LWR@formatted{CheckmarkBold}
165 \LWR@formatted{XSolid}
166 \LWR@formatted{XSolidBold}
167 \LWR@formatted{XSolidBrush}
168 \LWR@formatted{PlusOutline}
```

169 \LWR@formatted{Plus}

```
170 \LWR@formatted{PlusCenterOpen}
171 \LWR@formatted{PlusThinCenterOpen}
172 \LWR@formatted{Cross}
173 \LWR@formatted{CrossOpenShadow}
174 \LWR@formatted{CrossOutline}
175 \LWR@formatted{CrossBoldOutline}
176 \LWR@formatted{CrossMaltese}
177 \LWR@formatted{DavidStarSolid}
178 \LWR@formatted{DavidStar}
179 \LWR@formatted{FourAsterisk}
180 \LWR@formatted{JackStar}
181 \LWR@formatted{JackStarBold}
182 \LWR@formatted{CrossClowerTips}
183 \LWR@formatted{FourStar}
184 \LWR@formatted{FourStarOpen}
185 \LWR@formatted{FiveStarLines}
186 \LWR@formatted{FiveStar}
187 \LWR@formatted{FiveStarOpen}
188 \LWR@formatted{FiveStarOpenCircled}
189 \LWR@formatted{FiveStarCenterOpen}
190 \LWR@formatted{FiveStarOpenDotted}
191 \LWR@formatted{FiveStarOutline}
192 \LWR@formatted{FiveStarOutlineHeavy}
193 \LWR@formatted{FiveStarConvex}
194 \LWR@formatted{FiveStarShadow}
195 \LWR@formatted{AsteriskBold}
196 \LWR@formatted{AsteriskCenterOpen}
197 \LWR@formatted{AsteriskThin}
198 \LWR@formatted{AsteriskThinCenterOpen}
199 \LWR@formatted{EightStarTaper}
200 \LWR@formatted{EightStarConvex}
201 \LWR@formatted{SixStar}
202 \LWR@formatted{EightStar}
203 \LWR@formatted{EightStarBold}
204 \LWR@formatted{TwelweStar}
205 \LWR@formatted{SixteenStarLight}
206 \LWR@formatted{SixFlowerPetalRemoved}
207 \LWR@formatted{SixFlowerOpenCenter}
208 \LWR@formatted{Asterisk}
209 \LWR@formatted{SixFlowerAlternate}
210 \LWR@formatted{FiveFlowerPetal}
211 \LWR@formatted{SixFlowerPetalDotted}
212 \LWR@formatted{FiveFlowerOpen}
213 \LWR@formatted{EightFlowerPetal}
214 \LWR@formatted{SunshineOpenCircled}
215 \LWR@formatted{SixFlowerAltPetal}
216 \LWR@formatted{FourClowerOpen}
217 \LWR@formatted{FourClowerSolid}
218 \LWR@formatted{AsteriskRoundedEnds}
219 \LWR@formatted{EightFlowerPetalRemoved}
220 \LWR@formatted{EightAsterisk}
221 \LWR@formatted{SixFlowerRemovedOpenPetal}
222 \LWR@formatted{SparkleBold}
223 \LWR@formatted{Sparkle}
224 \LWR@formatted{SnowflakeChevron}
```

```
225 \LWR@formatted{SnowflakeChevronBold}
226 \LWR@formatted{Snowflake}
227 \LWR@formatted{CircleSolid}
228 \LWR@formatted{Ellipse}
229 \LWR@formatted{EllipseSolid}
230 \LWR@formatted{CircleShadow}
231 \LWR@formatted{EllipseShadow}
232 \LWR@formatted{Square}
233 \LWR@formatted{SquareSolid}
234 \LWR@formatted{SquareShadowBottomRight}
235 \LWR@formatted{SquareShadowTopRight}
236 \LWR@formatted{SquareShadowTopLeft}
237 \LWR@formatted{SquareCastShadowBottomRight}
238 \LWR@formatted{SquareCastShadowTopRight}
239 \LWR@formatted{SquareCastShadowTopLeft}
240 \LWR@formatted{TriangleUp}
241 \LWR@formatted{TriangleDown}
242 \LWR@formatted{DiamondSolid}
243 \LWR@formatted{OrnamentDiamondSolid}
244 \LWR@formatted{HalfCircleRight}
245 \LWR@formatted{HalfCircleLeft}
246 \LWR@formatted{RectangleThin}
247 \LWR@formatted{Rectangle}
248 \LWR@formatted{RectangleBold}
249 \LWR@formatted{ArrowBoldRightStrobe}
250 \LWR@formatted{ArrowBoldUpRight}
251 \LWR@formatted{ArrowBoldDownRight}
252 \LWR@formatted{ArrowBoldRightShort}
253 \LWR@formatted{ArrowBoldRightCircled}
```

File 38 lwarp-biblatex.sty

§ 136 Package biblatex

(Emulates or patches code by Philipp Lehman.)

g biblatex When biblatex is used, modifications from newfloat may have to be undone.

for HTML output:

- 1. Iwarp uses newfloat.
- 2. For classes with chapters which newfloat does not know about, such as CTEX-related classes, newfloat may modify \addtocontents.
- 3. biblatex, though, wants to patch \addtocontents, which causes an error if \addtocontents has been changed.
- 4. Therefore, \addtocontents is restored to its original here, since biblatex is about to be loaded.
- 5. This means that the newfloat's chapterlistsgaps option may no longer work.

```
1 \ifdef{\newfloat@addtocontents@ORI}{
2     \let\addtocontents\newfloat@addtocontents@ORI
3 }{}
```

4 \LWR@ProvidesPackagePass{biblatex}[2018/03/04]

File 39 lwarp-bibunits.sty

§ 137 Package **b**

bibunits

(Emulates or patches code by Thorsten Hansen.)

Pkg bibunits bibunits is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{bibunits}[2004/05/12]

2 \def\bu@bibdata{\BaseJobname}

File 40 lwarp-bigdelim.sty

§ 138 Package

bigdelim

(Emulates or patches code by Piet van Oostrum, Øystein Bache, Jerry Leichter.)

Pkg bigdelim

bigdelim is used as-is for print or lateximage, and patched for HTML.

The delimiters are displayed in HTML by printing the delimiter, the text, and a thick border across the side of the \multirow which indicates the actual height of the delimiter. The delimiter character is given a class of ldelim or rdelim, and the default css sets this to font-size:200%

\ldelim and \rdelim use \multirow, so \mrowcell must be used in the proper number of empty cells in the same column below \ldelim or \rdelim, but not in cells which are above or below the delimiter:

```
\begin{tabular}{lll}
<empty> & a & b \\
\ldelim{\{}{3}{{.25in}[left ] & c & d \\
\mrowcell & e & f \\
\mrowcell & g & h \\
<empty> & i & j \\
\end{tabular}
<-> a b

left { c d
    e f
    g h
    <-> i j
```

First, remove the temporary definitions of \ldelim and \rdelim, which were previously defined for tabular scanning in case bigdelim was not loaded:

```
2 \let\rdelim\relax
           Next, load the package's new definitions:
            3 \LWR@ProvidesPackagePass{bigdelim}[2018/08/03]
\ldelim
          \{\langle 1:delimiter \rangle\} \{\langle 2:\#rows \rangle\} \{\langle 3:width \rangle\} [\langle 4:text \rangle]
\rdelim
            4 \NewDocumentCommand{\LWR@HTML@ldelim}{m m m O{}}{{%
            5 \renewcommand{\LWR@multirowborder}{right}%
            6 \multirow{#2}{#3}{#4 \InlineClass{ldelim}{#1}}%
            7 }
            8
            9 \LWR@formatted{ldelim}
           11 \NewDocumentCommand{\LWR@HTML@rdelim}{m m m O{}}{%
           12 \renewcommand{\LWR@multirowborder}{left}%
           13 \multirow{#2}{#3}{\InlineClass{rdelim}{#1} #4}%
           14 }
           16 \LWR@formatted{rdelim}
```

File 41 lwarp-bigfoot.sty

1 \let\ldelim\relax

```
bigfoot
         Package
§ 139
                   bigfoot is emulated.
     Pkg bigfoot
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{bigfoot}[2015/08/30]
                    2 \RequirePackage{manyfoot}
                    3 \RequirePackage{perpage}
                    5 \def\RestyleFootnote#1#2{}
                     6 \def\FootnoteSpecific#1{}
                     7 \def\DefineFootnoteStack#1{}
                    8 \def\PushFootnoteMark#1{}
                    9 \def\PopFootnoteMark#1{}
                    10 \def\hfootfraction{0.9}
                    11 \def\vtypefraction{0.7}
                    12 \def\FootnoteMinimum{1sp}
                    13 \def\FootnoteMainMinimum{0pt}
                    14 \newcount\bigfoottolerance
                    15 \bigfoottolerance=100
                    16 \providecommand\footnotecarryratio{2}
```

File 42 lwarp-bigstrut.sty

S 140 Package bigstrut (Emulates or patches code by PIET VAN OOSTRUM, ØYSTEIN BACHE, JERRY LEICHTER.) Pkg bigstrut bigstrut is used as-is for print or lateximage, and patched for HTML. 1 \LWR@ProvidesPackagePass{bigstrut}[2018/08/03] 2 \LetLtxMacro\LWR@origbigstrut\bigstrut 3 4 \renewcommand\bigstrut[1][x]{} 5 6 \appto\LWR@restoreorigformatting{% 7 \LetLtxMacro\bigstrut\LWR@origbigstrut% 8 }

File 43 lwarp-bitpattern.sty

§ 141 Package bitpattern

(Emulates or patches code by Jean-Marc Bourguet.)

```
Pkg bitpattern bitpattern is patched for use by lwarp.
```

8 \mathbb{\text{xpatchcmd{\bp@Done}}}
9 {\endgroup}
10 {\end{\lateximage}}
11 {}
12 {\LWR@patcherror{bitpattern}{bp@Done}}

File 44 lwarp-blowup.sty

§ 142 Package blowup

Pkg blowup is ignored.

Iwarp 611

for HTML output:

1 \LWR@ProvidesPackageDrop{blowup}[2018/01/02]

2 \newcommand*\blowUp[1]{}

File 45 lwarp-booklet.sty

§ 143

Package booklet

(Emulates or patches code by Peter Wilson.)

booklet is nullified. Pkg booklet

for HTML output:

- 1 \LWR@ProvidesPackageDrop{booklet}[2009/09/02]
- 2 \newdimen\pageseplength
- 3 \newdimen\pagesepwidth
- 4 \newdimen\pagesepoffset
- 5 \newif\ifsidebyside \sidebysidetrue
- 6 \newif\ifuselandscape \uselandscapefalse
- 7 \newif\ifprintoption \printoptionfalse
- 8 \newcommand*{\pagespersignature}[1]{}
- 9 \def\magstepminus#1{}
- 10 \newcommand*{\target}[3]{}
- 11 \newcommand*{\source}[3]{}
- 12 \newcommand*{\setpdftargetpages}{}
- 13 \newcommand*{\setdvipstargetpages}{}
- 14 \newcommand*{\targettopbottom}{}
- 15 \newcommand*{\twoupemptypage}{} 16 \newcommand*{\twoupclearpage}{}
- 17 \newcommand*{\checkforlandscape}{}

File 46 lwarp-bookmark.sty

Package **§ 144**

bookmark

(Emulates or patches code by Heiko Oberdiek.)

bookmark

bookmark is emulated.

for HTML output:

Discard all options for lwarp-bookmark:

- 1 \LWR@ProvidesPackageDrop{bookmark}[2016/05/17]
- 2 \newcommand*{\bookmarksetup}[1]{}
- 3 \newcommand*{\bookmarksetupnext}[1]{}
- 4 \newcommand*{\bookmark}[2][]{}
- 5 \newcommand*{\bookmarkdefinestyle}[2]{}
- 6 \newcommand*{\bookmarkget}[1]{}
- 7 \newcommand{\BookmarkAtEnd}[1]{}

File 47 lwarp-booktabs.sty

§ 145 Package **booktabs**

(Emulates or patches code by Simon Fear.)

Pkg booktabs

booktabs is emulated during HTML output, and used as-is during print output and inside an HTML lateximage.

for HTML output:

First, forget the placeholder macros:

```
1 \LetLtxMacro\toprule\relax
2 \LetLtxMacro\midrule\relax
3 \LetLtxMacro\cmidrule\cline
4 \LetLtxMacro\bottomrule\relax
5 \LetLtxMacro\addlinespace\relax
6 \LetLtxMacro\morecmidrules\relax
7 \LetLtxMacro\specialrule\relax
9 \LWR@ProvidesPackagePass{booktabs}[2016/04/27]
10 \DeclareDocumentCommand{\LWR@HTML@toprule}{o d()}%
      {%
11
          \IfValueTF{#1}%
12
              {\LWR@docmidrule[#1](){1-\arabic{LWR@tabletotalLaTeXcols}}}%
13
14
              {%
                   \ifbool{FormatWP}%
15
                   {\LWR@docmidrule[#1](){1-\arabic{LWR@tabletotalLaTeXcols}}}%
16
                   {\global\booltrue{LWR@doingtbrule}}%
17
              }%
18
      \LWR@getmynexttoken}
19
20
21 \LWR@expandableformatted{toprule}
23 \DeclareDocumentCommand{\LWR@HTML@midrule}{o d()}%
24
      {%
          \IfValueTF{#1}%
25
              {\LWR@docmidrule[#1](){1-\arabic{LWR@tabletotalLaTeXcols}}}%
26
27
              {%
                   \ifbool{FormatWP}%
28
                   {\LWR@docmidrule[#1](){1-\arabic{LWR@tabletotalLaTeXcols}}}%
29
                   {\addtocounter{LWR@hlines}{1}}%
30
              }%
31
      \LWR@getmynexttoken}
32
33
34 \LWR@expandableformatted{midrule}
36 \DeclareDocumentCommand{\LWR@HTML@cmidrule}{O{\LWR@cmidrulewidth} d() m}{%
37
      \LWR@docmidrule[#1](#2){#3}%
      \LWR@getmynexttoken%
38
39 }%
```

```
41 \LWR@expandableformatted{cmidrule}
43 \DeclareDocumentCommand{\LWR@HTML@bottomrule}{o d()}{%
      \IfValueTF{#1}%
44
          {\LWR@docmidrule[#1](){1-\arabic{LWR@tabletotalLaTeXcols}}}%
45
46
              \ifbool{FormatWP}%
47
              {\LWR@docmidrule[#1](){1-\arabic{LWR@tabletotalLaTeXcols}}}%
              {\global\booltrue{LWR@doingtbrule}}%
49
50
      \LWR@getmynexttoken%
51
52 }%
53
54 \LWR@expandableformatted{bottomrule}
56 \DeclareDocumentCommand{\LWR@HTML@addlinespace}{o}{}%
57
58 \LWR@expandableformatted{addlinespace}
60 \DeclareDocumentCommand{\LWR@HTML@morecmidrules}{}{}%
62 \LWR@expandableformatted{morecmidrules}
64 \DeclareDocumentCommand{\LWR@HTML@specialrule}{m m m d()}%
    {\lower.} $$ LWR@docmidrule[#1]()_{1-\alpha}LWR@tabletotalLaTeXcols}\LWR@getmynexttoken} $$
67 \LWR@expandableformatted{specialrule}
```

File 48 lwarp-bophook.sty

```
bophook
       Package
$146
       bophook
               bophook is ignored.
```

for HTML output:

Pkg

```
2 \newcommand*{\AtBeginPage}[1]{}
3 \newcommand*{\PageLayout}[1]{}
```

1 \LWR@ProvidesPackageDrop{bophook}[2001/03/29]

lwarp-bounddvi.sty File 49

bounddvi Package **§ 147**

bounddvi is ignored. bounddvi

for HTML output: 1 \LWR@ProvidesPackageDrop{bounddvi}[2016/12/28]

File 50 lwarp-boxedminipage2e.sty

§ 148 Package boxedminipage2e

(Emulates or patches code by Scott Pakin.)

Pkg boxedminipage2e

boxedminipage2e is emulated.

for HTML output:

Discard all options for lwarp-boxedminipage2e:

```
1 \LWR@ProvidesPackageDrop{boxedminipage2e}[2015/03/09]
2 \newenvironment{boxedminipage}{%
3 \begin{BlockClass}{framebox}%
4 \minipage%
5 }
6 {
7 \endminipage%
8 \end{BlockClass}
9 }
```

File 51 lwarp-breakurl.sty

§ 149 Package breakurl

(Emulates or patches code by Vilar Camara Neto.)

Pkg breakurl breakurl is emulated.

for HTML output:

1 \LWR@ProvidesPackageDrop{breakurl}[2013/04/10]

```
2 \LetLtxMacro\burl\url
3
4 \NewDocumentCommand{\LWR@burlaltb}{0{}} +m m}{%
5 \LWR@ensuredoingapar%
6 \LWR@subhyperref{#2}%
7 \LWR@subhyperreftext{#3}%
8 \endgroup% restore catcodes
9 }
10
11 \newrobustcmd*{\burlalt}{%
12 \begingroup%
13 \catcode'\#=12%
14 \catcode'\%=12%
15 \catcode'\&=12%
16 \catcode'\~=12%
17 \catcode'\_=12%
18 \LWR@burlaltb%
```

```
19 }
20
21 \LetLtxMacro\urlalt\burlalt
```

File 52 lwarp-breqn.sty

§ 150 Package breqn

(Emulates or patches code by Michael J. Downes, Morten Høgholm.)

Pkg breqn breqn is patched for use by lwarp.

darray darray is not supported.

<u>MathJax</u> MathJax does not support breqn.

for HTML output: 1 \LWR@ProvidesPackagePass{breqn}[2017/01/27]

```
2 \setkeys{breqn}{spread={5pt}}
 4 \def\eqnumside{R}
 5 % \def\eqnumplace{T}
7 \BeforeBeginEnvironment{dmath}{
      \begin{BlockClass}{displaymathnumbered}
      \LWR@newautoidanchor%
      \booltrue{LWR@indisplaymathimage}%
10
      \begin{lateximage}[-breqn dmath- \mathimagename]
11
12 }
14 \AfterEndEnvironment{dmath}{
      \end{lateximage}\end{BlockClass}
15
16 }
17
18 \BeforeBeginEnvironment{dmath*}{
      \begin{BlockClass}{displaymath}
      \LWR@newautoidanchor%
20
      \booltrue{LWR@indisplaymathimage}%
21
      \begin{lateximage}[-breqn dmath*- \mathimagename]
22
23 }
24
25 \AfterEndEnvironment{dmath*}{
      \end{lateximage}\end{BlockClass}
26
27 }
28
29 \BeforeBeginEnvironment{dseries}{
      \begin{BlockClass}{displaymathnumbered}
30
      \LWR@newautoidanchor%
31
32
      \booltrue{LWR@indisplaymathimage}%
33
      \begin{lateximage}[-breqn dseries- \mathimagename]
34 }
35
36 \AfterEndEnvironment{dseries}{
```

```
37
      \end{lateximage}\end{BlockClass}
38 }
39
40 \BeforeBeginEnvironment{dseries*}{
      \begin{BlockClass}{displaymath}
41
      \LWR@newautoidanchor%
42
      \booltrue{LWR@indisplaymathimage}%
43
      \begin{lateximage}[-breqn dseries*- \mathimagename]
44
45 }
46
47 \AfterEndEnvironment{dseries*}{
      \end{lateximage}\end{BlockClass}
48
49 }
50
51 \BeforeBeginEnvironment{dgroup}{
      \begin{BlockClass}{displaymath}
52
      \LWR@newautoidanchor%
53
      \booltrue{LWR@indisplaymathimage}%
54
      \begin{lateximage}[-breqn dgroup- \mathimagename]
55
56 }
57
58 \AfterEndEnvironment{dgroup}{
      \end{lateximage}\end{BlockClass}
59
60 }
61
62 \BeforeBeginEnvironment{dgroup*}{
63
      \begin{BlockClass}{displaymath}
      \LWR@newautoidanchor%
      \booltrue{LWR@indisplaymathimage}%
65
66
      \begin{lateximage}[-breqn dgroup*- \mathimagename]
67 }
68
69 \AfterEndEnvironment{dgroup*}{
      \end{lateximage}\end{BlockClass}
71 }
```

File 53 lwarp-bsheaders.sty

```
§151 Package bsheaders
```

Pkg bsheaders bsheaders is ignored.

 $\begin{tabular}{ll} \textbf{for HTML output:} & 1 \LWR@ProvidesPackageDrop\{bsheaders\}[1997/10/06] \end{tabular}$

File 54 lwarp-bxpapersize.sty

§ 152 Package bxpapersize

Pkg bxpapersize bxpapersize is ignored.

```
for HTML output:
                      1 \LWR@ProvidesPackageDrop{bxpapersize}[2017/10/08]
                      2 \providecommand*\papersizesetup{\bxpapersizesetup}
                      3 \newcommand*\bxpapersizesetup[1]{}
           File 55 lwarp-bytefield.sty
                   bytefield
          Package
§ 153
                    (Emulates or patches code by Scott Pakin.)
   Pkg bytefield
                    bytefield is patched for use by lwarp.
  for HTML output:
                      1 \LWR@ProvidesPackagePass{bytefield}[2017/09/15]
                     2 \BeforeBeginEnvironment{bytefield}{\begin{lateximage}[(-bytefield-~\packagediagramname)]}
                     4 \AfterEndEnvironment{bytefield}{\end{lateximage}}
                   lwarp-cancel.sty
          Package cancel
§ 154
      Pkg cancel
                    cancel is used as-is for SVG math, and emulated for HTML text output.
  for HTML output:
                      1 \LWR@origRequirePackage{lwarp-xcolor}% for \convertcolorspec
                     2 \LWR@ProvidesPackagePass{cancel}[2013/04/12]
                    \cancelto is math-only, so is used as-is.
                     3 \LetLtxMacro\LWR@origcancel\cancel
                     4 \LetLtxMacro\LWR@origbcancel\bcancel
                     5 \LetLtxMacro\LWR@origxcancel\xcancel
                     7 \appto\LWR@restoreorigformatting{%
                     8 \LetLtxMacro\cancel\LWR@origcancel%
                     9 \LetLtxMacro\bcancel\LWR@origbcancel%
                     10 \LetLtxMacro\xcancel\LWR@origxcancel%
                     11 }
                      \{\langle text \rangle\} \{\langle color \rangle\} \{\langle class \rangle\} \{\langle colorstyle \rangle\} \{\langle FormatWPstyle \rangle\}
 \LWR@cancelcolor
                    Add colors if not empty:
                     12 \newcommand{\LWR@cancelcolor}[5]{%
                     13 \ifcsempty{#2}%
                     14 {\InlineClass(#5){#3}{#1}}%
                     15 {\LWR@htmlspanclass[#5;#4:\LWR@origpound\LWR@tempcolor]{#3}{#1}}%
                     16 }
```

```
\cancel
                  \{\langle text \rangle\}
                  17 \DeclareRobustCommand{\cancel}[1]{%
                  18 \begingroup%
                  19 \CancelColor%
                  20 \LWR@findcurrenttextcolor%
                 21 \color{black}%
                 22 \LWR@cancelcolor{#1}{LWR@tempcolor}{sout}{text-decoration-color}%
                        {text-decoration:line-through}%
                 24 \endgroup%
                 25 }
                 27 \LetLtxMacro\bcancel\cancel
                 28 \LetLtxMacro\xcancel\cancel
        File 57 lwarp-canoniclayout.sty
       Package canoniclayout
 canoniclayout canoniclayout is ignored.
                 s1 \LWR@ProvidesPackageDrop{canoniclayout}[2011/11/05]
for HTML output:
                  2 \newcommand*{\currentfontletters}{}
                  3 \newcommand*{\charactersperpage}{}
        File 58 lwarp-caption.sty
       Package caption
                 (Emulates or patches code by Axel Sommerfeldt.)
                 caption is patched for use by lwarp.
  Pkg caption
for HTML output:
                  1 \LWR@ProvidesPackagePass{caption}[2018/10/05]
                  2 \renewcommand\caption@ibox[3]{%
                     \@testopt{\caption@iibox{#1}{#2}{#3}}{%
                              \wd\@tempboxa%
                  4 %
                            \linewidth% lwarp
                  5
                  6 }%
                  7% \LWR@traceinfo{caption@ibox: done}%
                  9 \long\def\caption@iibox#1#2#3[#4]{%
                     \label{thm:linear_loss} $$ \operatorname{loss}_{\#1}_{\#2}_{\#3}_{\#4}}\subset \mathbb{Q}_0^0.
                  11 }
                  12 \long\def\caption@iiibox#1#2#3#4[#5]#6{%
```

§ 155

§ 156

Pka

```
\ensuremath{\mbox{\$6}}\%
    \begingroup
    #1*% set \caption@position
15
    \caption@iftop{%
16
      \LWR@traceinfo{caption@iiibox top}%
17
      \endgroup
18
      \parbox[t]{#4}{%
19
20
        #1\relax
21
        \caption@setposition t%
          \vbox{\caption#2{#3}}%
22 %
        {\caption#2{#3}}% lwarp
23
24 %
          \captionbox@hrule
          \csname caption@hj@#5\endcsname
25 %
26 %
          \unhbox\@tempboxa
27
         #6% lwarp
      }%
28
29
    }{%
30
      \LWR@traceinfo{caption@iiibox bottom}%
      \endgroup
31
      \parbox[b]{#4}{%
32
33
        #1\relax
34
        \caption@setposition b%
          \csname caption@hj@#5\endcsname
35 %
36 %
          \unhbox\@tempboxa
           #6% lwarp
37
38 %
          \captionbox@hrule
39 %
          \vtop{\caption#2{#3}}}%
40
        {\caption#2{#3}}% lwarp
41
       }%
42
    }%
43 \LWR@traceinfo{caption@iiibox: done}%
44 }
45
46 \def\caption@caption{%
    \caption@iftype
48
       \caption@checkgrouplevel\@empty\caption
49
50
       \caption@star
51
         {\caption@refstepcounter\@captype}%
52
         {\caption@dblarg{\@caption\@captype}}}%
53
      {\caption@Error{\noexpand\caption outside float}%
54
       \caption@gobble}%
55 }
57 \long\def\caption@@caption#1[#2]#3{%
    \ifcaption@star \else
      \caption@prepareanchor{#1}{#2}%
59
      \memcaptioninfo{#1}{\csname the#1\endcsname}{#2}{#3}%
60
      \@nameuse{nag@hascaptiontrue}%
61
    \fi
62
63
    \caption@beginex{#1}{#2}{#3}%
64
      \caption@setfloatcapt{%
65
```

```
66
                            \caption@boxrestore
                   67
                            \if@minipage
                              \@setminipage
                   68
                   69
                            \caption@normalsize
                   70
                            \ifcaption@star
                  71
                              \let\caption@makeanchor\@firstofone
                   72
                           \fi
                   73
                           \@makecaption{\csname fnum@#1\endcsname}%
                   74
                                          {\ignorespaces\caption@makeanchor{#3}}%
                   75
                  76 % \par
                           \caption@if@minipage\@minipagetrue\@minipagefalse}%
                  77
                       \caption@end%
                  78
                  79 }
\caption@@@make
                   \{\langle caption\ label \rangle\}\ \{\langle caption\ text \rangle\}
                   80 \renewcommand\caption@@@make[2]{%
                  81 \LWR@traceinfo{caption@@@make}%
                   82 %
                         \sbox\@tempboxa{#1}%
                         \ifdim\wd\@tempboxa=\z@
                  83 %
                  84 %
                           \let\caption@lsep\relax
                        \fi
                  85 %
                       \caption@ifempty{#2}{%
                  86
                         \let\caption@lsep\@empty
                  87
                  88
                         \let\caption@tfmt\@firstofone
                       }%
                  89
                  90
                       \caption@applyfont
                  91 %
                           \caption@fmt
                         {\ifcaption@star\else
                  92
                  93
                            \begingroup
                              \captionlabelfont
                   94
                   95
                              #1%
                  96
                            \endgroup
                  97
                          \fi}%
                         {\ifcaption@star\else
                  98
                            \begingroup
                  99
                               \caption@iflf\captionlabelfont
                  100
                  101
                               \relax
                  102
                              \caption@lsep
                  103
                            \endgroup
                  104
                          \fi}%
                  105
                         {{%
                  106
                              \captiontextfont
                  107 %
                              \caption@ifstrut
                  108 %
                                {\vrule\@height\ht\strutbox\@width\z@}%
                  109 %
                              \nobreak\hskip\z@skip % enable hyphenation
                  110 %
                              \caption@tfmt{#2}%
                  111
                  112 %
                              \caption@ifstrut
                 113 %
                                {\ifhmode\@finalstrut\strutbox\fi}%
                  114 %
                                {}%
                  115
                           }}%
```

```
116 \LWR@traceinfo{caption@@make done}%
                      117 }
     \caption@@make@
                        \{\langle\rangle\}\ \{\langle\rangle\}
                      118 \renewcommand{\caption@@make@}[2]{%
                           \caption@stepthecounter
                            \caption@beginhook
                      120
                                \caption@@@make{#1}{#2}%
                      121
                           \caption@endhook
                      122
                      123 }
\caption@makecaption
                      124 \long\def\caption@makecaption#1#2{%
                      125 % \caption@iftop
                      126 %
                                {\vskip\belowcaptionskip}%
                      127 %
                                {\caption@rule\vskip\abovecaptionskip}%
                      128 \caption@@make{#1}{#2}%
                             \caption@iftop
                      129 %
                      130 %
                                {\vskip\abovecaptionskip\caption@rule}%
                      131 %
                                {\vskip\belowcaptionskip}%
                      132 }
                      133 % \DeclareCaptionBox{none}{#2}
                      134 \DeclareCaptionBox{parbox}{%
                      135 #2%
                      136 }
                      137 \DeclareCaptionBox{colorbox}{%
                      138 #2%
                      139 }
                      lwarp-cases.sty
              File 59
                       cases
   § 157
            Package
                       (Emulates or patches code by Donald Arseneau.)
              cases cases is patched for use by lwarp.
           MathJax MathJax does not support cases.
     for HTML output:
                        1 \LWR@ProvidesPackagePass{cases}[2002/05/02]
                        2 \BeforeBeginEnvironment{numcases}{
                              \begin{BlockClass}{displaymathnumbered}
                              \LWR@newautoidanchor%
                              \booltrue{LWR@indisplaymathimage}%
                        5
                              \begin{lateximage}[-cases- \mathimagename]
                        6
                        7 }
```

9 \AfterEndEnvironment{numcases}{

```
10
      \end{lateximage}\end{BlockClass}
11 }
12
13 \BeforeBeginEnvironment{subnumcases}{
      \begin{BlockClass}{displaymathnumbered}
      \LWR@newautoidanchor%
15
      \booltrue{LWR@indisplaymathimage}%
16
      \begin{lateximage}[-cases- \mathimagename]
17
18 }
19
20 \AfterEndEnvironment{subnumcases}{
      \end{lateximage}\end{BlockClass}
22 }
```

File 60 lwarp-changebar.sty

```
§ 158 Package changebar
```

Pkg changebar changebar is ignored.

```
for HTML output: 1 \LWR@ProvidesPackageDrop{changebar}[2018/03/09]
```

```
2 \newcommand*{\cbstart}{}
3 \newcommand*{\cbend}{}
4 \newenvironment*{\changebar}{}{}
5 \newcommand*{\cbdelete}{}
6 \newcommand*{\nochnagebars}{}
7 \newcommand*{\cbcolor}[1]{}
8 \newlength{\changebarwidth}
```

9 \newlength{\deletebarwidth}
10 \newlength{\changebarsep}

11 \newcounter{changebargrey}

File 61 lwarp-changelayout.sty

§ 159 Package changelayout

(Emulates or patches code by Ahmed Musa.)

Pkg changelayout changelayout is patched for use by lwarp.

```
for HTML output: 1 \LWR@ProvidesPackagePass{changelayout}[2009/10/07]

2 \renewrobustcmd\cpl@backtodefaults{}
3
4 \renewrobustcmd\cpl@checkifoddpage{%
5 \cpl@oddpagefalse%
6 }
```

```
8 \renewrobustcmd\changepagelayout[1]{%
   \setkeys[KV]{changelay}{#1}%
10 }
11
12 \renewrobustcmd{\changetextlayout}[1]{\changepagelayout{#1}}
14 \renewrobustcmd\adjustpagelayout[1]{%
    \setkeys[KV@X]{changelay}{#1}%
16 }
17
18 \renewrobustcmd{\adjusttextlayout}[1]{\adjustpagelayout{#1}}
20 \renewrobustcmd\adjusttextwidth[1]{%
    \setkeys[KV]{changelay}{#1}%
    \begin{BlockClass}[color:\LWR@colorstyle{named}{\cpl@textcolor}]{changelayout}
22
23
          \color{\cpl@textcolor}%
24
          \cpl@content
25
      \end{BlockClass}
26 }
```

File 62 lwarp-changepage.sty

§ 160 Package changepage

 $(Emulates\ or\ patches\ code\ by\ {\tt Peter}\ {\tt Wilson.})$

Pkg changepage changepage is emulated.

for HTML output:

Discard all options for lwarp-changepage:

```
1 \LWR@ProvidesPackageDrop{changepage}[2009/10/20]
2 \newif\ifoddpage
3 \DeclareRobustCommand{\checkoddpage}{\oddpagetrue}
4 \DeclareRobustCommand{\changetext}[5]{}
5 \DeclareRobustCommand{\changepage}[9]{}
6
7 \@ifundefined{adjustwidth}{
8 \newenvironment{adjustwidth}[2]{}{}
9 \newenvironment{adjustwidth*}[2]{}{}
10 }{
11 \renewenvironment{adjustwidth}[2]{}{}
12 \renewenvironment{adjustwidth*}[2]{}{}
13 }

14 \DeclareDocumentCommand{\strictpagecheck}{}{}
15 \DeclareDocumentCommand{\easypagecheck}{}{}
```

File 63 lwarp-changes.sty

§ 161 Package changes

(Emulates or patches code by Ekkart Kleinod.)

Pkg changes changes is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{changes}[2019/01/26]

```
2 \renewcommand{\ChangesListline}[4]{%
     \IfSubStr{\Changes@loc@show}{#1}{%}
         \LWR@startpars%
         #2: #3 \qquad
5
         \nameref{autopage-#4}%
6
         \LWR@stoppars%
8
     }{}%
9 }
10
11 \renewcommand{\Changes@summaryline}[4]{%
     12
        13
14
                 #3:~#2#4%
15
16
             }{}%
     }{}%
17
18 }
19
20 \xpatchcmd{\listofchanges}
     {{\changesauthorname: \changesanonymousname}}
      \{ \{ LWR@textcurrentcolor \{ changes authorname: \ changes an onymous name \} \} \} 
22
23
     {}
     {\LWR@patcherror{changes}{listofchanges A}}
24
25
26 \xpatchcmd{\listofchanges}
     {\changesauthorname: \Changes@InID}
     {\LWR@textcurrentcolor{\changesauthorname: \Changes@InID}}
28
29
     {}
30
     {\LWR@patcherror{changes}{listofchanges B}}
31
32 \xpatchcmd{\listofchanges}
33
     {(\Changes@InName)}
34
     {\LWR@textcurrentcolor{(\Changes@InName)}}
35
     {}
36
     {\LWR@patcherror{changes}{listofchanges C}}
37
38 \xpatchcmd{\listofchanges}
     {\parbox{\Changes@summary@width}}
39
40
     {}
41
     {}
     {\LWR@patcherror{changes}{listofchanges D}}
42
```

```
44 \xpatchcmd{\Changes@Markup@comment}
45
             {%
                      \ifthenelse{\isAnonymous{#2}}%
46
                               {\tt \{\textbf{[\arabic{Changes@commentCount#2}]:} } \%
47
                               {\textbf{[\#3^\lambda$c{Changes@commentCount\#2}]:} }\%
48
                      #1%
49
50
             {%
51
                      \LWR@textcurrentcolor{%
52
                                                                                               lwarp
                      \ifthenelse{\isAnonymous{#2}}%
53
                               {\textbf{[\arabic{Changes@commentCount#2}]:} }%
54
                               {\textbf{[\#3^\lambda$cChanges@commentCount$\#2]:} }\%
55
                      #1%
56
57
                      }%
                                                                                               lwarp
58
             }
59
             {}
             {\LWR@patcherror{changes}{\Changes@Markup@comment A}}
60
61
62 \xpatchcmd{\Changes@Markup@comment}
63
                      \uwave{%
64
                               \ifthenelse{\isAnonymous{#2}}%
65
                                         {\textbf{[\arabic{Changes@commentCount#2}]:} }%
66
                                         {\textbf{[#3~\arabic{Changes@commentCount#2}]:} }%
67
                               #1%
68
69
                      }%
70
             }
71
72
                      \LWR@textcurrentcolor{%
                                                                                               lwarp
                      \uwave{%
73
                               \ifthenelse{\isAnonymous{#2}}%
74
                                         {\textbf{[\arabic{Changes@commentCount#2}]:} }%
75
76
                                         {\textbf{[#3~\arabic{Changes@commentCount#2}]:} }%
                               #1%
77
78
                      }%
                      }%
                                                                                               lwarp
79
             }
80
             {}
81
82
             {\LWR@patcherror{changes}{\Changes@Markup@comment B}}
84 \xpatchcmd{\Changes@output}
              85
86
           {\LWR@textcurrentcolor{\Changes@Markup@author{\Changes@output@author{#2}{left}}}}
87
             {}
             {\LWR@patcherror{changes}{Changes@output A}}
88
89
90 \xpatchcmd{\Changes@output}
91
                      92
                      93
                94
95
                      \label{lem:light} $$ \left( \frac{\#1}{ highlight} \right) (Changes@Markup@highlight{\#3}){} % $$ if the nelse {\equal{\#1}{ highlight}} (Changes@Markup@highlight{\#3}) % $$ if the nelse {\equal{\#1}{ highlight}} (Changes@Markup@highlight{\#3}) % $$ if the nelse {\equal{\#1}{ highlight}} (Changes@Markup@highlight{\#4}) % $$ if the nelse {\equal{\#1}{ highlight}} (Changes@Markup@highlight{\#4}
96
             }
97
             {%
```

```
\LWR@textcurrentcolor{%
   99
                                           \ifthenelse{\equal{#1}{added}}{\Changes@Markup@added{#3}}{}%
                                           100
                                 101
                                           \label{lem:light} $$ \left( \frac{\#1}{ highlight} \right) (Changes@Markup@highlight{\#3}){}% $$ if the nelse {\equal{\#1}{ highlight}} (Changes@Markup@highlight{\#3}) (Changes@Markup@highlight{\#3}){}% $$ if the nelse {\equal{\#1}{ highlight}} (Changes@Markup@highlight{\#4}) (Changes@Markup@highlight{\#4}) (Changes@Markup@highlight{\#4}) (Changes@Markup@highlight{\#4}) (Changes@Markup@highlight{\#4}) (Changes@Mark
102
                                           }%
103
                           }
104
 105
                           {\LWR@patcherror{changes}{Changes@output B}}
106
107
108 \xpatchcmd{\Changes@output}
                           109
                      {\cline{Changes@Markup@author{\Changes@output@author{#2}{right}}}}
110
111
112
                           {\LWR@patcherror{changes}{Changes@output C}}
```

File 64 lwarp-chappg.sty

§ 162 Package chappg

(Emulates or patches code by Robin Fairbairns.)

Pkg chappg chappg is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{chappg}[2006/05/09]

2 \renewcommand{\pagenumbering}[2][]{}
3 \providecommand{\chappgsep}{--}

File 65 lwarp-chapterbib.sty

§ 163 Package chapterbib

(Emulates or patches code by Donald Arseneau.)

Pkg chapterbib chapterbib is patched for use by lwarp.

 $\begin{tabular}{ll} \textbf{for HTML output:} & 1 \LWR@ProvidesPackagePass{chapterbib}[2010/09/18] \end{tabular}$

2 \xdef\@savedjobname{\BaseJobname}
3 \let\@currentipfile\@savedjobname

File 66 lwarp-chemfig.sty

§ 164 Package chemfig

(Emulates or patches code by Christian Tellechea.)

Pkg chemfig chemfig is patched for use by lwarp.

1 \LWR@ProvidesPackagePass{chemfig}

If using \polymerdelim to add delimiters to a \chemfig, wrap both inside a single lateximage:

```
\begin{lateximage}[(-chemfig-~\packagediagramname)]
\chemfig{...}
\polymerdelim[...]{...}
\end{lateximage}
```

The images are not hashed because they depend on external settings which may be changed at any time, and are unlikely to be reused inline anyhow.

for HTML output:

42

```
2
3 \cdot catcode' = 11
5 \@ifpackagelater{chemfig}{2019/04/18}%
6 {% 2019/04/18 or newer
7
      \LetLtxMacro\LWR@chemfig@origchemfig\chemfig
8
9
10
      \renewcommand*{\chemfig}[2][]{%
11
          \begin{lateximage}[(-chemfig-~\packagediagramname)]%
          \LWR@chemfig@origchemfig[#1]{#2}%
12
13
          \end{lateximage}%
      }
14
15
      \GlobalLetLtxMacro\LWR@chemfig@origCF_lewisc\CF_lewisc
16
17
      \gdef\CF_lewisc#1,#2\_nil{%}
      \begin{lateximage}[(-chemfig-~\packagediagramname)]%
18
      \LWR@chemfig@origCF_lewisc#1,#2\_nil
19
      \end{lateximage}
20
21
      }
22
23
      \gpreto{\schemestart}{\begin{lateximage}[(-chemfig-~\packagediagramname)]}
      \gappto{\CF_schemestop}{\end{lateximage}}
26 }% 2019/04/18 or newer
27 {% older than 2019/04/18
      \LetLtxMacro\LWR@chemfig@origchemfig\chemfig
29
30
      \DeclareDocumentCommand\chemfig{s O{} O{} m}{%
31
          \begin{lateximage}[(-chemfig-~\packagediagramname)]%
32
          \IfBooleanTF{#1}{%
33
              \LWR@chemfig@origchemfig*[#2][#3]{#4}%
34
35
          }{%
              \LWR@chemfig@origchemfig[#2][#3]{#4}%
36
37
          }
          \end{lateximage}%
38
      }
39
40
      \LetLtxMacro\LWR@chemfig@origCF@lewis@b\CF@lewis@b
41
```

```
\def\CF@lewis@b#1#2{%
      \begin{lateximage}[(-chemfig-~\packagediagramname)]%
      \LWR@chemfig@origCF@lewis@b{#1}{#2}%
45
      \end{lateximage}%
46
47
48
      \preto{\schemestart}{\begin{lateximage}[(-chemfig-~\packagediagramname)]}
49
50
      \appto{\CF@schemestop}{\end{lateximage}}
52 }% older than 2019/04/18
54 \catcode '\_=8%
56
58 \LetLtxMacro\LWR@chemfig@origchemleft\chemleft
60 \def\chemleft#1#2\chemright#3{%
61 \begin{lateximage}[(-chemfig-~\packagediagramname)]%
62 \LWR@chemfig@origchemleft#1#2\chemright#3%
63 \end{lateximage}%
64 }
66 \LetLtxMacro\LWR@chemfig@origchemup\chemup
68 \def\chemup#1#2\chemdown#3{%
69 \begin{lateximage}[(-chemfig-~\packagediagramname)]%
70 \LWR@chemfig@origchemup#1#2\chemdown#3%
71 \end{lateximage}%
72 }
```

File 67 lwarp-chemformula.sty

§ 165 Package chemformula

(Emulates or patches code by Clemens Niederberger.)

Pkg chemformula chemformula is patched for use by lwarp.

The svG images are hashed according to contents and local options. Global options are assumed to be constant document-wide.

chemformula with MathJax

chemformula works best without MATHJAX. If MATHJAX is used, \displaymathother must be used before array, and then \displaymathnormal may be used after. (The chemformula package adapts to array, but does not know about MATHJAX, and MATHJAX does not know about chemformula.)

While using Mathjax, \displaymathother may also be used for other forms of display and inline math which contain chemformula expressions.

for HTML output: 1 \LWR@ProvidesPackagePass{chemformula}[2017/03/23]

2 \ExplSyntaxOn

\ch Enclose in an inline svg image or MathJax. The alt tag is is the contents of the \ch expression. The filename is hashed, and also has additional hashing information based on the local options.

```
3 \RenewDocumentCommand \ch { O{}m }
4 {%
```

To work inside align with \displaymathother, a simple version must be used to work with chemformula's adaptation to align.

```
5 \ifnumcomp{\value{LWR@lateximagedepth}}{>}{0}% lwarp
6 {
7 \chemformula_ch:nn {#1} {#2}% original
8 }
```

If used as the outer level, must temporarily ensure MATHJAX is disabled:

```
9 {
10 \begingroup%
11 \boolfalse{mathjax}%
```

An inline image is used, adjusted for the baseline:

```
\LWR@subsingledollar*{% lwarp
12
                                                                                                                                           \textbackslash{} ch\\\textbackslash{} ch\\\tex
13
14
15
                                                                                                                  \protect\LWR@HTMLsanitize{\detokenize\expandafter{#1}}% add'l hashing
                                                                                                   }%
16
                                                                                                   {%
17
                                                                                                                                             \chemformula_ch:nn {#1} {#2}%
18
                                                                                                                                                                                                                                                                                                                                                                                                                                                             original
                                                                                                   }%
19
                                                                                                   \endgroup%
20
21
                                                          }
                                      }
22
```

\chcpd Similar to \ch.

```
23 \cs_gset_protected:Npn \chemformula_chcpd:nn #1#2
24
      \begingroup%
25
      \boolfalse{mathjax}%
26
      \LWR@subsingledollar*{% lwarp
27
          \textbackslash{}chcpd\{\LWR@HTMLsanitize{#2}\}%
28
29
      }{%
30
          \protect\LWR@HTMLsanitize{\detokenize\expandafter{#1}}%
      }{% original
31
      \group_begin:
32
        \tl_if_blank:nF {#2}
33
34
            \keys_set:nn {chemformula} {#1}
35
            \__chemformula_save_catcodes:
36
37
            \__chemformula_sanitize:Nn
38
              \l__chemformula_chemformula_tmpa_tl
              {#2}
39
            \__chemformula_input_compound_no_check:NV
40
              \l__chemformula_compound_tl
41
42
              \l__chemformula_chemformula_tmpa_tl
```

```
\__chemformula_prepare_output:N \l__chemformula_compound_tl
                      \chemformula_write:V \l__chemformula_compound_tl
          45
                \group_end:
          46
          47
                \endgroup
          48
          49
              }
           If standalone, appears in a regular lateximage.
\charrow
          50 \RenewDocumentCommand \charrow { mO{}0{} }
          51 {
                \begin{lateximage}[(-chemformula- charrow)]
          52
          53
                \group_begin:
                  \__chemformula_draw_arrow:nnn {#1} {#2} {#3}
          54
          55
                \group_end:
                \end{lateximage}
          56
          57 }
           If standalone, appears in a regular lateximage, hashed according to contents.
\chname
          58 \RenewDocumentCommand \chname { R(){}R(){} }
          59
                \begin{lateximage}*[%
          60
                    \textbackslash{}chname(\LWR@HTMLsanitize{#1})(\LWR@HTMLsanitize{#2})
          61
          62
                    \chemformula_chwritebelow:nn {#1} {#2}
          63
                \end{lateximage}
          64
              }
          65
           Placed inline, hashed according to contents and options.
\chlewis
          66 \RenewDocumentCommand \chlewis { O{}mm }
          67
          68
                \begingroup%
                \boolfalse{mathjax}%
          69
                70
          71
          72
                    \protect\LWR@HTMLsanitize{\detokenize\expandafter{#1}}%
          73
                }{
                    \chemformula_lewis:nnn {#1} {#2} {#3}
          74
          75
                \endgroup%
          76
              }
          77
```

lwarp redefines the $\$ character, so special handling is required to escape math expressions inside $\$.

This boolean tracks a new kind of escaped math:

```
78 \bool_new:N \label{local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_loca
```

Adds additional escaping for the new dollar definition:

```
79 \cs_gset_protected:Npn \__chemformula_input_escape_math:n #1
80
    {
       \__chemformula_first_last_math:n {#1}
81
82
      \bool_if:NT \l__chemformula_first_last_dollar_bool
83
84
           \bool_set_true:N \l__chemformula_first_last_math_bool
85
           \__chemformula_read_escape_dollar:w #1 \q_nil
86
      \bool_if:NT \l__chemformula_first_last_mathbraces_bool
87
88
           \bool_set_true:N \l__chemformula_first_last_math_bool
89
           \__chemformula_read_escape_mathbraces:w #1 \q_nil
90
91
Added by lwarp:
      \bool_if:NT \l__chemformula_first_last_LWRdollar_bool%
92
                                                                     lwarp
93
          \bool_set_true:N \l__chemformula_first_last_math_bool%
                                                                     lwarp
           \__chemformula_read_escape_LWRdollar:w #1 \q_nil%
                                                                     lwarp
95
96
    }
97
```

\chemformula_read_escape_LWRdollar

The following parses the contents inside the new dollars.

lwarp keeps the dollar as its original math shift until the document starts. While chemmacros is being patched, the dollar must temporarily be set to its new meaning during the following definition.

```
98 \begingroup
99 \catcode'\$=\active
100
101 \cs_new_protected:Npn \__chemformula_read_escape_LWRdollar:w $#1$ \q_nil
102 {
103 \__chemformula_read_escape_math:n {#1}
104 }
105
106 \endgroup
```

\chemformula_bool_set_if_first_last

The following looks at the first and last tokens for delimiters to escape math inside \ch. The original definition is modified to look for the control sequences which are used by the new meaning of \$.

```
107 \cs_new_protected:Npn \__chemformula_bool_cs_set_if_first_last:NnNN #1#2#3#4
108 {
109  \int_zero:N \l__chemformula_tmpa_int
110  \int_zero:N \l__chemformula_tmpb_int
111  \int_set:Nn \l__chemformula_tmpa_int { \tl_count:n {#2} }
112  \tl_map_inline:nn {#2}
113  {
```

```
114
           \int_incr:N \l__chemformula_tmpb_int
115
           \int_compare:nT { \l__chemformula_tmpb_int = 1 }
116
             {
At the start, the cs_ version compares control sequences:
               \ifdefstrequal{##1}{#3}% lwarp
117
118
                        \bool_set_true:N #1
119
                    }% lwarp
120
                    {}
121
             }
122
At the end, compare more control sequences:
           \int_compare:nT { \l__chemformula_tmpb_int = \l__chemformula_tmpa_int }
123
124
               \ifdefstrequal{##1}{#4}
125
126
                    {}
                    {
127
128
                        \bool_set_false:N #1
129
             }
130
131
         }
     }
132
Modified to check for the new meaning of $ at first/last:
133 \cs_gset_protected:Npn \__chemformula_first_last_math:n #1
134
       \bool_set_false:N \l__chemformula_first_last_math_bool
135
       \bool_set_false:N \l__chemformula_first_last_dollar_bool
136
137
       \bool_set_false:N \l__chemformula_first_last_LWRdollar_bool%
                                                                           lwarp
138
       \bool_set_false:N \l__chemformula_first_last_mathbraces_bool
       \__chemformula_bool_set_if_first_last:Nnnn
139
140
         \l__chemformula_first_last_dollar_bool
         {#1}
141
142
         { $ } { $ }
       \bool_if:NF \l__chemformula_first_last_dollar_bool
143
144
           \__chemformula_bool_set_if_first_last:Nnnn
145
             \l__chemformula_first_last_mathbraces_bool
146
             {#1}
147
             { \( } { \) }
148
Added by lwarp:
             \bool_if:NF \l__chemformula_first_last_mathbraces_bool%
149
                                                                          lwarp
150
                    \__chemformula_bool_cs_set_if_first_last:NnNN
151
152
                    \l__chemformula_first_last_LWRdollar_bool
153
                    { \LWR@newsingledollar } { \LWR@newsingledollar }
154
               }% lwarp
155
156
         }
```

\chemformula_first_last_math

157 }

158 \ExplSyntaxOff

lwarp-chemgreek.sty

chemgreek Package **§ 166**

(Emulates or patches code by Clemens Niederberger.)

chemgreek chemgreek is patched for use by lwarp.

Greek symbols package selection

To use text-mode symbols, use packages textalpha or textgreek. Using the other packages supported by chemgreek will result in math-mode greek characters, which will result in svG images being used. These images will be hashed.

⚠

XAIATEX, LuaIATEX If using XAIATEX or LuaIATEX, select the fontspec mapping:

\selectchemgreekmapping{fontspec}

for HTML output: 1 \LWR@ProvidesPackagePass{chemgreek}[2016/02/10]

```
2 \ExplSyntaxOn
4 \cs_gset_protected:Npn \chemgreek_text:n #1
   { { \text {#1} } }
7 \appto\LWR@restoreorigformatting{%
8 \cs_set_protected:Npn \chemgreek_text:n #1%
   { \ensuremath { \text {#1} } }%
10 }
12 \ExplSyntaxOff
```

File 69 lwarp-chemmacros.sty

chemmacros Package \$167

(Emulates or patches code by Clemens Niederberger.)

chemmacros is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{chemmacros}[2017/08/28]

> SVG file hashing assumes that the relevent options are constant for the entire document.

§ 167.1 Changes to the user's document

 \triangle

\makepolymerdelims

When using \makepolymerdelims, enclose the entire expression inside a polymerdelims environment, such as (from the chemmacros manual):

```
\begin{polymerdelims}
\chemfig{-[@{op,.75}]CH_2-CH(-[6]Cl)-[@{cl,0.25}]}
\makepolymerdelims{5pt}[27pt]{op}{cl}
\end{polymerdelims}
```

Redox reactions must be enclosed inside a redoxreaction environment. For print output, extra space must be included above and/or below the result, so they are declared as arguments to the environment, instead of being manually entered as per the chemmacros manual. For HTML output, the extra space is ignored and a lateximage is used instead.

```
\begin{redoxreaction}{7mm}{7mm}
\OX{a,Na} $\rightarrow$ \OX{b,Na}\pch\redox(a,b){oxidation}
\end{redoxreaction}
```

§ 167.2 Code

§ 167.3 Loading modules

Patching chemmacros modules must be done \AtBeginDocument, since modules are invoked by the user in the preamble, and each patch is only done if the module is loaded.

```
2 \ExplSyntaxOn
3
4 \newcommand{\@ifchemmacrosmoduleloaded}[1]{%
5 \@ifl@aded{\c__chemmacros_module_extension_tl}{\c__chemmacros_module_prefix_tl.#1}%
6 }
7
8 \ExplSyntaxOff
```

§ 167.4 New environments

\makepolymerdelims and redox reactions must be enclosed in a lateximage during HTML output. These environments are provided here in HTML mode, and in the lwarp core in print mode, as a high-level semantic syntax which automatically embeds the contents in a lateximage with an appropriate alt tag.

For HTML output, the above and below space is ignored, and a lateximage is used instead. For the print output version, see section 86.

```
12 \DeclareDocumentEnvironment{redoxreaction}{m m}
13 {\begin{lateximage}[(-chemmacros- redoxreaction)]}
14 {\end{lateximage}}
15 \ExplSyntaxOn
```

§ 167.5 Acid-base

```
16 \AtBeginDocument{
17 \@ifchemmacrosmoduleloaded{acid-base}{
18 \PackageInfo{lwarp}{Patching~chemmacros~module~acid-base}
20 \cs_gset_protected:Npn \chemmacros_p:n #1
21
22
      \begingroup
23
      \boolfalse{mathjax}
24
      \LWR@subsingledollar*{
25
          \textbackslash{}p\{\LWR@HTMLsanitize{#1}\}
26
      }{
27
          chemmacrosp\protect\LWR@HTMLsanitize{\detokenize\expandafter{#1}}%
28
      }{
29
      \group_begin:
        \mbox
30
31
             \chemmacros_p_style:n {p}
32
33
             \ensuremath {#1}
34
35
      \group_end:
36
      \endgroup
37
    }
38
39
40 \RenewDocumentCommand \pH {} {
41
      \begingroup
42
      \boolfalse{mathjax}
      \LWR@subsingledollar*{\textbackslash{}pH}{chemmacros}{
43
          \chemmacros_p:n { \chemmacros_chemformula:n {H} }
44
45
      \endgroup
46
47 }
48
49 \RenewDocumentCommand \pOH {} {
      \begingroup
50
      \boolfalse(mathjax)
51
      \LWR@subsingledollar*{\textbackslash{}pOH}{chemmacros}{
52
          \chemmacros_p:n { \chemmacros_chemformula:n {OH} }
53
54
55
      \endgroup
56 }
57
58 \RenewDocumentCommand \pKa {0{}}
59
60
      \begingroup
```

```
\boolfalse{mathjax}
62
       \LWR@subsingledollar*{\textbackslash{}pKa{[}#1{]}}{chemmacros #1}{
           \chemmacros_p:n
63
           {
64
               \Ka \ifblank {#1} {}
65
               { {} \c_{math\_subscript\_token} { \chemmacros\_bold:n {#1} } }
66
           }
67
68
69
       \endgroup
70
     }
71
72 \RenewDocumentCommand \pKb {0{}}
73
74
       \begingroup
75
       \boolfalse{mathjax}
       \LWR@subsingledollar*{\textbackslash{}pKb{[]#1{]}}{chemmacros #1}{
76
           \chemmacros_p:n
77
78
           {
               \Kb \ifblank {#1} {}
79
               { {} \c_math_subscript_token { \chemmacros_bold:n {#1} } }
80
81
           }
82
       \endgroup
83
     }
84
85
86 \LetLtxMacro\LWR@chemmacros@origKa\Ka
87 \renewcommand*{\Ka}{%
       \begingroup
       \boolfalse(mathjax)
       \LWR@subsingledollar*{\textbackslash{}Ka}{chemmacros}{%
90
           \LWR@chemmacros@origKa%
91
       }%
92
       \endgroup
93
94 }
96 \LetLtxMacro\LWR@chemmacros@origKb\Kb
97 \renewcommand*{\Kb}{%
       \begingroup
98
       \boolfalse{mathjax}
99
100
       \LWR@subsingledollar*{\textbackslash{}Kb}{chemmacros}{%
101
           \LWR@chemmacros@origKb%
102
103
       \endgroup
104 }
105
106 \LetLtxMacro\LWR@chemmacros@origKw\Kw
107 \renewcommand*{\Kw}{%
108
       \begingroup
109
       \boolfalse{mathjax}
110
       \LWR@subsingledollar*{\textbackslash{}Kw}{chemmacros}{
           \LWR@chemmacros@origKw
111
112
113
       \endgroup
114 }
115
```

```
116 }{}% \@ifchemmacrosmoduleloaded
117 }% AtBeginDocument
```

§ 167.6 Charges

```
118 \AtBeginDocument{
119 \@ifchemmacrosmoduleloaded{charges}{
120 \PackageInfo{lwarp}{Patching~chemmacros~module~charges}
121
122 \cs_gset_protected:Npn \fplus {
       \begingroup
123
124
       \boolfalse{mathjax}
       \LWR@subsingledollar*{\textbackslash{}fplus}{chemmacros}
125
126
       { \LWR@origensuredmath{\chemformula_fplus:} }
127
       \endgroup
128 }
129 \cs_gset_protected:Npn \fminus {
130
       \begingroup
       \boolfalse{mathjax}
131
132
       \LWR@subsingledollar*{\textbackslash{}fminus}{chemmacros}
133
       { \LWR@origensuredmath{\chemformula_fminus:} }
134
       \endgroup
135 }
137 }{}% \@ifchemmacrosmoduleloaded
138 }% AtBeginDocument
```

§ 167.7 Nomenclature

```
139 \AtBeginDocument{
140 \@ifchemmacrosmoduleloaded{nomenclature}{
141 \PackageInfo{lwarp}{Patching~chemmacros~module~nomenclature}
143 \cs_gset_protected:Npn \chemmacros_charge:n #1
144
       \label{locality} $$ \ifnumcomp{\value{LWR@lateximagedepth}}{>}{\emptyset} $$
145
       {\chemmacros_chemformula:n { {}^{#1} }}
146
147
            \ifmmode
148
                {\chemmacros_chemformula:n { {}^{#1} }}
149
            \else
150
                { \textsuperscript{\ensuremath{#1}} }
151
            \fi
152
153
154
155
157 \LetLtxMacro\LWR@chemmacros@origchemprime\chemprime
158
159 \protected\def\chemprime { \HTMLunicode{2032} }
161 \appto\LWR@restoreorigformatting{%
162 \LetLtxMacro\chemprime\LWR@chemmacros@origchemprime%
163 }
```

```
164 \ChemCompatibilityFrom{5.8}
165 \cs_gset_protected:Npn \__chemmacros_cip:n #1
166
      \tl_set:Nn \l__chemmacros_tmpa_tl {#1}
167
168
      \int \int \int d^2 t dt
169
          \tl_replace_all:Nnn \l__chemmacros_tmpa_tl
170
171
            {##1}
172
            { { \l__chemmacros_cip_number_tl ##1} }
        }
173
174
          \l__chemmacros_cip_inner_tl
175
          \LWR@textcurrentcolor{\LWR@textcurrentfont{% lwarp
176
177
              \l__chemmacros_tmpa_tl
178
          }}% lwarp
179
      }
180
    }
181 \EndChemCompatibility
182 \RenewDocumentCommand \Sconf { O{S} } {
183 \begin{lateximage}[\textbackslash{}Sconf{[]#1{]}}
      \chemmacros_sconf:n {#1}
185 \end{lateximage}
186 }
187
188 \RenewDocumentCommand \Rconf { O{R} } {
189 \begin{lateximage}[\textbackslash{}Rconf{[]#1{]}}
      \chemmacros_rconf:n {#1}
191 \end{lateximage}
192 }
193 \cs_gset_protected:Npn \chemmacros_hapto:n #1
194
    {
195
      \begingroup
      \boolfalse{mathjax}
196
      197
198
          \chemmacros_coordination_symbol:nnnn
          { \l__chemmacros_coord_use_hyphen_bool }
199
200
          {
              \chemmacros_if_compatibility:nnTF {>} {5.7}
201
202
              { \c_true_bool }
203
              { \c_false_bool }
204
          { \chemeta }
205
          {#1}
206
207
      }
      \endgroup
208
209
210
211 \cs_gset_protected:Npn \chemmacros_dento:n #1
212
    {
213
      \begingroup
214
      \boolfalse{mathjax}
      215
216
          \chemmacros_coordination_symbol:nnnn
          { \l__chemmacros_coord_use_hyphen_bool }
217
```

```
218
           {
                \chemmacros_if_compatibility:nnTF {>} {5.7}
220
                { \c_true_bool }
                { \c_false_bool }
221
222
            { \chemkappa }
223
224
            {#1}
225
226
       \endgroup
227
     }
228
229 \cs_gset_protected:Npn \chemmacros_bridge:n #1
230
231
       \begingroup
232
       \boolfalse{mathjax}
       \LWR@subsingledollar*{\textbackslash{}bridge\{#1\}}{chemmacros}{
233
            \verb|\chemmacros_coordination_symbol:nnnn|
234
            { \l__chemmacros_coord_use_hyphen_bool }
235
            { \l__chemmacros_bridge_super_bool }
236
            { \chemmu }
237
238
            {#1}
239
       }
       \endgroup
240
     }
241
242 }{}% \@ifchemmacrosmoduleloaded
243 }% AtBeginDocument
```

§ 167.8 Particles

```
244 \AtBeginDocument{
245 \@ifchemmacrosmoduleloaded{particles}{
246 \PackageInfo{lwarp}{Patching~chemmacros~module~particles}
247
248 \cs_gset_protected:Npn \chemmacros_declare_nucleophile:Nn #1#2
249
    {
       \cs_set_protected:cpn {__chemmacros_ \chemmacros_remove_backslash:N #1:}
250
251
           \bool_if:NTF \l__chemmacros_nucleophile_elpair_bool
252
253
             {
               \chemmacros_elpair:n { #2 }
254
255
               \chemmacros_if_compatibility:nnT {>=} {5.3}
                 { \skip_horizontal:N \l__chemmacros_nucleophile_dim }
256
257
               \chemmacros_chemformula:n { {}^{-} }
258
             { \chemmacros_chemformula:n { #2^{-} } }
259
         }
260
       \DeclareDocumentCommand #1 {o}
261
         {%
262
           \begin{lateximage}%
263
264
           \group_begin:%
             \IfNoValueF {##1}%
265
266
               { \chemmacros_set_keys:nn {particles} {##1} }%
             \use:c {__chemmacros_ \chemmacros_remove_backslash:N #1:}%
267
           \group_end:%
268
           \end{lateximage}%
269
```

```
270 }
271 }
272
273 \RenewChemNucleophile \Nuc {Nu}
274 \RenewChemNucleophile \ba {ba}
275
276 }{}% \@ifchemmacrosmoduleloaded
277 }% AtBeginDocument
```

§ 167.9 **Phases**

```
278 \AtBeginDocument{
279 \@ifchemmacrosmoduleloaded{phases}{
280 \PackageInfo{lwarp}{Patching~chemmacros~module~phases}
282 \cs_undefine:N \chemmacros_phase:n
283 \cs_new_protected:Npn \chemmacros_phase:n #1
284
285
       \chemmacros_leave_vmode:
       \bool_if:NTF \l__chemmacros_phases_sub_bool
286
287
           \ifnumequal{\value{LWR@lateximagedepth}}{0}
288
289
           {
290
                \textsubscript{ (#1) }
           }
291
292
           {
                \chemformula_subscript:n { (#1) }
293
           }
294
295
         }
296
           \skip_horizontal:N \l__chemmacros_phases_space_dim
297
           \chemmacros_text:n { (#1) }
298
         }
299
300
     }
301
302 }{}% \@ifchemmacrosmoduleloaded
303 }% AtBeginDocument
```

§ 167.10 Mechanisms

```
304 \AtBeginDocument{
305 \@ifchemmacrosmoduleloaded{mechanisms}{
306 \PackageInfo{lwarp}{Patching~chemmacros~module~mechanisms}
307
308 \chemmacros_define_keys:nn {textmechanisms}
309
     {
                  .choice: ,
310
       type
                  .code:n
311
       type /
312
            \__chemmacros_set_mechanisms:nnn { S }
313
314
             {
                  \textsubscript{N}
             }
316
317
             { }
         } ,
318
```

```
type / 1 .code:n
319
320
321
            \__chemmacros_set_mechanisms:nnn { S }
322
              {
323
                  \verb|\textsubscript{N}|
324
              }
325
326
              { }
         } ,
327
       type / 2 .code:n
328
329
            \__chemmacros_set_mechanisms:nnn { S }
330
331
                  \verb|\textsubscript{N}|
332
333
334
              }
              { }
335
336
          } ,
       type / se .code:n
337
338
            \__chemmacros_set_mechanisms:nnn { S }
339
340
              {
341
                  \textsubscript{E}
              }
342
              { }
343
344
          } ,
       type / 1e .code:n
345
346
347
            \__chemmacros_set_mechanisms:nnn { S }
348
              {
349
                  \textsubscript{E}
350
351
              }
              { }
352
         } ,
354
       type / 2e .code:n
355
            \__chemmacros_set_mechanisms:nnn { S }
356
357
                  \verb|\textsubscript{E}|
358
359
360
              }
361
              { }
         } ,
362
       type / ar .code:n
363
364
            \__chemmacros_set_mechanisms:nnn { S }
365
366
              {
367
                  \textsubscript{E}
              }
368
              { Ar - }
369
370
          } ,
       type / e .code:n
371
372
         { \__chemmacros_set_mechanisms:nnn { E } { } { } } ,
373
       type / e1 .code:n
```

```
374
         { \ \ \ }  { \__chemmacros_set_mechanisms:nnn { E } { 1 } { } } ,
375
       type / e2 .code:n
         { \ \ \ }  { \__chemmacros_set_mechanisms:nnn { E } { 2 } { } } } ,
376
       type / cb .code:n
377
378
           \__chemmacros_set_mechanisms:nnn { E }
379
380
             {
381
382
                  \textsubscript{cb}
              }
383
             { }
384
         }
385
                  .default:n =
386
       type
387
     }
388
389 \cs_gset_protected:Npn \chemmacros_mechanisms:n #1
390
    {
391
       \tl_if_blank:nTF {#1}
         { \chemmacros_set_keys:nn {textmechanisms} { type } }
392
         { \chemmacros_set_keys:nn {textmechanisms} { type = #1 } }
393
394
       \mbox
395
         {
           \tl_use:N \l__chemmacros_mechanisms_ar_tl
396
           \tl_use:N \l__chemmacros_mechanisms_type_tl
397
           \tl_use:N \l__chemmacros_mechanisms_mol_tl
398
         }
399
400
     }
401
402 \appto\LWR@restoreorigformatting{%
403 \cs_set_protected:Npn \chemmacros_mechanisms:n #1%
404
     {%
       \tl_if_blank:nTF {#1}%
405
         { \chemmacros_set_keys:nn {mechanisms} { type } }%
406
407
         { \chemmacros_set_keys:nn {mechanisms} { type = #1 } }%
408
       \mbox%
409
         {%
           \tl_use:N \l__chemmacros_mechanisms_ar_tl%
410
411
           \tl_use:N \l__chemmacros_mechanisms_type_tl%
412
           \tl_use:N \l__chemmacros_mechanisms_mol_tl%
413
         }%
414
     }%
415 }
417 }{}% \@ifchemmacrosmoduleloaded
418 }% AtBeginDocument
419 \AtBeginDocument{
420 \@ifchemmacrosmoduleloaded{newman}{
421 \PackageInfo{lwarp}{Patching~chemmacros~module~newman}
```

§ 167.11 **Newman**

```
423 \RenewDocumentCommand \newman {od()m}%
424
       \IfValueTF{#2}
425
```

```
426
                 {\left[ \text{begin}{\text{lateximage}}[\text{textbackslash}{\text{newman(#2)}}] \right]}
          427
                  {\begin{lateximage}[\textbackslash{}newman\{#3\}]}
                  \group_begin:
          428
                    \IfNoValueF {#1} { \chemmacros_set_keys:nn {newman} {#1} }
          429
                    \IfNoValueTF {#2}
          430
                      { \chemmacros_newman:nn { } {#3} }
          431
                      { \chemmacros_newman:nn {#2} {#3} }
          432
          433
                  \group_end:
                  \end{lateximage}
          434
          435
               }%
          436
          437 }{}% \@ifchemmacrosmoduleloaded
          438 }% AtBeginDocument
§ 167.12 Orbital
          439 \AtBeginDocument{
          440 \ensuremath{\mbox{\tt @ifchemmacrosmoduleloaded{orbital}}\{
          441 \PackageInfo{lwarp}{Patching~chemmacros~module~orbital}
          443 \RenewDocumentCommand \orbital {om}
          444
          445
                  \IfValueTF{#1}
          446
                 {
                      \begin{lateximage}[%
          447
          448
                          \textbackslash{}orbital{[}\LWR@HTMLsanitize{#1}{]}\{#2\}%
          449
                      [][margin-left: 1em; margin-right: 1em]
          450
                 {
          451
                      \begin{lateximage}[%
          452
                          \textbackslash{}orbital\{#2\}%
          453
                      [][margin-left: 1em ; margin-right: 1em]
          454
          455
                  \group_begin:
          456
                    \chemmacros_set_keys:nn {orbital/type} {#2}
          457
                    \IfNoValueTF {#1}
          458
                      { \chemmacros_orbital:n { } }
          459
                      { \chemmacros_orbital:n {#1} }
          460
          461
                  \group_end:
          462
                  \end{lateximage}
          463
          465 }{}% \@ifchemmacrosmoduleloaded
          466 }% AtBeginDocument
```

§ 167.13 Reactions

```
\chemmacros_declare_reaction_env
                                           \{\langle chem \rangle\} \{\langle math \rangle\} \{\langle args\ number \rangle\} \{\langle argument\ list\ (\{\#2\}\{\#3\}...)\rangle\}
                                     467 \AtBeginDocument{
                                     468 \@ifchemmacrosmoduleloaded{reactions}{
                                     469 \PackageInfo{lwarp}{Patching~chemmacros~module~reactions}
                                     471 \cs_gset_protected:Npn \chemmacros_declare_reaction_env:nnnn #1#2#3#4
                                     472 {
```

```
473
               \exp_args:Nnx \DeclareDocumentEnvironment {#1} { O(} \prg_replicate:nn {#3+0} {m} }
         474
                    \boolfalse{mathjax}%
         475
                                            lwarp
                    \chemmacros_add_reaction_description:n {##1}
         476
                    477
                    \chemmacros_reaction_read:nnw {#2} {#4}
         478
         479
                  }
         480
                    482
             }
         483
         484 \cs_generate_variant:Nn \chemmacros_declare_reaction_env:nnnn {nnnV}
         486 \RenewChemReaction {reaction}
                                            {equation}
         487 \RenewChemReaction {reaction*}
         488 \RenewChemReaction {reactions} {align}
         489 \RenewChemReaction {reactions*} {align*}
         490
         491 }{}% \@ifchemmacrosmoduleloaded
         492 }% AtBeginDocument
§ 167.14 Redox
         493 \AtBeginDocument{
         494 \@ifchemmacrosmoduleloaded{redox}{
         495 \PackageInfo{lwarp}{Patching~chemmacros~module~redox}
         496
         497 \NewDocumentCommand \LWR@chemmacros@ox { s m >{\SplitArgument{1}{,}}m }
         498
         499
                \IfBooleanTF {#1}
         500
                  { \chemmacros_ox:nnnn {#1} {#2} #3 }
         501
                  { \chemmacros_ox:nnnn { } {#2} #3 }
         502
              }
         503
         504 \RenewDocumentCommand \ox { s O{} m }
         506
                \begingroup
         507
                \boolfalse{mathjax}
         508
                \IfBooleanTF {#1}
         509
                    \LWR@subsingledollar*{% yes hash
         510
                        \textbackslash{}ox*\{\LWR@HTMLsanitize{#3}\}% alt
         511
         512
                    }{%
                        star \protect\LWR@HTMLsanitize{\detokenize\expandafter{#2}}%
         513
         514
                    }{%
                        \LWR@chemmacros@ox* {#2} {#3}% contents
         515
                    }%
         516
         517
                  }
                    \LWR@subsingledollar*{% yes hash
         519
         520
                        \textbackslash{}ox*\{\LWR@HTMLsanitize{#3}\}% alt
         521
                    }{%
         522
                        \protect\LWR@HTMLsanitize{\detokenize\expandafter{#2}}%
                    }{%
         523
                        \LWR@chemmacros@ox {#2} {#3}% contents
         524
```

```
525    }%
526    }
527    \endgroup
528    }
529
530 }{}% \@ifchemmacrosmoduleloaded
531 }% AtBeginDocument
```

§ 167.15 **Scheme**

Fix for chemmacros as of v5.8b, when using newfloat and babel:

```
532 \AtBeginDocument{
533 \@ifchemmacrosmoduleloaded{scheme}{
534 \PackageInfo{lwarp}{Patching~chemmacros~module~scheme}
535
536 \ifdefstring{\schemename}{\los}{
537 \SetupFloatingEnvironment{scheme}{
538 name = \chemmacros_translate:n {scheme-name}
539 }
540 }{
541
542 }{}% \@ifchemmacrosmoduleloaded
543 }% AtBeginDocument
```

§ 167.16 **Spectroscopy**

```
544 \AtBeginDocument{
545 \@ifchemmacrosmoduleloaded{spectroscopy}{
546 \PackageInfo{lwarp}{Patching~chemmacros~module~spectroscopy}
548 \ChemCompatibilityTo{5.8}
549 \cs_gset_protected:Npn \__chemmacros_nmr_base:nn #1#2
550
       \tl_if_blank:VF \g__chemmacros_nmr_element_coupled_tl
551
552
           \tl_put_left:Nn \g__chemmacros_nmr_element_coupled_tl { \{ }
553
554
           \tl_put_right:Nn \g__chemmacros_nmr_element_coupled_tl { \} }
       \tl_put_left:Nn \g__chemmacros_nmr_element_coupled_tl {#2}
556
         \chemmacros_chemformula:n { ^{#1} }
557 %
       \textsuperscript{#1}
558
       \bool_if:NTF \l__chemmacros_nmr_parse_bool
559
         { \chemformula_ch:nV {} \g__chemmacros_nmr_element_coupled_tl }
560
         { \chemmacros_chemformula: V \g__chemmacros_nmr_element_coupled_tl }
       \tl_use:N \l__chemmacros_nmr_element_method_connector_tl
563
       \tl_use:N \l__chemmacros_nmr_method_tl
564
    }
565 \EndChemCompatibility
566 \ChemCompatibilityFrom{5.8}
567 \cs_gset_protected:Npn \__chemmacros_nmr_base:nn #1#2
568
       \group_begin:
569
         \tl_use:N \l__chemmacros_nmr_base_format_tl
570
         \tl_if_blank:VF \g__chemmacros_nmr_element_coupled_tl
571
```

```
572
573
              \tl_put_left:Nn \g__chemmacros_nmr_element_coupled_tl { \{ } }
              \tl_put_right:Nn \g__chemmacros_nmr_element_coupled_tl { \} }
574
575
         \tl_put_left:Nn \g__chemmacros_nmr_element_coupled_tl {#2}
576
577 %
           \chemmacros_chemformula:n { ^{#1} }
         \textsuperscript{#1}
578
         \tl_if_blank:VF \g__chemmacros_nmr_element_coupled_tl
579
              \bool_if:NTF \l__chemmacros_nmr_parse_bool
581
               { \chemformula_ch:nV {} \g__chemmacros_nmr_element_coupled_tl }
582
               { \chemmacros_chemformula:V \g__chemmacros_nmr_element_coupled_tl }
583
584
585
         \tl_use:N \l__chemmacros_nmr_element_method_connector_tl
586
         \tl_use:N \l__chemmacros_nmr_method_tl
       \group_end:
587
588
     }
589 \EndChemCompatibility
590
591
592 \cs_gset_protected:Npn \chemmacros_nmr_position:n #1
       \chemmacros_chemformula:x
594
595
           \exp_not:V \g__chemmacros_nmr_element_tl
596
           \verb|\bool_if:NF \l|\_chemmacros_nmr_position\_side\_bool|
597
598
               \tl_if_eq:NnTF \l__chemmacros_nmr_position_tl {^}% lwarp
599
               { \textsuperscript{\exp_not:n { {#1} }} }% lwarp
600
601
               { \textsubscript{\exp_not:n { {#1} }} }% lwarp
602 %
                  \exp_not:V \l__chemmacros_nmr_position_tl
                  \exp_not:n { {#1} }
603 %
             }
604
605
         }
       \bool_if:NT \l__chemmacros_nmr_position_side_bool
606
607
           \tl_use:N \l__chemmacros_nmr_position_tl
608
           \__chemmacros_nmr_position:n {#1}
609
         }
610
611
612
613 \cs_gset_protected:Npn \__chemmacros_nmr_coupling:w (#1;#2)
614
    {
615
       \tl_set:Nn \l__chemmacros_nmr_coupling_bonds_tl
616
         {
617
           \l__chemmacros_nmr_coupling_bonds_pre_tl
618
619
           \l__chemmacros_nmr_coupling_bonds_post_tl
620
621
       \bool_if:NTF \l__chemmacros_nmr_coupling_nuclei_sub_bool
622
           \tl_set:Nn \l__chemmacros_nmr_coupling_nuclei_tl
623
624
625 %
                  \c_math_subscript_token
626
               \textsubscript% lwarp
```

```
627
                 {
628
                    \l__chemmacros_nmr_coupling_nuclei_pre_tl
                    \chemmacros_chemformula:n {#2}
629
                    \l__chemmacros_nmr_coupling_nuclei_post_tl
630
                 }
631
             }
632
633
         }
634
           \tl_set:Nn \l__chemmacros_nmr_coupling_nuclei_tl
635
636
             {
               \l__chemmacros_nmr_coupling_nuclei_pre_tl
637
               \chemmacros_chemformula:n {#2}
638
               \l__chemmacros_nmr_coupling_nuclei_post_tl
639
640
              }
641
642
       \__chemmacros_nmr_coupling_aux_i:w
643
     }
644
645 \AfterEndPreamble{% After \AtBeginDocument
646\,\%\ \NMR{<\num>,<elem>}(<num>,<unit>)[<solvent>] ALL arguments are optional
647% \NMR* same but without ": $\delta$" at end
648 \cs_gset_protected:Npn \chemmacros_nmr:nnnn #1#2#3#4
649
650
       \bool_if:NT \l__chemmacros_nmr_list_bool { \item \scan_stop: }
651
       \group_begin:
           \chemmacros_leave_vmode:
652
653
           \bool_set_false:N \l__chemmacros_nmr_frequency_bool
           \bool_set_false:N \l__chemmacros_nmr_solvent_bool
654
           \tl_if_empty:nF {#3}
655
656
           { \bool_set_true:N \l__chemmacros_nmr_frequency_bool }
           \tl_if_empty:nF {#4}
657
           { \bool_set_true:N \l__chemmacros_nmr_solvent_bool }
658
           \bool_if:nT
659
660
661
               \l__chemmacros_nmr_frequency_bool
662
               \Pi
               \l__chemmacros_nmr_solvent_bool
663
664
           { \bool_set_true:N \l__chemmacros_nmr_delimiters_bool }
665
666
           \bool_if:nT
667
           {
668
               \l__chemmacros_nmr_frequency_bool
669
670
               \l__chemmacros_nmr_solvent_bool
671
           { \bool_set_true:N \l__chemmacros_nmr_comma_bool }
672
673
           \tl_if_empty:nTF {#2}
674
           {
675
                \__chemmacros_nmr_nucleus:VV
676
               \l__chemmacros_nmr_isotope_default_tl
               \l__chemmacros_nmr_element_default_tl
677
678
679
           { \__chemmacros_nmr_nucleus:w #2 \q_stop }
680
           \mode_if_math:TF
681
```

```
682
                \text
683
                {
                    \group_begin:
684
                    \tl_use:N \l__chemmacros_nmr_format_tl
685
686 \LWR@textcurrentcolor{\LWR@textcurrentfont{% lwarp
                    \__chemmacros_nmr_base:VV
687
688
                        \g__chemmacros_nmr_isotope_tl
689
                        \g__chemmacros_nmr_element_tl
                    \bool_if:NT \l__chemmacros_nmr_delimiters_bool
690
                        { ~ ( }
691
                    \bool_if:NT \l__chemmacros_nmr_frequency_bool
692
                        { \__chemmacros_nmr_frequency:n {#3} }
693
                    \bool_if:NT \l__chemmacros_nmr_comma_bool
694
695
                        { , ~ }
                    \bool_if:NT \l__chemmacros_nmr_solvent_bool
                        { \chemmacros_chemformula:n {#4} }
697
                    \bool_if:NT \l__chemmacros_nmr_delimiters_bool
698
699
                        { ) }
                    \tl_if_blank:nT {#1} {:~}
700
701 }}% lwarp
702
                    \group_end:
703
                }
                \tl_if_blank:nT {#1}
704
705
                {
                    \delta
706
                    \text { \l__chemmacros_nmr_delta_tl }
707
708
                    \bool_if:NT \l__chemmacros_nmr_use_equal_bool {=}
                }
709
710
           }
711
           {
                \group_begin:
712
                \verb|\tl_use:N \l__chemmacros_nmr_format_tl|
713
714 \LWR@textcurrentcolor{\LWR@textcurrentfont{% lwarp
715
                \__chemmacros_nmr_base:VV
716
                    \g__chemmacros_nmr_isotope_tl
717
                    \g__chemmacros_nmr_element_tl
                \bool_if:NT \l__chemmacros_nmr_delimiters_bool
718
719
                \bool_if:NT \l__chemmacros_nmr_frequency_bool
720
721
                    { \__chemmacros_nmr_frequency:n {#3} }
722
                \bool_if:NT \l__chemmacros_nmr_comma_bool
723
                    {,~}
724
                \bool_if:NT \l__chemmacros_nmr_solvent_bool
725
                    \bool_if:NTF \l__chemmacros_nmr_parse_bool
726
727 %
                          { \chemformula_ch:nn { } {#4} }% original
                        {\ch{#4}}% lwarp
728
                        {#4}
729
730
                \bool_if:NT \l__chemmacros_nmr_delimiters_bool
731
732
                    {)}
733 }}% lwarp
                \tl_if_blank:nT {#1} {:}
734
735
                \group_end:
```

```
736
                \tl_if_blank:nT {#1}
                    \tl_use:N \c_space_tl
738
                    \c_math_toggle_token
739
                    \delta
740
                    \c_math_toggle_token
741
                    \l__chemmacros_nmr_delta_tl
742
743
                    \bool_if:NT \l__chemmacros_nmr_use_equal_bool {~=}
745
           }
746
       \group_end:
747
748 }% AfterEndPremble
749
750
751 \RenewDocumentCommand \chemmacros_data:w { smo }
752
    {
753
       \bool_if:NT \l__chemmacros_nmr_list_bool { \item }
754
              \tl_use:N \l__chemmacros_nmr_format_tl #2
755 %
756
           \tl_use:N \l__chemmacros_nmr_format_tl
           \LWR@textcurrentcolor{\LWR@textcurrentfont{% lwarp
757
758
                \IfNoValueF {#3} { ~ ( #3 ) }
759
            \IfBooleanT {#1} { \bool_if:NT \l__chemmacros_nmr_use_equal_bool { : } }
760
           }}% lwarp
761
762
763
       \IfBooleanF {#1} { \bool_if:NT \l__chemmacros_nmr_use_equal_bool { ~ = } }
764
765
766 }{}% \@ifchemmacrosmoduleloaded
767 }% AtBeginDocument
```

§ 167.17 Thermodynamics

```
768 \AtBeginDocument{
769 \@ifchemmacrosmoduleloaded{thermodynamics}{
770 \PackageInfo{lwarp}{Patching~chemmacros~module~thermodynamics}
772 \cs_gset_protected:Npn \chemmacros_state:nn #1#2
773
774
       \group_begin:
775
         \boolfalse{mathjax}
776
         \chemmacros_set_keys:nn {thermodynamics} {#1}
           \LWR@subsingledollar*{% yes hashing
777
               \textbackslash{}state\{\LWR@HTMLsanitize{#2}\}% alt
778
           }{%
779
               chemmacros_state% add'l hashing
780
781
               #1% options
782
               LSP \tl_use:N \l__chemmacros_state_sp_left_tl% super/subscripts
               LSB \tl_use:N \l__chemmacros_state_sb_left_tl
783
               RSP \tl_use:N \l__chemmacros_state_sp_right_tl
784
               RSB \tl_use:N \l__chemmacros_state_sb_right_tl
785
786
           {
787
```

```
788 \LWR@origensuredmath{
789 \chemmacros_text:V \l__chemmacros_state_pre_tl
790 \c_math_superscript_token
791 {\chemmacros_text:V \l__chemmacros_state_sp_left_tl }
```

Only add the subscripts if they are being used. This avoids causing an incorrect depth, as the empty subscript will be measured by TEX but cropped out by *pdfcrop*.

```
792
             \tl_if_empty:NTF \l__chemmacros_state_sb_left_tl
             {}
793
794
             {
                \c_math_subscript_token
795
               { \chemmacros_text:V \l__chemmacros_state_sb_left_tl }
796
797
             }
798
             \c_math_superscript_token
799
               { \chemmacros_text: V \l__chemmacros_state_sp_right_tl }
800
             \tl_if_empty:NTF \l__chemmacros_state_sb_right_tl
801
             {}
802
             {
803
               \c_math_subscript_token
804
               { \chemmacros_text: V \l__chemmacros_state_sb_right_tl }
805
806
             \chemmacros_text:V \l__chemmacros_state_post_tl
807
808
            }
809
           }
810
       \group_end:
811
    }
812 \cs_generate_variant:Nn \chemmacros_state:nn { nV }
813
814 \cs_gset_protected:Npn \chemmacros_declare_state:Nn #1#2
815
       \chemmacros_define_keys:xn
816
         {thermodynamics/\chemmacros_remove_backslash:N #1}
817
         {
818
                             .meta:nn = {chemmacros/thermodynamics} { pre = ##1 } ,
819
          pre
                            .meta:nn = {chemmacros/thermodynamics} { post = ##1 } ,
820
          post
         superscript-left .meta:nn = {chemmacros/thermodynamics} { superscript-left = ##1 } ,
821
         superscript-right .meta:nn = {chemmacros/thermodynamics} { superscript-right = ##1 } ,
822
           superscript
                              .meta:n = { superscript-right = ##1 } ,
824
         subscript-left
                         .meta:nn = {chemmacros/thermodynamics} { subscript-left = ##1 } ,
        subscript-right .meta:nn = {chemmacros/thermodynamics} { subscript-right = ##1 } ,
825
                                           = { subscript-left = ##1 } ,
           subscript
826
                              .meta:n
                              .choices:nn =
           subscript-pos
827
828
             { left , right }
             { \tl_set_eq:NN \l__chemmacros_state_sb_pos_tl \l_keys_choice_tl } ,
829
                              .tl_set:N = \l__chemmacros_state_symbol_tl ,
830
           symbol
                              .tl_set:N = \l__chemmacros_state_unit_tl
           unit
831
832
       \DeclareDocumentCommand #1 { s0{}D(){}m }
833
834
835
           \group_begin:
836
             \chemmacros_set_keys:xn
837
               {thermodynamics/\chemmacros_remove_backslash:N #1}
               {#2}
838
```

```
839
              \tl_if_blank:nF {##3}
840
                  \chemmacros_set_keys:nx {thermodynamics}
841
                    { subscript-\l__chemmacros_state_sb_pos_tl = \exp_not:n {##3} }
842
                }
843
                  \chemmacros_state:nV {##2} \l__chemmacros_state_symbol_tl
844
                 \chemmacros_set_keys_groups:nnn {thermodynamics} {variables} {##2}
845
               \IfBooleanF \{##1\} { = ~ \SI \{##4\} { \l_chemmacros_state_unit_tl } }
            \group_end:
         }
848
     }
849
The pre-existing macros are redefined with the new definition:
850 \RenewChemState \enthalpy { symbol = H , unit = \kilo\joule\per\mole }
851 \ensuremath{\mbox{RenewChemState \entropy}} \{ symbol = S , unit = \joule\per\kelvin\per\mbox{mole , pre = } \}
852 \RenewChemState \gibbs
                               { symbol = G , unit = \kilo\joule\per\mole }
853
854 }{}% \@ifchemmacrosmoduleloaded
855 }% AtBeginDocument
856 \ExplSyntaxOff
```

File 70 lwarp-chemnum.sty

§ 168 Package **chemnum**

(Emulates or patches code by Clemens Niederberger.)

okg chemnum chemnum is patched for use by lwarp.

 $\begin{tabular}{ll} \textbf{for HTML output:} & 1 \LWR@ProvidesPackagePass \{chemnum\}[2016/04/14] \end{tabular}$

```
2 \ExplSyntaxOn
4 \cs_gset_protected:Npn \chemnum_compound_write:n #1
5
      \chemnum_get_compound_property:nn {#1} {pre-main-label-code}
6
      \group_begin:
        \bool_if:NTF \l__chemnum_compound_local_bool
8
          { \l__chemnum_local_label_format_tl }
          { \chemnum_get_compound_property:nn {#1} {label-format} }
10
11
        {
          \LWR@textcurrentfont{
12
              \chemnum_get_compound_property:nn {#1} {counter-representation}
13
14
          }
        }
15
      \group_end:
16
17
      \chemnum_get_compound_property:nn {#1} {post-main-label-code}
18
20 \cs_gset_protected:Npn \chemnum_subcompound_write:nn #1#2
21 {
```

```
22
      \group_begin:
        \bool_if:NTF \l__chemnum_compound_local_bool
23
          { \l__chemnum_local_label_format_tl }
24
          { \chemnum_get_compound_property:nn {#1} {label-format} }
25
26
          \LWR@textcurrentfont{
27
               \chemnum_get_subcompound_property:nnn {#1} {#2}
28
29
               {counter-representation}
30
        }
31
32
      \group_end:
33
    }
34
35 \ExplSyntaxOff
```

File 71 lwarp-chkfloat.sty

```
§ 169 Package chkfloat
```

Pkg chkfloat chkfloat is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{chkfloat}[2012/08/19]

File 72 lwarp-chngpage.sty

§ 170 Package chngpage

(Emulates or patches code by Peter Wilson.)

Pkg chngpage chngpage is emulated.

for HTML output: Discard all options for lwarp-chngpage:

- 1 \LWR@ProvidesPackageDrop{chngpage}[2009/10/20]
 2 \LWR@origRequirePackage{lwarp-changepage}
- File 73 lwarp-cite.sty

§ 171 Package Cite

(Emulates or patches code by Donald Arseneau.)

Pkg cite cite is patched for use by Iwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{cite}[2015/02/27]

For the [super] option, the $\mbox{\em kern}$ must be removed:

```
2 \def\LWRCT@biblabel#1{\@citess{#1}\kern-\labelsep\,}
               4 \ifdefstrequal{\@biblabel}{\LWRCT@biblabel}
                    \def\@biblabel#1{\@citess{#1}}
               7 }{}
              For the [super] option, \textsuperscript is used instead of math superscript:
               8 \def\@citess#1{\textsuperscript{#1}}
               10 \DeclareDocumentCommand\citepunct{}{,\,\relax}
      File 74 lwarp-CJK.sty
     Package CJK
    Pkg CJK CJK does not work with lwarp unless called from ctex.
               1 \@ifpackageloaded{xeCJK}{}{
                    \LWR@loadnever{CJK}{ctex, xeCJK}
               3 }
               5 \LWR@ProvidesPackagePass{CJK}[2015/04/18]
      File 75 lwarp-CJKutf8.sty
     Package CJKutf8
Pkg CJKutf8 CJKutf8 does not work with lwarp unless called from ctex.
               1 \@ifpackageloaded{xeCJK}{}{
               2
                    \LWR@loadnever{CJKutf8}{ctex, xeCJK}
               3 }
               5 \LWR@ProvidesPackagePass{CJKutf8}[2015/04/18]
      File 76 lwarp-clrdblpg.sty
     Package cirdbipg
Pkg clrdblpg
              clrdblpg is ignored.
               1 \LWR@ProvidesPackageDrop{clrdblpg}[2018/04/21]
```

§ 172

§ 173

§ 174

for HTML output:

for HTML output:

for HTML output:

File 77 lwarp-cmdtrack.sty

§ 175 Package cmdtrack

Pkg cmdtrack cmdtrack is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{cmdtrack}[2012/12/18]

2 \newcommand{\untrack}[1]{}

File 78 lwarp-color.sty

§ 176 Package Color

Pkg color Allowed but ignored. xcolor is then required as well.

color is superceded by xcolor, and lwarp requires several of the features of xcolor. When color is requested, xcolor is loaded as well.

for HTML output:

- 1 \LWR@ProvidesPackageDrop{color}[2016/07/10]
- 2 \RequirePackage{xcolor}

File 79 lwarp-colortbl.sty

§ 177 Package **colortbl**

Pkg colortbl colortbl is used as-is for print output, and emulated for HTML.

row/cell color Only use \rowcolor and \cellcolor at the start of a row, in that order.

colortbl ignores the overhang arguments.

for HTML output: A placeholder definition is forgotten first:

1 \let\rowcolor\relax

2

3 \LWR@ProvidesPackagePass{colortbl}[2018/12/12]

The following \LWR@HTML versions are used inside an HTML tabular.

\columncolor $[\langle model \rangle] \{\langle color \rangle\} [\langle left \ overhang \rangle] [\langle right \ overhang \rangle]$

 $\verb|\LWR@getmynexttoken| is not used here because \verb|\columncolor| is not used inside the data area of the tabular.$

```
{\tt 4 \ NewDocumentCommand\{\LWR@HTML@columncolor\}\{0\{named\}\ m\ o\ o\}\{\%\}}
                                    5 \convertcolorspec{#1}{#2}{HTML}\LWR@columnHTMLcolor%
                                    6 \LWR@addtabularcellcolor%
                                    7 }
                                    9 \AtBeginDocument{\LWR@formatted{columncolor}}
                                   \LWR@getmynexttoken is used for \rowcolor because it is used inside the data area
                                   of the tabular.
                                     [\langle model \rangle] \{\langle color \rangle\} [\langle left \ overhang \rangle] [\langle right \ overhang \rangle]
                      \rowcolor
                                   10 \NewDocumentCommand{\LWR@HTML@rowcolor}{O{named} m o o}{%
                                   11 \convertcolorspec{#1}{#2}{HTML}\LWR@rowHTMLcolor%
                                   12 \LWR@getmynexttoken%
                                   13 }
                                   15 \AtBeginDocument{\LWR@expandableformatted{rowcolor}}
                     \cellcolor
                                     [\langle model \rangle] \{\langle color \rangle\} [\langle left \ overhang \rangle] [\langle right \ overhang \rangle]
                                   16 \NewDocumentCommand{\LWR@HTML@cellcolor}{O{named} m o o}{%
                                   17 \convertcolorspec{#1}{#2}{HTML}\LWR@cellHTMLcolor%
                                   18 \LWR@addtabularcellcolor%
                                   19 }
                                   21 \AtBeginDocument{\LWR@formatted{cellcolor}}
               \arrayrulecolor
                                     [\langle model \rangle] \{\langle color \rangle\}
                                   The HTML version for use outside a tabular. Inside a tabular, \LWR@HTML@arrayrulecolornexttoken
                                   is used instead.
                                   22 \newcommand{\LWR@HTML@arrayrulecolor}[2][named]{%
                                   23 \convertcolorspec{#1}{#2}{HTML}\LWR@ruleHTMLcolor%
                                   24 }
                                   26 \AtBeginDocument{\LWR@expandableformatted{arrayrulecolor}}
                                     [\langle model \rangle] \{\langle color \rangle\}
\LWR@arrayrulecolornexttoken
                                   The HTML version for use inside a tabular.
                                   27 \newcommand{\LWR@HTML@arrayrulecolornexttoken}[2][named]{%
                                   28 \convertcolorspec{#1}{#2}{HTML}\LWR@ruleHTMLcolor%
                                   29 \LWR@getmynexttoken%
                                   30 }
                                   31
                                   32 \AtBeginDocument{\LWR@expandableformatted{arrayrulecolornexttoken}}
          \doublerulesepcolor
                                     [\langle model \rangle] \{\langle color \rangle\}
                                   The version for use outside a tabular.
                                   33 \newcommand{\LWR@HTML@doublerulesepcolor}[2][named]{}
```

```
35 \AtBeginDocument{\LWR@expandableformatted{doublerulesepcolor}}
                                                                                [\langle model \rangle] \{\langle color \rangle\}
36 \mbox{ } \mbox{ 
                                                                             38 \AtBeginDocument{\LWR@expandableformatted{doublerulesepcolornexttoken}}
                                                       File 80
                                                                            lwarp-continue.sty
                                                                           continue
                                                   Package
                           § 178
                                                                            continue is ignored.
                                                 continue
                                 for HTML output:
                                                                               1 \LWR@ProvidesPackageDrop{continue}}[2018/12/09]
                                                                               2 \newcommand*{\flagcont}{}
                                                                               3 \newcommand*{\flagend}{}
                                                                               4 \newcommand*{\flagword}{}
                                                                               5 \newcommand*{\preflagword}{}
                                                                               6 \newcommand*{\postflagword}{}
                                                                               7 \newlength\contsep
                                                                               8 \newlength\contdrop
                                                       File 81 lwarp-copyrightbox.sty
                                                   Package copyrightbox
                           § 179
                                                                            (Emulates or patches code by Thomas Fischer, Ives van der Flaas.)
                                       copyrightbox
                                                                            copyrightbox is emulated for use by lwarp.
                                                                            The entire copyright box is placed inside a <div> of class copyrightbox.
                                                                            The contents are placed inside a <div> of class copyrightboxcontents.
                                                                            The copyright notice is placed inside a <div> of class copyrightboxnote.
                                 for HTML output:
                                                                               1 \LWR@ProvidesPackageDrop{copyrightbox}[2011/11/27]
                                                                               2 \newcommand{\copyrightbox}[3][r]{%
                                                                               3 \begin{BlockClass}[
                                                                                            display: inline-flex;
                                                                                            flex-direction: column ;
                                                                               6 ]{copyrightbox}
                                                                               7 \begin{BlockClass}{copyrightboxcontents}
                                                                               8 #2
```

```
9 \end{BlockClass}
10 \begin{BlockClass}{copyrightboxnote}
11 #3
12 \end{BlockClass}
13 \end{BlockClass}
14 }
15
16 \newcommand{\CRB@setcopyrightfont}{}
17 \newcommand{\CRB@setcopyrightparagraphstyle}{}
```

File 82 lwarp-crop.sty

§ 180 Package Crop

(Emulates or patches code by Melchior FRANZ.)

Pkg crop Emulated.

for HTML output:

Discard all options for lwarp-crop:

1 \LWR@ProvidesPackageDrop{crop}[2003/05/20]

2 \newcommand*{\crop}[1][]{}
3 \newcommand*{\cropdef}[6][]{}

File 83 lwarp-ctable.sty

§ 181 Package ctable

(Emulates or patches code by Wybo Dekker.)

Pkg ctable ctable is patched for use by Iwarp.

Misplaced alignment tab character &

Use \StartDefiningTabulars before one or more \ctables, and \StopDefiningTabulars after. These change the meaning of the ampersand & character.

 $\begin{tabular}{ll} \textbf{for HTML output:} & 1 \LWR@ProvidesPackagePass{ctable}[2015/10/17] \end{tabular}$

The following is in the original:

```
2 \newcommand{\LWR@HTML@ctable}[4][]{%
    \let\@CTtaborfig \@dfltCTtaborfig
    \let\@CTalign
                      \@dfltCTalign
    \let\@CTsideways \@dfltCTsideways
    \let\@CTcontinued \empty
    \let\@CTpos
                      \@dfltCTpos
    \let\@CTcaption \empty
8
    \let\@CTcap
                      \undefined
9
     \let\@CTlabel
                       \empty
10
                      \@dfltCTbotcap
11
     \let\@CTbotcap
```

```
12
     \let\@CTstarred
                       \@dfltCTstarred
     \let\@CTsuper
                       \@dfltCTsuper
     \let\@CTnotespar \@dfltCTnotespar
14
     \let\@CTdoinside \@dfltCTdoinside
15
     \let\@CTbgopacity \@dfltCTbgopacity
16
                      \@dfltCTframerule
     \@CTframerule
17
     \@CTcaptionskip \@dfltCTcaptionskip
18
19
     \@CTframesep
                       \@dfltCTframesep
     \@CTwidth
                       \@dfltCTwidth
20
                       \@dfltCTmaxwidth
21
     \@CTmaxwidth
     \@CTmincapwidth \@dfltCTmincapwidth
22
     \@CTfooterwidth
                      \@dfltCTfooterwidth
23
     \def\@CTfgactual {@dfltCTframefg}%
24
     \def\@CTbgactual {@dfltCTframebg}%
25
26
     \def\@CTbeg
                      {\begin{\@CTsideways\@CTtaborfig\@CTstarred}}%
     \def\@CTbegin
27
                      {\@CTbeg}%
                      {\end{\@CTsideways\@CTtaborfig\@CTstarred}}%
28
     \def\@CTend
     \setkeys{CT}{#1}%
29
     30
31
     \ifx\@CTcap\empty
32
       \if@CTcaptionloaded\else
         \PackageWarningNoLine{lwarp-ctable}{\MessageBreak
33
            An empty cap= option prevents lot/loc entry only\MessageBreak
34
            if the caption package is loaded!}
35
      \fi
36
     \fi
37
38
     \if@CTinmemoir\else
39
        \ifx\@CTbotcap\undefined
           \PackageError{lwarp-ctable}{\MessageBreak
40
41
              You can, currently, use the sidecap option only with\MessageBreak
              memoir documents. Use topcap or botcap only}
42
        \fi
43
     \fi
44
     \ifdim\@CTwidth=0pt\else
45
46
        \ifdim\@CTmaxwidth=0pt\else
47
           \PackageError{lwarp-ctable}{\MessageBreak
            You may not use the width and maxwidth options together\MessageBreak
48
              Use either width or maxwidth}
49
        \fi
50
51
     \fi
52
     \ifx\@CTpos\empty
53
        \ifx\@CTsideways\empty\else
54
        \PackageError{lwarp-ctable}{\MessageBreak
55
           You may not use the pos and sideways options together\MessageBreak
          Rotated tables and figures are always typeset on a separate page}
56
        \fi
57
58
     \fi
     \ifx\@CTcaption\empty
59
60
        \ifx\@CTlabel\empty\else
61
           \PackageError{lwarp-ctable}{\MessageBreak
              You may not label a captionless table \MessageBreak
62
              Such a label can't be referenced}
63
        \fi
64
     \fi
65
```

Some of the original, regarding computing the width of \CT@t, is removed here.

```
\@CTbegin
  66
                       67
                       \@CTalign
  68
lwarp's patches begin here:
                  \begin{center}
  69
                            \setlength{\fboxrule}{\@CTframerule}
  70
                            \setlength{\fboxsep}{\@CTframesep}
  71
                            \LWR@forceminwidth{\fboxrule}% lwarp
  72
                            \convertcolorspec{named}{\@CTbgactual}{HTML}\LWR@tempcolor% lwarp
  73
                            \begin{BlockClass}[%
  74
                                      border:
  75
                                                 \LWR@printlength{\LWR@atleastonept}
  76
  77
                                                 \LWR@colorstyle{named}{\@CTfgactual} ; %
  78
  79
                                      padding:\LWR@printlength{\fboxsep} ; %
                                      \ifdefstring{\LWR@tempcolor}{FFFFFF}{}{%
                                                 background: \LWR@colorstyle{named}{\@CTbgactual} ; %
  81
  82
                            ]{fminipage}%
                                                                                lwarp
  83
                              \verb|\colored| @CT false \eqref{convskip} @CT caption | \colored| with the convex of th
  84
                              \ifx\@CTbotcap\undefined%
  85
                                         \begin{sidecaption}[\@CTcap]{\@CTcaption}[\@CTlabel]
  86
                              \fi
  87
                               \@CTdoinside
  88
                               \begin{tabularx}{\linewidth}{#2}%
                                                                                                                                    lwarp
  89
                                      #4%
  90
                               \end{tabularx}%
                                                                                                                          lwarp
  91
  92
                               \def\@CTfootnotes{#3}%
  93
                               \ifx#3\empty\else{% append footnotes, if any
                                      \begin{BlockClass}{tnotes}%
  94
                                                                                                                          lwarp
  95
                                      \end{BlockClass}%
                                                                                                                          lwarp
  96
                              }
  97
                              \fi
  98
                              \ifx\@CTbotcap\undefined\end{sidecaption}\fi
  99
100
                              \ifx\@CTbotcap\@CTtrue\vskip\@CTcaptionskip\@CTCaption\fi
                            \end{BlockClass}
101
102
                 \end{center}
103
               \@CTend
104 }
105 \LWR@formatted{ctable}
Required to properly detect the toprule:
106 \LetLtxMacro\FL\toprule
Table notes are redefined for HTML:
```

107 \newcommand{\LWR@HTML@tmark}[1][a]{%

\textsuperscript{\textrm{\textit{#1}}}

```
109 }
110 \LWR@formatted{tmark}
111
112 \newcommand{\LWR@HTML@tnote}[2][a]{%
113 \tmark[#1]\,#2\par
114 }
115 \LWR@formatted{tnote}
```

File 84 lwarp-cuted.sty

§ 182 Package **cuted**

(Emulates or patches code by Sigitas Tolušis.)

Pkg cuted cuted is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{cuted}[2012/10/04]

```
2 \newenvironment{strip}{}{}
```

- 3 \newskip\stripsep
- 4 \def\oldcolsbreak#1{}

File 85 lwarp-cutwin.sty

§ 183 Package Cutwin

(Emulates or patches code by Peter Wilson and Alan Hoenig.)

Pkg cutwin Emulated.

for HTML output: Discard all options for lwarp-cutwin:

```
1 \LWR@ProvidesPackageDrop{cutwin}[2010/09/29]
```

```
2 \newcommand*{\opencutleft}{}
```

- 3 \newcommand*{\opencutright}{}
- 5 \newcommand*{\cutfuzz}{}

6

7 \newenvironment{cutout}[4]

8 {\marginpar{\windowpagestuff}}

9 {}

10

 $\label{limits} \mbox{\cite{thm:limits} 11 \cite{thm:limits} windowpagestuff} \cite{thm:limits} \cite$

12

13 \newcommand*{\pageinwindow}{%

14 % \begin{minipage}{.3\linewidth}

 $15 \setminus windowpagestuff$

16 % \end{minipage}

17 }

```
19 \newenvironment{shapedcutout}[3]
        20 {\marginpar{\picinwindow}}
        21 {}
        22
        23 \newcommand*{\putstuffinpic}{}
        25 \newcommand*{\picinwindow}{%
        26 \begin{picture}(0,0)
        27 \putstuffinpic
        28 \end{picture}}
File 86 lwarp-dblfloatfix.sty
       dblfloatfix
        dblfloatfix is ignored.
         1 \LWR@ProvidesPackageDrop{dblfloatfix}[2012/12/31]
File 87 lwarp-dblfnote.sty
        dblfnote
        (Emulates or patches code by Hiroshi Nakashima.)
        dblfnote is emulated.
         1 \LWR@ProvidesPackageDrop{dblfnote}[1999/07/14]
         2 \newcounter{DFNsloppiness}
         3 \newdimen\DFNcolumnsep
         4 \newdimen\DFNcolumnwidth
         5 \def\DFNallowcbreak{}
         6 \def\DFNinhibitcbreak{}
         7 \def\DFNtrysingle{}
```

lwarp-dcolumn.sty File 88

dcolumn **Package § 186**

Package

Package

dblfnote

for HTML output:

Pkg dblfloatfix

for HTML output:

§ 184

§ 185

dcolumn is emulated by the lwarp core. Pkg dcolumn

8 \def\DFNalwaysdouble{} 9 \def\DFNruleboth{} 10 \def\DFNruleleft{}

1 \LWR@ProvidesPackageDrop{dcolumn}[2014/10/28]

File 89 lwarp-diagbox.sty

```
diagbox
          Package
§ 187
                     (Emulates or patches code by Leo Liu.)
                     diagbox is patched for use by lwarp.
          diagbox
  for HTML output:
                       1 \LWR@ProvidesPackagePass{diagbox}[2016/12/28]
                     To restore print-mode inside a lateximage:
                       {\tt 3 \ LetLtxMacro \ LWR@origdiagbox@triple \ diagbox@triple}
                       5 \appto\LWR@restoreorigformatting{%
                       6 \LetLtxMacro\diagbox@double\LWR@origdiagbox@double%
                       7 \LetLtxMacro\diagbox@triple\LWR@origdiagbox@triple%
                       8 }
                       \{\langle E/W \rangle\} \{\langle A \rangle\} \{\langle E/W \rangle\} \{\langle B \rangle\}
  \LWR@diagbox@AB
                      9 \newcommand{\LWR@diagbox@AB}[4]{
                      10 \begingroup%
                      11 \LetLtxMacro\\\newline%
                      12 \BlockClassSingle{diagbox#1}{#2}%
                      13 \BlockClassSingle{diagbox#3}{#4}%
                      14 \endgroup%
                      15 \LWR@stoppars%
                      16 }
                       \{\langle A \rangle\} \{\langle B \rangle\}
   \LWR@diagboxNW
                      17 \newcommand{\LWR@diagboxNW}[2]{%
                      18 \LWR@diagbox@AB{E}{#2}{W}{#1}%
                      19 }
                     Likewise for NE, SW, SE:
                      20 \newcommand{\LWR@diagboxNE}[2]{%
                      21 \LWR@diagbox@AB{W}{#1}{E}{#2}%
                      22 }
                      {\tt 24 \let\LWR@diagboxSW\LWR@diagboxNE}
                      25 \let\LWR@diagboxSE\LWR@diagboxNW
  \diagbox@double
                       \{\langle keys \rangle\} \{\langle A \rangle\} \{\langle B \rangle\}
                      26 \def\diagbox@double#1#2#3{%
                      27 \setkeys{diagbox}{dir=NW,#1}%
```

```
28 \@nameuse{LWR@diagbox\diagbox@dir}{#2}{#3}%
                      \{\langle title \rangle\} \{\langle A \rangle\} \{\langle B \rangle\}
  \LWR@diagboxTNW
                     30 \newcommand{\LWR@diagboxTNW}[3]{%
                     31 \BlockClassSingle{diagboxtitleN}{#1}
                     32 \LWR@diagboxNW{#2}{#3}
                     33 }
                    Likewise for NE, SW, SE:
                     34 \newcommand{\LWR@diagboxTNE}[3]{%
                     35 \BlockClassSingle{diagboxtitleN}{#1}
                     36 \LWR@diagboxNE{#2}{#3}
                     37 }
                     39 \newcommand{\LWR@diagboxTSW}[3]{%
                     40 \LWR@diagboxSW{#2}{#3}
                     41 \BlockClassSingle{diagboxtitleS}{#1}
                     42 \LWR@stoppars%
                     43 }
                     45 \newcommand{\LWR@diagboxTSE}[3]{%
                     46 \LWR@diagboxSE{#2}{#3}
                     47 \BlockClassSingle{diagboxtitleS}{#1}
                     48 \LWR@stoppars%
                     49 }
                      \{\langle keys \rangle\} \{\langle A \rangle\} \{\langle T \rangle\} \{\langle B \rangle\}
  \diagbox@triple
                     50 \def\diagbox@triple#1#2#3#4{%
                     51 \setkeys{diagbox}{dir=NW,#1}%
                     52 \@nameuse{LWR@diagboxT\diagbox@dir}{#3}{#2}{#4}%
                     53 }
           File 90
                    lwarp-dingbat.sty
                    dingbat
          Package
§ 188
                    (Emulates or patches code by Scott Pakin.)
                    dingbat is patched for use by lwarp.
         dingbat
  for HTML output:
                      1 \LWR@ProvidesPackagePass{dingbat}[2001/04/27]
                      2 \newcommand*{\LWR@dingbatsymbol}[1]{\HTMLunicode{#1}}
                      4 \newcommand{\LWR@HTML@rightpointright}{\LWR@dingbatsymbol{261E}}
                      \label{lem:command} $$ \operatorname{LWR@HTML@leftthumbsdown}_{\LWR@dingbatsymbol{1F44E}} $$
                      7 \newcommand{\LWR@HTML@leftthumbsup}{\LWR@dingbatsymbol{1F44D}}
```

```
8 \newcommand{\LWR@HTML@rightpointleft}{\LWR@dingbatsymbol{261C}}
 9 \newcommand{\LWR@HTML@rightthumbsdown}{\LWR@dingbatsymbol{1F44E}}
 10 \newcommand{\LWR@HTML@rightthumbsup}{\LWR@dingbatsymbol{1F44D}}
 11 \newcommand{\LWR@HTML@squarewithdots}{\LWR@dingbatsymbol{25C7}}
 14 \newcommand{\LWR@HTML@Zborder}{\LWR@dingbatsymbol{274B}}
 15 \newcommand{\LWR@HTML@largepencil}{\LWR@dingbatsymbol{270E}}
 16 \newcommand{\LWR@HTML@anchor}{\LWR@dingbatsymbol{2693}}
 17 \newcommand{\LWR@HTML@carriagereturn}{\LWR@dingbatsymbol{23CE}}
 {\tt 18 \ hewcommand \{\ LWR@HTML@checkmark} \{\ LWR@dingbatsymbol \{2713\}\} }
 19 \newcommand{\LWR@HTML@eye}{\LWR@dingbatsymbol{1F441}}
 {\tt 21 \ lemos mand \{\ LWR@HTML@smallpencil\} \{\ LWR@dingbatsymbol \{270E\}\} }
 23 \LWR@formatted{rightpointright}
 24 \LWR@formatted{leftpointright}
 25 \LWR@formatted{leftthumbsdown}
 26 \LWR@formatted{leftthumbsup}
 27 \LWR@formatted{rightpointleft}
 28 \LWR@formatted{rightthumbsdown}
 29 \LWR@formatted{rightthumbsup}
 30 \LWR@formatted{squarewithdots}
 31 \LWR@formatted{filledsquarewithdots}
 32 \LWR@formatted{Sborder}
 33 \LWR@formatted{Zborder}
 34 \LWR@formatted{largepencil}
 35 \LWR@formatted{anchor}
 36 \LWR@formatted{carriagereturn}
 37 \LWR@formatted{checkmark}
 38 \LWR@formatted{eye}
 39 \LWR@formatted{satellitedish}
 40 \LWR@formatted{smallpencil}
lwarp-dprogress.sty
dprogress
dprogress is ignored.
```

File 92 **lwarp-draftcopy.sty**

§ 190 Package draftcopy

Package

dprogress

for HTML output:

§ 189

Pkg

Pkg draftcopy draftcopy is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{draftcopy}[2002/02/25]

1 \LWR@ProvidesPackageDrop{dprogress}[2008/02/21]

```
2 \newcommand{\draftcopyVersion}[1]{}
3 \newcommand{\draftcopySetGrey}[1]{}
4 \newcommand{\draftcopySetScale}[1]{}
5 \newcommand{\draftcopySetScaleFactor}[1]{}
6 \newcommand{\draftcopyFirstPage}[1]{}
7 \newcommand{\draftcopyLastPage}[1]{}
8 \newcommand{\draftcopyName}[2]{}
9 \newcommand{\draftcopyPageTransform}[1]{}
10 \newcommand{\draftcopyBottomTransform}[1]{}
11 \newcommand{\draftcopyPageX}[1]{}
12 \newcommand{\draftcopyPageY}[1]{}
13 \newcommand{\draftcopyBottomX}[1]{}
14 \newcommand{\draftcopyBottomY}[1]{}
```

File 93 lwarp-draftfigure.sty

```
§ 191 Package draftfigure
```

Pkg draftfigure draftfigure is ignored.

for HTML output: 1 \

- 1 \LWR@ProvidesPackageDrop{draftfigure}[2017/07/19]
- 2 \RequirePackage{xkeyval}
- 3 \define@key{draftfigure}{code}{}
- 4 \define@key{draftfigure}{noframe}[true]{}
- 5 \define@key{draftfigure}{filename}[true]{}
- 6 \define@key{draftfigure}{content}[]{}
- 7 \define@key{draftfigure}{style}[normal]{}
- 8 \define@key{draftfigure}{position}[left]{}
- 9 \define@key{draftfigure}{size}[normal]{}
- 10 \newcommand\setdf[1]{\setkeys{draftfigure}{#1}}

File 94 lwarp-draftwatermark.sty

§ 192 Package draftwatermark

 $(Emulates\ or\ patches\ code\ by\ {\tt Sergio}\ {\tt Callegari.})$

Pkg draftwatermark draftwatermark is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{draftwatermark}[2015/02/19]

- 2 \newcommand{\SetWatermarkAngle}[1]{}
- 3 \newcommand{\SetWatermarkColor}[1]{}
- 4 \newcommand{\SetWatermarkLightness}[1]{}
- 5 \newcommand{\SetWatermarkFontSize}[1]{}
- 6 \newcommand{\SetWatermarkScale}[1]{}
- 7 \newcommand{\SetWatermarkHorCenter}[1]{}
- 8 \newcommand{\SetWatermarkVertCenter}[1]{}
- 9 \newcommand{\SetWatermarkText}[1]{}

File 95 lwarp-easy-todo.sty

```
easy-todo
                               Package
§ 193
                                                               (Emulates or patches code by Juan Rada-Vilela.)
          Pkg easy-todo
                                                                easy-todo is patched for use by lwarp.
        for HTML output:
                                                                    1 \LWR@ProvidesPackagePass{easy-todo}[2014/01/01]
                \listoftodos
                                                                    Modified to correct buggy use of \flushright.
                                                                    2 \let\LWR@origlistoftodos\listoftodos
                                                                   4 \renewcommand{\listoftodos}{%
                                                                    5 \begingroup
                                                                    6 \renewcommand{\flushright}{}
                                                                    7 \LWR@origlistoftodos
                                                                    8 \endgroup
                                                                   9 }
                                                                    Modified to use \textcolor instead of \color.
                                 \todoii
                                                                 10 \renewcommand{\todoii}[2]{%
                                                                 11 \ifthenelse{\equal{\@todoobeyfinal}{true}}%
                                                                12
                                                                                                   \ifoptionfinal{\todoenable{false}}{\todoenable{true}}%
                                                                 13
                                                                 14
                                                                                      }%
                                                                 15
                                                                                     {}%
                                                                 16 \ifthenelse{\equal{\@todoenable}{true}}%
                                                                                     {%
                                                                17
                                                                                                   \refstepcounter{todos}%
                                                                18
                                                                                                   \noindent{%
                                                                 19
                                                                20
                                                                                                                \todocolor%
                                                                 21
                                                                                                                \LWR@textcurrentcolor{%
                                                                                                                             \normalfont\scriptsize{\bfseries{\thetodos.#1}}%
                                                                22
                                                                23
                                                                                                   }%
                                                                24
                                                                                                   \label{local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_local_loc
                                                                25
                                                                                     }%
                                                                 26
                                                                 27
                                                                                     {}%
                                                                 28 }
```

File 96 lwarp-ebook.sty

§ 194 Package **ebook**

(Emulates or patches code by Jørgen Steensgaard.)

Pkg ebook ebook is emulated.

```
for HTML output: 1 \LWR@ProvidesPackageDrop{ebook}

2 \setcounter{secnumdepth}{0}
3 \setcounter{tocdepth}{2}
4
5 \providecommand{\pagefill}[1][0.001mm]{\noindent}
6
7 \providecommand{\ebook}{
8 \setcounter{secnumdepth}{0}
9 \setcounter{tocdepth}{2}
10 }
```

File 97 lwarp-ed.sty

§ 195 Package **ed**

(Emulates or patches code by Michael Kohlhase.)

Pkg ed ed is patched for use by lwarp.

for HTML output:

1 \LWR@ProvidesPackagePass{ed}[2012/01/29]

Bugs:

- 1. todolist fails with the hide option, as does \edexplanation.
- 2. $\ensuremath{\backslash}\xspace$ edstuURI is actually $\ensuremath{\backslash}\xspace$ edstuURI.

```
2 \RequirePackage{xcolor}
4\renewenvironment{edstub}[2][The following blue text]
5 {%
     \def\@test{#1}%
6
     \begin{center}%
7
         \huge%
8
         \textcolor{red}{%
9
            #1 is only a provisional stub\\\Large
10
            the Office document
11
            12
            contains more text\\which will be merged for the final document%
13
         }%
14
15
     \end{center}%
16
     \BlockClass[color:blue]{edstub}%
17 }
18 {\endBlockClass}
```

```
File 98 lwarp-ellipsis.sty
                                                   ellipsis
                         Package
$196
                                                    (Emulates or patches code by Peter J. Heslin.)
          Pkg ellipsis
                                                   ellipsis is emulated.
                                                       1 \LWR@ProvidesPackageDrop{ellipsis}[2004/09/28]
                                                      3 \newcommand{\ellipsisgap}{0.1em}
                                                       5 \newcommand*{\midwordellipsis}{\,\textellipsis\,}
                                                   lwarp-embrac.sty
                             File 99
                         Package embrac
§ 197
                                                   (Emulates or patches code by Clemens Niederberger.)
                                                   embrac is nullfied for HTML and used as-is for print.
      for HTML output:
                                                       1 \LWR@ProvidesPackagePass{embrac}[2017/07/04]
                                                       2 \LetLtxMacro\LWR@orig@HTML@emph\LWR@HTML@emph
                                                      3 \ensuremath{\command{\LWR@HTML@emph}{s m}{\LWR@orig@HTML@emph{#2}}}
                                                      5 \LetLtxMacro\LWR@orig@HTML@textit\LWR@HTML@textit
                                                       \label{lem:command} $$ \ensuremath{\command{\LWR@HTML@textit}} $$ m}_{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\command{\co
                                                      8 \LetLtxMacro\LWR@orig@HTML@textsl\LWR@HTML@textsl
                                                      11 \ifxetexorluatex
                                                                     \LetLtxMacro\LWR@orig@HTML@textsi\LWR@HTML@textsi
                                                                     \RenewDocumentCommand{\LWR@HTML@textsi}{s m}{%
                                                    13
                                                                     \LWR@orig@HTML@textsi{#2}}
                                                    14
                                                    15 \fi
                                                    16
                                                    17 \AtBeginDocument{
                                                                     \LWR@formatted{emph}
                                                                     \LWR@formatted{textit}
                                                    19
                                                    20
                                                                     \LWR@formatted{textsl}
                                                    21
                                                                     \ifxetexorluatex
                                                                                \LWR@formatted{textsi}
                                                                    \fi
                                                    23
                                                    24 }
                                                    25
```

```
26 \newcommand{\LWR@HTML@EmbracOff}{}
27 \LWR@formatted{EmbracOff}
28
29 \newcommand{\LWR@HTML@EmbracOn}{}
30 \LWR@formatted{EmbracOn}
```

File 100 lwarp-emptypage.sty

§ 198 Package emptypage

Pkg emptypage emptypage is ignored.

for HTML output: Discard all options for lwarp-emptypage:

1 \LWR@ProvidesPackageDrop{emptypage}[2010/05/30]

File 101 lwarp-endfloat.sty

§ 199 Package endfloat

Pkg endfloat endfloat is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{endfloat}[2019/04/15]

- 2 \newcommand\figureplace{}
- 3 \newcommand\tableplace{}
- 4 \newcommand\floatplace[1]{}
- 5 \newcounter{posttable}
- 6 \newcounter{postfigure}
- 7 \newcommand*{\theposttbl}{}
- 8 \newcommand*{\thepostfig}{}
- 9 \newcommand{\AtBeginFigures}[1]{}
- 10 \newcommand{\AtBeginTables}[1]{}
- 11 \newcommand{\AtBeginDelayedFloats}[1]{}
- 12 \newcommand*{\processdelayedfloats}{}
- 13 \newcommand*{\efloatseparator}{}
- 14 \def\efloattype{}
- 15 \providecommand\efloatheading[1]{}
- 16 \providecommand\efloatpreamble{}
- 17 \providecommand\efloatpostamble{}
- 18 \NewDocumentCommand{\addtodelayedfloat}{s m m}{}
- 19 \providecommand{\efloatbegin}{}
- 20 \providecommand{\efloatend}{}
- 21 $\displaystyle \frac{1}{\ensuremath{\ensur$
- 22 \providecommand{\efloatendlist}{}

File 102 lwarp-endheads.sty

```
endheads
         Package
$200
                   endheads is ignored.
        endheads
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{endheads}[2017/04/06]
                    2 \newcommand{\changesinglepageabbrev}[1]{}
                    3 \newcommand{\changemultiplepageabbrev}[1]{}
                    4 \newcommand{\changenotesname}[1]{}
                    5 \newcommand{\changenotesheader}[1]{}
                    6 \newcommand{\changenotescontentsname}[1]{}
                    7 \newcommand{\changechapternotesline}[1]{}
                    8 \newcommand{\checknoteheaders}{}
                    9 \newif\ifnotesincontentson \notesincontentsonfalse
                   10 \newcommand{\notesincontents}{\notesincontentsontrue}
                   11 \newif\ifendnoteheaderson \endnoteheadersonfalse
                   12 \newcommand{\setupendnoteheaders}{%
                          \endnoteheadersontrue%
                   13
                   14 }
                   15 \newif\iftitleinnotes \titleinnotestrue
                   16 \newcommand{\styleforchapternotebegin}{}
                   17 \newcommand{\styleforchapternoteend}{}
                   18 \newcommand{\setstyleforchapternotebegin}[1]{%
                   19
                          \renewcommand{\styleforchapternotebegin}{#1}%
                   20 }
                   21 \newcommand{\setstyleforchapternoteend}[1]{%
                          \renewcommand{\styleforchapternoteend}{#1}%
                   23 }
                   24 \newcommand{\resetendnotes}{}
                   25 \newif\ifnotesbychapteron \notesbychapteronfalse
                   26 \newcommand{\notesbychapter}{\notesbychapterontrue}
          File 103 lwarp-endnotes.sty
```

§ 201 Package endnotes

```
(Emulates or patches code by John Lavagnino.)

Pkg endnotes Used as-is.

table of contents To place the endnotes in the ToC, use:

\usepackage{endnotes}
\appto\enoteheading{\addcontentsline{toc}{section}{\notesname}}
\renewcommand*{\notesname}{Endnotes} % optional
```

html page To additionally have the endnotes on their own HTML page, if FileDepth allows:

\ForceHTMLPage \theendnotes

for HTML output:

```
1 \LWR@ProvidesPackagePass{endnotes}
```

```
2 \def\enoteformat{%
3 % \rightskip\z@ \leftskip\z@ \parindent=1.8em
4 \leavevmode
5 % \llap{
6 \makeenmark
7 % }
8 }
9
10 \def\@makeenmark{\hbox{\LWR@htmlspan{sup}{\normalfont\theenmark}}}
11 \def\makeenmark{\@makeenmark}
```

File 104 lwarp-enumerate.sty

§ 202 Package **en**

enumerate

Pkg enumerate

enumerate is supported with no changes.

This package is only required because it was used in the past to drop and then emulate the package. It cannot be removed because an older version which dropped the package may still remain, for example in a local vs. distribution directory, but it is now supported directly by lwarp and thus must no longer be dropped.

for HTML output:

1 \LWR@ProvidesPackagePass{enumerate}[2015/07/23]

File 105 lwarp-enumitem.sty

§ 203 Package

enumitem

(Emulates or patches code by Javier Bezos.)

Pkg enumitem

enumitem is supported with minor adjustments.

for HTML output:

1 \LWR@ProvidesPackagePass{enumitem}[2018/11/30]

for HTML output:

2 \begin{warpHTML}

```
\label{eq:linear_loss} $$\operatorname{{\langle name\rangle} {\langle type\rangle} {\langle maxdepth\rangle} $$\operatorname{{\langle name\rangle} {\langle type\rangle} {\langle maxdepth\rangle}}$$
```

For enumitem lists, new lists must have the start and end actions assigned to the new environment. Renewed lists already have their actions assigned, and thus need no changes.

```
3 \let\LWR@enumitem@orignewlist\newlist
4
5 \renewcommand*{\newlist}[3]{%
6 \LWR@enumitem@orignewlist{#1}{#2}{#3}%
7 \AtBeginEnvironment{#1}{\@nameuse{LWR@#2start}}%
8 \AtEndEnvironment{#1}{\@nameuse{LWR@#2end}}%
9 }
10
11 \def\DrawEnumitemLabel{}
12 \end{warpHTML}
```

File 106 lwarp-epigraph.sty

```
§ 204 Package epigraph
```

(Emulates or patches code by Peter Wilson.)

Pkg epigraph epigraph is emulated.

for HTML output:

1 \LWR@ProvidesPackageDrop{epigraph}[2009/09/02]

```
2 \DeclareDocumentCommand{\qitem}{m m}
3 {
4 \begin{BlockClass}{qitem}
5 #1
6 \ifbool{FormatWP}
7 {\begin{BlockClass}[border-top:1px solid gray]{epigraphsource}}
8 {\begin{BlockClass}{epigraphsource}}
9 #2
10 \end{BlockClass}
11 \end{BlockClass}
12 }
13 \DeclareDocumentCommand{\epigraph}{m m}
14 {
\label{lockClassWP} $$ \end{LWR@BlockClassWP}_{\LWR@print@mbox{text-align:right}}_{\parbox{epigraph}} $$
16 \qitem{#1}{#2}
17 \end{LWR@BlockClassWP}
18 }
20 \DeclareDocumentEnvironment{epigraphs}{}
{\tt 21 \{\LWR@BlockClassWP\{\LWR@print@mbox\{text-align:right\}\}\{} \{epigraph\}\}}
22 {\endLWR@BlockClassWP}
```

Use css to format epigraphs.

The following are null commands for source compatibility:

```
23 \newenvironment*{flushepinormal}{}{}
```

```
24 \@ifclassloaded{memoir}{
25 \setlength{\epigraphwidth}{.5\linewidth}
26 \renewcommand{\textflush}{flushepinormal}
27 \renewcommand{\epigraphhead}[2][0]{#2}
28 \renewcommand{\dropchapter}[1]{}
29 \renewcommand*{\undodrop}{}
30 }{% not memoir
31 \neq \{ epigraphwidth \}
32 \setlength{\epigraphwidth}{.5\linewidth}
33 \newcommand{\textflush}{flushepinormal}
34 \newcommand{\epigraphflush}{flushright}
35 \newcommand{\sourceflush}{flushright}
36 \newcommand*{\epigraphsize}{\small}
37 \newlength{\epigraphrule}
38 \newlength{\beforeepigraphskip}
39 \newlength{\afterepigraphskip}
40 \newcommand{\epigraphhead}[2][0]{#2}
41 \newcommand{\dropchapter}[1]{}
42 \newcommand*{\undodrop}{}
43 }% not memoir
45 \let\cleartoevenpage\relax% also in nextpage
46 \newcommand{\cleartoevenpage}[1][]{}
```

File 107 lwarp-epsfig.sty

§ 205 Package epsfig

Pkg epsfig epsfig is emulated for use by lwarp.

⚠ Only the LATEX2e syntax is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{epsfig}[2017/06/25]

A few additional keys to capture the filename:

```
2 \RequirePackage{graphics}
3
4 \define@key{igraph}{file}{%
5   \xdef\LWR@epsfig@filename{#1}%
6 }
7
8 \define@key{igraph}{figure}{%
9   \xdef\LWR@epsfig@filename{#1}%
10 }
11
12 \define@key{igraph}{prolog}{}
13
14 \define@key{igraph}{silent}[]{}
```

The captured filename is used as the argument to \includegraphics:

```
15 \newcommand{\epsfig}[1]{\includegraphics[#1]{\LWR@epsfig@filename}}
16
17 \newcommand{\psfig}[1]{\includegraphics[#1]{\LWR@epsfig@filename}}
```

File 108 lwarp-epstopdf.sty

§ 206 Package epstopdf

Pkg epstopdf

Previous versions of lwarp had a nullfied version, but now epstopdf-base is supported. lwarp-epstopdf becomes a placeholder to overwrite previous versions.

See package epstopdf-base for details.

for HTML output:

1 \LWR@ProvidesPackagePass{epstopdf}[2016/05/15]

File 109 lwarp-epstopdf-base.sty

§ 207 Package epstopdf-base

Pkg epstopdf-base

⚠

Images with an .eps extension will be converted to .pdf. The HTML output uses the .svg version, so use

Enter ⇒ lwarpmk pdftosvg <listofPDFfiles>

to generate .svg versions.

for HTML output:

convert to .svg

1 \LWR@ProvidesPackagePass{epstopdf-base}[2016/05/15]

Redefine to remember the image filename, replacing .pdf with .svg. Use the epstopdf print version inside a lateximage.

```
2 \newcommand*{\LWR@HTML@ETE@OrgGin@setfile}[3]{%
3    \edef\LWR@tempone{#3}%
4   \StrSubstitute{\LWR@tempone}{.pdf}{.svg}[\LWR@tempone]%
5   \StrSubstitute{\LWR@tempone}{.PDF}{.SVG}[\LWR@tempone]%
6   \xdef\LWR@parsedfilename{\LWR@tempone}%
7 }
8
9 \LWR@formatted{ETE@OrgGin@setfile}
```

\includegraphics in HTML mode redefines \Gin@setfile to be \LWR@HTML@Gin@setfile, which is now redirected to epstopdf's version:

```
10 \renewcommand*{\LWR@HTML@Gin@setfile}[3]{%
11 \ETE@Gin@setfile{#1}{#2}{#3}%
12 }
```

Allow .eps images to be found if a suffix is not provided: 13 \AtBeginDocument{ 14 \DeclareGraphicsExtensions{% .eps,.EPS,.svg,.SVG,.gif,.GIF,.png,.PNG,.jpg,.JPG,.jpeg,.JPEG% 17 \DeclareGraphicsRule{.svg}{svg}{.svg}{} 18 \DeclareGraphicsRule{.SVG}{svg}{.SVG}{} 19 } Likewise when inside a lateximage: 20 \appto\LWR@restoreorigformatting{% 21 \DeclareGraphicsExtensions{% $. \verb|eps|, .EPS|, .pdf|, .PDF|, .gif|, .GIF|, .png|, .PNG|, .jpg|, .JPG|, .jpeg|, .JPEG||$ 23 }% 24 } File 110 lwarp-eqlist.sty eglist Package Pkg eqlist eqlist is emulated. 1 \LWR@ProvidesPackageDrop{eqlist}[2002/08/15] 2 \newenvironment{eqlist}[1][]{\description}{\enddescription} 3 \newenvironment{eqlist*}[1][]{\description}{\enddescription} 4 \newenvironment{Eqlist}[2][]{\description}{\enddescription} 5 \newenvironment{Eqlist*}[2][]{\description}{\enddescription} 6 \newcommand*{\longitem}[1][]{\item[#1]} 7 \newcommand*{\eqlistinit}{} 8 \newcommand*{\eqliststarinit}{} 9 \newcommand*{\eqlistinitpar}{} 10 \def\eqlistlabel#1{#1} 11 \newcommand{\eqlistauto}[1]{} 12 \newcommand{\eqlistnoauto}{} File 111 lwarp-eqparbox.sty eqparbox Package (Emulates or patches code by Scott Pakin.) eqparbox is patched for use by lwarp. 1 \LWR@ProvidesPackagePass{eqparbox}[2017/09/03] 2 \NewDocumentCommand{\LWR@HTML@eqparbox}{ $0{t} 0{t} m +m}{% 0}$

\$208

\$209

eqparbox

for HTML output:

for HTML output:

```
3
      {%
4
          \minipagefullwidth%
          \parbox[#1][#2][#3]{\linewidth}{#5}%
5
      }%
 6
7 }
8 \LWR@formatted{eqparbox}
10 \NewDocumentCommand{\LWR@HTML@eqmakebox}{o o m}{%
      \makebox[#2]{#3}%
12 }
13 \LWR@formatted{eqmakebox}
15 \NewDocumentCommand{\LWR@HTML@eqframebox}{o o m}{%
      \framebox[#2]{#3}%
16
17 }
18 \LWR@formatted{eqframebox}
20 \MewDocumentEnvironment\{LWR@HTML@eqminipage\}\{0\{t\}\ 0\{\}\ m\}
21 {%
      \begingroup%
22
      \minipagefullwidth%
23
24
      \minipage[#1][#2][#3]{\linewidth}%
25 }%
26 {%
27
      \endminipage%
      \endgroup%
28
29 }
31 \newcommand*{\LWR@HTML@eqboxwidth}[1]{.25\linewidth}
32 \LWR@formatted{eqboxwidth}
34 \newcommand*{\LWR@HTML@eqsetminwidth}[2]{}
35 \newcommand*{\LWR@HTML@eqsetmaxwidth}[2]{}
37 \newcommand*{\LWR@HTML@eqsetminwidthto}[2]{}
38 \newcommand*{\LWR@HTML@eqsetmaxwidthto}[2]{}
```

File 112 lwarp-errata.sty

§210 Package errata

(Emulates or patches code by Michael Kohlhase.)

Pkg errata errata is patched for use by lwarp.

This is for v0.3 of errata. A newer version of errata with more features is under development, at which time the lwarp version will have to be updated.

for HTML output: Macros are being defined with the math dollar, so enable the HTML version during package loading:

 ${\tt 1 \ \backslash StartDefiningMath}$

Now load the package:

```
2 \LWR@ProvidesPackagePass{errata}[2006/11/12]
```

Patches for dynamic inline math:

```
3 \xpatchcmd{\erratumAdd}
     {$_a^{\arabic{erratum}}}}
4
5 %
       {\inlinemathother$_a^{\arabic{erratum}}}\inlinemathnormal}
6
     {\textsubscript{a}\textsuperscript{\arabic{erratum}}}
7
8
     {\LWR@patcherror{erratum}{erratumAdd}}}
10 \xpatchcmd{\erratumDelete}
     {$_d^{\arabic{erratum}}}}
11
12 %
       {\inlinemathother$_d^{\arabic{erratum}}$\inlinemathnormal}
13
     {\textsubscript{d}\textsuperscript{\arabic{erratum}}}
14
     {\LWR@patcherror{erratum}{erratumDelete}}
15
16
17 \xpatchcmd{\erratumReplace}
18
     {\sum_r^{\arabic{erratum}}\}}
19 %
       20
     {\textsubscript{r}\textsuperscript{\arabic{erratum}}}
21
     {}
     {\LWR@patcherror{erratum}{erratumReplace}}
22
23
24 \xpatchcmd{\erratum}
25
     {$_a$}
26 %
       {\inlinemathother$_a$\inlinemathnormal}
27
     {\textsubscript{a}}
28
     {}
29
     {\LWR@patcherror{erratum}{erratumDelete}}
30
31 \xpatchcmd{\erratum}
     {$_d^{\@thefnmark}$}
32
33 %
       {\inlinemathother$_d^{\@thefnmark}$\inlinemathnormal}
     {\textsubscript{d}\textsuperscript{\@thefnmark}}
34
35
     {}
     {\LWR@patcherror{erratum}{eDelete}}
36
37
38 \xpatchcmd{\erratum}
39
     {\$\r^{\\@thefnmark\}\}
40 %
       {\textsubscript{r}\textsuperscript{\@thefnmark}}
41
42
     {}
     {\LWR@patcherror{erratum}{eReplace}}
```

Finish the current page's errata before closing and reloading the list:

```
44 \preto\PrintErrata{\LWR@orignewpage}
```

No longer defining math macros with the HTML \$:

```
45 \StopDefiningMath
```

File 113 lwarp-eso-pic.sty

§211 Package **eso-pic**

(Emulates or patches code by Rolf Niepraschk.)

Pkg eso-pic eso-pic is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{eso-pic}[2018/04/12]

- 2 \newcommand*{\LenToUnit}{}
- 3 \newcommand{\AtPageUpperLeft}[1]{}
- 4 \newcommand{\AtPageLowerLeft}[1]{}
- 5 \newcommand{\AtPageCenter}[1]{}
- 6 \newcommand{\AtStockLowerLeft}[1]{}
- 7 \newcommand{\AtStockUpperLeft}[1]{}
- 8 \newcommand{\AtStockCenter}[1]{}
- 9 \newcommand{\AtTextUpperLeft}[1]{}
- 10 \newcommand{\AtTextLowerLeft}[1]{}
- 11 \newcommand{\AtTextCenter}[1]{}
- 12 \NewDocumentCommand{\AddToShipoutPictureBG}{s +m}{}
- 13 \newcommand{\AddToShipoutPicture}{\AddToShipoutPictureBG}
- 14 \NewDocumentCommand{\AddToShipoutPictureFG}{s +m}{}
- 15 \newcommand*{\ClearShipoutPictureBG}{}
- 16 \newcommand*{\ClearShipoutPicture}{}
- 17 \newcommand*{\ClearShipoutPictureFG}{}
- 18 \newcommand{\gridSetup}[6][]{}

File 114 lwarp-eurosym.sty

§212 Package **eurosym**

(Emulates or patches code by Henrik Theiling.)

Pkg eurosym eurosym is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{eurosym}[1998/08/06]

- 2 \renewrobustcmd\officialeuro{\HTMLentity{euro}}
- 3 \let\geneuro\officialeuro
- 4 \let\geneuronarrow\officialeuro
- 5 \let\geneurowide\officialeuro
- 6 \let\euro\officialeuro
- 7 \renewrobustcmd\eurobars{}
- ${\tt 8 \ lenewrobustcmd} \\ {\tt eurobarsnarrow} \\ \{\}$
- 9 \renewrobustcmd\eurobarswide{}

File 115 lwarp-everypage.sty

§213 Package everypage

(Emulates or patches code by Sergio Callegari.)

Pkg everypage everypage is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{everypage}[2007/06/20]

2 \newcommand*{\AddEverypageHook}[1]{}
3 \newcommand*{\AddThispageHook}[1]{}

File 116 lwarp-everyshi.sty

§214 Package everyshi

(Emulates or patches code by Martin Schröder.)

Pkg everyshi Emulated.

for HTML output: Discard all options for lwarp-everyshi:

- 1 \LWR@ProvidesPackageDrop{everyshi}[2001/05/15]
- 2 \newcommand*{\EveryShipout}[1]{}
- 3 \newcommand*{\AtNextShipout}[1]{}

File 117 lwarp-extramarks.sty

§215 Package extramarks

(Emulates or patches code by Piet van Oostrum.)

Pkg extramarks extramarks is emulated.

for HTML output: Discard all options for lwarp-extramarks:

- 1 \LWR@ProvidesPackageDrop{extramarks}[2019/01/31]
- 2 \newcommand*{\extramarks}[2]{}
- 3 \newcommand*{\firstleftxmark}{}
- 4 \newcommand*{\lastleftxmark}{}
- 5 \newcommand*{\firstrightxmark}{}
- 6 \newcommand*{\lastrightxmark}{}
- 7 \newcommand*{\firstxmark}{}

```
8 \newcommand*{\lastxmark}{}
9 \newcommand*{\topxmark}{}
10 \newcommand*{\topleftxmark}{}
11 \newcommand*{\toprightxmark}{}
12 \newcommand*{\firstleftmark}{}
13 \newcommand*{\lastrightmark}{}
14 \newcommand*{\firstrightmark}{}
15 \newcommand*{\lastleftmark}{}
```

File 118 lwarp-fancybox.sty

Package \$216

fancybox

(Emulates or patches code by Timothy Van Zandt.)

fancybox

fancybox is supported with some patches.

framed equation example

fancybox's documentation has an example FramedEqn environment which combines math, \Sbox, a minipage, and an \fbox. This combination requires that the entire environment be enclosed inside a lateximage, which is done by adding \lateximage at the very start of FramedEqn's beginning code, and \endlateximage at the very end of the ending code. Unfortunately, the HTML alt attribute is not used here.

```
\newenvironmentFramedEqn
\lateximage% NEW
\setlength{\fboxsep}{15pt}
. . . }{. . .
\[\fbox{\TheSbox}\]
\endlateximage% NEW
}
```

framing alternatives

\fbox works with fancybox. Also see lwarp's \fboxBlock macro and fminipage environment for alternatives to \fbox for framing environments.

framed table example

The fancybox documentation's example framed table using an \fbox containing a tabular does not work with lwarp, but the FramedTable environment does work if \fbox is replaced by \fboxBlock. This method loses HTML formatting. A better method is to enclose the table's contents inside a fminipage environment. The caption may be placed either inside or outside the fminipage:

```
\begin{table}
\begin{fminipage}{\linewidth}
\begin{tabular}{lr}
. . .
\end{tabular}
\end{fminipage}
\end{table}
```

\Sbox, but a verbatim may be placed inside a fminipage. The fancybox documentation's example FramedVerb may be defined as:

```
\newenvironment{FramedVerb}[1] % width
{
   \VerbatimEnvironment
   \fminipage{#1}
   \beginVerbatim
}{
   \endVerbatim
   \endfminipage
}
```

framed \VerbBox

fancybox's \VerbBox may be used inside \fbox.

indented alignment

LVerbatim, \LVerbatimInput, and \LUseVerbatim indent with horizontal space which may not line up exactly with what *pdftotext* detects. Some lines may be off slightly in their left edge.

fancybox, fancyvrb \VerbatimFootnotes ⚠ sectioning or displaymath If using fancybox or fancyvrb with \VerbatimFootnotes, and using footnotes in a sectioning command or display math, use \footnotemark and \footnotetext:

```
\subsection[Subsection Name]
    {Subsection Name\protect\footnotemark}
\footnotetext{A footnote with \verb+verbtim+.}
```

and likewise for equations or display math.

At present there is a bug such that paragraph closing tags are not present in footnotes when \VerbatimFootnotes are selected. The browser usually compensates.

```
1 \LWR@ProvidesPackagePass{fancybox}[2010/05/15]
```

After the preamble is loaded, after any patches to Verbatim:

```
2 \AfterEndPreamble{
3 \LWR@traceinfo{Patching fancybox.}
```

\VerbatimFootnotes

Patched to use the new version.

```
4 \def\VerbatimFootnotes{%
5 \let\@footnotetext\V@footnotetext%
6 \let\LWR@footnotetext\V@footnotetext% lwarp
7 }
```

\V@@footnotetext

Patches in a subset of lwarp's \LWR@footnotetext to the fancyvrb version of \V@@footnotetext.

```
8 \def\\@@footnotetext{%
9 \LWR@traceinfo{\V@footnotetext}\%
10 \global\setbox\LWR@footnotebox=\vbox\bgroup\%
```

Add to any current footnotes:

11 \unvbox\LWR@footnotebox%

Remember the footnote number for \ref:

```
12 \protected@edef\@currentlabel{%
13 \csname p@footnote\endcsname\@thefnmark%
14 }% @currentlabel
```

Use HTML superscripts in the footnote even inside a lateximage:

```
15 \renewrobustcmd{\textsuperscript}[1]{\LWR@htmlspan{sup}{##1}}%
```

Use paragraph tags if in a tabular data cell or a lateximage:

```
16 \ifthenelse{%
17    \boolean{LWR@doingstartpars} \AND%
18    \cnttest{\value{LWR@lateximagedepth}}{=}{0}%
19    }%
20    {}%
21    {\LWR@htmltagc{\LWR@tagregularparagraph}\LWR@orignewline}%
```

Append the footnote to the list:

```
22 \@makefntext{}%
```

The footnote text will follow after \V@@footnotetext has completed.

```
\bgroup%
   \aftergroup{\V@@footnotetext}%
25 \ignorespaces%
26 }%
27 }% AfterEndPreamble
28 \renewcommand*{\@shadowbox}[1]{%
29 \ifbool{FormatWP}%
30 {\InlineClass[border:1px solid black]{shadowbox}{#1}}%
31 {\InlineClass{shadowbox}{#1}}%
32 }
34 \renewcommand*{\@doublebox}[1]{%
35 \ifbool{FormatWP}%
36 {\InlineClass[border:1px double black]{doublebox}{#1}}%
37 {\InlineClass{doublebox}{#1}}%
38 }
40 \renewcommand*{\@ovalbox}[2]{%
41 \ifbool{FormatWP}%
42 {\InlineClass[border:1px solid black; border-radius:1ex]{ovalbox}{#2}}%
43 {%
      \ifthenelse{\isequivalentto{#1}{\thinlines}}%
44
          {\InlineClass{ovalbox}{#2}}%
45
          {\InlineClass{Ovalbox}{#2}}%
46
47 }%
```

Convert minipages, parboxes, and lists into linear text using the LWR@nestspan environment:

```
49 \let\LWR@origSbox\Sbox
            51 \def\Sbox{\LWR@origSbox\LWR@nestspan}
            53
            54 \let\LWR@origendSbox\endSbox
            56 \def\endSbox{\endLWR@nestspan\LWR@origendSbox}
           Begnarray is adapted for MATHJAX or enclosed inside a lateximage:
            57 \RenewEnviron{Beqnarray}
            58 {\LWR@eqnarrayfactor}
            60 \csgpreto{Beqnarray*}{\boolfalse{LWR@numbereqnarray}}
           \GenericCaption is enclosed in an HTML block:
            61 \renewcommand{\GenericCaption}[1]{%
            62 \LWR@figcaption%
            63 \LWR@isolate{#1}%
            64 \endLWR@figcaption%
           Btrivlist is enclosed in an HTML block. This is a tabular, and does not use \item.
\trivlist
            \{\langle l/c/r\rangle\} [\langle t/c/b\rangle]
            66 \RenewDocumentEnvironment{Btrivlist}{m o}
                  \begin{BlockClass}{Btrivlist}%
            69
                  \tabular{#1}%
            70 }
            71 {%
                  \endtabular%
            72
                  \end{BlockClass}%
            73
            74 }
           Btrivlist is also neutralized when used inside a span:
            75 \AtBeginEnvironment{LWR@nestspan}{%
            76 \RenewDocumentEnvironment{Btrivlist}{m o}{}{}%
            77 }
           lwarp's handling of \item is patched to accept fancybox's optional arguments:
            78 \let\LWRFB@origitemizeitem\LWR@itemizeitem
            79 \let\LWRFB@origdescitem\LWR@descitem
            81 \RenewDocumentCommand{\LWR@itemizeitem}{d()o}{%
                  \IfValueTF{#2}{%
                      \LWRFB@origitemizeitem[#2]%
            84
                  }{%
```

```
85
           \LWRFB@origitemizeitem%
 86
       }%
 87 }
 88
 89 \RenewDocumentCommand{\LWR@descitem}{d()o}{\%}
       \IfValueTF{#2}{%
 90
           \LWRFB@origdescitem[#2]~%
 91
 92
 93
           \LWRFB@origdescitem%
 94
       }%
 95 }
 96 \RenewDocumentCommand{\LWR@nestspanitem}{d()}{%
97 \if@newlist\else{\LWR@htmltagc{br /}}\fi%
 98 \LWR@origitem%
 99 }
The various boxed lists become regular lists:
100 \renewenvironment{Bitemize}[1][]{\begin{itemize}}{\end{itemize}}
101 \renewenvironment{Benumerate}[1][]{\begin{enumerate}}{\end{enumerate}}}
102 \renewenvironment{Bdescription}[1][]{\begin{description}}{\end{description}}}
\boxput simply prints one then the other argument, side-by-side instead of above
and behind:
103 \mbox{RenewDocumentCommand{\boxput}{s d() m m}{%}}
104 \IfBooleanTF{#1}{#3\quad#4}{#4\quad#3}%
105 }
Neutralized commands:
106 \RenewDocumentCommand{\fancyput}{s d() m}{}
107 \RenewDocumentCommand{\thisfancyput}{s d() m}{}
109 \RenewDocumentCommand{\fancypage}{m m}{}
110 \RenewDocumentCommand{\thisfancypage}{m m}{}
112 \def\LandScape#1{}
113 \def\endLandScape{}
114 \def\@Landscape#1#2#3{}
115 \def\endLandscape{}
Low-level patches for UseVerbatim and friends:
116 \let\LWRFB@UseVerbatim\UseVerbatim
117 \renewcommand*{\UseVerbatim}[1]{%
118 \LWR@atbeginverbatim{3}{Verbatim}%
119 \LWRFB@UseVerbatim{#1}%
120 \LWR@afterendverbatim{.5}%
121 }
122
```

```
123 \let\LWRFB@LUseVerbatim\LUseVerbatim
124
125 \renewcommand*{\LUseVerbatim}[1]{%
126 \LWR@atbeginverbatim{3}{LVerbatim}%
127 \noindent%
128 \LWRFB@LUseVerbatim{#1}%
129 \LWR@afterendverbatim{.5}%
130 }
131
132 \def\@BUseVerbatim[#1]#2{%
133 \LWR@atbeginverbatim{3}{BVerbatim}%
134 \LWRFB@UseVerbatim{#2}%
135 \LWR@afterendverbatim{.5}%
136 }
```

File 119 lwarp-fancyhdr.sty

§217 Package fancyhdr

(Emulates or patches code by Piet van Oostrum.)

Pkg fancyhdr fancyhdr is nullified.

for HTML output: Discard all options for lwarp-fancyhdr:

1 \LWR@ProvidesPackageDrop{fancyhdr}[2019/01/31]

```
2 \newcommand*{\fancyhead}[2][]{}
3 \newcommand*{\fancyfoot}[2][]{}
4 \newcommand*{\fancyhf}[2][]{}
5 \newcommand*{\fancypagestyle}[2]{}
6 \newcommand*{\lhead}[2][]{}
7 \newcommand*{\chead}[2][]{}
8 \newcommand*{\rhead}[2][]{}
9 \newcommand*{\lfoot}[2][]{}
10 \newcommand*{\cfoot}[2][]{}
11 \newcommand*{\rfoot}[2][]{}
12 \newcommand*{\headrulewidth}{}
13 \newcommand*{\footrulewidth}{}
14 \newcommand*{\headrule}{}
15 \newcommand*{\footrule}{}
16 \newlength{\headwidth}
17 \newcommand*{\fancyheadoffset}[2][]{}
18 \newcommand*{\fancyfootoffset}[2][]{}
19 \newcommand*{\fancyhfoffset}[2][]{}
20 \newcommand*{\iffloatpage}[2]{#2}
21 \newcommand*{\ifftopfloat}[2]{#2}
22 \newcommand*{\iffbotfloat}[2]{#2}
23 \newcommand*{\iffootnote}[2]{#2}
```

File 120 lwarp-fancyref.sty

§218 Package fancyref

Pkg fancyref **fancyref** is emulated.

for HTML output: 1 \LWR@ProvidesPackagePass{fancyref}[1999/02/03]

To remove the margin option, if \fancyrefhook is anything other than the paren option, then force it to the default instead. (Comparing to the margin option was not possible since lwarp has revised the meaning of \mbox so the comparison failed.)

```
2 \newcommand*{\LWRfref@parenfancyrefhook}[1]{(#1)}
3
4 \ifdefstrequal{\fancyrefhook}{\LWRfref@parenfancyrefhook}
5 {}{
6 \renewcommand*{\fancyrefhook}[1]{#1}%
7 }
```

Modified to ignore the page number and varioref.

```
8 \renewcommand*{\@f@ref}[4]{%
    \@ifundefined{#1r@#2@#3}{%
10
      \PackageError{lwarp-fancyref}{%
11
        \backslashchar#1ref\space format ''#2''
12
        undefined\MessageBreak
13
        for label type ''#3''%
14
      }{%
        The format ''#2'' was not defined for the label type
15
        ''#3''\MessageBreak
16
17
        and the \backslashchar#1ref\space command. Perhaps
        you have only misspelled its name.\MessageBreak
18
19
        Otherwise you will have to define it with
        \protect\new#1refformat\MessageBreak
20
        prior to using it.%
21
22
      }%
23
    }{%
24
      \fancyrefhook{%
25
        \@nameuse{#1r@#2@#3}%
          {\ref{#3\fancyrefargdelim#4}}%
26
            {\pageref{#3\fancyrefargdelim#4}}% original
27 %
            {\@fancyref@page@ref{#3\fancyrefargdelim#4}}% original
28 %
          {}% lwarp
29
          {}% lwarp
      }%
31
   }%
32
33 }%
```

File 121 lwarp-fancytabs.sty

```
§219 Package fancytabs
```

Pkg fancytabs fancytabs is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{fancytabs}[2016/03/29]

- 2 \newcommand{\fancytab}[3][RIGHT]{}
- 3 \newcommand{\fancytabsStyle}[1]{}
- 4 \newcommand{\fancytabsHeight}[1]{}
- 5 \newcommand{\fancytabsWidth}[1]{}
- 6 \newcommand{\fancytabsCount}[1]{}
- 7 \newcommand{\fancytabsLeftColor}[1]{}
- 8 \newcommand{\fancytabsRightColor}[1]{}
- 9 \newcommand{\fancytabsTop}[1]{}
- 10 \newcommand{\fancytabsTextVPos}[1]{}
- 11 \newcommand{\fancytabsTextHPos}[1]{}
- 12 \newcommand{\fancytabsGap}[1]{}
- 13 \newcommand{\fancytabsFloor}[1]{}
- 14 \newcommand{\fancytabsRotate}[1]{}

File 122 lwarp-fancyvrb.sty

§ 220 Package fancyvrb

(Emulates or patches code by Timothy Van Zandt.)

Pkg fancyvrb fancyvrb is supported with some patches.

fancybox, fancyvrb \VerbatimFootnotes ⚠ sectioning or

displaymath

If using fancybox or fancyvrb with \VerbatimFootnotes, and using footnotes in a sectioning command or display math, use \footnotemark and \footnotetext:

```
\subsection[Subsection Name]
    {Subsection Name\protect\footnotemark}
\footnotetext{A footnote with \verb+verbtim+.}
```

and likewise for equations or display math.

At present there is a bug such that paragraph closing tags are not present in footnotes when \VerbatimFootnotes are selected. The browser usually compensates.

```
1 \RequirePackage{xcolor}% for \convertcolorspec
2
3 \LWR@ProvidesPackagePass{fancyvrb}[2008/02/07]
```

```
Initial default patch for fancyvrb:
```

```
4 \fvset{frame=none}%
```

After the preamble is loaded, after any patches to Verbatim:

```
5 \AfterEndPreamble{
6 \LWR@traceinfo{Patching fancyvrb.}
```

\VerbatimFootnotes

Patched to use the new version.

```
7 \def\VerbatimFootnotes{%
8 \let\@footnotetext\V@footnotetext%
9 \let\footnote\V@footnote%
10 \let\LWR@footnotetext\V@footnotetext% lwarp
11 }
```

\V@@footnotetext

Patches in a subset of lwarp's \LWR@footnotetext to the fancyvrb version of \V@efootnotetext.

```
12 \def\V@@footnotetext{%
13 \LWR@traceinfo{V@footnotetext}%
14 \global\setbox\LWR@footnotebox=\vbox\bgroup%
```

Add to any current footnotes:

15 \unvbox\LWR@footnotebox%

Remember the footnote number for \ref:

```
16 \protected@edef\@currentlabel{%
17 \csname p@footnote\endcsname\@thefnmark%
18 }% @currentlabel
```

Use HTML superscripts in the footnote even inside a lateximage:

19 \renewrobustcmd{\textsuperscript}[1]{\LWR@htmlspan{sup}{##1}}%

Use paragraph tags if in a tabular data cell or a lateximage:

```
20 \ifthenelse{%
21    \boolean{LWR@doingstartpars} \AND%
22    \cnttest{\value{LWR@lateximagedepth}}{=}{0}%
23    }%
24    {}%
25    {\LWR@htmltagc{\LWR@tagregularparagraph}\LWR@orignewline}%
```

Append the footnote mark to the list:

```
26 \@makefntext{}%
```

The footnote text will follow after \V@@footnotetext has completed.

```
27 \bgroup%
28 \aftergroup{\V@@@footnotetext}%
29 \ignorespaces%
30 }%
```

31 \preto\FVB@Verbatim{\LWR@forcenewpage}

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```
32 \preto\FVB@LVerbatim{\LWR@forcenewpage}
              33 % \preto\FVB@BVerbatim{\LWR@forcenewpage}% Fails, so done below.
              Simplified to remove PDF formatting:
              34 \def\FV@BeginListFrame@Single{%
              35 \FV@SingleFrameLine{\z@}%
              36 }
              38 \def\FV@EndListFrame@Single{%
                  \FV@SingleFrameLine{\@ne}%
              40 }
              42 \def\FV@BeginListFrame@Lines{%
                  \FV@SingleFrameLine{\z@}%
              44 }
              46 \def\FV@EndListFrame@Lines{%
              47
                    \FV@SingleFrameLine{\@ne}%
              48 }
              50 \renewcommand*{\FV@SingleFrameSep}{}
              Adds HTML formatting:
              51 \def\FV@BUseVerbatim#1{%
                    \LWR@atbeginverbatim[\LWR@FVstyle]{0}{verbatim}%
                    \FV@BVerbatimBegin#1\FV@BVerbatimEnd%
              53
                    \LWR@afterendverbatim{0}%
              54
              55 }
\LWR@FVstyle Holds the style of the verbatim.
              56 \newcommand*{\LWR@FVstyle}{}
              The following patches to Verbatim are executed at the start and end of the envi-
```

ronment, depending on the choice of frame. Original code is from the fancyvrb package.

```
57 \newcommand*{\LWR@fvstartnone}{%
58 \LWR@traceinfo{fvstartnone}%
59 % \hbox to\z@{
60 \LWR@atbeginverbatim[\LWR@FVstyle]{0}{verbatim}%
61 % }%
62 }
64 \newcommand*{\LWR@fvendnone}{%
65 \LWR@traceinfo{fvendnone}%
66 % \hbox to\z@{
67 \LWR@afterendverbatim{0}%
68 % }%
69 }
70
```

```
71 \newcommand*{\LWR@fvstartsingle}{%
72 \LWR@traceinfo{fvstartsingle}%
73 \LWR@fvstartnone%
74 \FV@BeginListFrame@Single%
75 }
77 \newcommand*{\LWR@fvendsingle}{%
78 \LWR@traceinfo{fvendsingle}%
79 \FV@EndListFrame@Single%
80 \LWR@fvendnone%
81 }
83 \newcommand*{\LWR@fvstartline}{%
84 \LWR@traceinfo{fvstartline}%
85 \LWR@fvstartnone%
86\,\%\ \setlength{\LWR@templengthone}{\baselineskip}%
87 \FV@BeginListFrame@Lines%
88 % \setlength{\baselineskip}{\LWR@templengthone}%
89 % \setlength{\baselineskip}{5pt}%
90 }
92 \newcommand*{\LWR@fvendline}{%
93 \LWR@traceinfo{fvendline}%
94 \FV@EndListFrame@Lines%
95 \LWR@fvendnone%
96 }
```

The following patches select the start/left/right/end behaviors depending on frame. Original code is from the fancyvrb package.

```
97 \newcommand*{\LWR@FVfindbordercolor}{%
 98 \FancyVerbRuleColor%
 99 \LWR@findcurrenttextcolor%
100 \color{black}%
101 }
102
103 % border width of \FV@FrameRule
104 \newcommand*{\LWR@FVborderstyle}[1]{%
105 padding#1: \strip@pt\dimexpr \FV@FrameSep\relax\relax pt ; %
106 \LWR@FVfindbordercolor %
107 border#1: \strip@pt\dimexpr \FV@FrameRule\relax\relax pt %
108 solid \LWR@origpound\LWR@tempcolor ; %
109 }
111 \def\FV@Frame@none{%
112 \renewcommand*{\LWR@FVstyle}{\LWR@currenttextcolorstyle}%
113 \let\FV@BeginListFrame\LWR@fvstartnone%
114 \let\FV@LeftListFrame\relax%
115 \let\FV@RightListFrame\relax%
116 \let\FV@EndListFrame\LWR@fvendnone}
118 \FV@Frame@none% default values
120 \def\FV@Frame@single{%
121 \renewcommand*{\LWR@FVstyle}{\LWR@currenttextcolorstyle\LWR@FVborderstyle{}}%
```

```
122 \let\FV@BeginListFrame\LWR@fvstartsingle%
123 \let\FV@LeftListFrame\FV@LeftListFrame@Single%
124 \let\FV@RightListFrame\FV@RightListFrame@Single%
125 \let\FV@EndListFrame\LWR@fvendsingle}
127 \def\FV@Frame@lines{%
128 \renewcommand*{\LWR@FVstyle}{%
     130 }%
131 \let\FV@BeginListFrame\LWR@fvstartline%
132 \let\FV@LeftListFrame\relax%
133 \let\FV@RightListFrame\relax%
134 \let\FV@EndListFrame\LWR@fvendline}
135
136 \def\FV@Frame@topline{%
137 \renewcommand*{\LWR@FVstyle}{\LWR@currenttextcolorstyle\LWR@FVborderstyle{-top}}%
138 \let\FV@BeginListFrame\LWR@fvstartline%
139 \let\FV@LeftListFrame\relax%
140 \let\FV@RightListFrame\relax%
141 \let\FV@EndListFrame\LWR@fvendnone}
143 \def\FV@Frame@bottomline{%
144 \renewcommand*{\LWR@FVstyle}{\LWR@currenttextcolorstyle\LWR@FVborderstyle{-bottom}}%
145 \let\FV@BeginListFrame\LWR@fvstartnone%
146 \let\FV@LeftListFrame\relax%
147 \let\FV@RightListFrame\relax%
148 \let\FV@EndListFrame\LWR@fvendline}
150 \def\FV@Frame@leftline{%
151 \renewcommand*{\LWR@FVstyle}{\LWR@currenttextcolorstyle\LWR@FVborderstyle{-left}}%
152 % To define the \FV@FrameFillLine macro (from \FV@BeginListFrame)
153 \ifx\FancyVerbFillColor\relax%
154 \let\FV@FrameFillLine\relax%
155 \else%
156 \@tempdima\FV@FrameRule\relax%
157 \multiply\@tempdima-\tw@%
158 \edef\FV@FrameFillLine{%
159 {\noexpand\FancyVerbFillColor{\vrule\@width\number\@tempdima sp}%
160 \kern-\number\@tempdima sp}}%
161 \fi%
162 \let\FV@BeginListFrame\LWR@fvstartnone%
163 \let\FV@LeftListFrame\FV@LeftListFrame@Single%
164 \let\FV@RightListFrame\relax%
165 \let\FV@EndListFrame\LWR@fvendnone}
```

Adds the optional label to the top and bottom edges. Original code is from the fancyvrb package.

```
166 \def\FV@SingleFrameLine#1{%
167 % \hbox to\z@{%
168 % \kern\leftmargin
169 \ifnum#1=\z@\relax
170 \let\FV@Label\FV@LabelBegin
171 \else
172 \let\FV@Label\FV@LabelEnd
```

```
173
       \fi
       \ifx\FV@Label\relax
174
175 %
           \FancyVerbRuleColor{\vrule \@width\linewidth \@height\FV@FrameRule}%
176
       \else
177
         \int 1=1z
             \setbox\z@\hbox{\strut\enspace\FV@LabelBegin\enspace\strut}%
178 %
           \ifx\FV@LabelPositionTopLine\relax
179
180
           \else
181
           \LWR@FVfindbordercolor
           \LWR@htmltagc{%
182
               div class="fancyvrblabel" % extra space
183
                    style="color: \LWR@origpound\LWR@tempcolor"%
184
185
           \LWR@print@textrm{\FV@LabelBegin}% \textrm preserves emdash
186
           \LWR@htmltagc{/div}
187
           \fi
188
         \else
189
190 %
             \setbox\z@\hbox{\strut\enspace\FV@LabelEnd\enspace\strut}%
           \ifx\FV@LabelPositionBottomLine\relax
191
           \else
192
           \LWR@FVfindbordercolor
193
194
           \LWR@htmltagc{%
195
               div class="fancyvrblabel" % extra space
196
197
                    style="color: \LWR@origpound\LWR@tempcolor"%
198
           \LWR@print@textrm{\FV@LabelEnd}
199
           \LWR@htmltagc{/div}
200
           \fi
201
202
         \fi
203
       \fi
204 %
         \hss
205 %
         }
206 }
```

Processes each line, adding optional line numbers. Original code is from the fancyvrb package.

```
207 \def\FV@ListProcessLine#1{%
     \hbox to \hsize{%
209 %
         \kern\leftmargin
        \hbox to \VerbatimHTMLWidth {%
210
         211
212
          \FV@LeftListNumber%
213 %
          \FV@LeftListFrame
        \FancyVerbFormatLine{#1}%
214
215
        \hss%
          \FV@RightListFrame
216 %
        \FV@RightListNumber%
217
218
      }%
        \hss% required to avoid underfull hboxes
219
220 }
221 }
```

```
Env
       BVerbatim
                   222 \AtBeginEnvironment{BVerbatim}
                   223 {%
                   224 \LWR@forcenewpage% instead of \preto
                   225 \LWR@atbeginverbatim{0}{bverbatim}%
                   227
                   228 \AfterEndEnvironment{BVerbatim}
                   229 {%
                   230 \LWR@afterendverbatim{0}%
                   231 }
                   End of the modifications to make at the end of the preamble:
                   232 } % \AfterEndPreamble
          File 123 lwarp-figcaps.sty
         Package figcaps
§ 221
                   (Emulates or patches code by Patrick W. Daly.)
     Pkg figcaps
                  Emulated.
                   Discard all options for lwarp-figcaps:
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{figcaps}[1999/02/23]
                    2 \newcommand*{\figcapson}{}
                    3 \newcommand*{\figcapsoff}{}
                    4 \newcommand*{\printfigures}{}
                    5 \newcommand*{\figmarkon}{}
                     6 \newcommand*{\figmarkoff}{}
                     7 \def\figurecapname{Figure Captions}
                     8 \def\tablepagename{Tables}
                    9 \def\figurepagename{Figures}
```

File 124 lwarp-figsize.sty

§ 222 Package figsize

(Emulates or patches code by Anthony A. Tanbakuchi.)

Pkg figsize figsize is emulated.

 $\textbf{for HTML output:} \qquad 1 \texttt{\LWR@ProvidesPackageDrop\{figsize\}[2002/03/18]}$

Emulates a virtual 6×9 inch textsize.

```
2 \newlength{\figwidth}
3 \newlength{\figheight}
4
5 \newcommand{\SetFigLayout}[3][0]{%
6 \setlength{\figheight}{8in}%
7 \setlength{\figheight}{\figheight} / #2}%
8 %
9 \setlength{\figwidth}{5.5in}%
10 \setlength{\figwidth}{\figwidth} / #3}%
11 }
```

File 125 lwarp-fitbox.sty

```
§ 223 Package fitbox
```

Pkg fitbox fitbox is ignored.

```
for HTML output: 1 \LWR@ProvidesPackageDrop{fitbox}[2019/02/20]
```

```
2 \NewDocumentCommand{\fitbox}{s o m}{%
3  \begin{BlockClass}{fitbox}
4  #3
5  \end{BlockClass}
6 }
7
8 \newcommand*{\fitboxset}[1]{}
9
10 \newdimen\fitboxnatheight
11 \newdimen\fitboxnatwidth
12
13 \newcommand\SetFitboxLayout[3][]{}
```

File 126 lwarp-fix2col.sty

§ 224 Package fix2col

Pkg fix2col is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{fix2col}[2015/11/13]

File 127 lwarp-fixme.sty

§ 225 Package fixme

(Emulates or patches code by Didier Verna.)

Pkg fixme fixme is patched for use by lwarp.

external layouts (\fxloadlayouts) are not supported.

User control is provided for setting the HTML styling of the "faces". The defaults are as follows, and may be changed in the preamble after fixme is loaded:

```
\def\FXFaceInlineHTMLStyle{font-weight:bold}
\def\FXFaceEnvHTMLStyle{font-weight:bold}
\def\FXFaceSignatureHTMLStyle{font-style:italic}
\def\FXFaceTargetHTMLStyle{font-style:italic}
```

for HTML output:

1 \LWR@ProvidesPackagePass{fixme}[2017/03/05]

Restore lwarp's version of \@wrindex, ignoring the fixme package's target option:

```
2 \let\@wrindex\LWR@wrindex
```

Float-related macros required by lwarp:

```
3 \newcommand{\ext@fixme}{lox}
```

Other modifications:

```
6 \def\FXFaceInlineHTMLStyle{font-weight:bold}
8 \renewcommand*\FXLayoutInline[3]{ %
9 \InlineClass[\FXFaceInlineHTMLStyle]{fixmeinline}%
      {\@fxtextstd{#1}{#2}{#3}}%
11 }
12
13 \def\FXFaceEnvHTMLStyle{font-weight:bold}
15 \renewcommand*\FXEnvLayoutPlainBegin[2]{%
16 \BlockClass[\FXFaceEnvHTMLStyle]{fixmebold}
17 \ignorespaces#2 \fxnotename{#1}: \ignorespaces}
19 \renewcommand*\FXEnvLayoutPlainEnd[2]{\endBlockClass}
21 \renewcommand*\FXEnvLayoutSignatureBegin[2]{%
22 \BlockClass[\FXFaceEnvHTMLStyle]{fixmebold}
23 \fxnotename{#1}: \ignorespaces}
25 \renewcommand*\FXEnvLayoutSignatureEnd[2]{\@fxsignature{#2}\endBlockClass}
27 \def\FXFaceSignatureHTMLStyle{font-style:italic}
29 \DeclareRobustCommand*\@fxsignature[1]{%
30 \ifthenelse{\equal{#1}{}}%
      { -- {\InlineClass[\FXFaceSignatureHTMLStyle]{fixmesignature}{#1}}}%
32
33 }
34
35
```

```
36 \def\FXFaceTargetHTMLStyle{font-style:italic}
37
38 \renewcommand\FXTargetLayoutPlain[2]{%
39 \InlineClass[\FXFaceTargetHTMLStyle]{fixmetarget}{#2}%
40 }
```

File 128 lwarp-fixmetodonotes.sty

§ 226 Package fixmetodonotes

(Emulates or patches code by Gioele Barabucci.)

Pkg fixmetodonotes fixmetodonotes is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{fixmetodonotes}[2013/04/28]

```
2 \renewcommand{\NOTES@addtolist}[2]{%
      \refstepcounter{NOTES@note}%
      \phantomsection% REMOVED
      \addcontentsline{notes}{NOTES@note}{%
          \protect\numberline{\theNOTES@note}{{#1}: {#2}}%
7
      }%
8 }
9
10 \renewcommand{\NOTES@marker}[2]{\fbox{%
11
      \textcolor{#2}{% WAS \color
12
          \textbf{#1}}%
13
      }}
14
15 \renewcommand{\NOTES@colorline}[2]{%
    \bgroup%
      \ULon{\LWR@backgroundcolor{#1}{#2}}%
17
18 }
```

File 129 lwarp-flafter.sty

```
§ 227 Package flafter
```

Pkg flafter flafter is ignored.

 $\begin{tabular}{ll} for HTML output: & 1 \LWR@ProvidesPackageDrop{flafter}[2018/01/08] \\ & 2 \providecommand\fl@trace[1]{} \end{tabular}$

File 130 lwarp-flippdf.sty

§ 228 Package flippdf

Pkg flippdf flippdf is ignored.

for HTML output:

1 \LWR@ProvidesPackageDrop{flippdf}[2006/06/30]

- 2 \newcommand\FlipPDF{}
- 3 \newcommand\UnFlipPDF{}

File 131 lwarp-float.sty

§ 229 Package

Package float

(Emulates or patches code by Anselm Lingnau.)

Pkg float float is emulated.

Float styles boxed and ruled are emulated by css and a float class according to style.

The HTML <figure> class is set to the float type, so css may also be used to format the float and its caption, according to float type. Furthermore, an additional class is set to the float style: plain, plaintop, boxed, or ruled, so css may be used to format by float style as well. Default formatting by css is provided for ruled and boxed styles.

for HTML output:

1 \LWR@ProvidesPackageDrop{float}[2001/11/08]

\listof See section 75.2 for the \listof command.

\LWR@floatstyle The default float style:

2 \newcommand*{\LWR@floatstyle}{plain}

\newfloat

 $\{\langle 1: type \rangle\} \{\langle 2: placement \rangle\} \{\langle 3: ext \rangle\} [\langle 4: within \rangle]$

Emulates the \newfloat command from the float package.

"placement" is ignored.

- 3 $\MewDocumentCommand{\newfloat}{m m m o}{\%}$
- 4 \IfValueTF{#4}%
- 5 {\DeclareFloatingEnvironment[fileext=#3,within=#4]{#1}}%
- 6 {\DeclareFloatingEnvironment[fileext=#3]{#1}}%

Remember the float style:

7 \csedef{LWR@floatstyle@#1}{\LWR@floatstyle}%

 $\label{listof} \begin{tabular}{ll} newfloat package automatically creates the \verb+\listof+ command for new floats, but float does not, so remove \verb+\listof+ here in case it is manually created later. \\ \end{tabular}$

```
8 \cslet{listof#1s}\relax%
9 \cslet{listof#1es}\relax%
```

Likesize, newfloat also creates \l@<type>, but float does not, so remove it here:

```
10 \cslet{l@#1}\relax%
```

11 }

```
\floatname
                      \{\langle type \rangle\} \{\langle name \rangle\}
                    Sets the text name of the float, such as "Figure".
                     12 \NewDocumentCommand{\floatname}{m +m}{%
                           \SetupFloatingEnvironment{#1}{name=#2}%
                     14 }
  \floatplacement
                      \{\langle type \rangle\} \{\langle placement \rangle\}
                    Float placement is ignored.
                     15 \newcommand*{\floatplacement}[2]{%
                           \SetupFloatingEnvironment{#1}{placement=#2}%
                     17 }
      \floatstyle
                      \{\langle style \rangle\}
                    Remember the style for future floats:
                     18 \newcommand{\floatstyle}[1]{%
                           \def\LWR@floatstyle{#1}%
                     19
                     20 }
                      * \{\langle type \rangle\}
    \restylefloat
                    Remember the style for this float:
                     21 \NewDocumentCommand{\restylefloat}{s m}{%
                           \csedef{LWR@floatstyle@#2}{\LWR@floatstyle}%
                     23 }
          File 132 lwarp-floatflt.sty
                    floatflt
§ 230
          Package
                    (Emulates or patches code by Mats Dahlgren.)
        floatflt Emulated.
                    Discard all options for lwarp-floatflt:
  for HTML output:
                      1 \LWR@ProvidesPackageDrop{floatflt}[1997/07/16]
                     offset \{\langle type \rangle\} \{\langle width \rangle\} Borrowed from the lwarp version of keyfloat:
         Env
             [()]
                      4 \setlength{\LWR@templengthone}{#3}%
                      5 \LWR@BlockClassWP{%
                           float:right; %
                           width:\LWR@printlength{\LWR@templengthone};  % extra space
                           margin:10pt%
                      8
                      9 }{%
```

```
width:\LWR@printlength{\LWR@templengthone}%
                        11 }%
                        12 {marginblock}%
                        13 \captionsetup{type=#2}%
                        14 }
                        15 {%
                        16 \endLWR@BlockClassWP%
                        17 }
      floatingfigure
                         [\langle placement \rangle] \{\langle width \rangle\}
 Env
                        18 \DeclareDocumentEnvironment{floatingfigure}{o m}
                           {\begin{KFLTfloatflt@marginfloat}{figure}{#2}}
                           {\end{KFLTfloatflt@marginfloat}}
                         [\langle placement \rangle]
      floatingtable
                        21 \DeclareDocumentEnvironment{floatingtable}{o}
                           {\begin{KFLTfloatflt@marginfloat}{table}{1.5in}}
                           {\end{KFLTfloatflt@marginfloat}}
             File 133 lwarp-floatpag.sty
                      floatpag
             Package
   § 231
                       (Emulates or patches code by Vytas Statulevičius and Sigitas Tolušis.)
            floatpag
                       Emulated.
                       Discard all options for lwarp-floatpag:
     for HTML output:
                        1 \LWR@ProvidesPackageDrop{floatpag}[2012/05/29]
                        2 \newcommand*{\floatpagestyle}[1]{}
                        3 \newcommand*{\rotfloatpagestyle}[1]{}
                        4 \newcommand*{\thisfloatpagestyle}[1]{}
                       lwarp-floatrow.sty
                       floatrow
             Package
   § 232
                       (Emulates or patches code by Olga Lapko.)
                       floatrow is emulated.
       Pkg floatrow
      for HTML output:
                        1 \LWR@ProvidesPackageDrop{floatrow}[2008/08/02]
Misplaced alignment
                       Use \StartDefiningTabulars and \StopDefiningTabulars before and after defining
                       macros using \ttabbox with a tabular inside. See section 8.10.1.
     tab character &
```

When combined with the subfig package, while inside a subfloatrow \ffigbox and \ttabbox must have the caption in the first of the two of the mandatory arguments.

\FBwidth, \FBheight

The emulation of floatrow does not support \FBwidth or \FBheight. These values are pre-set to .3\linewidth and 2in. Possible solutions include:

- Use fixed lengths. lwarp will scale the HTML lengths appropriately.
- Use warpprint and warpHTML environments to select appropriate values for each case.
- Inside a warpHTML environment, manually change \FBwidth or \FBheight before the \ffigbox or \ttabbox. Use \FBwidth or \FBheight normally afterwards; it will be used as expected in print output, and will use your custom-selected value in HTML output. This custom value will be used repeatedly, until it is manually changed to a new value.

After everything has loaded, remember whether subcaption was loaded. If not, it is assumed that subfig is used instead:

```
2 \newbool{LWR@subcaptionloaded}
3
4 \AtBeginDocument{
5 \@ifpackageloaded{subcaption}
6 {\booltrue{LWR@subcaptionloaded}}
7 {\boolfalse{LWR@subcaptionloaded}}
8 }

[\langle 1 preamble \rangle ] {\langle 2 captype \rangle ] [\langle 3 width \rangle ] [\langle 4 height \rangle ] [\langle 5 vert pos \rangle ] {\langle 6 caption \rangle }
{\langle 7 object \rangle \rangle }
```

Only parameters for captype, width, caption, and object are used.

LWR@insubfloatrow is true if inside a subfloatrow environment.

There are two actions, depending on the use of subcaption or subfig.

```
9 \NewDocumentCommand{\floatbox}{o m o o o +m +m}{%
10 \ifbool{LWR@subcaptionloaded}%
11 {% subcaption
```

For subcaption:

\floatbox

```
12 \ifbool{LWR@insubfloatrow}%
13 {% subcaption in a subfloatrow
```

subfigure and subtable environments take width as an argument.

```
14 \IfValueTF{#3}%
15 {\@nameuse{sub#2}{#3}}%
16 {\@nameuse{sub#2}{\linewidth}}%
17 }% subcaption in a subfloatrow
18 {% subcaption not in subfloatrow
```

figure and table environments do not take a width argument.

```
19 \@nameuse{#2}%
20 }% subcaption not in subfloatrow
```

```
21 #6
22
23 #7
End the environments:
24 \ifbool{LWR@insubfloatrow}%
25 {\@nameuse{endsub#2}}%
26 {\@nameuse{end#2}}%
27 }% subcaption
28 {% assume subfig
For subfig:
29 \ifbool{LWR@insubfloatrow}%
30 {% subfig in a subfloatrow}
```

\subfloat is a macro, not an environment.

Package subfig's \subfloat command takes an optional argument which is the caption, but \floatbox argument #6 contains commands to create the caption and label, not the caption itself. Thus, \caption is temporarily disabled to return its own argument without braces.

```
\begingroup
32
      \let\caption\@firstofone
33
      \subfloat[#6]{#7}
      \endgroup
35 }% subfig in a subfloatrow
36 {% subfig package, but not a subfig
figure and table are environments:
37 \@nameuse{#2}
38 #6
39
40 #7
41 \@nameuse{end#2}
42 }% subfig package, but not a subfig
43 }% assume subfig
44 }
Not used:
45 \newcommand*{\nocapbeside}{}
46 \newcommand*{\capbeside}{}
47 \newcommand*{\captop}{}
48 \newlength{\FBwidth}
49 \setlength{\FBwidth}{.3\linewidth}
50 \newlength{\FBheight}
51 \setlength{\FBheight}{2in}
52 \newcommand*{\useFCwidth}{}
53 \newcommand{\floatsetup}[2][]{}
54 \newcommand{\thisfloatsetup}[1]{}
55 \newcommand{\clearfloatsetup}[1]{}
56 \newcommand*{\killfloatstyle}{}
```

```
Preamble and default width are ignored.
                          57 \NewDocumentCommand{\newfloatcommand}{m m o o}{%
                          58 \@namedef{#1}{
                          59 \floatbox{#2}
                          60 }
                          61 }
\renewfloatcommand
                           \{\langle 1 \ command \rangle\} \{\langle 2 \ captype \rangle\} [\langle 3 \ preamble \rangle] [\langle 4 \ default \ width \rangle]
                         Preamble and default width are ignored.
                          62 \NewDocumentCommand{\renewfloatcommand}{m m o o}{%
                          63 \@namedef{#1}{%
                          64 \floatbox{#2}
                          65 }
                          66 }
            \ffigbox
                           [\langle width \rangle] [\langle height \rangle] [\langle vposn \rangle] \{\langle caption \ commands \rangle\} \{\langle contents \rangle\}
                          67 \newfloatcommand{ffigbox}{figure}[\nocapbeside][]
            \ttabbox
                           [\langle width \rangle] [\langle height \rangle] [\langle vposn \rangle] \{\langle caption \ commands \rangle\} \{\langle contents \rangle\}
                          68 \newfloatcommand{ttabbox}{table}[\captop][\FBwidth]
           \fcapside
                           [\langle width \rangle] [\langle height \rangle] [\langle vposn \rangle] \{\langle caption \ commands \rangle\} \{\langle contents \rangle\}
                          69 \newfloatcommand{fcapside}{figure}[\capbeside][]
           floatrow
                           [\langle numfloats \rangle]
      Env
                         The row of floats is placed into a <div> of class floatrow.
                          70 \newenvironment*{floatrow}[1][2]
                          72 \LWR@forcenewpage
                          73 \BlockClass{floatrow}
                         While inside the floatrow, divide the \linewidth by the number of floats.
                          74 \booltrue{LWR@infloatrow}
                          75 \setlength{\linewidth}{6in/#1}
                          76 }
                          78 \boolfalse{LWR@infloatrow}
                          79 \endBlockClass
                          80 }
                         Keys for \DeclareNewFloatType:
                          81 \newcommand*{\LWR@frowkeyplacement}{}
                          82 \newcommand*{\LWR@frowkeyname}{}
                          83 \newcommand*{\LWR@frowkeyfileext}{}
                          84 \newcommand*{\LWR@frowkeywithin}{}
                          85 \newcommand*{\LWR@frowkeycapstyle}{}
                          86
```

```
87 \define@key{frowkeys}{placement}{}%
88 \define@key{frowkeys}{name}{\renewcommand{\LWR@frowkeyname}{#1}}%
89 \define@key{frowkeys}{fileext}{\renewcommand{\LWR@frowkeyfileext}{#1}}%
90 \define@key{frowkeys}{within}{\renewcommand{\LWR@frowkeywithin}{#1}}%
91 \define@key{frowkeys}{relatedcapstyle}{}%
 \{\langle type \rangle\} \{\langle options \rangle\}
Use \listof{type}{Title} to print a list of the floats.
92 \newcommand*{\DeclareNewFloatType}[2]{%
Reset key values:
93 \renewcommand*{\LWR@frowkeyplacement}{}%
94 \renewcommand*{\LWR@frowkeyname}{}%
95 \renewcommand*{\LWR@frowkeyfileext}{}%
96 \renewcommand*{\LWR@frowkeywithin}{}%
97 \renewcommand*{\LWR@frowkeycapstyle}{}%
Read new key values:
98 \LWR@traceinfo{about to setkeys frowkeys}%
99 \setkeys{frowkeys}{#2}%
100 \LWR@traceinfo{finished setkeys frowkeys}%
Create a new float with optional [within]:
101 \ifthenelse{\equal{\LWR@frowkeywithin}{}}%
102 {%
103
       \LWR@traceinfo{about to newfloat #1 \LWR@frowkeyplacement\ %
104
           \LWR@frowkeyfileext}%
105
       \newfloat{#1}{\LWR@frowkeyplacement}{\LWR@frowkeyfileext}%
106 }%
107 {%
       \LWR@traceinfo{about to newfloat #1\ \LWR@frowkeyplacement\ %
108
109
           \LWR@frowkeyfileext\ \LWR@frowkeywithin}%
110
       \newfloat{#1}{\LWR@frowkeyplacement}%
       {\LWR@frowkeyfileext}[\LWR@frowkeywithin]%
111
112
       \LWR@traceinfo{finished newfloat #1}%
113 }%
Rename the float if a name was given:
114 \ifthenelse{\equal{\LWR@frowkeyname}{}}%
115
       {}%
116
       {\floatname{#1}{\LWR@frowkeyname}}%
117 }
Not used:
118 \newcommand{\buildFBBOX}[2]{}
119 \newcommand*{\CenterFloatBoxes}{}
120 \newcommand*{\TopFloatBoxes}{}
121 \newcommand*{\BottomFloatBoxes}{}
122 \newcommand*{\PlainFloatBoxes}{}
124 \newcommand{\capsubrowsettings}{}
```

\DeclareNewFloatType

125

```
126 \NewDocumentCommand{\RawFloats}{o o}{}
      \RawCaption
                     \{\langle text \rangle\}
                    To be used inside a minipage or parbox.
                    127 \newcommand{\RawCaption}[1]{#1}
       \floatfoot
                      \{\langle text \rangle\}
                    Places additional text inside a float, inside a css <div> of class floatfoot.
                    128 \NewDocumentCommand{\floatfoot}{s +m}{%
                    129 \begin{BlockClass}{floatfoot}
                    130 #2
                    131 \end{BlockClass}
                    132 }
                    Used to compute \linewidth.
                    133 \newbool{LWR@insubfloatrow}
                    134 \boolfalse{LWR@insubfloatrow}
 Env subfloatrow
                      [\langle num\_floats \rangle]
                    135 \newenvironment*{subfloatrow}[1][2]
                    136 {
                    The row of floats is placed into a <div> of class floatrow:
                    137 \LWR@forcenewpage
                    138 \BlockClass{floatrow}
                    While inside the floatrow, LWR@insubfloatrow is set true, which tells \floatbox to
                    use \subfigure or \subtable.
                    139 \begingroup
                    140 \booltrue{LWR@insubfloatrow}
                    141 }
                    142 {
                    143 \endgroup
                    144 \endBlockClass
                    145 \boolfalse{LWR@insubfloatrow}
                    146 }
          File 135 lwarp-fltrace.sty
         Package fltrace
§ 233
     Pkg fltrace is ignored.
  for HTML output:
                     1 \LWR@ProvidesPackageDrop{fltrace}[2018/01/08]
                     2 \def\tracefloats{}
```

```
3 \def\tracefloatsoff{}
4 \def\tracefloatvals{}
```

File 136 lwarp-flushend.sty

§ 234 Package flushend

(Emulates or patches code by Sigitas Tolušis.)

Pkg flushend Emulated.

for HTML output: Discard all options for lwarp-flushend:

1 \LWR@ProvidesPackageDrop{flushend}[2017/03/27]

- 2 \newcommand*{\flushend}{}
- 3 \newcommand*{\raggedend}{}
- 4 \newcommand*{\flushcolsend}{}
- 5 \newcommand*{\raggedcolsend}{}
- 6 \newcommand*{\atColsBreak}[1]{}
- 7 \newcommand*{\atColsEnd}[1]{}
- 8 \newcommand*{\showcolsendrule}{}

File 137 lwarp-fnbreak.sty

§ 235 Package fnbreak

Pkg fnbreak fnbreak is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{fnbreak}[2012/01/01]

- 2 \newcommand*{\fnbreakverbose}{}
- $3 \rightarrow \text{newcommand} {\fnbreaknonverbose}$
- 4 \newcommand*{\fnbreaklabel}{}
- 5 \newcommand*{\fnbreaknolabel}{}

File 138 lwarp-fncychap.sty

§ 236 Package fncychap

(Emulates or patches code by Ulf A. Lindgren.)

Pkg fncychap fncychap is emulated.

for HTML output: Discard all options for lwarp-fncychap:

1 \LWR@ProvidesPackageDrop{fncychap}[2007/07/30]

2 \def\mghrulefill#1{}

§ 237

§ 238

§ 239

```
3 \def\ChNameLowerCase{}
                  4 \def\ChNameUpperCase{}
                  5 \def\ChNameAsIs{}
                  6 \def\ChTitleLowerCase{}
                  7 \def\ChTitleUpperCase{}
                  8 \def\ChTitleAsIs{}
                  9 \newcommand{\ChRuleWidth}[1]{}
                 10 \newcommand{\ChNameVar}[1]{}
                 11 \newcommand{\ChNumVar}[1]{}
                 12 \newcommand{\ChTitleVar}[1]{}
                 13 \newcommand{\TheAlphaChapter}{}
                 14 \newcommand{\DOCH}{}
                 15 \newcommand{\DOTI}[1]{}
                 16 \newcommand{\DOTIS}[1]{}
                 17 \newlength{\mylen}
                 18 \newlength{\myhi}
                 19 \newlength{\px}
                 20 \newlength{\py}
                 21 \newlength{\pyy}
                 22 \newlength{\pxx}
                 23 \newlength{\RW}
                 24 \mbox{newcommand}{\mbox{FmN}[1]{\#1}}
                 25 \mbox{newcommand}{\mbox{FmTi}[1]{\#1}}
                 lwarp-fnlineno.sty
       File 139
                 fnlineno
       Package
                 fnlineno is ignored.
      fnlineno
for HTML output:
                  1 \LWR@ProvidesPackageDrop{fnlineno}[2011/01/07]
       File 140 lwarp-fnpara.sty
                 fnpara
       Package
       fnpara
                 fnpara is ignored.
for HTML output:
                  1 \LWR@ProvidesPackageDrop{fnpara}
       File 141 lwarp-fnpos.sty
       Package fnpos
```

(Emulates or patches code by Hiroshi Nakashima.)

Pkg fnpos fnpos is emulated.

for HTML output:

1 \LWR@ProvidesPackageDrop{fnpos}[1999/07/14]

```
2 \newcommand*{\makeFNbottom}{}
3 \newcommand*{\makeFNmid}{}
4 \newcommand*{\makeFNbelow}{}
5 \newcommand*{\makeFNabove}{}
```

File 142 lwarp-fontawesome.sty

§ 240 Package

fontawesome

(Emulates or patches code by Xavier Danaux.)

Pkg fontawesome

fontawesome is patched for use by lwarp.

Hashed inline images are used, as there may not be Unicode support for all icons.

poppler syntax warning

If using pdfIATEX, *poppler* may issue a syntax warning regarding parsing a ligature component. XHIATEX or LuaIATEX may be used to avoid this warning.

In the following, the general strategy is to intercept \symbol and embed it inside a lateximage. These changes are done inside a local group.

For pdfIATEX, the alt tag includes the icon (symbol) number. For XIIATEX and LuaIATEX, the alt tag is generic.

for HTML output:

```
1 \LWR@ProvidesPackagePass{fontawesome}[2016/05/15]
```

```
2 \LetLtxMacro\LWR@orig@symbol\symbol
4 \ifxetexorluatex
6 \newfontfamily{\LWR@orig@FA}{FontAwesome}
8 \newcommand*{\LWR@fontawesome@xelatex@symbol}[1]{%
9 \begin{lateximage}*[(icon)][fontawesomexetex#1]%
10 \begingroup%
11 \LWR@orig@FA%
12 \LWR@orig@symbol{#1}%
13 \endgroup%
14 \end{lateximage}%
15 }
16
17 \RenewDocumentCommand{\FA}{}{%
      \LetLtxMacro\symbol\LWR@fontawesome@xelatex@symbol%
19 }
20
21 \else
23 \newcommand*{\LWR@fontawesome@symbolone}[1]{%
```

```
24 \begin{lateximage}*[(icon #1)][fontawesomeone#1]%
25 \begingroup%
26 \fontencoding{U}\fontfamily{fontawesomeone}\selectfont%
27 \LWR@orig@symbol{#1}%
28 \endgroup%
29 \end{lateximage}%
30 }
32 \newcommand*{\LWR@fontawesome@symboltwo}[1]{%
33 \begin{lateximage}*[(icon #1)][fontawesometwo#1]%
34 \begingroup%
35 \fontencoding{U}\fontfamily{fontawesometwo}\selectfont%
36 \LWR@orig@symbol{#1}%
37 \endgroup%
38 \end{lateximage}%
39 }
40
41 \newcommand*{\LWR@fontawesome@symbolthree}[1]{%
42 \begin{lateximage}*[(icon #1)][fontawesomethree#1]%
43 \begingroup%
44 \fontencoding{U}\fontfamily{fontawesomeonethree}\selectfont%
45 \LWR@orig@symbol{#1}%
46 \endgroup%
47 \end{lateximage}%
48 }
49
50 \renewrobustcmd\FAone{%
      \LetLtxMacro\symbol\LWR@fontawesome@symbolone%
52 }
53
54 \renewrobustcmd\FAtwo{%
      \LetLtxMacro\symbol\LWR@fontawesome@symboltwo%
56 }
57
58 \renewrobustcmd\FAthree{%
      \LetLtxMacro\symbol\LWR@fontawesome@symbolthree%
60 }
61 \fi
```

File 143 lwarp-fontawesome5.sty

§ 241 Package fontawesome 5

(Emulates or patches code by Marcel Krüger.)

Pkg fontawesome5 fontawesome5 is patched for use by lwarp.

Hashed inline images are used, as there may not be Unicode support for all icons.

The alt tag has the name of the icon.

for HTML output: 1 \LWR@ProvidesPackagePass{fontawesome5}[2018/07/27]

```
2 \ExplSyntaxOn
3 \cs_set:Nn\fontawesome_use_icon:nn{
   \cs_if_exist:cTF{c__fontawesome_slot_#2_tl}{
      \begin{lateximage}*[(#2)][#1]
      \exp_last_unbraced:Nv
6
        \__fontawesome_icon_at:nnnn
7
        {c__fontawesome_slot_#2_tl}
8
9
          {#1}{#2}
10
      \end{lateximage}
11
   }{
      \label{lem:msg_error:nnxx} $$\max_{i:on-not-found}{\#2}{\#1}$
12
   }
13
14 }
15 \ExplSyntaxOff
```

File 144 lwarp-fontenc.sty

§ 242 Package fontenc

Pkg fontenc

If using pdfIATEX, lwarp used to require fontenc be loaded before lwarp, but now lwarp itself loads \fontenc with T1 encoding, which lwarp requires. fontenc is now allowed to be loaded with another encoding after lwarp.

lwarp-fontenc is no longer necessary, but is still provided to overwrite older versions.

for HTML output:

1 \LWR@ProvidesPackagePass{fontenc}[2017/04/05]

File 145 lwarp-footmisc.sty

§ 243 Package footmisc

(Emulates or patches code by Robin Fairbairns.)

Pkg footmisc footmisc is emulated.

lwarp incidentally happens to emulate the stable option.

1 \LWR@ProvidesPackageDrop{footmisc}[2011/06/06]

Some nullified commands:

```
2 \newcommand{\footnotelayout}{}
3 \newcommand{\setfnsymbol}[1]{}
4 \NewDocumentCommand{\DefineFNsymbols}{s m o m}{}
5
6 \newdimen\footnotemargin
7 \footnotemargin1.8em\relax
8
9 \newcommand*\hangfootparskip{0.5\baselineskip}
```

```
10 \newcommand*\hangfootparindent{0em}%
12 \let\pagefootnoterule\footnoterule
13 \let\mpfootnoterule\footnoterule
14 \def\splitfootnoterule{\kern-3\p@ \hrule \kern2.6\p@}
16 \providecommand*{\multiplefootnotemarker}{3sp}
17 \providecommand*{\multfootsep}{,}
Using cleveref:
18 \providecommand*{\footref}[1]{\labelcref{#1}}
The following work as-is:
19 \newcommand\mpfootnotemark{%
    \@ifnextchar[%
      \@xmpfootnotemark%
22
        \stepcounter\@mpfn%
23
        \protected@xdef\@thefnmark{\thempfn}%
24
         \@footnotemark%
25
      }%
26
27 }
28 \def\@xmpfootnotemark[#1]{%
    \begingroup%
      \csname c@\@mpfn\endcsname #1\relax%
30
      \unrestored@protected@xdef\@thefnmark{\thempfn}%
31
    \endgroup%
32
    \@footnotemark%
33
34 }
```

File 146 lwarp-footnote.sty

Package footnote **§ 244**

(Emulates or patches code by MARK WOODING.)

footnote is used with minor patches. footnote

1 \LWR@ProvidesPackagePass{footnote}[1997/01/28] for HTML output:

Removed print-version formatting:

```
2 \def\fn@startnote{%
     \@parboxrestore%
4 \protected@edef\@currentlabel{\csname p@\@mpfn\endcsname\@thefnmark}%
     \color@begingroup% *** conflicts with lwarp
6 }
8% \let\fn@endnote\color@endgroup% *** conflicts with lwarp
9 \def\fn@endnote{%
```

```
10 \LWR@htmltagc{/\LWR@tagregularparagraph}%
                 11 \LWR@orignewline%
                 12 }
                Removed print-version formatting:
                 13 \def\fn@startfntext{%
                    \setbox\z@\vbox\bgroup%
                      \fn@startnote%
                 15
                       \fn@prefntext%
                 16
                      \ignorespaces%
                 17
                 18 }
                Removed print-version formatting, added closing paragraph tag:
                 19 \def\fn@endfntext{%
                      \LWR@htmltagc{/\LWR@tagregularparagraph}%
                      \LWR@orignewline%
                      \fn@postfntext%
                 22
                    \egroup%
                 23
                    \begingroup%
                      \let\@makefntext\@empty%
                 25
                       \let\@finalstrut\@gobble%
                 26
                 27
                       \LetLtxMacro\rule\@gobbletwo% *8* also the optional argument?
                       \@footnotetext{\unvbox\z@}%
                    \endgroup%
                 29
                 30 }
                These have been redefined, so re-\let them again:
                 31 \let\endfootnote\fn@endfntext
                 32 \let\endfootnotetext\endfootnote
                lwarp-footnotebackref.sty
       Package footnotebackref
footnotebackref is ignored.
                  1 \LWR@ProvidesPackageDrop{footnotebackref}[2012/07/01]
       File 148 lwarp-footnotehyper.sty
       Package footnotehyper
                footnotehyper is a hyperref-safe version of footnote. For lwarp, footnotehyper is
                emulated.
```

\$245

\$246

for HTML output:

footnotehyper

for HTML output:

Discard all options for lwarp-footnotehyper:

1 \RequirePackage{footnote}

2 \LWR@ProvidesPackageDrop{footnotehyper}[2018/01/23]

File 149 lwarp-footnoterange.sty

§ 247 Package footnoterange

(Emulates or patches code by H.-MARTIN MÜNCH.)

Pkg footnoterange footnoterange is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{footnoterange}[2012/02/17]

2 \csletcs{footnoterange}{footnoterange*}

3 \csletcs{endfootnoterange}{endfootnoterange*}

File 150 lwarp-footnpag.sty

§ 248 Package footnpag

Pkg footnpag footnpag is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{footnpag}

File 151 lwarp-foreign.sty

§ 249 Package foreign

(Emulates or patches code by Philip G. Ratcliffe.)

Pkg foreign foreign is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{foreign}[2012/09/25]

2 \renewcommand\foreignabbrfont{\emph}

File 152 lwarp-forest.sty

§ 250 Package forest

(Emulates or patches code by Sašo Živanović.)

Pkg forest forest is patched for use by lwarp.

⚠ \Forest*

The starred version of the macro \Forest* is not supported. lwarp encases each lateximage in an environment, so the global results of the starred \Forest* are lost.

for HTML output: 1 \LWR@ProvidesPackagePass{forest}[2017/07/14] 2 \BeforeBeginEnvironment{forest}{\begin{lateximage}[forest]} 4 \AfterEndEnvironment{forest}{\end{lateximage}} 6 \RenewDocumentCommand{\Forest}{s D(){} m}{% \forest@config{#2}% \IfBooleanTF{#1}{% \PackageError{lwarp-forest}% {Starred \Forest is not supported}% 10 {Lwarp uses an environment for images, but \Forest* cannot work in an environment.}% 11 \let\forest@next\forest@env% 12 }{\let\forest@next\forest@group@env}% 13 \begin{lateximage}[forest]% 14 15 \forest@next{#3}% 16 \end{lateximage}% lwarp

File 153 lwarp-framed.sty

17 }

§251 Package framed

(Emulates or patches code by Donald Arseneau.)

Pkg framed framed is supported and patched by lwarp.

for HTML output:

Accept all options for lwarp-framed:

1 \LWR@ProvidesPackagePass{framed}[2011/10/22]
2 \RequirePackage{xcolor}% for \convertcolorspec

```
3
4 \renewenvironment{framed}{%
5 \LWR@forcenewpage
6 \BlockClass{framed}%
7 }
8 {\endBlockClass}
9
10 \renewenvironment{oframed}{%
11 \LWR@forcenewpage
12 \BlockClass{framed}%
13 }
14 {\endBlockClass}
15
16
17 \renewenvironment{shaded}{%
18 \convertcolorspec{named}{shadecolor}{HTML}\LWR@tempcolor%
```

```
19 \LWR@forcenewpage
20 \BlockClass[background: \LWR@origpound\LWR@tempcolor]{shaded}%
22 {\endBlockClass}
24 \renewenvironment{shaded*}{%
26 \LWR@forcenewpage
27 \BlockClass[background: \LWR@origpound\LWR@tempcolor]{shaded}%
29 {\endBlockClass}
30
31
32 \renewenvironment{leftbar}{%
33 \LWR@forcenewpage
       \BlockClass{framedleftbar}
    \def\FrameCommand{}%
35
    \MakeFramed {}
36
37 }%
38 {\endMakeFramed\endBlockClass}
41 \renewenvironment{snugshade}{%
42 \convertcolorspec{named}{shadecolor}{HTML}\LWR@tempcolor%
43 \LWR@forcenewpage
44 \BlockClass[background: \LWR@origpound\LWR@tempcolor]{snugframed}%
45 }
46 {\endBlockClass}
48 \renewenvironment{snugshade*}{%
49 \convertcolorspec{named}{shadecolor}{HTML}\LWR@tempcolor%
50 \LWR@forcenewpage
{\tt 51 \ AllockClass[background: \ LWR@orignound\ LWR@tempcolor]{snugframed}} \\ \\
53 {\endBlockClass}
55 \let\oframed\framed
56 \let\endoframed\endframed
57
59 \RenewEnviron{titled-frame}[1]{%
60 \CustomFBox\{#1\}{\}{0pt}{0pt}{0pt}{NDDY}
61 }
\CustomFBox {\langle toptitle \rangle} {\langle bottitle \rangle} {\langle thicknesstop \rangle} {\langle bottom \rangle} {\langle left \rangle} {\langle right \rangle}
\{\langle text \ contents \rangle\}
62 \renewcommand{\CustomFBox}[7]{%
63 \convertcolorspec{named}{TFFrameColor}{HTML}\LWR@tempcolor%
64 \LWR@forcenewpage
65 \begin{BlockClass}[border: 3px solid \LWR@origpound\LWR@tempcolor]{framed}%
66 \ifthenelse{\isempty{#1}}{}% not empty
       \begin{BlockClass}[background: \LWR@origpound\LWR@tempcolor]{framedtitle}%
67
       \textcolor{TFTitleColor}{\textbf{#1}}%
68
       \end{BlockClass}
69
```

```
70 }% not empty
72 #7
74 \ifthenelse{\isempty{#2}}{}{% not empty
      \verb|\convertcolorspec{named}{TFFrameColor}{HTML}\LWR@tempcolor%|
      76
      \textcolor{TFTitleColor}{\textbf{#2}}%
77
      \end{BlockClass}
79 }% not empty
80 \end{BlockClass}
81 }
\mathsf{TitleBarFrame} [\langle marker \rangle] \{\langle title \rangle\} \{\langle contents \rangle\}
82 \renewcommand\TitleBarFrame[3][]{
83 \CustomFBox
      {#2}{}%
      \fboxrule\fboxrule\fboxrule
85
86
      {#3}%
87 }
88 \renewcommand{\TF@Title}[1]{#1}
MakeFramed {\langle settings \rangle}
89 \let\MakeFramed\relax
90 \let\endMakeFramed\relax
92 \NewEnviron{MakeFramed}[1]{%
93 \FrameCommand{\begin{minipage}{\linewidth}\BODY\end{minipage}}%
94 }
\fb@put@frame \{\langle frame\ cmd\ no\ split\rangle\}\ \{\langle frame\ cmd\ split\rangle\}
95 \renewcommand*{\fb@put@frame}[2]{%
96 \relax%
97 \@tempboxa%
98 }
```

File 154 lwarp-ftcap.sty

```
§ 252 Package ftcap
```

Pkg ftcap ftcap is ignored.

 $\begin{tabular}{ll} \textbf{for HTML output:} & 1 \LWR@ProvidesPackageDrop\{ftcap\} \end{tabular}$

File 155 lwarp-ftnright.sty

§ 253 Package ftnright

Pkg ftnright ftnright is ignored.

for HTML output: Discard all options for lwarp-ftnright:

1 \LWR@ProvidesPackageDrop{ftnright}[2014/10/28]

File 156 lwarp-fullminipage.sty

§ 254 Package fullminipage

Pkg fullminipage fullminipage is nullified.

for HTML output: 1 \LWR@ProvidesPackageDrop{fullminipage}[2014/07/06]

2 \newenvironment{fullminipage}[1][]{}{}

File 157 lwarp-fullpage.sty

§ 255 Package fullpage

Pkg fullpage fullpage is ignored.

for HTML output: Discard all options for lwarp-fullpage:

1 \LWR@ProvidesPackageDrop{fullpage}[1994/06/01]

File 158 lwarp-fullwidth.sty

§ 256 Package fullwidth

(Emulates or patches code by MARCO DANIEL.)

Pkg fullwidth fullwidth is emulated.

A minipage is used, of no нтмL width.

for HTML output: 1 \LWR@ProvidesPackageDrop{fullwidth}[2011/11/18]

```
2 \newenvironment*{fullwidth}[1][]{%
                   3 \minipagefullwidth%
                   4 \minipage{\linewidth}%
                   5 }
                   6 {%
                    7 \endminipage%
                    8 }
                 lwarp-fwlw.sty
         File 159
        Package fwlw
§ 257
                  fwlw is ignored.
           fwlw
        Pkg
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{fwlw}
                    2 \newbox\FirstWordBox
                                              \global\setbox\FirstWordBox\hbox{}
                    3 \newbox\NextWordBox
                                              \global\setbox\NextWordBox\hbox{}
                    4 \newbox\LastWordBox
                                              \global\setbox\LastWordBox\hbox{}
                   5 \def\ps@fwlwhead{}
                    6 \def\ps@NextWordFoot{}
                  lwarp-gentombow.sty
         File 160
                  gentombow
         Package
§ 258
       gentombow
                   gentombow is ignored.
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{gentombow}[2018/05/17]
                    2 \newcommand{\settombowbanner}[1]{}
                    3 \newcommand{\settombowbannerfont}[1]{}
                    4 \newcommand{\settombowwidth}[1]{}
                    5 \newcommand{\settombowbleed}[1]{}
                    6 \newcommand{\settombowcolor}[1]{}
         File 161 lwarp-geometry.sty
         Package geometry
§ 259
                  (Emulates or patches code by Hideo Umeki.)
                  geometry is preloaded by lwarp, but must be nullified as seen by the user's source
        geometry
```

code.

for HTML output:

Discard all options for lwarp-geometry:

```
1 \LWR@ProvidesPackageDrop{geometry}[2018/04/16]
2 \renewcommand*{\geometry}[1]{}
3 \renewcommand*{\newgeometry}[1]{}
4 \renewcommand*{\restoregeometry}{}
5 \renewcommand*{\savegeometry}[1]{}
6 \renewcommand*{\loadgeometry}[1]{}
```

File 162 lwarp-gloss.sty

```
§ 260 Package gloss
```

(Emulates or patches code by Jose Luis Díiaz, Javier Bezos.)

Pkg gloss gloss is patched for use by lwarp.

To process the HTML glossary:

```
bibtex ctname>_html.gls
```

 $\quad \textbf{for HTML output:} \\$

1 \LWR@ProvidesPackagePass{gloss}[2002/07/26]

```
2 \xpatchcmd{\gls@gloss@iii}
3     {\thepage}
4     {\theLWR@previousautopagelabel}
5     {}
6     {\LWR@patcherror{gloss}{gls@gloss@iii}}
7
8 \def\gls@page@i#1#2{%
9     \endgroup
10    \global\@namedef{glsp@#1}{\nameref{autopage-#2}}}
```

File 163 lwarp-glossaries.sty

§ 261 Package glossaries

(Emulates or patches code by Nicola L.C. Talbot.)

processing glossaries
Opt GlossaryCmd
Default: makeglossaries
Opt[warpmk] printglossary
Opt[warpmk] htmlglossary

Pkg glossaries

lwarpmk has the commands lwarpmk printglossary and lwarpmk htmlglossary, which process the glossaries created by the glossaries package using that package's *makeglossaries* program.

The shell command to execute is set by the lwarp option GlossaryCmd, which defaults to makeglossaries. The print or HTML glossary filename is appended to this command.

In some situations it may be required to modify the default command, such as to

Iwarp 719

add the perl command in front:

```
\usepackage[
   GlossaryCmd={perl makeglossaries},
] {lwarp}
```

xindy language To set the language to use for processing glossaries with xindy:

```
\usepackage[
   GlossaryCmd={makeglossaries -L english},
] {lwarp}
```

Other options for makeglossaries may be set as well.

placement and toc options

The glossaries may be placed in a numbered or unnumbered section, given a TOC entry, and placed inline or on their own HTML page:

Numbered section, on its own HTML page:

```
\usepackage[xindy,toc,numberedsection=nolabel]{glossaries}
\printglossaries
```

Unnumbered section, inline with the current HTML page:

```
\usepackage[xindy,toc]{glossaries}
\printglossaries
```

Unnumbered section, on its own HTML page:

```
\usepackage[xindy,toc]{glossaries}
\ForceHTMLPage
\printglossaries
```

glossary style

The default style=item option for glossaries conflicts with lwarp, so the style is forced to index instead.

number list The page number list in the printed form would become \namerefs in HTML, which could become a very long string if many items are referenced. For now, the number list is simply turned off.

print/html versions

The print and HTML versions of the glossary differ in their internal page numbers. Separate commands for generating print and HTML glossaries are used, even though the page number is currently ignored.

```
for HTML output:
```

```
1 \PassOptionsToPackage{xindy}{glossaries}
3 \LWR@ProvidesPackagePass{glossaries}[2018/07/23]
5 \setupglossaries{nonumberlist}
6 \setglossarystyle{index}
```

Patched to fix TOC pointing to the previous page:

```
7 \renewcommand*{\@p@glossarysection}[2]{%
```

```
8 \glsclearpage
9 \phantomsection
10 \ifdefempty\@@glossarysecstar
11 {%
12 \csname\@@glossarysec\endcsname{#2}%
13 }%
14 {%
```

In the original, the ToC entry was made before the section, thus linking to the phantomsection in the printed version, but for HTML, this caused the link to point to the page before the glossaries, which could be a different HTML file. Here, the ToC entry is made after the section is created:

```
15 \csname\@@glossarysec\endcsname*{#2}%
16 \@gls@toc{#1}{\@@glossarysec}% Moved after the previous line.
17 }%
18 \@@glossaryseclabel
19 }
```

lwarp's sectioning commands cannot handle robust macros when splitting HTML into named filenames. glossaries uses \translate in sectioning names, and \translate is robust and cannot be expanded. The following pre-expands the translations at this moment, making use of \translatelet.

```
20 \newcommand*{\LWR@comp@glossaryname}{\translate{Glossary}}
22 \ifdefstrequal{\glossaryname}{\LWR@comp@glossaryname}{
      \translatelet\LWR@translatetemp{Glossary}
      \edef\glossaryname{\LWR@translatetemp}
24
25 }{}
27 \newcommand*{\LWR@comp@acronymname}{\translate{Acronym}}
29 \ifdefstrequal{\acronymname}{\LWR@comp@acronymname}{
      \translatelet\LWR@translatetemp{Acronym}
31
      \edef\acronymname{\LWR@translatetemp}
32 }{}
34 \newcommand*{\LWR@comp@glssymbolsgroupname}{\translate{Symbols (glossaries)}}
36 \ifdefstrequal{\glssymbolsgroupname}{\LWR@comp@glssymbolsgroupname}{
      \translatelet\LWR@translatetemp{Symbols (glossaries)}
37
      \edef\glssymbolsgroupname{\LWR@translatetemp}
38
39 }{}
41 \newcommand*{\LWR@comp@glsnumbersgroupname}{\translate{Numbers (glossaries)}}
43 \ifdefstrequal{\glsnumbersgroupname}{\LWR@comp@glsnumbersgroupname}{
      \translatelet\LWR@translatetemp{Numbers (glossaries)}
45
      \edef\glsnumbersgroupname{\LWR@translatetemp}
46 }{}
```

```
File 164 lwarp-gmeometric.sty
                                                                                                          gmeometric
                                 $262
                                                                     Package
                                                           gmeometric
                                                                                                          gmeometric is ignored.
                                         Pkg
                                          for HTML output:
                                                                                                               1 \LWR@ProvidesPackageDrop{gmeometric}[2008/11/22]
                                                                       File 165 lwarp-graphics.sty
                                                                    Package graphics
                                 § 263
                                                                                                          (Emulates or patches code by D. P. CARLISLE.)
                                                                                                          graphics is emulated.
                                                                 graphics
                                                                                                              1 \LWR@ProvidesPackagePass{graphics}[2017/06/25]
                                          for HTML output:
                                                                         $263.1
                                                                                                          Graphics extensions
                                                                                                          \{\langle list \rangle\}
\DeclareGraphicsExtensions
                                                                                                           \AtBeginDocument allow svg files instead of PDF:
                                                                                                              2 \AtBeginDocument{
                                                                                                              3 \DeclareGraphicsExtensions{.svg,.SVG,.gif,.GIF,.png,.PNG,.jpg,.JPG,.jpeg,.JPEG}
                                                                                                              4 \DeclareGraphicsRule{.svg}{svg}{.svg}{}
                                                                                                               \label{lem:svg} \\ \texttt{5} \ \ \\ \texttt{DeclareGraphicsRule} \\ \texttt{(.SVG)} 
                                                                                                               6 }
                                                                                                          Inside a lateximage, allow PDF instead of svg:
                                                                                                              7 \ifpdf
                                                                                                              8 \appto\LWR@restoreorigformatting{%
                                                                                                              9 \DeclareGraphicsExtensions{.pdf,.PDF,.gif,.GIF,.png,.PNG,.jpg,.JPG,.jpeg,.JPEG}%
                                                                                                            10 }
                                                                                                            11 \else% \ifpdf
                                                                                                                                                   \ifXeTeX
                                                                                                            13 \appto\LWR@restoreorigformatting{%
                                                                                                            14 \DeclareGraphicsExtensions{.pdf,.PDF,.gif,.GIF,.png,.PNG,.jpg,.JPG,.jpeg,.JPEG}%
                                                                                                            15 }
                                                                                                                                                   \else
                                                                                                            17 \appto\LWR@restoreorigformatting{%
                                                                                                            18 \DeclareGraphicsExtensions{.eps,.EPS,.gif,.GIF,.png,.PNG,.jpg,.JPG,.jpeg,.JPEG}%
                                                                                                            19 }
                                                                                                                                                   \fi
                                                                                                            20
                                                                                                           21 \fi
```

§ 263.2 Length conversions and graphics options

A scaled image in LATEX by default takes only as much space on the page as it requires, but HTML browsers use as much space as the original unscaled image would have taken, with the scaled image over- or under-flowing the area.

Used to store the user's selected dimensions and HTML class.

The class defaults to "inlineimage" unless changed by a class=xyx option.

```
22 \newlength{\LWR@igwidth}
23 \newlength{\LWR@igheight}
24 \newcommand*{\LWR@igwidthstyle}{}
25 \newcommand*{\LWR@igheightstyle}{}
26 \newcommand*{\LWR@igorigin}{}
27 \newcommand*{\LWR@igangle}{}
28 \newcommand*{\LWR@igxscale}{1}
29 \newcommand*{\LWR@igyscale}{1}
30 \newcommand*{\LWR@igclass}{inlineimage}
31 \newcommand*{\LWR@igalt}{(image)}
```

Set the actions of each of the key/value combinations for \includegraphics. Many are ignored.

If an optional width was given, set an нтмL style:

```
32 \define@key{igraph}{width}{%
33 \setlength{\LWR@igwidth}{#1}%
34 \ifthenelse{\lengthtest{\LWR@igwidth > 0pt}}%
35 {%
```

Default to use the converted fixed length given:

```
36 \renewcommand*{\LWR@igwidthstyle}{width:\LWR@printlength{\LWR@igwidth}}%
```

If ex or em dimensions were given, use those instead:

```
37
      \IfEndWith{#1}{ex}%
      {\renewcommand*{\LWR@igwidthstyle}{width:#1}}% yes ex
38
      {}% not ex
39
      \IfEndWith{#1}{em}%
40
      {\renewcommand*{\LWR@igwidthstyle}{width:#1}}% yes em
41
42
      {}% not em
43
      \IfEndWith{#1}{\%}
      {\renewcommand*{\LWR@igwidthstyle}{width:#1}}% yes percent
      {}% not percent
45
      \IfEndWith{#1}{px}%
46
      {\renewcommand*{\LWR@igwidthstyle}{width:#1}}% yes px
47
      {}% not px
49 }{}% end of length > 0pt
50 }
```

If an optional height was given, set an HTML style:

```
51 \define@key{igraph}{height}{%
52 \setlength{\LWR@igheight}{#1}%
53 \ifthenelse{\lengthtest{\LWR@igheight > 0pt}}%
54 {%
```

Default to use the converted fixed length given:

```
\renewcommand*{\LWR@igheightstyle}{%
55
56
      height:\LWR@printlength{\LWR@igheight} % extra space
57
      }%
```

If ex or em dimensions were given, use those instead:

```
\IfEndWith{#1}{ex}%
58
     {\renewcommand*{\LWR@igheightstyle}{height:#1}}% yes ex
59
60
     {}% not ex
     \IfEndWith{#1}{em}%
     {\renewcommand*{\LWR@igheightstyle}{height:#1}}% yes em
62
     {}% not em
63
     \IfEndWith{#1}{\%}
64
     65
66
     {}% not percent
     \IfEndWith{#1}{px}%
     {\renewcommand*{\LWR@igheightstyle}{height:#1}}% yes px
     {}% not px
70 }{}% end of length > 0pt
71 }
```

Handle origin key:

```
72 \define@key{igraph}{origin}[c]{%
      \renewcommand*{\LWR@igorigin}{#1}%
73
74 }
```

Handle angle key:

```
75 \define@key{igraph}{angle}{\renewcommand*{\LWR@igangle}{#1}}
```

Handle class key:

```
76 \end{tabular} $$ \end{tabular} $$$ \end{tabular} $$ \end{tabular} $$
```

Handle alt key:

```
77 \define@key{igraph}{alt}{\renewcommand*{\LWR@igalt}{#1}}
```

It appears that graphicx does not have separate keys for xscale and yscale. scale adjusts both at the same time.

```
78 \define@key{igraph}{scale}{%
      \left\{ \frac{\#1}{1} \right\}  must expand #1
80
          \PackageWarning{lwarp}{%
```

```
It is recommended to use\MessageBreak
                               [width=xx\protect\linewidth]\MessageBreak
                               instead of [scale=yy],%
                83
                           }%
                84
                      }%
                85
                       \renewcommand*{\LWR@igxscale}{#1}%
                86
                       \renewcommand*{\LWR@igyscale}{#1}%
                87
                88 }
                Numerous ignored keys:
                89 \define@key{igraph}{bb}{}
                90 \define@key{igraph}{bbllx}{}
                91 \define@key{igraph}{bblly}{}
                92 \define@key{igraph}{bburx}{}
                93 \define@key{igraph}{bbury}{}
                94 \define@key{igraph}{natwidth}{}
                95 \define@key{igraph}{natheight}{}
                96 \define@key{igraph}{hiresbb}[true]{}
                97 \define@key{igraph}{viewport}{}
                98 \define@key{igraph}{trim}{}
                99 \define@key{igraph}{totalheight}{}
                100 \define@key{igraph}{keepaspectratio}[true]{}
               101 \define@key{igraph}{clip}[true]{}
               102 \define@key{igraph}{draft}[true]{}
               103 \define@key{igraph}{type}{}
               104 \define@key{igraph}{ext}{}
               105 \define@key{igraph}{read}{}
               106 \define@key{igraph}{command}{}
                New in v1.1a:
               107 \define@key{igraph}{quite}{}
               108 \define@key{igraph}{page}{}
               109 \define@key{igraph}{pagebox}{}
               110 \define@key{igraph}{interpolate}[true]{}
                New in v1.1b:
               111 \define@key{igraph}{decodearray}{}
      § 263.3 Printing HTML styles
\LWR@rotstyle \{\langle prefix \rangle\} \{\langle degrees \rangle\}
                Prints the rotate style with the given prefix.
                prefix is -ms- or -webkit- or nothing, and is used to generate three versions of the
                transform: rotate style.
               112 \newcommand*{\LWR@rotstyle}[2]{%
               113 #1transform:rotate(-#2deg);
               114 }
```

```
\LWR@scalestyle \{\langle prefix \rangle\} \{\langle xscale \rangle\} \{\langle yscale \rangle\}
                         Prints the scale style with the given prefix.
                         prefix is -ms- or -webkit- or nothing, and is used to generate three versions of the
                         transform: scale style.
                        115 \newcommand*{\LWR@scalestyle}[3]{%
                        116 #1transform:scale(#2,#3);
                        117 }
               §263.4 \includegraphics
      LWR@infloatrow
                        Used to compute \linewidth.
 Bool
                        118 \newbool{LWR@infloatrow}
                        119 \boolfalse{LWR@infloatrow}
         \LWR@opacity For HTML, used only for \includegraphics.
                         \LWR@opacity may be set by the transparent package.
                        120 \def\LWR@opacity{1}
    \LWR@imagesizebox Used to determine the actual image size if needed.
                        121 \newsavebox{\LWR@imagesizebox}
\LWR@HTML@Gin@setfile \{\langle w \rangle\} \{\langle h \rangle\} \{\langle filename \rangle\} Sets the parsed filename for HTML output.
                        122 \newcommand*{\LWR@HTML@Gin@setfile}[3]{%
                        123
                                \xdef\LWR@parsedfilename{#3}%
                        124 }
        Key [Gin] class css class for the image.
                         Define the new class key for the print-mode version of \includegraphics, which is
                         enabled inside a lateximage.
                        125 \AtBeginDocument{
                        126 \define@key{Gin}{class}{}
                        127 \define@key{Gin}{alt}{}
                        128 }
   \LWR@replaceEPSSVG Usually, references to EPS files become svg files, but if the epstopdf package is being
                         used, it automatically converts EPS to PDF, and the following must NOT be done.
                        129 \AtBeginDocument{
                        130 \@ifpackageloaded{epstopdf}
                        131 {
                                \newcommand*{\LWR@replaceEPSSVG}{}
                        132
```

```
133 }{%
       \newcommand*{\LWR@replaceEPSSVG}{%
134
           \StrSubstitute{\LWR@tempone}{.eps}{.svg}[\LWR@tempone]%
135
           \StrSubstitute{\LWR@tempone}{.EPS}{.SVG}[\LWR@tempone]%
136
137
       }
138 }%
139 }
```

\LWR@includegraphicsb * $[\langle 2: options \rangle]$ [$\langle 3: options \rangle]$ { $\langle 4: filename \rangle$ }

```
qraphics syntax is \includegraphics * [\langle llx, lly \rangle] [\langle urx, ury \rangle] {\langle file \rangle}
```

graphicx syntax is \includegraphics [\langle key values \rangle] {\langle file \rangle}

If #3 is empty, only one optional argument was given, thus graphicx syntax.

If using \epsfig or \psfig from the epsfig package, #4 will be \LWR@epsfig@filename, which will have been set by the file or figure keys. Therefore, #4 must not be used until after the keys have been processed.

```
140 \NewDocumentCommand{\LWR@includegraphicsb}{s o o m}
141 {%
```

Start the image tag on a new line, allow PDF output word wrap:

```
142 \LWR@origtilde \LWR@orignewline%
```

Temporarily compute \linewidth, \textwidth, \textheight arguments with a 6x9 inch size until the next \endgroup.

```
143 \begingroup%
144 \ifthenelse{\cnttest{\value{LWR@minipagedepth}}{=}{0}}%
145 {%
       \ifbool{LWR@infloatrow}%
146
147
       {}
       {% not in a minipage or a floatrow:
148
149
           \setlength{\linewidth}{6in}%
           \setlength{\textwidth}{6in}%
150
           \setlength{\textheight}{9in}%
151
152
       }%
153 }{}%
```

For correct em sizing during the width and height conversions:

```
154 \large%
```

Reset some defaults, possibly will be changed below if options were given:

```
155 \setlength{\LWR@igwidth}{0pt}%
156 \setlength{\LWR@igheight}{0pt}%
157 \renewcommand*{\LWR@igwidthstyle}{}%
159 \renewcommand*{\LWR@igorigin}{}%
```

```
160 \renewcommand*{\LWR@igangle}{}%
161 \renewcommand*{\LWR@igxscale}{1}%
162 \renewcommand*{\LWR@igyscale}{1}%
163 \renewcommand*{\LWR@igclass}{inlineimage}%
164 \renewcommand*{\LWR@igalt}{(image)}%
```

If #3 is empty, only one optional argument was given, thus graphicx syntax:

```
165 \IfValueF{#3}{%
166  \IfValueTF{#2}%
167      {\setkeys{igraph}{#2}}%
168      {\setkeys{igraph}{}}%
169 }%
```

Fully expand and detokenize the filename, changing the file extension to .svg if necessary.

```
170 \begingroup%
171 \LetLtxMacro\Gin@setfile\LWR@HTML@Gin@setfile%
172 \edef\LWR@tempone{#4}%
173 \StrSubstitute{\LWR@tempone}{.pdf}{.svg}[\LWR@tempone]%
174 \StrSubstitute{\LWR@tempone}{.PDF}{.SVG}[\LWR@tempone]%
175 \LWR@replaceEPSSVG%
176 \xdef\LWR@parsedfilename{\LWR@tempone}%
177 \Ginclude@graphics{\detokenize\expandafter{\LWR@tempone}}%
178 \endgroup%
179 \filename@parse{\LWR@parsedfilename}%
180 \LWR@traceinfo{LWR@parsedfilename}%
181 % \LWR@sanitize{\LWR@parsedfilename}%
```

If formatting for a word processor, find and set the actual image size, without rotation, using PDF instead of svG to find the original bounding box:

```
182 \ifbool{FormatWP}{%
183
       \begingroup%
       \LWR@restoreorigformatting%
184
       \appto\LWR@restoreorigformatting{%
186
     \DeclareGraphicsExtensions{.pdf,.PDF,.gif,.GIF,.png,.PNG,.jpg,.JPG,.jpeg,.JPEG}%
187
       }%
188
       \else% \ifpdf
189
               \ifXeTeX%
       \appto\LWR@restoreorigformatting{%
191
      \DeclareGraphicsExtensions{.pdf,.PDF,.gif,.GIF,.png,.PNG,.jpg,.JPG,.jpeg,.JPEG}%
192
193
       }%
               \else%
194
195
       \appto\LWR@restoreorigformatting{%
     \DeclareGraphicsExtensions{.eps,.EPS,.gif,.GIF,.png,.PNG,.jpg,.JPG,.jpeg,.JPEG}%
196
197
       }%
               \fi%
198
       \fi% \ifpdf
199
       \define@key{Gin}{angle}{}%
200
       \IfBooleanTF{#1}%
201
```

```
202
       {% starred
203
           \IfValueTF{#3}%
204
           \global\sbox{\LWR@imagesizebox}{\LWR@origincludegraphics*[#2][#3]{#4}}%
205
           }%
206
           {%
207
               \IfValueTF{#2}%
208
209
              \global\sbox{\LWR@imagesizebox}{\LWR@origincludegraphics*[#2]{#4}}%
210
211
               }{%
                   \global\sbox{\LWR@imagesizebox}{\LWR@origincludegraphics*{#4}}%
212
               }%
213
           }%
214
215
       }% starred
216
       {% not starred
           \IfValueTF{#3}%
217
218
           \global\sbox{\LWR@imagesizebox}{\LWR@origincludegraphics[#2][#3]{#4}}%
219
           }%
220
           {%
221
               \IfValueTF{#2}%
222
223
               \global\sbox{\LWR@imagesizebox}{\LWR@origincludegraphics[#2]{#4}}%
224
225
               }{%
                    \global\sbox{\LWR@imagesizebox}{\LWR@origincludegraphics{#4}}%
226
227
               }%
228
           }%
229
       }% not starred
230
       \endgroup%
231
       \settowidth{\LWR@igwidth}{\usebox{\LWR@imagesizebox}}%
232
     \global\renewcommand*{\LWR@igwidthstyle}{width:\LWR@printlength{\LWR@igwidth}}%
       \settoheight{\LWR@igheight}{\usebox{\LWR@imagesizebox}}%
233
     \global\renewcommand*{\LWR@igheightstyle}{height:\LWR@printlength{\LWR@igheight}}%
234
235 }{}% FormatWP
```

Create the HTML reference with the graphicspath, filename, extension, alt tag, style, and class.

The \LWR@origtilde adds space between tags in case this is being done inside a \savebox where \newline has no effect.

```
236 \LWR@traceinfo{LWR@includegraphicsb: about to create href}%
237 \href{\LWR@parsedfilename}%
238 {% start of href
239 \LWR@traceinfo{LWR@includegraphicsb: about to LWR@htmltag}%
240 \LWR@htmltag{% start of image tags
241 img\LWR@indentHTML%
242 src="%

243 \detokenize\expandafter{\LWR@parsedfilename}%

244 "\LWR@indentHTML%
```

Only include a style tag if a width, height, angle, or scale was given:

```
245 \ifthenelse{
                 \NOT\equal{\LWR@igwidthstyle}{} \OR
246
247
                 \NOT\equal{\LWR@igheightstyle}{} \OR
                 \NOT\equal{\LWR@igorigin}{} \OR
                 \NOT\equal{\LWR@igangle}{} \OR
249
250
                 \NOT\equal{\LWR@igxscale}{1} \OR
                 \NOT\equal{\LWR@igyscale}{1}
251
252 }%
253 {%
                 style="\LWR@indentHTML
254
255
                 \ifthenelse{\NOT\equal{\LWR@igwidthstyle}{}}%
                          {\LWR@igwidthstyle;\LWR@indentHTML}{}%
256
                 \ifthenelse{\NOT\equal{\LWR@igheightstyle}{}}%
257
                          258
259
                 \label{local_local_local_local} $$ \left( NOT \geq {\LWR@igorigin}_{} \right) $$
260
                          {%
261
                                    transform-origin: \LWR@originnames{\LWR@igorigin};\LWR@indentHTML%
                          }{}%
262
                 \ifthenelse{\NOT\equal{\LWR@igangle}{}}%
263
264
                          \label{local-continuity} $$ \LWR@igangle} \LWR@indentHTML $$ LWR@indentHTML $$ LWR
265
                          \LWR@rotstyle{-webkit-}{\LWR@igangle}\LWR@indentHTML
266
267
                          \LWR@rotstyle{}{\LWR@igangle }\LWR@indentHTML
                 }{}%
268
                 \ifthenelse{%
269
                          \NOT\equal{\LWR@igxscale}{1}\OR%
270
                          \NOT\equal{\LWR@igyscale}{1}\%
271
272
                }%
273
                 {%
274
                          \LWR@scalestyle{-ms-}{\LWR@igxscale}\LWR@igyscale}\LWR@indentHTML
                          \LWR@scalestyle{-webkit-}{\LWR@igxscale}\LWR@igyscale}\LWR@indentHTML
275
                          \LWR@scalestyle{}{\LWR@igxscale}{\LWR@igyscale}\LWR@indentHTML
276
                }{}%
277
278
                 \left(\NOT\left(\LWR@opacity\right)_{1}\right)
279
280
                          {opacity:\LWR@opacity;\LWR@indentHTML}{}%
281
                 "\LWR@indentHTML%
282
283 }{}%
 Set the class and alt tag:
284 class="\LWR@igclass"\LWR@indentHTML%
285 alt="\LWR@igalt" \LWR@orignewline%
286}% end of image tags
287 }% end of href
 Return to original page size and font size:
288 \endgroup
289 \LWR@traceinfo{LWR@includegraphicsb done}%
290 }
```

```
\includegraphics [\langle key=val \rangle] \{\langle filename \rangle\}
```

Handles width and height, converted to fixed width and heights.

The user should always use no file suffix in the document source.

```
291 \AtBeginDocument{
292
293 \LWR@traceinfo{Patching includegraphics.}
294
295 \LetLtxMacro\LWR@origincludegraphics\includegraphics
296
297 \renewcommand*{\includegraphics}
298 {%
```

This graphic should trigger an HTML paragraph even if alone, so ensure that are doing paragraph handling:

```
299 \LWR@traceinfo{includegraphics}%
300 \LWR@ensuredoingapar%
301 \LWR@includegraphicsb%
302 }% includegraphics
303 }% AtBeginDocument
```

§ 263.5 Boxes

\LWR@rotboxorigin Holds the origin key letters.

```
304 \newcommand*{\LWR@rotboxorigin}{}
```

```
\LWR@originname \{\langle letter \rangle\}
```

Given one LATEX origin key value, translate into an HTML origin word:

```
305 \newcommand*{\LWR@originname}[1]{%
306   \ifthenelse{\equal{#1}{t}}{top}{}%
307   \ifthenelse{\equal{#1}{b}}{bottom}{}%
308   \ifthenelse{\equal{#1}{c}}{center}{}%
309   \ifthenelse{\equal{#1}{l}}{left}{}%
310   \ifthenelse{\equal{#1}{r}}{right}{}%
311 }
```

\LWR@originnames $\{\langle letters \rangle\}$

Given one- or two-letter LATEX origin key values, translate into HTML origin words:

```
312 \newcommand*{\LWR@originnames}[1]{%
313 \StrChar{#1}{1}[\LWR@strresult]%
314 \LWR@originname{\LWR@strresult}
315 \StrChar{#1}{2}[\LWR@strresult]%
316 \LWR@originname{\LWR@strresult}
317 }
```

```
Handle the origin key for \rotatebox:
             318 \define@key{krotbox}{origin}{%
             319 \renewcommand*{\LWR@rotboxorigin}{#1}%
             320 }
             These keys are ignored:
             321 \define@key{krotbox}{x}{}
             322 \define@key{krotbox}{y}{}
             323 \define@key{krotbox}{units}{}
\rotatebox [\langle keyval \ list \rangle] \{\langle angle \rangle\} \{\langle text \rangle\}
            324 \AtBeginDocument{
             The HTML version:
             325 \MewDocumentCommand{\LWR@HTML@rotatebox}{0{} m +m}{%}
             Reset the origin to "none-given":
             326 \renewcommand*{\LWR@rotboxorigin}{}
             Process the optional keys, which may set \LWR@rotateboxorigin:
            327 \setkeys{krotbox}{#1}%
             Select inline-block so that HTML will transform this span:
             328 \LWR@htmltagc{%
                    span\LWR@indentHTML
                    style="\LWR@indentHTML
             330
             331
                    display: inline-block;\LWR@indentHTML
             If an origin was given, translate and print the origin information:
                    \ifthenelse{\NOT\equal{\LWR@rotboxorigin}{}}%
             332
                       {transform-origin: \LWR@originnames{\LWR@rotboxorigin};\LWR@indentHTML}%
             333
             334
                         {}%
             Print the rotation information:
             335
                    \LWR@rotstyle{-ms-}{#2}\LWR@indentHTML
                    \label{local-condition} $$ \LWR@rotstyle{-webkit-}{\#2}\LWR@indentHTML $$
             336
                    \label{local-prop} $$ \LWR@rotstyle{}{\#2}''\LWR@orignewline% $$
             338 }\LWR@orignewline%
             Print the text to be rotated:
             339 \begin{LWR@nestspan}%
             340 #3%
```

1932 Table 1932 Table

```
Close the span:
          341 \LWR@htmltagc{/span}%
          342 \end{LWR@nestspan}%
          343 }
          The high-level interface:
         344 \LWR@formatted{rotatebox}
          345
          346}% AtBeginDocument
\scalebox \{\langle h\text{-}scale\rangle\}\ [\langle v\text{-}scale\rangle]\ \{\langle text\rangle\}
          347 \AtBeginDocument{
          The HTML version:
         348 \MewDocumentCommand{\LWR@HTML@scalebox}{m o m}{\%}
          Select inline-block so that HTML will transform this span:
         349 \LWR@htmltagc{%
                span\LWR@indentHTML
                style="\LWR@indentHTML
          351
                display: inline-block;\LWR@indentHTML
          352
          Print the scaling information:
          353
                354
                355
                \LWR@scalestyle{}{#1}{\IfNoValueTF{#2}{#1}{#2}}
                "\LWR@orignewline
         357 }\LWR@orignewline%
          Print the text to be scaled:
          358 \begin{LWR@nestspan}%
          359 #3%
          Close the span:
          360 \LWR@htmltagc{/span}%
          361 \end{LWR@nestspan}%
          362 }
          The high-level interface:
          363 \LWR@formatted{scalebox}
          365 }% AtBeginDocument
```

```
\reflectbox \{\langle text \rangle\}
               366 \AtBeginDocument{
               368 \newcommand{\LWR@HTML@reflectbox}[1]{%
               369 \scalebox{-1}[1]{#1}%
               370 }% \reflectbox
               372 \LWR@formatted{reflectbox}
               374 }% AtBeginDocument
 \resizebox \{\langle h\text{-}length\rangle\} \{\langle v\text{-}length\rangle\} \{\langle text\rangle\}
                Simply prints its text argument.
               375 \AtBeginDocument{
               377 \NewDocumentCommand{\LWR@HTML@resizebox}{s m m m}{%
               378 #4%
               379 }
               380
               381 \LWR@formatted{resizebox}
               383 }% AtBeginDocument
```

lwarp-graphicx.sty File 166

graphicx Package **§ 264**

graphicx is emulated. graphicx

> graphicx loads graphics, which also loads lwarp-graphics, which remembers the original graphics definitions for use inside a lateximage, and then patches them \AtBeginDocument for HTML output.

lwarp-graphics handles the syntax of either graphics or graphicx.

1 \LWR@ProvidesPackagePass{graphicx}[2017/06/01] for HTML output:

File 167 lwarp-grffile.sty

Package **grffile \$265**

grffile is supported as-is. File types known to the browser are displayed, and unknown file types are given a link. Each PDF image for print mode should be accompanied by an svg, PNG, or JPG version for HTML.

lwarp-grffile now exists as a placeholder since grffile used to be emulated by lwarp, and thus older versions of lwarp-grffile may exist and should be overwritten by this newer version.

```
for HTML output:
                   1 \LWR@ProvidesPackagePass{grffile}[2017/06/30]
                 lwarp-grid.sty
         File 168
        Package grid
$266
                  grid is ignored.
        Pkg grid
  for HTML output:
                   1 \LWR@ProvidesPackageDrop{grid}[2009/06/16]
                   2 \newenvironment*{gridenv}{}{}
                  lwarp-grid-system.sty
         Package grid-system
§ 267
                  (Emulates or patches code by MARCUS BITZL.)
                  grid-system is patched for use by lwarp.
Pkg grid-system
  for HTML output:
                   1 \LWR@ProvidesPackagePass{grid-system}[2014/02/16]
                  (\ifdef is in case the older syntax is removed.)
                   2 AtBeginEnvironment{Row}{\setlength{\linewidth}{6in}}
                    4 \ifdef{\endrow}{
                         \AtBeginEnvironment{row}{\setlength{\linewidth}{6in}}
                   6 }{}
                   8 \renewcommand{\gridsystem@finishcell}{\hspace{\gridsystem@cellsep}}
         File 170 lwarp-gridset.sty
                  gridset
§ 268
         Package
```

gridset is ignored.

1 \LWR@ProvidesPackageDrop{gridset}

2 \newcommand*{\gridbase}{}

Pkg gridset

for HTML output:

```
3 \newcommand*{\gridinterval}{}
4 \newcommand*{\savepos}[1]{}
5 \newcounter{gridcnt}
6 \newcommand*{\vskipnextgrid}{}
7 \newcommand*{\thegridinfo}[1]{}
8 \newcommand*{\theposinfo}[1]{}
9 \newcommand*{\theypos}[1]{}
```

File 171 lwarp-hang.sty

§ 269 Package hang

(Emulates or patches code by Andreas Nolda.)

Pkg hang hang is emulated.

```
\begin{tabular}{ll} \textbf{for HTML output:} & 1 \LWR@ProvidesPackageDrop\{hang\}[2017/02/18] \end{tabular}
```

```
2 \newlength{\hangingindent}
 3 \setlength{\hangingindent}{1em}
 4 \newlength{\hangingleftmargin}
5 \setlength{\hangingleftmargin}{0em}
7 \newcommand*{\LWR@findhangingleftmargin}{%
 8 \setlength{\LWR@templengthone}{\hangingleftmargin}%
9 \addtolength{\LWR@templengthone}{\hangingindent}%
10 }
12 \newenvironment{hangingpar}
13 {
      \LWR@findhangingleftmargin%
14
      \BlockClass[%
15
          \LWR@print@mbox{margin-left:\LWR@printlength{\LWR@templengthone}}; %
16
17
          \LWR@print@mbox{text-indent:-\LWR@printlength{\hangingindent}}%
18
19
      {hangingpar}%
20 }
21 {\endBlockClass}
23 \newenvironment{hanginglist}
24 {%
      \renewcommand*{\LWR@printcloselist}{\LWR@printcloseitemize}%
25
      \renewcommand*{\LWR@printopenlist}{%
26
          \LWR@findhangingleftmargin%
27
          ul style="%
28
              \LWR@print@mbox{list-style-type:none;} % extra space
29
              \LWR@print@mbox{%
30
31
                  margin-left:\LWR@printlength{\LWR@templengthone}%
32
              } ; % extra space
              \LWR@print@mbox{%
33
                   text-indent:-\LWR@printlength{\hangingindent}%
34
35
              }%
          "%
36
```

```
37
      \let\item\LWR@itemizeitem%
38
      \list{}{}%
39
40 }
41 {\endlist}
43 \newenvironment{compacthang}
44 {\hanginglist}
45 {\endhanginglist}
47 \newlength{\labeledleftmargin}
48 \setlength{\labeledleftmargin}{0em}
50 \newenvironment{labeledpar}[2]
51 {%
      \BlockClass[%
52
          \LWR@findhangingleftmargin%
53
          \LWR@print@mbox{margin-left:\LWR@printlength{\LWR@templengthone}} ; %
54
          \LWR@print@mbox{text-indent:-\LWR@printlength{\hangingindent}}%
55
      ]{labeledpar}#2%
56
57 }
58 {\endBlockClass}
60 \newenvironment{labeledlist}[1]
61 {\hanginglist}
62 {\endhanginglist}
64 \newenvironment{compactlabel}[1]
65 {\hanginglist}
66 {\endhanginglist}
```

File 172 lwarp-hanging.sty

```
Package hanging
§ 270
     Pkg hanging
                    hanging is emulated.
  for HTML output:
                      1 \LWR@ProvidesPackageDrop{hanging}[2009/09/02]
                      2 \@ifclassloaded{memoir}{
                      3 \let\hangpara\relax
                      4 \let\hangparas\relax
                      5 \let\endhangparas\relax
                      6 \let\hangpunct\relax
                      7 \let\endhangpunct\relax
                      8 }{}
                      \{\langle indent \rangle\} \{\langle afternum \rangle\}
        \hangpara
                     Use hangparas instead.
                      9 \newcommand*{\hangpara}[2]{}
```

```
\{\langle indent \rangle\} \{\langle afternum \rangle\}
   Env hangparas
                    10 \newenvironment*{hangparas}[2]
                    11 {%
                    12
                          \BlockClass[%
                              \LWR@print@mbox{margin-left:\LWR@printlength{#1}}; %
                    13
                              \label{lem:lembox} $$ \LWR@printlength{\#1}}% $
                    14
                    15
                    16
                          {hangingpar}%
                    17 }
                    18 {\endBlockClass}
   Env hangpunct
                    19 \newenvironment*{hangpunct}
                    20 {\BlockClass{hangpunct}}
                    21 {\endBlockClass}
                    22 \newcommand{\nhpt}{.}
                    23 \newcommand{\nhlq}{'}
                    24 \newcommand{\nhrq}{'}
          File 173 lwarp-hypcap.sty
                  hypcap
§ 271
         Package
                   hypcap is ignored.
      Pkg hypcap
  for HTML output:
                     1 \LWR@ProvidesPackageDrop{hypcap}[2016/05/16]
                     2 \newcommand*{\capstart}{}
                     3 \newcommand*{\hypcapspace}{}
                     4 \newcommand*{\hypcapredef}[1]{}
                     5 \newcommand*{\capstartfalse}{}
                     6 \newcommand*{\capstarttrue}{}
          File 174 lwarp-hypdestopt.sty
                   hypdestopt
§ 272
         Package
                   hypdestopt is ignored.
      hypdestopt
```

1 \LWR@ProvidesPackageDrop{hypdestopt}[2016/05/21]

for HTML output:

```
File 175 lwarp-hypernat.sty
                   hypernat
§ 273
         Package
                   hypernat is ignored.
        hypernat
  for HTML output:
                     1 \LWR@ProvidesPackageDrop{hypernat}[2001/07/09]
          File 176 lwarp-hyperref.sty
         Package hyperref
§ 274
                   (Emulates or patches code by Sebastian Rahtz, Heiko Oberdiek.)
                   hyperref is emulated.
        hyperref
                    1% \LWR@ProvidesPackageDrop{hyperref}% not allowed
  for HTML output:
                     2% \ProvidesPackage{lwarp-#1-#2}% not allowed
                    3 \PackageInfo{lwarp}{%
                    4 Using the lwarp HTML version of package 'hyperref', \MessageBreak
                    5 and discarding options.\MessageBreak
                     6 (Not using \protect\ProvidesPackage, so that other packages\MessageBreak
                     7 do not attempt to patch lwarp's version of 'hyperref'.)\MessageBreak}
                     9 \DeclareOption*{}
                    10 % \ProcessOptions\relax
                    11 \let\ds@\@empty%
                                                from the original \ProcessOptions
                    12 \edef\@curroptions{}%
                                                lwarp modification to \ProcessOptions
                    13 \@process@ptions\relax% from the original \ProcessOptions
                    14 \newcommand*{\hypersetup}[1]{}
                    15 \newcommand*{\hyperbaseurl}[1]{}
                     \{\langle URL \rangle\} \{\langle alt \ text \rangle\}
      \hyperimage
                   Insert an image with alt text:
                    16 \NewDocumentCommand{\LWR@hyperimageb}{m +m}{%
                    17 \LWR@ensuredoingapar%
                    18 \def\LWR@templink{#1}%
                    19 \@onelevel@sanitize\LWR@templink%
                    20 \LWR@htmltag{img src="\LWR@templink" alt="#2" class="hyperimage"}%
                    21 \LWR@ensuredoingapar%
                    22 \endgroup%
                    23 }
                    25 \newrobustcmd*{\hyperimage}{%
```

```
26 \begingroup%
                                                  27 \catcode '\#=12%
                                                   28 \catcode '\%=12%
                                                  29 \catcode '\&=12%
                                                  30 \catcode '\~=12%
                                                  31 \catcode'\_=12%
                                                  32 \LWR@hyperimageb%
                                                  33 }
                                                     \{\langle 1: category \rangle\} \{\langle 2: name \rangle\} \{\langle 3: text \rangle\}
               \hyperdef
                                                 Creates an HTML anchor to category.name with the given text.
                                                  35 \NewDocumentCommand{\LWR@hyperdefb}{m m +m}{%
                                                  36 \LWR@ensuredoingapar%
                                                  37 \LWR@sublabel{#1.#2}%
                                                  38 #3%
                                                  39 \endgroup%
                                                  40 }
                                                  41
                                                  42 \newcommand*{\hyperdef}{%
                                                  43 \begingroup%
                                                  44 \catcode '\#=12%
                                                  45 \catcode \%=12%
                                                  46 \catcode '\&=12%
                                                  47 \catcode '\~=12%
                                                  48 \catcode \_=12%
                                                  49 \LWR@hyperdefb%
                                                  50 }
                                                  51
\LWR@hyperrefb
                                                     \{\langle 1: URL \rangle\} \{\langle 2: category \rangle\} \{\langle 3: name \rangle\} \{\langle 4: text \rangle\}
                                                 Creates an HTML link to URL#category.name with the given text.
                                                   52 \newcommand{\LWR@hyperreffinish}[1]{%
                                                  53 \begingroup%
                                                  54 \ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\
                                                  56 \endgroup%
                                                  57 \LWR@htmltag{/a}%
                                                  58 }
                                                   60 \newcommand*{\LWR@hyperrefbb}[3]{%
                                                  61 \LWR@htmltag{%
                                                                     a href="%
                                                  63
                                                                                  \detokenize\expandafter{#1}\LWR@hashmark%
                                                  64
                                                                                  \detokenize\expandafter{#2}.\detokenize\expandafter{#3}%
                                                  65
                                                  66 }%
                                                  67 \endgroup%
                                                  68 \LWR@hyperreffinish%
                                                  69 }
                                                  70
                                                   71 \newrobustcmd*{\LWR@hyperrefb}{%
```

```
72 \begingroup%
                                                    73 \catcode '\#=12%
                                                    74 \catcode '\%=12%
                                                    75 \catcode '\&=12%
                                                    76 \catcode '\~=12%
                                                    77 \catcode'\_=12%
                                                    78 \LWR@hyperrefbb%
                                                    79 }
\LWR@hyperrefc
                                                       [\langle label \rangle] \{\langle text \rangle\}
                                                   Creates text as an HTML link to the LATEX label.
                                                    81 \Member 1 \Member 2 \
                                                    82 \LWR@startref{#1}%
                                                    83 \endgroup%
                                                    84 \LWR@hyperreffinish%
                                                    87 \newcommand*{\LWR@hyperrefc}{%
                                                    88 \begingroup%
                                                    89 \catcode'\#=12%
                                                    90 \catcode '\%=12%
                                                    91 \catcode'\&=12%
                                                    92 \catcode '\~=12%
                                                    93 \catcode'\_=12%
                                                    94 \LWR@hyperrefcb%
                                                    95 }
                                                       \{\langle 1: URL \rangle\} \{\langle 2: category \rangle\} \{\langle 3: name \rangle\} \{\langle 4: text \rangle\} - or -
               \hyperref
                                                   [\langle 1: label \rangle] \{\langle 2: text \rangle\}
                                                    96 \DeclareRobustCommand*{\hyperref}{%
                                                    97 \LWR@ensuredoingapar%
                                                    98 \@ifnextchar[\LWR@hyperrefc\LWR@hyperrefb%
                                                    99 }
     \hypertarget
                                                       \{\langle name \rangle\} \{\langle text \rangle\}
                                                   Creates an anchor to name with the given text.
                                                  100 \NewDocumentCommand{\LWR@hypertargetb}{m +m}{%
                                                 101 \label{LWR-ht-#1}%
                                                 102 #2%
                                                 103 \endgroup%
                                                 104 }
                                                 105
                                                 106 \newcommand*{\hypertarget}{%
                                                 107 \begingroup%
                                                 108 \catcode '\#=12%
                                                 109 \catcode '\%=12%
                                                 110 \catcode \%=12%
                                                 111 \catcode '\~=12%
                                                 112 \catcode '\_=12%
                                                 113 \LWR@hypertargetb%
```

```
114 }
           \hyperlink
                           \{\langle name \rangle\} \{\langle text \rangle\}
                          Creates a link to the anchor created by hypertarget, with the given link text.
                          Declared because also defined by memoir.
                         115 \DeclareDocumentCommand{\LWR@hyperlinkb}{m}{%
                         116 \LWR@hyperrefcb[LWR-ht-#1]%
                         117 }
                         118
                         119 \DeclareDocumentCommand{\hyperlink}{}{%
                         120 \LWR@ensuredoingapar%
                         121 \begingroup%
                         122 \catcode '\#=12%
                         123 \catcode \%=12%
                         124 \catcode '\&=12%
                         125 \catcode '\~=12%
                         126 \catcode '\_=12%
                         127 \LWR@hyperlinkb%
                         128 }
             \autoref
                           * \{\langle label \rangle\}
                          For HTML, \cleveref is used instead.
                         129 \NewDocumentCommand{\autoref}{s m}{%
                         130
                                  \IfBooleanTF{#1}{\ref{#2}}{\cref{#2}}%
                         131 }
        \autopageref
                           \{\langle label \rangle\}
                          For HTML, \cleveref is used instead.
                         132 \NewDocumentCommand{\autopageref}{s m}{%
                                  \IfBooleanTF{#1}{\cpageref{#2}}{\cref{#2}}%
                         134 }
       \pdfstringdef
                           \{\langle macroname \rangle\} \{\langle TEXstring \rangle\}
                         135 \newcommand{\pdfstringdef}[2]{}
        \pdfbookmark
                            [\langle level \rangle] \{\langle text \rangle\} \{\langle name \rangle\}
                         136 \newcommand{\pdfbookmark}[3][]{}
                           \{\langle text \rangle\} \{\langle name \rangle\}
\currentpdfbookmark
                         137 \newcommand{\currentpdfbookmark}[2]{}
                           \{\langle text \rangle\} \{\langle name \rangle\}
     \subpdfbookmark
                         138 \newcommand{\subpdfbookmark}[2]{}
```

```
\{\langle text \rangle\} \{\langle name \rangle\}
\belowpdfbookmark
                          139 \newcommand{\belowpdfbookmark}[2]{}
  \texorpdfstring
                            \{\langle T_E X string \rangle\} \{\langle PDF string \rangle\}
                          140 \newcommand{\texorpdfstring}[2]{#1}
                            \{\langle dimen \rangle\} From hyperref.
       \hypercalcbp
                          141 \def\hypercalcbp#1{%
                          142 \strip@pt\dimexpr 0.99626401\dimexpr(#1)\relax\relax
                          143 }%
       \Acrobatmenu
                             \{\langle menuoption \rangle\} \{\langle text \rangle\}
                          144 \newcommand{\Acrobatmenu}[2]{}
                             [\langle parameters \rangle] \{\langle label \rangle\}
         \TextField
                          {\tt 145 \setminus DeclareRobustCommand\{\setminus TextField\}[2][]\{\}}
                             [\langle parameters \rangle] \{\langle label \rangle\}
           \CheckBox
                          146 \DeclareRobustCommand{\CheckBox}[2][]{}
                             [\langle parameters \rangle] \{\langle label \rangle\} \{\langle choices \rangle\}
        \ChoiceMenu
                          147 \DeclareRobustCommand{\ChoiceMenu}[3][]{}
                             [\langle parameters \rangle] \{\langle label \rangle\}
        \PushButton
                          [\langle parameters \rangle] \{\langle label \rangle\}
              \Submit
                          149 \DeclareRobustCommand{\Submit}[2][]{}
               \Reset
                             [\langle parameters \rangle] \{\langle label \rangle\}
                          150 \DeclareRobustCommand{\Reset}[2][]{}
               \Gauge
                             [\langle parameters \rangle] \{\langle label \rangle\}
                          151 \DeclareRobustCommand{\Gauge}[2][]{}
 \LayoutTextField
                             \{\langle label \rangle\} \{\langle field \rangle\}
                          152 \newcommand*{\LayoutTextField}[2]{}
```

```
\{\langle label \rangle\} \{\langle field \rangle\}
\LayoutChoiceField
                       153 \newcommand*{\LayoutChoiceField}[2]{}
 \LayoutCheckField
                          \{\langle label \rangle\} \{\langle field \rangle\}
                       154 \newcommand*{\LayoutCheckField}[2]{}
                          \{\langle width \rangle\} \{\langle height \rangle\}
   \MakeRadioField
                       155 \newcommand*{\MakeRadioField}[2]{}
                          \{\langle width \rangle\} \{\langle height \rangle\}
   \MakeCheckField
                       156 \newcommand*{\MakeCheckField}[2]{}
                          \{\langle width \rangle\} \{\langle height \rangle\}
    \MakeTextField
                       157 \newcommand*{\MakeTextField}[2]{}
  \MakeChoiceField
                          \{\langle width \rangle\} \{\langle height \rangle\}
                       158 \newcommand*{\MakeChoiceField}[2]{}
  \MakeFieldButton
                          \{\langle text \rangle\}
                       159 \newcommand{\MakeFieldButton}[1]{}
             File 177 lwarp-hyperxmp.sty
                        hyperxmp
 § 275
            Package
                        Emulated.
           hyperxmp
     Pkg
                        Discard all options for lwarp-hyperxmp:
   for HTML output:
                         1 \LWR@ProvidesPackageDrop{hyperxmp}[2018/11/27]
            File 178 lwarp-hyphenat.sty
            Package hyphenat
 § 276
                        hyphenat is emulated during HTML output, while the print-mode version is used
           hyphenat
                        inside a lateximage.
    for HTML output:
                         1 \LWR@ProvidesPackagePass{hyphenat}[2009/09/02]
```

```
{\tt 2 \ LetLtxMacro \ LWRHYNAT@origtextnhtt \ } textnhtt
3 \LetLtxMacro\LWRHYNAT@orignhttfamily\nhttfamily
4 \LetLtxMacro\LWRHYNAT@orignohyphens\nohyphens
5 \LetLtxMacro\LWRHYNAT@origbshyp\bshyp
6 \LetLtxMacro\LWRHYNAT@origfshyp\fshyp
7 \LetLtxMacro\LWRHYNAT@origdothyp\dothyp
8 \LetLtxMacro\LWRHYNAT@origcolonhyp\colonhyp
9 \LetLtxMacro\LWRHYNAT@orighyp\hyp
11 \LetLtxMacro\textnhtt\texttt
12 \LetLtxMacro\nhttfamily\ttfamily
14 \renewcommand{\nohyphens}[1]{#1}
15 \renewrobustcmd{\bshyp}{%
      \ifmmode\backslash\else\textbackslash\fi%
17 }
18 \renewrobustcmd{\fshyp}{/}
19 \renewrobustcmd{\dothyp}{.}
20 \renewrobustcmd{\colonhyp}{:}
21 \renewrobustcmd{\hyp}{-}
23 \appto\LWR@restoreorigformatting{%
24 \LetLtxMacro\textnhtt\LWRHYNAT@origtextnhtt%
25 \LetLtxMacro\nhttfamily\LWRHYNAT@orignhttfamily%
26 \LetLtxMacro\nohyphens\LWRHYNAT@orignohyphens%
27 \LetLtxMacro\bshyp\LWRHYNAT@origbshyp%
28 \LetLtxMacro\fshyp\LWRHYNAT@origfshyp%
29 \LetLtxMacro\dothyp\LWRHYNAT@origdothyp%
30 \LetLtxMacro\colonhyp\LWRHYNAT@origcolonhyp%
31 \LetLtxMacro\hyp\LWRHYNAT@orighyp%
32 }
```

File 179 lwarp-idxlayout.sty

§ 277 Package idxlayout

(Emulates or patches code by Thomas Titz.)

Pkg idxlayout Emulated.

10

for HTML output: Discard all options for lwarp-idxlayout:

```
1 \LWR@ProvidesPackageDrop{idxlayout}[2012/03/30]
2 \newcommand{\LWR@indexprenote}{}
3
4 \preto\printindex{
5
6 \LWR@orignewpage
7 \LWR@startpars
8
9 \LWR@indexprenote
```

```
11 }
12
13 \newcommand{\setindexprenote}[1]{\renewcommand{\LWR@indexprenote}{#1}}
14 \newcommand*{\noindexprenote}{\renewcommand{\LWR@indexprenote}{}}
15
16 \newcommand{\idxlayout}[1]{}
17 \newcommand*{\indexfont}{}
18 \newcommand*{\indexjustific}{}
19 \newcommand*{\indexsubsdelim}{}
20 \newcommand*{\indexstheadcase}{}
```

File 180 lwarp-ifoddpage.sty

§ 278 Package

ifoddpage

(Emulates or patches code by Martin Scharrer.)

Pkg ifoddpage

ifoddpage is emulated.

for HTML output:

Discard all options for lwarp-ifoddpage:

```
1 \LWR@ProvidesPackageDrop{ifoddpage}[2016/04/23]
2 \newif\ifoddpage
3
```

```
4 \newif\ifoddpageoroneside
5
6 \DeclareRobustCommand{\checkoddpage}{\oddpagetrue\oddpageoronesidetrue}
7
8 \def\oddpage@page{1}
9
10 \def\@ifoddpage{%
11    \expandafter\@firstoftwo
12 }
13
14 \def\@ifoddpageoroneside{%
15    \expandafter\@firstoftwo
16 }
```

File 181 lwarp-imakeidx.sty

§ 279 Package imakeidx

(Emulates or patches code by Enrico Gregorio.)

Pkg imakeidx imakeidx is patched for use by lwarp.

letter headings When using *makeindex*, to match the print and HTML output's display of index letter headings, specify the lwarp.ist style:

```
\makeindex[options={-s lwarp.ist}]
```

(For HTML the lwarp.ist style is used automatically, which displays letter headings. When using *xindy* the default style also displays letter headings.)

index setup See section 8.6.17 for how to setup *lwarpmk* to process the indexes with imakeidx, both with and without shell escape.

for HTML output:

```
1 \LWR@ProvidesPackagePass{imakeidx}[2016/10/15]
```

Use the new HTML suffix:

```
2 \catcode'\_=12%
3 \define@key{imki}{name}{\def\imki@name{#1_html}}
4 \catcode'\_=8%
```

\printindex The HTML version of \printindex:

```
5 \catcode '\_=12%
7 \renewcommand*{\printindex}[1][\imki@jobname]{%
8 \LWR@orignewpage%
9 \LWR@startpars%
10 \ifstrequal{#1}{\imki@jobname}{%
    \@ifundefined{#1@idxfile}{%
11
           \imki@error{#1}%
12
      }{%
13
           \imki@putindex{#1}%
14
15
      }%
16 }{%
17 \ensuremath{\mbox{\mbox{\mbox{$1$}}}{\mbox{\mbox{\mbox{$1$}}}}{\mbox{\mbox{\mbox{\mbox{$1$}}}}}
18 }%
19 }
21 \catcode'\_=8%
```

\@index The HTML version of \index:

```
22 \catcode \_=12%
24 \def\@index[#1]{%
      \ifstrequal{#1}{\imki@jobname}%
26
          \@ifundefined{#1@idxfile}%
27
28
          {%
               \PackageWarning{lwarp-imakeidx}{Undefined index file '#1'}%
29
               \begingroup
30
               \@sanitize
31
               \imki@nowrindex%
32
          }%
33
          {%
34
               \edef\@idxfile{#1}%
35
               \begingroup
36
               \@sanitize
37
```

```
\@wrindex\@idxfile%
                                       }%
                            39
                                  }%
                            40
                                  {%
                            41
                                       \@ifundefined{#1_html@idxfile}%
                            42
                                       {%
                            43
                                           \PackageWarning{lwarp-imakeidx}{Undefined index file '#1_html'}%
                            44
                            45
                                           \begingroup
                            46
                                           \@sanitize
                                           \imki@nowrindex%
                            47
                                       }%
                            48
                                       {%
                            49
                                           \edef\@idxfile{#1_html}%
                            50
                            51
                                           \begingroup
                            52
                                           \@sanitize
                            53
                                           \@wrindex\@idxfile%
                                       }%
                            54
                                  }%
                            55
                            56 }
                            57
                            58 \catcode'\_=8%
                    \item
                 \subitem
             \subsubitem
                             HTML versions of \item, etc.:
                            59 \appto\theindex{%
                                   \let\item\LWR@indexitem%
                                   \let\subitem\LWR@indexsubitem%
                            61
                                   \let\subsubitem\LWR@indexsubsubitem%
                            62
                            63 }
                             \{\langle file \rangle\} \{\langle entry \rangle\} \{\langle page \rangle\}
 \imki@wrindexentrysplit
                             \{\langle file \rangle\} \{\langle entry \rangle\} \{\langle page \rangle\}
\imki@wrindexentryunique
                            While writing index entries, adds an HTML label, and writes the label's index instead
                            of the page number:
                            64 \renewcommand\imki@wrindexentrysplit[3]{%
                            65 \addtocounter{LWR@autoindex}{1}%
                            66 \LWR@new@label{LWRindex-\arabic{LWR@autoindex}}%
                                \expandafter\protected@write\csname#1@idxfile\endcsname{}%
                                  {\string\indexentry{#2}{\arabic{LWR@autoindex}}}%
                            68
                            69 }
                            71 \renewcommand\imki@wrindexentryunique[3]{%
                            72 \addtocounter{LWR@autoindex}{1}%
                            73 \LWR@new@label{LWRindex-\arabic{LWR@autoindex}}%
                                \protected@write\@indexfile{}%
                                   75
                            76 }
                            77
                            78 \def\imki@wrindexsplit#1#2{%
                            79 \imki@wrindexentrysplit{#1}{#2}{\thepage}%
```

```
80 \endgroup\imki@showidxentry{#1}{#2}%
81 \@esphack%
82 }
83
84 \def\imki@wrindexunique#1#2{%
85 \imki@wrindexentryunique{#1}{#2}{\thepage}%
86 \endgroup\imki@showidxentry{#1}{#2}%
87 \@esphack%
88 }
89
```

\LWR@imki@setxdydefopts

Sets the xindy HTML options, ignoring the user's settings.

```
90 \newcommand*{\LWR@imki@setxdydefopts}{%
91  \edef\imki@options{ \space %
92   -M \space \LWR@xindyStyle\space %
93   -L \space \LWR@xindyLanguage\space %
94   -C \space \LWR@xindyCodepage\space %
95  }%
96 }
```

\LWR@imki@setdefopts

```
\{\langle user\ options \rangle\}
```

Sets the HTML options, added to the user's settings, depending on whether makeindex or xindy are used.

For *makeindex*, the user's choice is ignored, and only the lwarp version is used. (Only one style at a time is possible.)

For xindy, multiple modules may be specified, and the lwarp version is appended.

```
97 \newcommand*{\LWR@imki@setdefopts}[1]{%
98 \ifblank{#1}{%
99   \edef\imki@options{\space -s \space \LWR@makeindexStyle \space}%
100   \ifdefstring{\imki@progdefault}{\xindy}{\LWR@imki@setxdydefopts}{}%
101   \ifdefstring{\imki@progdefault}{\texindy}{\LWR@imki@setxdydefopts}{}%
102   \ifdefstring{\imki@progdefault}{\truexindy}{\LWR@imki@setxdydefopts}{}%
103 }{%
104   \edef\imki@options{\space #1 \space}%
105 }%
106 }
```

\imki@makeindex

Use the new HTML options:

Use the new HTML options.

```
112 \define@key{imki}{options}{\LWR@imki@setdefopts{#1}}
```

\imki@resetdefaults

Use the new HTML options:

theindex was already defined \AtBeginDocument by the lwarp core, so it must be redefined here similarly, but patched for imakeidx:

Env theindex

```
118 \AtBeginDocument{
119 \renewenvironment*{theindex}{%
120 \imki@maybeaddtotoc
121 \imki@indexlevel{\indexname}
122 \let\item\LWR@indexitem%
123 \let\subitem\LWR@indexsubitem%
124 \let\subsubitem\LWR@indexsubsubitem%
125 }{}
126 }% AtBeginDocument
```

Update to the new defaults:

127 \imki@resetdefaults

Update to the new patches:

\AtBeginDocument is because \@wrindex is previously defined as \AtBeginDocument in the lwarp core.

```
128 \ifimki@splitindex
   \let\imki@startidx\imki@startidxunique
    \AtBeginDocument{\let\@wrindex\imki@wrindexunique}
    \let\imki@putindex\imki@putindexunique
    \let\imki@wrindexentry\imki@wrindexentryunique
132
    \let\imki@startidxsplit\@undefined
133
    \let\imki@wrindexsplit\@undefined
134
135
    \let\imki@putindexsplit\@undefined
136 \else
137
    \let\imki@startidx\imki@startidxsplit
138
    \AtBeginDocument{\let\@wrindex\imki@wrindexsplit}
    \let\imki@putindex\imki@putindexsplit
139
    \let\imki@wrindexentry\imki@wrindexentrysplit
140
    \let\imki@startidxunique\@undefined
141
    \let\imki@wrindexunique\@undefined
    \let\imki@putindexunique\@undefined
144 \fi
```

File 182 lwarp-index.sty

§ 280 Package index

(Emulates or patches code by DAVID M. JONES.)

Pkg index index is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{index}[2004/01/20]

Use \theLWR@autoindex instead of \thepage. \@tempswatrue is used to force an immediate write to the index file instead of waiting until the end of the page.

```
2 \xpatchcmd{\newindex}
3
      {\x@newindex[thepage]}
      {%
4
          \@tempswatrue%
5
6
          \x@newindex[theLWR@autoindex]%
7
      }
8
      {}
      {\LWR@patcherror{index}{newindex}}
9
10
11 \xpatchcmd{\renewindex}
      {\x@renewindex[thepage]}
12
13
      {%
14
          \@tempswatrue%
15
          \x@renewindex[theLWR@autoindex]%
16
      }
17
      {}
      {\LWR@patcherror{index}{renewindex}}
```

Patched to set a new autoindex:

```
19 \xpatchcmd{\@wrindex}
      {\begingroup}
20
21
      {%
          \addtocounter{LWR@autoindex}{1}%
22
                                                                 lwarp
          \LWR@new@label{LWRindex-\arabic{LWR@autoindex}}%
                                                                 lwarp
23
          \begingroup%
24
      }
25
26
      {}
      {\LWR@patcherror{index}{@wrindex}}
27
```

\AtBeginDocument lwarp core \lets \@wrindex to \LWR@wrindex. Since the index package has been loaded, \let to its version instead:

```
28 \let\LWR@index@wrindex\@wrindex
29
30 \AtBeginDocument{
31 \let\@wrindex\LWR@index@wrindex
32 }
```

Modified to add \index@prologue:

```
33 \AtBeginDocument{
34 \renewenvironment*{theindex}{%
      \LWR@indexsection{\indexname}%
      \ifx\index@prologue\@empty\else
           \index@prologue
37
38
           \bigskip
      \fi
39
      \let\item\LWR@indexitem%
40
      \let\subitem\LWR@indexsubitem%
41
      \let\subsubitem\LWR@indexsubsubitem%
42
43 }{}
44 }% AtBeginDocument
Disabled:
45 \def\@showidx#1{}
46 \let\@texttop\relax
47 \renewcommand*{\raggedbottom}{}
48 \renewcommand*{\flushbottom}{}
49 \renewcommand*{\markboth}[2]{}
50 \renewcommand*{\markright}[1]{}
```

File 183 lwarp-inputtrc.sty

§ 281 Package inputtrc

(Emulates or patches code by Uwe Lück.)

Pkg inputtre inputtre is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{inputtrc}[2012/10/10]

Patched to remove extraneous spaces, which sometimes showed up in logos inside a lateximage.

```
2 \renewcommand*{\IT@prim@input}[1]{%
3 \typeout{\IT@indent\IT@currfile INPUTTING #1}%
4 %% ... TODO: option to write to '.log' only.
   \xdef\IT@filestack{{\IT@currfile}\IT@filestack}%
   \xdef\IT@currfile{#1}%
    \expandafter \gdef\expandafter \IT@indent\expandafter{%
     \IT@indent \IT@indent@unit}%
                                                  lwarp
8
   \@@input#1%
                                                  lwarp
9
    \expandafter\IT@pop@indent\IT@indent \@nil% lwarp
10
    \expandafter\IT@pop@file \IT@filestack\@nil% lwarp
12
    \IT@maybe@returnmessage%% v0.2
                                                  lwarp
13 }
```

File 184 lwarp-intopdf.sty

```
§ 282 Package intopdf
```

Pkg intopdf intopdf is emulated.

The MIME type and description are ignored for now.

File 185 lwarp-karnaugh-map.sty

§ 283 Package karnaugh-map

(Emulates or patches code by Mattias Jacobsson.)

Pkg karnaugh-map karnaugh-map is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{karnaugh-map}[2017/02/20]

(It is hard to patch this macro, so the entire thing is redefined here, with the lwarp modifications identified in comments.)

```
2 \RenewDocumentEnvironment{karnaugh-map}{s 0{4} 0{4} 0{1} 0{$X_1X_0$} 0{$X_3X_2$} 0{$X_5X_4$}} {%
   \begingroup
      % store map size {[START]
        \renewcommand{\@karnaughmap@var@mapsizex@}{#2}%
5
        \renewcommand{\@karnaughmap@var@mapsizey@}{#3}%
6
        \renewcommand{\@karnaughmap@var@mapsizez@}{#4}%
8
      % [END]}
      % determinate if markings should be color or black and white
      \IfBooleanTF{#1}{%
        % should be black and white
11
        \renewcommand{\@karnaughmap@var@bw@}{1}%
12
13
      }{%
        % should be color
14
        \renewcommand{\@karnaughmap@var@bw@}{0}%
15
      }%
16
17
      % find matching matrix template and alignment parameters {[START]
18
      \newcommand{\@karnaughmap@local@matrixtemplate@}{0}% '0' is considered as missing matrix template
19
        \newcommand{\@karnaughmap@local@maprealignmentx@}{0}%
20
        \newcommand{\@karnaughmap@local@maprealignmenty@}{0}%
21
      \ifnum\@karnaughmap@var@mapsizex@\@karnaughmap@var@mapsizey@\@karnaughmap@var@mapsizez@=221
22
```

```
\renewcommand{\@karnaughmap@local@matrixtemplate@}{%
23
24
                                   0 \&
                                                       1 \& \phantom{0} \\
              0 \& |(000000)| \phantom{0} \& |(000001)| \phantom{0} \&
25
              11
26
        \phantom{0} \&
                                                                      //
27
        }%
28
       \fi
29
     \ifnum\@karnaughmap@var@mapsizex@\@karnaughmap@var@mapsizey@\@karnaughmap@var@mapsizez@=241
30
        \renewcommand{\@karnaughmap@local@matrixtemplate@}{%
31
                                                      1 \& \phantom{00} \\
32
             00 \& |(000000)| \phantom{0} \& |(000001)| \phantom{0} \&
                                                                        11
33
             01 \& |(000010)| \phantom{0} \& |(000011)| \phantom{0} \&
                                                                        11
34
             11 \& |(000110)| \phantom{0} \& |(000111)| \phantom{0} \&
                                                                        11
35
             10 \& |(000100)| \phantom{0} \& |(000101)| \phantom{0} \&
36
                                                                        //
37
        \phantom{00} \&
                                       \&
                                                                      11
        }%
38
39
     \ifnum\@karnaughmap@var@mapsizex@\@karnaughmap@var@mapsizey@\@karnaughmap@var@mapsizez@=421
40
        \renewcommand{\@karnaughmap@local@matrixtemplate@}{%
41
                                               01 \&
                                                                 11 \&
                                                                                  10 \& \phanto
42
               \&
                              00 \&
             0 \& |(00000)| \phantom{0} \& |(00001)| \phantom{0} \& |(000011)| \phantom{0} \& |(00001)|
43
             44
       \phantom{00} \&
45
                                   \&
                                                                     \&
        }%
46
       \fi
47
     \ifnum\@karnaughmap@var@mapsizex@\@karnaughmap@var@mapsizey@\@karnaughmap@var@mapsizez@=441
48
49
        \renewcommand{\@karnaughmap@local@matrixtemplate@}{%
                                               01 \&
50
                              00 \&
                                                                11 \&
                                                                                  10 \& \phanto
             00 \& |(000000)| \phantom{0} \& |(000001)| \phantom{0} \& |(000011)| \phantom{0} \& |(0000
51
             52
             11 \& |(001100)| \phantom{0} \& |(001101)| \phantom{0} \& |(001111)| \phantom{0} \& |(0011
53
             54
       \phantom{00} \&
                                   \&
                                                    \&
                                                                     \&
55
        }%
56
       \fi
57
58
     \ifnum\@karnaughmap@var@mapsizex@\@karnaughmap@var@mapsizey@\@karnaughmap@var@mapsizez@=442
        \renewcommand{\@karnaughmap@local@matrixtemplate@}{%
59
                              90 \&
                                               01 \&
                                                                11 \&
                                                                                  10 \& \phanto
60
             00 \& (000000) \ \ (000001) \ \ (000001) \ \ (0000011) \ \ (000011) \ \
61
             62
             11 \& (001100) \ \rho (0) \& (001101) \ \rho (0) \& (001111) \ \rho (0) \& (001111) \ \rho (0) 
63
64
             10 \& |(001000)| \phantom{0} \& |(001001)| \phantom{0} \& |(001011)| \phantom{0} \& |(0010
       \phantom{00} \&
65
        }%
66
         \renewcommand{\@karnaughmap@local@maprealignmentx@}{2.5}%
67
68
69
     \ifnum\@karnaughmap@var@mapsizex@\@karnaughmap@var@mapsizey@\@karnaughmap@var@mapsizez@=444
70
        \renewcommand{\@karnaughmap@local@matrixtemplate@}{%
71
                              00 \&
                                               01 \&
                                                                 11 \&
                                                                                  10 \& \phanto
             00 \& |(000000)| \phantom{0} \& |(000001)| \phantom{0} \& |(000011)| \phantom{0} \& |(0000
72
             01 \& |(000100)| \phantom{0} \& |(000101)| \phantom{0} \& |(000111)| \phantom{0} \& |(0001
73
             11 \& (001100) \ \rho (0) \& (001101) \ \rho (0) \& (001111) \ \rho (0) \& (001111) \ \rho (0) 
74
75
             10 \& |(001000)| \phantom{0} \& |(001001)| \phantom{0} \& |(001011)| \phantom{0} \& |(0010
```

\&

00 \& |(100000)| \& |(100001)| \& |(100011)| \& |(1000

\&

76

77

 \&

```
01 \& |(100100)| \phantom{0} \& |(100101)| \phantom{0} \& |(100111)| \phantom{0} \& |(100100)|
78
79
                11 \& |(101100)| \phantom{0} \& |(101101)| \phantom{0} \& |(101111)| \phantom{0} \& |(1011
                10 \& |(101000)| \phantom{0} \& |(101001)| \phantom{0} \& |(101011)| \phantom{0} \& |(1010
80
          \phantom{00} \&
                                          \&
81
           }%
82
           83
           \renewcommand{\@karnaughmap@local@maprealignmenty@}{-2.5}%
84
         \fi
85
      % [END]}
86
     % test if a matrix template is found or not(aka "\@karnaughmap@local@matrixtemplate@" equals to '0')
87
       \ifdefstring{\@karnaughmap@local@matrixtemplate@}{0}{% lwarp
88
         \ifnum0=\@karnaughmap@local@matrixtemplate@% original
89 %
         \mbox{\ensuremath{\mbox{\%}}} print error if no template could be found
90
91
         \PackageError{lwarp-karnaugh-map}{%
92
        Can not find a template fitting your specification (\@karnaughmap@var@mapsizex@\space x \@karnaughma
93
         }{%
        Existing templates have the following dimensions: 2x2x1, 2x4x1, 4x2x1, 4x4x1, 4x4x2, and 4x4x4.
94
         }%
95
         \fi
               original
96 %
               lwarp
97
       }{}%
       \begin{tikzpicture}
98
         % grid
99
         % for all dimensions
100
       \draw[color=black, ultra thin] (0,0) grid (\@karnaughmap@var@mapsizex@,\@karnaughmap@var@mapsizey@);
101
         % when there are 2 sub maps
102
         \ifnum\@karnaughmap@var@mapsizez@=2
103
104
           \draw[color=black, ultra thin] (5,0) grid (9,4);
105
         \fi
         % when there are 4 sub maps
106
107
         \ifnum\@karnaughmap@var@mapsizez@=4
           \draw[color=black, ultra thin] (5,0) grid (9,4);
108
           \draw[color=black, ultra thin] (0,-5) grid (4,-1);
109
           \draw[color=black, ultra thin] (5,-5) grid (9,-1);
110
111
         \fi
         % labels
112
113
         % for all dimensions
       \node[above] at (\@karnaughmap@var@mapsizex@*0.5,\@karnaughmap@var@mapsizey@+0.9) {\small{#5}};
114
         \node[left] at (-0.9,\@karnaughmap@var@mapsizey@*0.5) {\small{#6}};
115
         % when there are 2 sub maps
116
117
         \ifnum\@karnaughmap@var@mapsizez@=2
118
           \node[above] at (7,4.9) {\small{#5}};
119
           % extra sub maps labels
120
           \node[below] at (2,-0.1) {\small{#7$=0$}};
121
           \node[below] at (7,-0.1) {\small{#7$=1$}};
         \fi
122
         % when there are 4 sub maps
123
         \ifnum\@karnaughmap@var@mapsizez@=4
124
125
           \node[above] at (7,4.9) {\small{#5}};
126
           \node[left] at (-0.9, -3) {\small{#6}};
127
           % extra sub maps labels
           \node[below] at (2,-0.1) {\small{#7$=00$}};
128
           \node[below] at (7,-0.1) {\small{#7$=01$}};
129
130
           \node[below] at (2,-5.1) {\small{#7$=10$}};
131
           \node[below] at (7,-5.1) {\small{#7$=11$}};
132
```

```
133
         % data
134
         \matrix[
           matrix of nodes,
135
           ampersand replacement=\&,
136
           column sep={1cm,between origins},
137
           row sep={1cm,between origins},
138
       ] at (\@karnaughmap@var@mapsizex@*0.5+\@karnaughmap@local@maprealignmentx@,\@karnaughmap@var@mapsizex
139
           \@karnaughmap@local@matrixtemplate@%
140
141
         };
142 }{
       \end{tikzpicture}
143
144
     \endgroup
145 }
```

File 186 lwarp-keyfloat.sty

§ 284 Package

keyfloat

(Emulates or patches code by Brian Dunn.)

Pkg keyfloat

keyfloat is supported with a considerable amount of hacking. (It's a mashup of lwarp, keyfloat, and tocdata.)

If placing a \keyfig[H] inside a keywrap, use an absolute width for \keyfig, instead of lw-proportional widths. (The [H] option forces the use of a minipage, which internally adjusts for a virtual 6-inch wide minipage, which then corrupts the lw option.)

for HTML output:

```
1 \LWR@ProvidesPackagePass{keyfloat}[2019/03/21]
3 \@ifpackagelater{keyfloat}{2019/03/21}{}{
      \PackageError{lwarp-keyfloat}
4
5
6
          The keyfloat package is out of date.\MessageBreak
7
          Update to keyfloat v2.00 2019/03/21 or later%
8
      }
      {%
9
          Please update the keyfloat package. It's worth it!%
10
11
12 }
```

After keyfloat has loaded:

13 \AtBeginDocument{

```
14 \providecommand*{\KFLT@LWR@hook@boxouter}{}
15 \renewcommand*{\KFLT@LWR@hook@boxouter}{%}
16 \ifbool{KFLT@keywrap}{}{%}
17 \ifnumequal{\value{KFLT@keyfloatdepth}}{0}{%}
18 \setlength{\linewidth}{6in}%
19 \setlength{\textwidth}{6in}%
20 \setlength{\textheight}{9in}%
```

```
21
          }{}%
22
      }%
23 }
25 \let\KFLT@LWR@hook@boxouter@minipage\relax
26 \let\endKFLT@LWR@hook@boxouter@minipage\relax
27 \newenvironment*{KFLT@LWR@hook@boxouter@minipage}[2][]{}{}
29 \providecommand*{\KFLT@LWR@hook@keysubfloats}{}
30 \renewcommand*{\KFLT@LWR@hook@keysubfloats}{%
      \ifbool{KFLT@keywrap}{}{%
          32
              \setlength{\linewidth}{6in}%
33
34
              \setlength{\textwidth}{6in}%
35
              \setlength{\textheight}{9in}%
36
          }{}%
      }%
37
38 }
39
40 \let\KFLT@LWR@hook@keyfloatsminipage\relax
41 \let\endKFLT@LWR@hook@keyfloatsminipage\relax
42 \newenvironment*{KFLT@LWR@hook@keyfloatsminipage}[1]{}{}
44 \providecommand*{\KFLT@LWR@hook@keyfloats}{}
45 \renewcommand*{\KFLT@LWR@hook@keyfloats}{%
      \ifbool{KFLT@keywrap}{}{%
46
47
          \ifnumequal{\value{KFLT@keyfloatdepth}}{0}{%
48
              \setlength{\linewidth}{6in}%
              \setlength{\textwidth}{6in}%
49
50
              \setlength{\textheight}{9in}%
          }{}%
51
      }%
52
53 }
55 \renewcommand*{\KFLT@maybeendfloatrow}{%
      \ifnumless{\value{KFLT@thiscol}}{\value{KFLT@numcols}}%
57
      {}% thiscol < numcols
58
      {% >=
59
          \defcounter{KFLT@thiscol}{0}%
      }%
60
61 }%
63 \renewcommand{\KFLT@trackrows}%
64 {%
If are nested inside a keyfloats or a subfloat:
65
      \ifboolexpr{%
          test {\ifnumgreater{\value{KFLT@keyfloatdepth}}{0}} or%
66
          bool{KFLT@inkeysubfloats}%
67
      }%
68
      {% nested
69
```

Tracks row start and end:

70 \KFLT@maybestartfloatrow%

Possibly fill space between columns:

```
71
           \ifnumgreater{\value{KFLT@thiscol}}{1}%
 72
                {%
 73 %
                      \hfill%
                }%
 74
 75
                {}%
       }% nested
 76
       {}% not nested
 77
78 }
 79 \RenewDocumentCommand{\KFLT@onefigureimage}{m}
 80 {%
 81 \LWR@traceinfo{KFLT@onefigureimage}%
 82 % \begin{lrbox}{\KFLT@envbox}%
 83 \ifthenelse{\NOT\equal{\KFLT@lw}{}}%
       {%
 84
           \KFLT@frame{\includegraphics%
 85
           [scale=\KFLT@s,width=\KFLT@imagewidth]{#1}}%
 86
87
       }%
 88
       {% not linewidth
           \ifthenelse{\dimtest{\KFLT@w}{>}{0pt}}%
 89
           {% width is given
 90
                \left( \left( KFLT@h \right) \right) 
 91
                {% w and h
 92
                    \KFLT@frame{\includegraphics%
 93
                    [scale=\KFLT@s,%
 94
                    width=\KFLT@imagewidth,height=\KFLT@h]{#1}}%
 95
                }% w and h
 96
                {% only w
 97
                    \KFLT@frame{\includegraphics%
 98
                    [scale=\KFLT@s,width=\KFLT@imagewidth]{#1}}%
 99
                }% only w
100
101
           }% width is given
102
           {% width is not given
                \ifthenelse{\dimtest{\KFLT@h}{>}{0pt}}%
103
104
                    \KFLT@frame{\includegraphics%
105
                    [scale=\KFLT@s,height=\KFLT@h]{\#1}%
106
                }%
107
                {%
108
                    \KFLT@frame{\includegraphics%
109
                    [scale=\KFLT@s]{#1}}%
110
111
                }%
           }% width is not given
112
113
       }% not linewidth
114 % \end{lrbox}%
115 % \unskip%
116 % \KFLT@findenvboxwidth%
117 % \begin{turn}{\KFLT@r}%
118 % \KFLT@frame{\usebox{\KFLT@envbox}}%
119 % \unskip%
120 % \end{turn}%
```

```
121 \LWR@traceinfo{KFLT@onefigureimage: done}%
122 }
123 \RenewDocumentEnvironment{KFLT@boxinner}{}
125
       \LWR@traceinfo{KFLT@boxinner}%
       \LWR@stoppars%
126
       \minipagefullwidth%
127
       \ifboolexpr{bool{KFLT@ft} or bool{KFLT@f}}{
128
           \fminipage{\KFLT@imagewidth}%
129
130
       }{%
131
           \minipage{\KFLT@imagewidth}%
       }%
132
133 }
134 {%
       \ifboolexpr{bool{KFLT@ft} or bool{KFLT@f}}{
135
           \endfminipage%
136
137
       }{%
138
           \endminipage%
       }%
139
       \LWR@startpars%
140
       \LWR@traceinfo{KFLT@boxinner: done}%
141
142 }
143 \newcommand*{\LWR@KFLT@settextalign}[1]{%
       \def\LWR@KFLT@textalign{justify}%
144
       \ifcsstring{KFLT@#1textalign}{\centering}%
145
           {\def\LWR@KFLT@textalign{center}}%
146
147
           {}%
       \ifcsstring{KFLT@#1textalign}{\raggedleft}%
148
           {\def\LWR@KFLT@textalign{right}}%
149
150
       \ifcsstring{KFLT@#1textalign}{\raggedright}%
151
           {\def\LWR@KFLT@textalign{left}}%
152
153
           {}%
154 }
155
156 \renewcommand{\KFLT@addtext}[1]
157 {%
Is there text to add?
       \ifcsempty{KFLT@#1t}%
       {}% no text
159
160
       {% text to add
           {% local
161
Add some space, then create a full-width minipage to contain the text:
           \addvspace{\smallskipamount}%
162
163
           \LWR@KFLT@settextalign{#1}%
164
           \begin{BlockClass}[text-align:\LWR@KFLT@textalign]{floatnotes}%
```

Set the alignment and some text parameters:

```
165 %
              \csuse{KFLT@#1textalign}%
166 %
              \footnotesize%
167
           \setlength{\parskip}{1.5ex}%
           \setlength{\parindent}{0em}%
168
Typeset the actual text:
           \csuse{KFLT@#1t}%
Close it all out with a little more space:
           \end{BlockClass}%
170
171 %
              \par\addvspace{2ex}%
172
           }% local
       }% text to add
173
174 }
175
176 \@ifpackageloaded{tocdata}
178 {% tocdata not loaded
179
       \newcommand*{\LWR@KFLT@setnamealign}[1]{%
180
           \def\LWR@KFLT@textalign{justify}%
181
182
           \ifstrequal{#1}{\centering}%
183
                {\def\LWR@KFLT@textalign{center}}%
184
           \ifstrequal{#1}{\raggedleft}%
185
                {\def\LWR@KFLT@textalign{right}}%
186
                {}%
187
           \ifstrequal{#1}{\raggedright}%
188
189
                {\def\LWR@KFLT@textalign{left}}%
                {}%
190
       }
191
192
193
       \renewcommand*{\KFLT@@addartisttext}[3]{%
194
Add space and create the name inside a full-width minipage:
195 %
              \addvspace{\medskipamount}%
              \begin{minipage}{\linewidth}%
196
197
           \LWR@KFLT@setnamealign{#3}%
           \begin{BlockClass}[text-align:\LWR@KFLT@textalign]{floatnotes}%
198
199
Text alignment is #3, and depends on artist or author:
200
              #3%
201
#1 is empty or 'subgrp'
#2 is empty for artist, 'u' for author:
```

\footnotesize\textsc{%

202

```
203
                \KFLT@optionalname{\csuse{KFLT@#1a#2p}}%
                \KFLT@optionalname{\csuse{KFLT@#1a#2f}}%
                \csuse{KFLT@#1a#2l}%
205
                \csuse{KFLT@#1a#2s}%
206
           }%
207
       %
              \end{minipage}%
208
           \end{BlockClass}
209
210 %
              \par\addvspace{2ex}%
211
       }
212
213 }% tocdata not loaded
214 \DeclareDocumentEnvironment{KFLT@marginfloat}{0{-1.2ex} m}
215 {%
       \LWR@BlockClassWP{float:right; width:2in; margin:10pt}{}{marginblock}%
216
217
       \captionsetup{type=#2}%
218
       \minipage{2in}%
219 }
220 {%
221
       \endminipage%
222
       \endLWR@BlockClassWP%
223 }
224 \DeclareDocumentEnvironment{marginfigure}{o}
       {\begin{KFLT@marginfloat}{figure}}
       {\end{KFLT@marginfloat}}
226
227
228 \DeclareDocumentEnvironment{margintable}{o}
229
       {\begin{KFLT@marginfloat}{table}}
       {\end{KFLT@marginfloat}}
230
231 \DeclareDocumentEnvironment{keywrap}{m +m}
232 {%
       \LWR@ensuredoingapar%
233
       \setlength{\linewidth}{6in}%
234
235
       \setlength{\LWR@templengthone}{#1}%
236
       \begin{LWR@BlockClassWP}%
           {%
237
            float:right; width:\LWR@printlength{\LWR@templengthone}; % extra space
238
                margin:10pt%
239
           }%
240
           {%
241
242
                width:\LWR@printlength{\LWR@templengthone}%
243
           }%
244
           {marginblock}%
       \label{linewidth} $$\left.95\LWR@templengthone\right\}_{n}$
245
       \booltrue{KFLT@keywrap}%
246
247
       \end{LWR@BlockClassWP}%
248
249 }
250 {}
```

251 }% AtBeginDocument

File 187 lwarp-layaureo.sty

§ 285 Package layaureo

Pkg layaureo layaureo is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{layaureo}[2004/09/16]

File 188 lwarp-layout.sty

§ 286 Package layout

Pkg layout layout is ignored.

for HTML output: Discard all options for lwarp-layout:

1 \LWR@ProvidesPackageDrop{layout}[2014/10/28]

2 \NewDocumentCommand{\layout}{s}{}

File 189 lwarp-layouts.sty

§ 287 Package layouts

Pkg layouts layouts is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{layouts}[2009/09/02]

2 \newif\ifoddpagelayout

3 \oddpagelayouttrue

4 \newif\iftwocolumnlayout

5 \twocolumnlayoutfalse

6 \newif\ifdrawmarginpars

7 \drawmarginparstrue

 ${\tt 8 \ \ left} \\ {\tt ifdrawparameters}$

9 \drawparameterstrue

10 \newif\iflistaspara

11 \listasparatrue

12 \newif\ifruninhead

13 \runinheadfalse

14 \newif\ifprintparameters

15 \printparameterstrue

16 \newif\ifdrawdimensions

17 \drawdimensionsfalse

18 \newif\ifprintheadings

```
\printheadingstrue
20 \newcommand{\testdrawdimensions}{}
21 \newcommand{\testprintparameters}{}
22 \newcommand{\setlabelfont}[1]{}
23 \newcommand{\setparametertextfont}[1]{}
24 \newcommand{\setvaluestextsize}[1]{}
25 \newcommand{\setlayoutscale}[1]{}
26 \newcommand{\setuplayouts}{}
27 \newcommand{\printinunitsof}[1]{}
28 \newcommand{\prntlen}[1]{}
29 \mbox{newcommand{\trypaperwidth}[1]{}}
30 \newcommand{\trypaperheight}[1]{}
31 \newcommand{\tryhoffset}[1]{}
32 \newcommand{\tryvoffset}[1]{}
33 \newcommand{\trytopmargin}[1]{}
34 \newcommand{\tryheadheight}[1]{}
35 \newcommand{\tryheadsep}[1]{}
36 \newcommand{\trytextheight}[1]{}
37 \newcommand{\tryfootskip}[1]{}
38 \newcommand{\tryoddsidemargin}[1]{}
39 \newcommand{\tryevensidemargin}[1]{}
40 \newcommand{\trytextwidth}[1]{}
41 \newcommand{\trymarginparsep}[1]{}
42 \newcommand{\trymarginparwidth}[1]{}
43 \newcommand{\trymarginparpush}[1]{}
44 \newcommand{\trycolumnsep}[1]{}
45 \newcommand{\trycolumnseprule}[1]{}
46 \newcommand{\setfootbox}[2]{}
47 \newcommand{\currentpage}{}
48 \newcommand{\drawpage}{(draw page)}
49 \newcommand{\pagediagram}{(page diagram)}
50 \newcommand{\pagedesign}{(page design)}
51 \newcommand{\pagevalues}{(page values)}
52 \newcommand{\trystockwidth}[1]{}
53 \newcommand{\trystockheight}[1]{}
54 \newcommand{\trytrimedge}[1]{}
55 \newcommand{\trytrimtop}[1]{}
56 \newcommand{\tryuppermargin}[1]{}
57 \newcommand{\tryspinemargin}[1]{}
58 \newcommand{\currentstock}{}
59 \newcommand{\drawstock}{(draw stock)}
60 \newcommand{\stockdiagram}{(stock diagram)}
61 \newcommand{\stockdesign}{(stock design)}
62 \newcommand{\stockvalues}{(stock values)}
63 \newcommand{\tryitemindent}[1]{}
64 \newcommand{\trylabelwidth}[1]{}
65 \newcommand{\trylabelsep}[1]{}
66 \newcommand{\tryleftmargin}[1]{}
67 \newcommand{\tryrightmargin}[1]{}
68 \newcommand{\trylistparindent}[1]{}
69 \newcommand{\trytopsep}[1]{}
70 \newcommand{\tryparskip}[1]{}
71 \newcommand{\trypartopsep}[1]{}
72 \newcommand{\tryparsep}[1]{}
73 \newcommand{\tryitemsep}[1]{}
```

```
74 \newcommand{\currentlist}{}
75 \newcommand{\drawlist}{(draw list)}
76 \newcommand{\listdiagram}{(list diagram)}
77 \newcommand{\listdesign}{(list design)}
78 \newcommand{\listvalues}{(list values)}
79 \newcommand{\tryfootins}[1]{}
80 \newcommand{\tryfootnotesep}[1]{}
81 \newcommand{\tryfootnotebaseline}[1]{}
82 \newcommand{\tryfootruleheight}[1]{}
83 \newcommand{\tryfootrulefrac}[1]{}
84 \newcommand{\currentfootnote}{}
85 \newcommand{\drawfootnote}{(draw footnote)}
86 \newcommand{\footnotediagram}{(footnote diagram)}
87 \newcommand{\footnotedesign}{(footnote design)}
88 \newcommand{\footnotevalues}{(footnote values)}
89 \newcommand{\tryparindent}[1]{}
90 \newcommand{\tryparlinewidth}[1]{}
91 \newcommand{\tryparbaselineskip}[1]{}
92 \newcommand{\currentparagraph}{}
93 \newcommand{\drawparagraph}{(draw paragraph)}
94 \newcommand{\paragraphdiagram}{(paragraph diagram)}
95 \newcommand{\paragraphdesign}{(paragraph design)}
96 \newcommand{\paragraphvalues}{(paragraph values)}
97 \newcommand{\trybeforeskip}[1]{}
98 \newcommand{\tryafterskip}[1]{}
99 \newcommand{\tryindent}[1]{}
100 \newcommand{\currentheading}{}
101 \newcommand{\drawheading}[1]{(draw heading)}
102 \newcommand{\headingdiagram}[1]{(heading diagram)}
103 \newcommand{\headingdesign}[1]{(heading design)}
104 \newcommand{\headingvalues}{(heading values)}
105 \newcommand{\trytextfloatsep}[1]{}
106 \newcommand{\tryfloatsep}[1]{}
107 \newcommand{\tryintextsep}[1]{}
108 \newcommand{\trytopfigrule}[1]{}
109 \newcommand{\trybotfigrule}[1]{}
110 \newcommand{\currentfloat}{}
111 \newcommand{\drawfloat}{(draw float)}
112 \newcommand{\floatdiagram}{(float diagram)}
113 \newcommand{\floatdesign}{(float design)}
114 \newcommand{\floatvalues}{(float values)}
115 \newcommand{\trytotalnumber}[1]{}
116 \newcommand{\trytopnumber}[1]{}
117 \newcommand{\trybottomnumber}[1]{}
118 \newcommand{\trytopfraction}[1]{}
119 \newcommand{\trytextfraction}[1]{}
120 \newcommand{\trybottomfraction}[1]{}
121 \newcommand{\currentfloatpage}{}
122 \newcommand{\drawfloatpage}{(draw floatpage)}
123 \newcommand{\floatpagediagram}{(floatpage diagram)}
124 \newcommand{\floatpagedesign}{(floatpage design)}
125 \newcommand{\floatpagevalues}{(floatpage values)}
126 \newcommand{\trytocindent}[1]{}
127 \newcommand{\trytocnumwidth}[1]{}
128 \newcommand{\trytoclinewidth}[1]{}
```

```
129 \newcommand{\trytocrmarg}[1]{}
         130 \newcommand{\trytocpnumwidth}[1]{}
         131 \newcommand{\trytocdotsep}[1]{}
         132 \newcommand{\currenttoc}{}
         133 \newcommand{\drawtoc}{(draw toc)}
         134 \newcommand{\tocdiagram}{(toc diagram)}
         135 \newcommand{\tocdesign}{(toc design)}
         136 \newcommand{\tocvalues}{(toc values)}
         137 \newcommand{\drawaspread}[8][0]{(a spread)}
         138 \newcommand{\drawfontframe}[1]{(font frame)}
         139 \newcommand{\drawfontframelabel}[1]{}
File 190 lwarp-leading.sty
Package leading
         leading is ignored.
           1 \LWR@ProvidesPackageDrop{leading}[2008/12/11]
           2 \newcommand\leading[1]{}
File 191 lwarp-letterspace.sty
Package letterspace
         (Emulates or patches code by R Schlicht.)
         letterspace is a subset of microtype, which is pre-loaded by lwarp. All user options
          and macros are ignored and disabled.
         Discard all options for lwarp-letterspace:
           1 \LWR@ProvidesPackageDrop{letterspace}[2018/01/14]
           2 \newcommand*\lsstyle{}
           3 \newcommand\textls[2][]{}
           4 \def\textls#1#{}
           5 \newcommand*\lslig[1]{#1}
File 192 lwarp-lettrine.sty
         lettrine
```

§ 288

§ 289

\$290

Pkg leading

letterspace

Package

Pkg lettrine Emulated.

(Emulates or patches code by Daniel Flipo.)

for HTML output:

for HTML output:

for HTML output:

Discard all options for lwarp-lettrine:

```
1 \LWR@ProvidesPackageDrop{lettrine}[2018-08-28]
```

The initial letter is in a of class lettrine, and the following text is in a of class lettrinetext. \lettrine $[\langle keys \rangle] \{\langle letter \rangle\} \{\langle additional\ text \rangle\}$

```
2 \DeclareDocumentCommand{\lettrine}{o m m}{%
3 \InlineClass{lettrine}{#2}\InlineClass{lettrinetext}{#3} % extra space
4 }
 6 \newcounter{DefaultLines}
7 \setcounter{DefaultLines}{2}
 8 \newcounter{DefaultDepth}
9 \newcommand*{\DefaultOptionsFile}{\relax}
10 \newcommand*{\DefaultLoversize}{0}
11 \newcommand*{\DefaultLraise}{0}
12 \newcommand*{\DefaultLhang}{0}
13 \newdimen\DefaultFindent
14 \setlength{\DefaultFindent}{\z@}
15 \newdimen\DefaultNindent
16 \setlength{\DefaultNindent}{0.5em}
17 \newdimen\DefaultSlope
18 \setlength{\DefaultSlope}{\z@}
19 \newdimen\DiscardVskip
20 \setlength{\DiscardVskip}{0.2\p@}
21 \newif\ifLettrineImage
22 \neq 0
23 \newif\ifLettrineRealHeight
25 \newcommand*{\LettrineTextFont}{\scshape}
26 \newcommand*{\LettrineFontHook}{}
27 \newcommand*{\LettrineFont}[1]{\InlineClass{lettrine}{#1}}
28 \newcommand*{\LettrineFontEPS}[1]{\includegraphics[height=1.5ex]{#1}}
```

File 193 lwarp-lineno.sty

§ 291 Package lineno

(Emulates or patches code by Stephan I. Böttcher.)

```
Pkg lineno lineno is ignored.
```

```
for HTML output:
```

```
{\tt 1\ LWR@ProvidesPackageDrop\{lineno\}[2005/11/02]}
```

```
11 \@namedef{linenumbers*}{\par\linenumbers*}
12 \@namedef{runninglinenumbers*}{\par\runninglinenumbers*}
14 \def\endlinenumbers{\par}
15 \let\endrunninglinenumbers\endlinenumbers
16 \let\endpagewiselinenumbers\endlinenumbers
17 \expandafter\let\csname endlinenumbers*\endcsname\endlinenumbers
18 \expandafter\let\csname endrunninglinenumbers*\endcsname\endlinenumbers
19 \let\endnolinenumbers\endlinenumbers
21 \def\pagewiselinenumbers{\linenumbers\setpagewiselinenumbers}
23 \def\runninglinenumbers{\setrunninglinenumbers\linenumbers}
25 \def\setpagewiselinenumbers{}
27 \def\setrunninglinenumbers{}
29 \def\linenomath{}%
30 \@namedef{linenomath*}{}%
31 \def\endlinenomath{}
32 \expandafter\let\csname endlinenomath*\endcsname\endlinenomath
34 \let\linelabel\label
36 \def\switchlinenumbers{\@ifstar{}{}}
37 \def\setmakelinenumbers#1{\@ifstar{}{}}
39 \def\leftlinenumbers{\@ifstar{}{}}
40 \def\rightlinenumbers{\@ifstar{}{}}
42 \newcounter{linenumber}
43 \newcount\c@pagewiselinenumber
44 \let\c@runninglinenumber\c@linenumber
46 \def\runningpagewiselinenumbers{}
47 \def\realpagewiselinenumbers{}
48
50 \NewDocumentCommand\modulolinenumbers{s o}{}
52 \chardef\c@linenumbermodulo=5
53 \modulolinenumbers[1]
54
55 \newcommand*\firstlinenumber[1]{}
57 \newcommand\internallinenumbers{}
58 \let\endinternallinenumbers\endlinenumbers
59 \@namedef{internallinenumbers*}{\internallinenumbers*}
60 \expandafter\let\csname endinternallinenumbers*\endcsname\endlinenumbers
62 \newcommand*{\linenoplaceholder}[1]{% redefine per language
      (line number reference for \detokenize\expandafter{#1})
64 }
```

```
66 \newcommand*{\lineref}[2][]{\linenoplaceholder{#2}}
 67 \newcommand*{\linerefp}[2][]{\linenoplaceholder{#2}}
 68 \newcommand*{\linerefr}[2][]{\linenoplaceholder{#2}}
 70 \newcommand\quotelinenumbers
      {\@ifstar\linenumbers{\@ifnextchar[\linenumbers*\}}}
 73 \newdimen\linenumbersep
 74 \newdimen\linenumberwidth
 75 \newdimen\quotelinenumbersep
 77 \quotelinenumbersep=\linenumbersep
 78 \let\quotelinenumberfont\linenumberfont
 80 \def\linenumberfont{\normalfont\tiny\sffamily}
 81
82
 83 \linenumberwidth=10pt
 84 \linenumbersep=10pt
 86 \def\thelinenumber{}
88 \def\LineNumber{}
89 \def\makeLineNumber{}
 90 \def\makeLineNumberLeft{}
91 \def\makeLineNumberRight{}
 92 \def\makeLineNumberOdd{}
 93 \def\makeLineNumberEven{}
 94 \def\makeLineNumberRunning{}
95
 96
97 \newenvironment{numquote}
                                  {\quote}{\endquote}
98 \newenvironment{numquotation} {\quotation}{\endquotation}
 99 \newenvironment{numquote*}
                                  {\quote}{\endquote}
100 \newenvironment{numquotation*}{\quotation}{\endquotation}
101
102 \newdimen\bframerule
103 \bframerule=\fboxrule
105 \newdimen\bframesep
106 \bframesep=\fboxsep
107
108 \newenvironment{bframe}
109 {%
110
       \LWR@forceminwidth{\bframerule}%
111
       \BlockClass[
           border:\LWR@printlength{\LWR@atleastonept} solid black ; %
112
113
           padding:\LWR@printlength{\bframesep}%
114
       ]{bframe}
115 }
116 {\endBlockClass}
```

File 194 lwarp-lips.sty

§ 292 Package lips

(Emulates or patches code by MATT SWIFT.)

Pkg lips lips is emulated.

```
1 % \LWR@ProvidesPackageDrop{lips}
2 \PackageInfo{lwarp}{Using the lwarp version of package 'lips'.}%
3 \ProvidesPackage{lwarp-lips}[2001/08/31]
4
5 \NewDocumentCommand{\Lips}{}{\textellipsis}
6
7 \NewDocumentCommand{\BracketedLips}{}{[\textellipsis]}
8
9 \let\lips\Lips
10 \let\olips\lips
11
12 \DeclareOption*{}
13 \DeclareOption{mla}{}
14 \let\lips\BracketedLips
15 }
16 \ProcessOptions\relax
17
18 \newcommand \LPNobreakList {}
```

File 195 lwarp-listings.sty

§ 293 Package listings

(Emulates or patches code by Carsten Heinz, Brooks Moses, Jobst Hoffmann.)

Pkg listings listings is supported with some limitations. Text formatting is not yet supported.

for HTML output: 1 \begin{warpHTML}

2 \LWR@ProvidesPackagePass{listings}[2018/09/02]

Force flexible columns. Fixed columns inserts spaces in the PDF output.

3 \lst@column@flexible

Patches to embed listings inside pre tags:

```
4 \let\LWR@origlst@Init\lst@Init
5 \let\LWR@origlst@DeInit\lst@DeInit
```

```
7 \let\LWR@origlsthkEveryPar\lsthk@EveryPar
             9 \renewcommand{\l@lstlisting}[2]{\hypertocfloat{1}{lstlisting}{lol}{#1}{#2}}
  \lstset
             \{\langle options \rangle\}
           Use the listings literate option to replace HTML entities:
            10 \def\lstset@#1{\endgroup%
            11 % \ifx\@empty#1%
            12 %
                         \@empty%
            13 %
                     \else%
                       \setkeys{lst}{%
            14
                           #1%
            15
                           ,literate=%
            16
                           {<}{\t MTMLentity{lt}}{4}%
            17
                           {>}{\HTMLentity{gt}}{4}%
                           {\\&}{\HTMLentity{amp}}{5}%
            19
                      }%
            20
            21 %
                    \fi%
            22 }
\lst@Init
             {\langle backslash-processing\rangle}
                                         Done at the start of a listing.
            23 \renewcommand{\lst@Init}[1]{%
           Perform the listings initialization:
            24 \LWR@traceinfo{lst@Init}%
            25 \renewcommand*{\@captype}{lstlisting}%
            26 \let\lst@aboveskip\z@\let\lst@belowskip\z@%
            27 \gdef\lst@boxpos{t}%
            28 \let\lst@frame\@empty
                  \let\lst@frametshape\@empty
                  \let\lst@framershape\@empty
            30
                  \let\lst@framebshape\@empty
            31
                  \let\lst@framelshape\@empty
            33 \lstframe@\lst@frameround ffff\relax%
            34 \lst@multicols\@empty%
            35 \LWR@origlst@Init{#1}\relax%
           Avoids extra horizontal space:
            36 \def\lst@framelr{}%
            37 \LWR@traceinfo{finished origlst@Init}%
            38 \lst@ifdisplaystyle%
           Creating a display.
           Disable line numbers, produce the , then reenable line numbers.
            39 \LWR@traceinfo{About to create verbatim.}%
            40 \let\lsthk@EveryPar\relax%
            41 \LWR@forcenewpage
            42 \LWR@atbeginverbatim{2}{programlisting}%
            43
```

```
44 \let\lsthk@EveryPar\LWR@origlsthkEveryPar%
                               45 \else%
                              Inline, so open a <span>:
                               46 \ifbool{LWR@verbtags}{\LWR@htmltag{span class="inlineprogramlisting"}}{}}
                               47\fi%
                               48 }
                               49
        \lst@DeInit
                                     Done at the end of a listing.
                               50 \renewcommand*{\lst@DeInit}{%
                               51 \lst@ifdisplaystyle%
                              Creating a display.
                              Disable line numbers, produce the , then reenable line numbers:
                               52 \let\lsthk@EveryPar\relax%
                               53 \LWR@afterendverbatim{0}%
                               54 \let\lsthk@EveryPar\LWR@origlsthkEveryPar%
                               55 \else%
                              Inline, so create the closing </span>:
                               56 \ifbool{LWR@verbtags}{\noindent\LWR@htmltag{/span}}{}%
                               57 \fi%
                              Final listings deinit:
                               58 \LWR@origlst@DeInit%
                               59 }
                                 \{\langle t/b\rangle\}
\lst@MakeCaption
                              This is called BOTH at the top and at the bottom of each listing.
                              Patched for lwarp.
                               60 \def\lst@MakeCaption#1{%
                               61 \LWR@traceinfo{MAKING CAPTION at #1}%
                               62 \lst@ifdisplaystyle
                               63 \LWR@traceinfo{making a listings display caption}%
                                          \ifx #1t%
                               64
                                                  \ifx\lst@@caption\@empty\expandafter\lst@HRefStepCounter \else
                               65
                                                                                           \expandafter\refstepcounter
                               66
                                                  \fi {lstlisting}%
                               67
                               68 \LWR@traceinfo{About to assign label: !\lst@label!}%
                                                    \ifx\lst@label\@empty\else
                               70 % \label{\lst@label}\fi
                               71 \LWR@traceinfo{Finished assigning the label.}%
                               72
                                                \let\lst@arg\lst@intname \lst@ReplaceIn\lst@arg\lst@filenamerpl
                               73
                                                \label{let} $$ \global\let\lst@name \lst@name \lst.
                                                \lst@ifnolol\else
                               74
                                                       \ifx\lst@@caption\@empty
                               75
                               76
                                                              \ifx\lst@caption\@empty
                                                                     \ifx\lst@intname\@empty \else \def\lst@temp{ }%
                               77
                               78
                                                                     \ifx\lst@intname\lst@temp \else
```

This code places a contents entry for a non-float. This would have to be modified for lwarp:

```
79 \LWR@traceinfo{addcontents lst@name: -\lst@name-}%
                                 \addcontentsline{lol}{lstlisting}{\lst@name}
                       \fi\fi
                   \fi
82
               \else
83
This would have to be modified for lwarp:
84 \LWR@traceinfo{addcontents lst@@caption: -\lst@@caption-}%
                    \addcontentsline{lol}{lstlisting}%
86 {\protect\numberline{\thelstlisting}%
87 {\protect\ignorespaces \LWR@isolate{\lst@@caption} \protect\relax}}%
               \fi
            \fi
89
        \fi
90
       \ifx\lst@caption\@empty\else
91
92 \LWR@traceinfo{lst@caption not empty-}%
           \lst@IfSubstring #1\lst@captionpos
93
               {\begingroup
94
95 \LWR@traceinfo{at the selected position}%
These space and box commands are not needed for HTML output:
96 %
                  \let\@@vskip\vskip
                  \def\vskip{\afterassignment\lst@vskip \@tempskipa}%
97 %
98 %
                  \def\lst@vskip{\nobreak\@@vskip\@tempskipa\nobreak}%
99 %
                  \par\@parboxrestore\normalsize\normalfont % \noindent (AS)
100 %
                  \ifx #1t\allowbreak \fi
                \ifx\lst@title\@empty
101
New Iwarp code to create a caption:
                     \lst@makecaption\fnum@lstlisting{\ignorespaces \lst@caption}
102
                \else
New Iwarp code to create a title:
                      \lst@maketitle\lst@title % (AS)
105 \LWR@traceinfo{Making title: \lst@title}%
106 \begin{BlockClass}{lstlistingtitle}% lwarp
107 \lst@maketitle\lst@title% lwarp
108 \end{BlockClass}% lwarp
                \fi
110 \LWR@traceinfo{About to assign label: !\lst@label!}%
           \ifx\lst@label\@empty\else
112 \leavevmode% gets rid of bad space factor error
113 \GetTitleStringExpand{\lst@caption}%
114 \edef\LWR@lntemp{\GetTitleStringResult}%
115 \edef\@currentlabelname{\detokenize\expandafter{\LWR@lntemp}}%
116 \label{\lst@label}\fi
117 \LWR@traceinfo{Finished assigning the label.}%
Not needed for lwarp:
118 %
                  \ifx #1b\allowbreak \fi
119
                \endgroup}{}%
      \fi
120
```

```
121 \LWR@traceinfo{end of making a listings display caption}%
122 \else
123 \LWR@traceinfo{INLINE}%
124 \fi
125 \LWR@traceinfo{DONE WITH CAPTION at #1}%
126 }
```

line numbers

Patched to keep left line numbers outside of the left margin, and place right line numbers in a field \VerbatimHTMLWidth wide.

```
127 \lst@Key{numbers}{none}{%
128    \let\lst@PlaceNumber\@empty
129    \lstKV@SwitchCases{#1}%
130    {none:\\%
131    left:\def\lst@PlaceNumber{%
```

For now, lwarp places left line numbers inline. Ideally the entire line would be moved to the right, but conflicts with list indenting occurs.

```
132 %
             \LWR@origllap{
133
               \LWR@orignormalfont%
134
               \lst@numberstyle{\thelstnumber}\kern\lst@numbersep%
135 %
             }
136
       }\\%
        right:\def\lst@PlaceNumber{\LWR@origrlap{\LWR@orignormalfont
137
                   \kern 6in \kern\lst@numbersep
138
                   \lst@numberstyle{\thelstnumber}}}%
139
       }{\PackageError{lwarp-listings}{Numbers #1 unknown}\@ehc}}
140
141 \end{warpHTML}
```

File 196 lwarp-listliketab.sty

```
§ 294 Package listliketab
```

Pkg listliketab listliketab is emulated.

```
\begin{tabular}{ll} \textbf{for HTML output:} & 1 \texttt{\LWR@ProvidesPackageDrop\{listliketab\}[2005/01/09]} \\ \end{tabular}
```

```
2 \newcommand*{\storestyleof}[1]{}
3 \newcommand*{\storeliststyle}{}
4 \newenvironment{\listliketab}{}{}
```

File 197 lwarp-lltjext.sty

§ 295 Package Iltjext

Pkg lltjext lltjext is patched for use by lwarp.

```
for HTML output:
                  1 \LWR@ProvidesPackagePass{lltjext}[2018/10/07]
                  2 \protected\def\yoko{%
                  3 \directlua{luatexja.direction.set_list_direction(4, 'yoko')}%
                  4 }
                  5 \protected\def\tate{\yoko}
                  6 \protected\def\dtou{\yoko}
                  7 \protected\def\utod{\yoko}
                  9 \define@key[ltj]{japaram}{direction}{}
                 11\yoko
                 13 \DeclareExpandableDocumentCommand{\rensuji}{s o m}{#3}
                 15 \DeclareDocumentCommand{\layoutfloat}{d() o m}{}
                 17 \DeclareDocumentCommand{\DeclareLayoutCaption}{m d<> d() o}{}
                 19 \LetLtxMacro\pcaption\caption
                 21 \DeclareDocumentCommand{\layoutcaption}{d<> d() o}{}
                 23 \let\captiondir\relax
                 24 \RenewDocumentEnvironment{LWR@HTML@minipage}{d<> O{t} O{t} m}
                       {\LWR@HTML@sub@minipage{#2}{#3}{#4}{#5}}
                       {\endLWR@HTML@sub@minipage}
                 26
                 27
                 28 \mbox{RenewDocumentCommand}(\LWR@HTML@parbox){d$<> O{t} O{t} m +m}
                 30 \LWR@traceinfo{parbox of width #4}%
                 31 \begin{minipage}[#2][#3][#4]{#5}%
                 32 #6
                 33 \end{minipage}%
                 34 }
                 36 \ensuremath{\mbox}{d<> 0{0pt} 0{c} m}{\%}
                 37 \global\booltrue{LWR@minipagefullwidth}%
                 38 \parbox{#2}{#4}%
                 39 }
```

File 198 lwarp-longtable.sty

§ 296 Package longtable

(Emulates or patches code by David Carlisle.)

Pkg longtable longtable is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{longtable}[2014/10/28]

Use one of either \endhead or \endfirsthead for both print and HTML, and use a \warpprintonly macro to disable the other head phrase, and also the \endfoot and \endfirstfoot phrases. (See section 8.10.4 if using threeparttablex.)

```
\begin{longtable}{ [column specifiers] }
[ . . . ] \endfirsthead % or \endhead, for print and HTML
\warpprintonly{
                        % not used in HTML
  [ . . . ] \endhead
                        % or \endfirsthead
  [ . . . ] \endfoot
  [ <lastfoot macros> ] \endlastfoot
... table contents ...
\warpHTMLonly{
  [ <lastfoot macros> ] % HTML last footer, without \endfoot
                                               % or \endlastfoot.
\end{longtable}
```

Misplaced \noalign

Use the \warpprintonly macro instead of the warpprint environment. Doing so helps avoid "Misplaced \noalign." when using \begin{warpprint}.

\kill \kill is ignored, place a \kill line inside

```
\begin{warpprint} . . . \end{warpprint}
```

or place it inside \warpprintonly.

lateximage

longtable is not supported inside a lateximage.

```
http://tex.stackexchange.com/questions/43006/
why-is-input-not-expandable
```

Used to detect more than one of \endhead and \endfirsthead in use for HTML at the same time.

```
2 \newbool{LWR@longtable@havehead}
3 \boolfalse{LWR@longtable@havehead}
```

longtable * $[\langle horizalignment \rangle]$ { $\langle colspec \rangle$ } Emulates the longtable environment.

Per the caption package, the starred version steps the counter per caption. The unstarred version steps the counter once at the beginning, but not at each caption.

Options [c], [l], and [r] are ignored.

```
4 \newenvironment{longtable*}[2][]{%
5 \LWR@floatbegin{table}%
6 \setcaptiontype{\LTcaptype}%
7 \caption@setoptions{longtable}%
8 \caption@setoptions{@longtable}%
9 \caption@LT@setup%
10 \booltrue{LWR@starredlongtable}%
11 \boolfalse{LWR@longtable@havehead}%
```

```
12 \let\captionlistentry\LWR@LTcaptionlistentry%
13 \tabular{#2}
14 }
15 {\endtabular\LWR@floatend}
17 \newenvironment{longtable}[2][]{%
18 \LWR@floatbegin{table}%
19 \setcaptiontype{\LTcaptype}%
20 \caption@setoptions{longtable}%
21 \caption@setoptions{@longtable}%
22 \caption@LT@setup%
23 \refstepcounter{\LTcaptype}%
24 \boolfalse{LWR@longtable@havehead}%
25 \let\captionlistentry\LWR@LTcaptionlistentry%
26 \tabular{#2}
27 }
28 {\endtabular\LWR@floatend}
```

Provided for compatibility, but ignored:

```
29 \newcounter{LTchunksize}
```

Error for heads which should have been in \warpprintonly:

```
30 \newcommand*{\LWR@longtable@headerror}{%
      \PackageError{lwarp}
31
      {For longtable:\MessageBreak
32
      1: Keep either one of an \protect\endhead\space or
33
          \protect\endfirsthead\space\MessageBreak
34
          \space phrase as-is, to be used by both print and HTML.\MessageBreak
35
36
      2: Place any other \protect\end... phrases inside a\MessageBreak
37
          \space\protect\warpprintonly\space macro,
              to be ignored by HTML.\MessageBreak
38
      3: Add a final footer for HTML at the end of the table\MessageBreak
39
          \space inside a \protect\warpHTMLonly\space macro.
40
              This can be\MessageBreak
41
          \space a copy of an \protect\endfoot\space or
42
              \protect\endfirstfoot\space phrase,\MessageBreak
43
          \space but without the actual \protect\endfoot\space
44
              or \protect\endfirstfoot\MessageBreak
45
          \space macros. If using threeparttablex, add\MessageBreak
46
          \space \protect\insertTableNotes\space here,
47
              optionally with\MessageBreak
48
49
          \space \protect\UseMinipageWidths\space in front.\MessageBreak
50
      See the lwarp documentation regarding longtables\MessageBreak
      and threeparttablex}
51
      {See the lwarp documentation regading longtables and threeparttablex.}
52
53 }
```

Error if more than one of \endhead or \endfirsthead is outside of warpprintonly.

```
54 \newcommand*{\LWR@longtable@maybeheaderror}{%
55 \ifbool{LWR@longtable@havehead}%
56 {\LWR@longtable@headerror}%
```

```
57
      {%
          \booltrue{LWR@longtable@havehead}
58
          \LWR@tabularendofline% throws away options //[dim] and //*
59
      }%
60
61 }
Error if more than one of these is outside of warpprint.
62 \def\endhead{\LWR@longtable@maybeheaderror}
63 \def\endfirsthead{\LWR@longtable@maybeheaderror}
Error if ANY of these is outside of warpprint.
64 \def\endfoot{\LWR@longtable@headerror}
65 \def\endlastfoot{\LWR@longtable@headerror}
66 \providecommand*{\LWR@HTML@tabularnewline}{\LWR@tabularendofline}
67 \LWR@formatted{tabularnewline}
68 \newcommand{\setlongtables}{}% Obsolete command, does nothing.
69 \newlength{\LTleft}
70 \newlength{\LTright}
71 \newlength{\LTpre}
72 \neq \{LTpost\}
73 \newlength{\LTcapwidth}
74 \LetLtxMacro\LWR@origkill\kill
75 \renewcommand*{\kill}{\LWR@tabularendofline}
76 \appto\LWR@restoreorigformatting{%
77 \LetLtxMacro\kill\LWR@origkill%
78 }
```

File 199 lwarp-lscape.sty

§ 297 Package Iscape

(Emulates or patches code by D. P. CARLISLE.)

Pkg lscape is emulated.

for HTML output: Discard all options for lwarp-lscape.

1 \LWR@ProvidesPackageDrop{lscape}[2000/10/22]

2 \newenvironment*{landscape}{}{}

File 200 lwarp-ltablex.sty

```
§ 298 Package Itablex
```

(Emulates or patches code by Anil K. Goel.)

Pkg ltablex ltablex is emulated by lwarp.

for HTML output: Relies on tabularx.

```
1 \RequirePackage{tabularx}
2
3 \LWR@ProvidesPackageDrop{ltablex}[2014/08/13]
4
5 \DeclareDocumentEnvironment{tabularx}{m o m}
6 {\longtable{#3}}
7 {\endlongtable}
8
9 \DeclareDocumentEnvironment{tabularx*}{m o m}
10 {\longtable{#3}}
11 {\endlongtable}
12
13 \newcommand*{\keepXColumns}{}
14 \newcommand*{\convertXColumns}{}
```

File 201 lwarp-ltcaption.sty

§ 299 Package Itcaption

(Emulates or patches code by Axel Sommerfeldt.)

Pkg ltcaption ltcaption is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{ltcaption}[2018/08/26]

\LTcaptype is already defined by lwarp.

longtable* is already defined by lwarp-longtable.

```
2 \newlength{\LTcapskip}
3 \newlength{\LTcapleft}
4 \newlength{\LTcapright}
5 \newcommand*{\LTcapmarginsfalse}{}
```

```
File 202 lwarp-ltxgrid.sty
                  ltxgrid
         Package
$300
                   ltxgrid is ignored.
     Pkg ltxgrid
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{ltxgrid}[2010/07/25]
                    2 \newcommand*{\onecolumngrid}{}
                    3 \newcommand*{\twocolumngrid}{}
                    4 \newcommand*{\removestuff}{}
                    5 \newcommand*{\addstuff}[2]{}
                    6 \newcommand*{\replacestuff}[2]{}
         File 203 lwarp-ltxtable.sty
                  Itxtable
         Package
§ 301
                  Itxtable is emulated.
        ltxtable
table numbering
                  The print version does not seem to honor longtable* from the caption package,
                   while lwarp does.
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{ltxtable}[1995/12/11]
        \LTXtable
                    \{\langle width \rangle\} \{\langle file \rangle\}
                    2 \newcommand*{\LTXtable}[2]{%
                    3 \input{#2}%
         File 204 lwarp-lua-check-hyphen.sty
                 lua-check-hyphen
         Package
$302
                   lua-check-hyphen is ignored.
lua-check-hyphen
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{lua-check-hyphen}[2018/04/19]
                    2 \newcommand*{\LuaCheckHyphen}[1]{}
```

```
File 205 lwarp-lua-visual-debug.sty
                  lua-visual-debug
         Package
$303
                  lua-visual-debug is ignored.
lua-visual-debug
  for HTML output:
                   1 \LWR@ProvidesPackageDrop{lua-visual-debug}[2016/05/30]
         File 206 lwarp-luacolor.sty
        Package luacolor
§ 304
                  luacolor is ignored.
        luacolor
  for HTML output:
                   1 \LWR@ProvidesPackageDrop{luacolor}[2016/05/16]
                   2 \newcommand{\luacolorProcessBox}[1]{}
         File 207 lwarp-luatodonotes.sty
        Package luatodonotes
§ 305
                  (Emulates or patches code by Fabian Lipp.)
                  luatodonotes is emulated.
    luatodonotes
                  The documentation for todonotes and luatodonotes have an example with a todo
                  inside a caption. If this example does not work it will be necessary to move the todo
                  outside of the caption.
  for HTML output:
                   1 \LWR@ProvidesPackagePass{luatodonotes}[2017/09/30]
                  Nullify options:
                   2 \@todonotes@additionalMarginEnabledfalse
```

8 \renewcommand{\l@todo}[2]{\hypertocfloat{1}{todo}{ldo}{#1}{#2}}

3 \if@todonotes@disabled

6 \newcommand{\ext@todo}{tdo}

4 \else

```
9 \let\LWRTODONOTES@orig@todototoc\todototoc
11 \renewcommand*{\todototoc}{%
12 \phantomsection%
13 \LWRTODONOTES@orig@todototoc%
14 }
15
17 \renewcommand{\@todonotes@drawMarginNoteWithLine}{%
18 \fcolorbox
      {\@todonotes@currentbordercolor}
19
      {\@todonotes@currentbackgroundcolor}
20
21
      {\arabic{@todonotes@numberoftodonotes}}
22 \marginpar{\@todonotes@drawMarginNote}
23 }
24
25 \renewcommand{\@todonotes@drawInlineNote}{%
26 \fcolorboxBlock%
      {\@todonotes@currentbordercolor}%
27
      {\@todonotes@currentbackgroundcolor}%
28
29
      {%
30
          \if@todonotes@authorgiven%
          {\@todonotes@author:\,}%
31
          \fi%
32
          \@todonotes@text%
33
      }%
34
35 }
37 \newcommand{\@todonotes@drawMarginNote}{%
      \if@todonotes@authorgiven%
38
          \@todonotes@author\par%
39
      \fi%
40
      \arabic{@todonotes@numberoftodonotes}: %
41
42
      \fcolorbox%
43
      {\@todonotes@currentbordercolor}%
44
      {\@todonotes@currentbackgroundcolor}%
45
      {%
46
          \@todonotes@sizecommand%
47
          \@todonotes@text %
      }%
48
49 }%
50
51 \renewcommand{\missingfigure}[2][]{%
52 \setkeys{todonotes}{#1}%
53 \addcontentsline{tdo}{todo}{\@todonotes@MissingFigureText: #2}%
54 \fcolorboxBlock%
      {\@todonotes@currentbordercolor}%
56
      {\@todonotes@currentfigcolor}%
57
      {%
58
          \setlength{\fboxrule}{4pt}%
          \fcolorbox{red}{white}{Missing figure} \quad #2%
59
      }
60
61 }
63 \LetLtxMacro\LWRTODONOTES@orig@todocommon\@todocommon
```

```
65 \RenewDocumentCommand{\@todocommon}{m m}{%
66 \begingroup%
67 \renewcommand*{\phantomsection}{}%
68 \LWRTODONOTES@orig@todocommon{#1}{#2}%
69 \endgroup%
70 }
71
72 \renewcommand{\@todoarea}[3][]{%
      \@todonotes@areaselectedtrue%
73
      \@todocommon{#1}{#2}%
74
      \todonotes@textmark@highlight{#3}%
75
      \zref@label{@todonotes@\arabic{@todonotes@numberoftodonotes}@end}%
76
77 }%
78
79
80 \DeclareDocumentCommand{\todonotes@textmark@highlight}{m}{%
81 \InlineClass[background:\LWR@origpound{}B3FFB3]{highlight}{#1}%
82 }
83
84 \fi% \if@todonotes@disabled
```

File 208 lwarp-magaz.sty

```
§ 306 Package magaz
```

Pkg magaz magaz is emulated.

```
for HTML output: 1 \LWR@ProvidesPackageDrop{magaz}[2011/11/24]
```

```
2 \newcommand\FirstLine[1]{%
3
      \begingroup%
      \FirstLineFont{%
          \LWR@textcurrentcolor{%
5
               \LWR@textcurrentfont{%
6
                   #1%
               }%
8
          }%
9
      }%
10
11
      \endgroup%
12 }
13
14 \providecommand\FirstLineFont{\scshape}
```

File 209 lwarp-makeidx.sty

§307 Package makeidx

(Emulates or patches code by LATEX PROJECT TEAM.)

Pkg makeidx makeidx is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{makeidx}[2014/09/29]

\@wrindex is redefined \AtBeginDocument by the lwarp core.

\printindex

```
2 \preto\printindex{%
3   \LWR@orignewpage%
4   \LWR@startpars%
5 }
```

File 210 lwarp-manyfoot.sty

§ 308 Package manyfoot

manyfoot manyfoot is emulated.

bigfoot, manyfoot

verbatim

Verbatim footnotes are not yet supported.

If using the bigfoot package, and possibly also manyfoot, problems may occur with counter allocation because lwarp uses many counters, and there is a difference in how counters numbered 256 and up are handled in pdfLATEX. With bigfoot this has been known to show up as an error related to one footnote insert being forbidden inside another. Another problem showed up as a input stack error, and which of these problems occurred depended on how many counters were allocated.

As a possible solution, try creating several new counters before defining bigfoot or manyfoot footnotes, hoping to shift the problematic counter above the 256 threshold. It may instead be necessary to use XHIFEX or LualITEX instead of pdfIITEX.

lwarp's emulation of bigfoot uses manyfoot, so some of the bigfoot enhancements are included here.

The bigfoot "default" footnote is ignored, using the lwarp version instead.

for HTML output:

```
2 \RequirePackage{nccfoots}
3
4 \newcommand{\extrafootnoterule}{}
5
6 \let\defaultfootnoterule\footnoterule
7
8 \newcommand*{\SelectFootnoteRule}[2][0]{}
9
10 \newcommand{\footnoterulepriority}{1}
11
12 \newcommand{\SetFootnoteHook}[1]{}
13 \@onlypreamble\SetFootnoteHook
```

1 \LWR@ProvidesPackageDrop{manyfoot}[2005/09/11]

```
15 \newcommand{\SplitNote}{}
17 \newcommand*\ExtraParaSkip[1]{}
18
19 \newcommand*{\newfootnote}[2][plain]{%
      \ifstrequal{#2}{default}{}{% not "default"
20
21
          \expandafter\newbox\csname LWR@footnote#2box\endcsname%
          \appto{\LWR@printpendingfootnotes}{%
22
              \LWR@@printpendingfootnotes{footnote#2}%
23
24
          \long\csdef{Footnotetext#2}##1##2{%
25
              \NCC@makefnmark{##1}%
26
27
              \LWR@@footnotetext{##2}{LWR@footnote#2box}%
28
          }%
          \long\csdef{Footnotetext#2+}##1##2{%
29
              \NCC@makefnmark{##1}%
30
              \LWR@@footnotetext{##2}{LWR@footnote#2box}%
31
          }%
32
      }% not "default"
33
35 \@onlypreamble\newfootnote
36
37 \newcommand*{\DeclareNewFootnote}[2][plain]{%
    \@ifnextchar[%
38
          {\LWR@manyfoot@declare{#1}{#2}}%
39
40
          {\LWR@manyfoot@declare{#1}{#2}[arabic]}%
41 }
43 \def\LWR@manyfoot@declare#1#2[#3]{%
44 \ifstrequal{#2}{default}{}{% not "default"
    \newfootnote[#1]{#2}%
    \newcounter{footnote#2}%
46
47
      \newcounter{footnote#2Reset}%
      \setcounter{footnote#2Reset}{0}%
48
49
      \csdef{thefootnote#2}{%
        \expandafter\noexpand\csname @#3\endcsname%
50
        \expandafter\noexpand\csname c@footnote#2\endcsname%
51
52
      }%
```

For bigfoot, the footnote commands may be appended with one or two plusses or one or two minuses, which are ignored in HTML.

```
53
      \stepcounter{footnote#2}%
54
      \protected@xdef\@thefnmark{\csname thefootnote#2\endcsname}%
55
      \@footnotemark%
56
57
      \csuse{Footnotetext#2}{\@thefnmark}% absorbs the footnote contents
58
59
    \csdef{footnotemark#2}{%
60
      \stepcounter{footnote#2}%
       \protected@xdef\@thefnmark{\csname thefootnote#2\endcsname}%
61
62
       \@footnotemark%
    }%
63
   64
```

```
\csuse{Footnotetext#2}{\@thefnmark}% absorbs the footnote contents
66
     }%
67
     \csdef{Footnotemark#2}{%
68
       \Footnotemark%
69
     }%
70
     \csdef{Footnote#2}##1{%
71
       \Footnotemark{##1}%
72
       \csuse{Footnotetext#2}{##1}%
73
     }%
74
75 }% not "default"
76 }
77 \@onlypreamble\DeclareNewFootnote
```

File 211 lwarp-marginal.sty

```
§309 Package marginal
```

Pkg marginal marginal is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{marginal}

2 \newcommand*{\showlostmarginals}{}
3 \newcommand*{\enlargefreelist}{}
4 \newcommand*{\onesidemarginals}{}

File 212 lwarp-marginfit.sty

§310 Package marginfit

Pkg marginfit marginfit is ignored.

for HTML output: Discard all options for lwarp-marginfit:

1 \LWR@ProvidesPackageDrop{marginfit}[2018/06/08]

File 213 lwarp-marginfix.sty

§311 Package marginfix

(Emulates or patches code by Stephen Hicks.)

Pkg marginfix Emulated.

for HTML output: Discard all options for lwarp-marginfix:

1 \LWR@ProvidesPackageDrop{marginfix}[2013/09/08]

```
2 \newcommand*{\marginskip}[1]{}
3 \newcommand*{\clearmargin}{}
4 \newcommand*{\softclearmargin}{}
5 \newcommand*{\extendmargin}[1]{}
6 \newcommand*{\mparshift}[1]{}
7 \newdimen\marginheightadjustment
8 \newdimen\marginposadjustment
9 \newcommand*{\blockmargin}[1][]{}
10 \newcommand*{\unblockmargin}[1][]{}
11 \newcommand*{\marginphantom}[2][]{}
```

File 214 lwarp-marginnote.sty

§312 Package marginnote

(Emulates or patches code by MARKUS KOHM.)

Pkg marginnote Emulated.

for HTML output: Discard all options for lwarp-marginnote:

- 1 \LWR@ProvidesPackageDrop{marginnote}[2018/08/09]
- 2 \NewDocumentCommand{\marginnote}{+o +m o}{\marginpar{#2}}
- 3 \newcommand*{\marginnoteleftadjust}{}
- 4 \newcommand*{\marginnoterightadjust}{}
- 5 \newcommand*{\marginnotetextwidth}{}
- 6 \let\marginnotetextwidth\textwidth
- 7 \newcommand*{\marginnotevadjust}{}
- 8 \newcommand*{\marginfont}{}
- 9 \newcommand*{\raggedleftmarginnote}{}
- 10 \newcommand*{\raggedrightmarginnote}{}

File 215 lwarp-marvosym.sty

§313 Package **marvosym**

(Emulates or patches code by Thomas Henlich, Mojca Miklavec.)

Pkg marvosym marvosym is patched for use by lwarp.

Hashed inline images are used, as there may not be Unicode support for all icons.

for HTML output: 1 \LWR@ProvidesPackagePass{marvosym}[2011/07/20]

- 2 \renewcommand{\mvchr}[1]{%
- 3 \begin{lateximage}*[(symbol #1)][marvosym #1]%
- 4 \mvs\char#1%

```
5 \end{lateximage}%
6 }
7
8 \renewcommand{\textmvs}[1]{%
9 \begin{lateximage}%
10 \mvs #1%
11 \end{lateximage}%
12 }
```

File 216 lwarp-mathtools.sty

§314 Package mathtools

(Emulates or patches code by Morten Høgholm, Lars Madsen.)

Pkg mathtools mathtools is patched for use by lwarp.

 showonlyrefs and mathic are disabled.

for HTML output:

- 1 \LWR@ProvidesPackagePass{mathtools}[2018/01/08]
- 2 \RequirePackage{graphicx}
- 3 \MHInternalSyntaxOn

Forces showonlyrefs off because lwarp uses cleveref, which is not compatible with showonlyrefs.

```
4 \renewcommand*\MT_showonlyrefs_true:{\MT_showonlyrefs_false:}
5 \mathtoolsset{showonlyrefs=false}
```

Forces math italic correction off. Not patched for lwarp.

```
6 \renewcommand*{\MT_mathic_true:}{\MT_mathic_false:}
7 \mathtoolsset{mathic=false}
```

8 \MHInternalSyntaxOff

File 217 lwarp-mcaption.sty

§315 Package mcaption

(Emulates or patches code by Stephan Hennig.)

Pkg mcaption mcaption is nullified.

for HTML output: Discard all options for lwarp-mcaption:

1 \LWR@ProvidesPackageDrop{mcaption}[2009/03/13]

- 2 \newenvironment{margincap}{}{}
- 3 \newcommand*{\margincapalign}{}
- 4 \newlength{\margincapsep}

File 218 lwarp-mdframed.sty

mdframed Package \$316

(Emulates or patches code by Marco Daniel, Elke Schubert.)

mdframed is loaded with options forced to framemethod=none. mdframed

§316.1 Limitations

Most basic functionality is supported, including frame background colors and singleborder colors and thickness, title and subtitle background colors and borders and thickness, border radius, and shadow. CSS classes are created for mdframed environments and frame titles.

loading When used, lwarp loads mdframed in HTML with framemethod=none.

font For title font, use

frametitlefont=\textbf,

instead of

frametitlefont=\bfseries,

where \textbf must appear just before the comma and will receive the following text as its argument (since the text happens to be between braces in the mdframed source). Since lwarp does not support \bfseries and friends, only one font selection may be made at a time.

theoremtitlefont

theoremtitlefont is not supported, since the following text is not in braces in the mdframed source.

ignored options

userdefinedwidth and align are currently ignored.

css classes

Environments created or encapsulated by mdframed are enclosed in a <div> of class mdframed, and also class md<environmentname> for new environments.

Frame titles are placed in a <div> of class |mdframedtitle|. Subtitles are in a <div> of class |mdframedsubtitle|, and likewise for subsubtitles.

Pre-existing hooks are used to patch extra functions before and after the frames.

§316.2 Package loading

```
for HTML output: 1 \RequirePackage{xcolor}% for \convertcolorspec
2
3 \LWR@ProvidesPackageDrop{mdframed}[2013/07/01]

Do not require Tikz or pstricks:
4 \LWR@origRequirePackage[framemethod=none]{mdframed}
```

§316.3 Patches

Patch to remove PDF formatting and add HTML tags:

```
5 \AtBeginDocument{
6 \def\mdf@trivlist#1{%
7 \edef\mdf@temp{%
        \topsep=\the\topsep\relax%
8 %
9 %
        \partopsep=\the\partopsep\relax%
10 %
        \parsep=\the\parsep\relax%
11 }%
12 %
     \setlength{\topsep}{#1}%
     \t \
13 %
14 %
      \partopsep\z@%
15 %
      \parsep\z@%
16 %
      \@nmbrlistfalse%
17 %
      \@trivlist%
18 %
     \labelwidth\z@%
19 %
     \leftmargin\z@%
20 % \itemindent\z@%
21 \let\@itemlabel\@empty%
22 \def\makelabel##1{##1}%
      \item\relax\mdf@temp\relax%
24 }
25
26 \renewcommand*{\endmdf@trivlist}{%
27 \LWR@traceinfo{endmdf@trivlist}%
28 % \endtrivlist%
29 \LWR@listend%
31 }% AtBeginDocument
```

§316.4 Initial setup

To handle css and paragraphs, patch code at start and end of environment and contents. \LWR@print@raggedright helps avoid hyphenation.

```
32 \mdfsetup{
33 startcode={\LWR@mdframedstart\LWR@print@raggedright},
34 endcode={\LWR@mdframedend},
35 startinnercode={\LWR@startpars\LWR@print@raggedright},
36 endinnercode={\LWR@stoppars},
37 }
```

§316.5 Color and length HTML conversion

```
\LWR@mdfprintcolor
```

```
\{\langle mdfcolorkey \rangle\}
```

Given the mdframed key, print the color.

```
38 \newcommand*{\LWR@mdfprintcolor}[1]{%
```

39 \convertcolorspec{named}{\@nameuse{mdf@#1}}{HTML}\LWR@tempcolor%

40 \LWR@origpound\LWR@tempcolor

41 }

\LWR@mdfprintlength

```
\{\langle mdflengthkey \rangle\}
```

Given the mdframed key, print the length.

```
42 \newcommand*{\LWR@mdfprintlength}[1]{%
```

43 \LWR@forceminwidth{\@nameuse{mdf@#1@length}}%

44 \LWR@printlength{\LWR@atleastonept}%

45 }

§ 316.6 Environment encapsulation

\LWR@mdframedstart

Actions before an mdframe starts.

Encapsulate a frame inside a <div> of the desired class.

```
46 \newcommand*{\LWR@mdframedstart}{%
47 \LWR@traceinfo{LWR@mdframedstart start}%
```

Turn off paragraph handling during the generation of the encapsulating tags:

```
48 \LWR@stoppars%
```

Open a <div> and with custom class and custom style. A BlockClass environment is not used because this <div> is created by the mdframed startcode and endcode settings, which do not properly nest the <div> inside the mdframed environment.

```
49 \LWR@htmltagc{div class="%
50 mdframed%
51 \ifdefstring{\LWR@mdthisenv}{mdframed}{}{ \LWR@mdthisenv}%
52 " \LWR@orignewline
53 style=" \LWR@orignewline
```

Convert and print the background color:

```
54 background: \LWR@mdfprintcolor{backgroundcolor}; \LWR@orignewline
```

Convert and print the border color and width:

```
55 border: \LWR@mdfprintlength{linewidth} solid
56 \LWR@mdfprintcolor{linecolor}; \LWR@orignewline
```

Convert and print the border radius:

```
57 border-radius: \LWR@mdfprintlength{roundcorner}; \LWR@orignewline
```

Convert and print the shadow:

```
58 \ifbool{mdf@shadow}{%
59    box-shadow:
```

60 \LWR@mdfprintlength{shadowsize}

 $\verb| LWR@mdfprintlength{shadowsize}| \\$

62 \LWR@mdfprintlength{shadowsize}

```
63
      \LWR@mdfprintcolor{shadowcolor};
64 }
65 {box-shadow: none;}
66 \LWR@orignewline
68 % \LWR@htmldivclass{\LWR@mdthisenv}
mdframed environment may not work with the HTML versions of the following, so
restore them to their originals while inside mdframed:
69 \LWR@select@print@hspace%
70 \renewcommand*{\rule}{\LWR@print@rule}
71 \LetLtxMacro\makebox\LWR@print@makebox%
72 \LWR@startpars%
73 \LWR@traceinfo{LWR@mdframedstart done}%
74 }
 Actions after an mdframe ends.
After closing the <div>, globally restore to the default environment type:
75 \newcommand*{\LWR@mdframedend}{
76 \LWR@traceinfo{LWR@mdframedend start}%
Close the custom <div>:
77 \LWR@htmldivclassend{\LWR@mdthisenv}
Reset future custom class to the default:
78 \gdef\LWR@mdthisenv{mdframed}
Resume paragraph handling:
79 \LWR@startpars%
80 \LWR@traceinfo{LWR@mdframedend done}%
81 }
```

§316.7 Mdframed environment

\LWR@mdframedend

```
82 \renewenvironment{mdframed}[1][]{%
83 \color@begingroup%
     \mdfsetup{userdefinedwidth=\linewidth,#1}%
84
     \mdf@startcode%
85
     \mdf@preenvsetting%
86
     \ifdefempty{\mdf@firstframetitle}{}%
             {\let\mdf@frametitlesave\mdf@frametitle%
88
              \let\mdf@frametitle\mdf@firstframetitle%
89
             }%
90
     \ifvmode\nointerlineskip\fi%
91
          \ifdefempty{\mdf@frametitle}{}%
92
93
              {\mdfframedtitleenv{\mdf@frametitle}%
94 %
                 \mdf@@frametitle@use%
95
              }%
     \mdf@trivlist{\mdf@skipabove@length}%%
96
     \mdf@settings%
97
       \mdf@lrbox{\mdf@splitbox@one}%
98 %
       \mdf@startinnercode%
99 %
```

```
100
                           }%
                      101
                          {%
                     102 %
                              \mdf@@ignorelastdescenders%
                     103
                            \par%
                               \unskip\ifvmode\nointerlineskip\hrule \@height\z@ \@width\hsize\fi%%
                     104 %
                            \ifmdf@footnoteinside%
                     105
                               \def\mdf@reserveda{%
                     106
                                 \mdf@footnoteoutput%
                     107
                     108 %
                                   \mdf@endinnercode%
                     109 %
                                   \endmdf@lrbox%
                     110 %
                                   \ifdefempty{\mdf@frametitle}{}%
                     111 %
                                        {\mdfframedtitleenv{\mdf@frametitle}\mdf@@frametitle@use}%
                     112 %
                                   \detected@mdf@put@frame
                               }%
                     113
                     114
                            \else%
                               \def\mdf@reserveda{%
                     115
                                   \mdf@endinnercode%
                     116 %
                     117 %
                                   \endmdf@lrbox%
                     118 %
                                   \ifdefempty{\mdf@frametitle}{}%
                                        {\mdfframedtitleenv{\mdf@frametitle}\mdf@@frametitle@use}%
                     119 %
                     120 %
                                   \detected@mdf@put@frame%
                     121
                                 \mdf@footnoteoutput%
                     122
                                 }%
                     123
                           \fi%
                            \mdf@reserveda%
                     124
                          \aftergroup\endmdf@trivlist%
                     125
                     126 \color@endgroup%
                      127 \mdf@endcode%
                     128 }
\mdf@footnoteoutput
                     129 \renewrobustcmd*\mdf@footnoteoutput{%
                     130
                            \LWR@printpendingmpfootnotes%
                     131 }
             §316.8 Titles and subtitles
 \mdfframedtitleenv
                       \{\langle title \rangle\}
                      Place the title inside a <div> of class mdframedtitle:
                     132 \newlength{\LWR@titleroundcorner}
                     133
                     134 \renewrobustcmd\mdfframedtitleenv[1]{%
                     135 \LWR@traceinfo{LWR@mdframedtitleenv start}%
                      Open a <div> with a custom class and custom style:
                      136 \begin{BlockClass}[%
                      Convert and print the title background color:
                     137 background:
                      138 \LWR@mdfprintcolor{frametitlebackgroundcolor}
                      139; \LWR@orignewline
                      Convert and print the title rule:
```

```
140 \ifbool{mdf@frametitlerule}{%
       border-bottom:
       \LWR@mdfprintlength{frametitlerulewidth}
142
143
       \LWR@mdfprintcolor{frametitlerulecolor}
144
       ; \LWR@orignewline
145
146 }{}%
Finish the custom style and the opening <div> tag:
147 ]{mdframedtitle}%
Print the title inside the <div>:
148 \mdf@frametitlefont{\LWR@textcurrentfont{#1}}%
Close the <div>:
149 \end{BlockClass}%
150 \LWR@traceinfo{LWR@mdframedtitleenv end}%
 \{\langle sub \text{-}or\text{-}subsub\rangle\} [\langle options\rangle] \{\langle title\rangle\}
Common code for \LWR@mdfsubtitle and \LWR@mdfsubsubtitle.
Encapsulate the subtitle inside a <div> of class mdframedsubtitle:
152 \NewDocumentCommand{\LWR@mdfsubtitlecommon}{m o m}
153 {% the following empty line is required
154
155 \LWR@traceinfo{LWR@mdframedsubtitlecommon start}%
Open a <div> with a custom class and custom style:
156 \begin{BlockClass}[%
Convert and print the background color:
157 background:
158 \LWR@mdfprintcolor{#1titlebackgroundcolor}
159; \LWR@orignewline
Convert and print the above line:
160 \ifbool{mdf@#1titleaboveline}{%
161
       border-top:
       \LWR@mdfprintlength{#1titleabovelinewidth}
162
163
       solid
       \LWR@mdfprintcolor{#1titleabovelinecolor}
164
       ; \LWR@orignewline
165
166 }{ }%
Convert and print the below line:
167 \ifbool{mdf@#1titlebelowline}{%
168
       border-bottom:
       \LWR@mdfprintlength{#1titlebelowlinewidth}
169
170
171
       \LWR@mdfprintcolor{#1titlebelowlinecolor}
172
       ; \LWR@orignewline
173 }{}%
```

\LWR@mdfsubtitlecommon

```
Finish the custom style and the opening <div> tag:
                         174]{mdframed#1title}%
                         Perform the original subtitle action:
                         175 \IfNoValueTF{#2}
                         176 $$ \mathbb{L}\mathbb{R}^1 \times \mathbb{L}\mathbb{R}^1 \times \mathbb{L}\mathbb{R}^2 \times \mathbb{R}^3 
                         177 $$ \operatorname{UMR@textcurrentfont}_{LWR@textcurrentfont}_{1} $$
                         Close the <div>:
                         178 \end{BlockClass}%
                         179 \LWR@traceinfo{LWR@mdframedsubtitlecommon end}%
                           [\langle options \rangle] \{\langle title \rangle\}
     \LWR@mdfsubtitle
                         181 \newcommand*{\LWR@mdfsubtitle}{%
                         182 \LWR@mdfsubtitlecommon{sub}%
                         183 }
                         184 \left| \text{LWR@mdfsubtitle} \right|
  \LWR@mdfsubsubtitle
                           [\langle options \rangle] \{\langle title \rangle\}
                         185 \newcommand*{\LWR@mdfsubsubtitle}{%
                         186 \LWR@mdfsubtitlecommon{subsub}%
                         188 \let\mdfsubsubtitle\LWR@mdfsubsubtitle
                § 316.9 New environments
                           Stores the environment of the frame about to be created:
        \LWR@mdthisenv
                         189 \newcommand*{\LWR@mdthisenv}{mdframed}
                           [\langle options \rangle] \{\langle env-name \rangle\}
             \newmdenv
                          Modified from the original to remember the environment.
                         190 \renewrobustcmd*\newmdenv[2][]{%
                         191 \newenvironment{#2}%
                         192 {%
                         193 \mdfsetup{#1}%
                         194 \renewcommand*{\LWR@mdthisenv}{md#2}%
                         195 \begin{mdframed}%
                         196 }
                         197 {\end{mdframed}}%
                         198 }
                           [\langle options \rangle] \{\langle environment \rangle\}
\surroundwithmdframed
                         Modified from the original to remember the environment.
                         199 \renewrobustcmd*{\surroundwithmdframed}[2][]{%
                         200 \BeforeBeginEnvironment{#2}{%
                         201 \renewcommand*{\LWR@mdthisenv}{md#2}%
                         202 \begin{mdframed}[#1]}%
                         203 \AfterEndEnvironment{#2}{\end{mdframed}}%
```

204 }

\mdtheorem

 $[\langle mdframed\text{-}options \rangle] \{\langle envname \rangle\} [\langle numberedlike \rangle] \{\langle caption \rangle\} [\langle within \rangle]$ Modified from the original to remember the environment.

```
205 \DeclareDocumentCommand{\mdtheorem}{ O{} m o m o }%
            {\ifcsdef{#2}%
207
                     {\mdf@PackageWarning{Environment #2 already exits\MessageBreak}}%
208
                     {%
209
                        \IfNoValueTF {#3}%
210
                            {%#3 not given -- number relationship
211
                                \IfNoValueTF {#5}%
212
                                      {%#3+#5 not given
213
                                      \@definecounter{#2}%
                                      \expandafter\xdef\csname the#2\endcsname{\@thmcounter{#2}}%
214
215
                                      \newenvironment{#2}[1][]{%
216
                                              \refstepcounter{#2}%
217
                                              \ifstrempty{##1}%
                                                    {\let\@temptitle\relax}%
218
219
                                                    {%
                                                        \def\@temptitle{\mdf@theoremseparator%
220
221
                                                                                                                \mdf@theoremspace%
222
                                                                                                                \mdf@theoremtitlefont%
223
                                                                                                                \LWR@textcurrentfont{##1}}% lwarp
                                                        \mbox{ \normalf} {\#4}{\mbox{ \normalf} \normalf} \hbox{ \normalf} \hbox{
224
                                                        }%
225
                                              \begin{mdframed}[#1,frametitle={\strut#4\ \csname the#2\endcsname%
226
227
                                                                                                                                                              \@temptitle}]}%
                                             {\ensuremath{\mbox{\mbox{mdframed}}}}\%
228
229
                                      \newenvironment{#2*}[1][]{%
                                              \ifstrempty{##1}{\let\@temptitle\relax}{\def\@temptitle{:\ ##1}}%
230
                                              \begin{mdframed}[#1,frametitle={\strut#4\@temptitle}]}%
231
                                             {\end{mdframed}}%
232
233
                                      }%
                                      {%#5 given -- reset counter
234
235
                                      \@definecounter{#2}\@newctr{#2}[#5]%
236
                                      \expandafter\xdef\csname the#2\endcsname{\@thmcounter{#2}}%
                                      \expandafter\xdef\csname the#2\endcsname{%
237
                                                                \expandafter\noexpand\csname the#5\endcsname \@thmcountersep%
238
                                                                          \@thmcounter{#2}}%
239
                                      \newenvironment{#2}[1][]{%
240
                                              \refstepcounter{#2}%
241
                                              \ifstrempty{##1}%
242
                                                    {\let\@temptitle\relax}%
243
                                                    {%
244
                                                        \def\@temptitle{\mdf@theoremseparator%
245
                                                                                                                 \mdf@theoremspace%
246
                                                                                                                \mdf@theoremtitlefont%
247
248
                                                                                                                \LWR@textcurrentfont{##1}}% lwarp
249
                                                        \mbox{ \normalf} {\#4}{\mbox{ \normalf} \normalf} \mbox{ \normalf} \mbox{
250
                                              \begin{mdframed}[#1,frametitle={\strut#4\ \csname the#2\endcsname%
251
                                                                                                                                                              \@temptitle}]}%
252
                                             {\end{mdframed}}%
253
                                      254
```

```
\ifstrempty{##1}%
                                                     255
                                                     256
                                                                                                  {\let\@temptitle\relax}%
                                                     257
                                                                                                  {%
                                                                                                      \def\@temptitle{\mdf@theoremseparator%
                                                     258
                                                                                                                                                      259
                                                                                                                                                      \mdf@theoremtitlefont%
                                                     260
                                                                                                                                                      \LWR@textcurrentfont{##1}}% lwarp
                                                     261
                                                                                                      \mbox{ \normalf2}{{#4}{\csname the #2\ends name}{\#1}}%
                                                     262
                                                                                                      }%
                                                     263
                                                                                             \begin{mdframed}[#1,frametitle={\strut#4\@temptitle}]}%
                                                     264
                                                                                             {\end{mdframed}}%
                                                     265
                                                                                      }%
                                                     266
                                                                             }%
                                                     267
                                                     268
                                                                              {%#3 given -- number relationship
                                                     269
                                                                                      \global\ensuremath{\mbox{\mbox{\mbox{$1$}}}\
                                                                                      \newenvironment{#2}[1][]{%
                                                     270
                                                                                             \refstepcounter{#3}%
                                                     271
                                                                                             \ifstrempty{##1}%
                                                     272
                                                                                                  {\let\@temptitle\relax}%
                                                     273
                                                                                                  {%
                                                     274
                                                                                                      275
                                                                                                                                                      \mdf@theoremspace%
                                                                                                                                                      \mdf@theoremtitlefont%
                                                     277
                                                                                                                                                      \LWR@textcurrentfont{##1}}% lwarp
                                                     278
                                                                                                      279
                                                     280
                                                     281
                                                                                             \begin{mdframed}[#1,frametitle={\strut#4\ \csname the#2\endcsname%
                                                                                                                                                                                              \@temptitle}]}%
                                                                                             {\end{mdframed}}%
                                                     283
                                                                                      \newenvironment{#2*}[1][]{%
                                                     284
                                                                                             \ifstrempty{##1}{\let\@temptitle\relax}{\def\@temptitle{:\ ##1}}%
                                                     285
                                                                                             \begin{mdframed}[#1,frametitle={\strut#4\@temptitle}]}%
                                                     286
                                                                                             {\end{mdframed}}%
                                                     287
                                                                              }%
                                                     288
                                                                          \BeforeBeginEnvironment{#2}{\renewcommand*{\LWR@mdthisenv}{md#2}}% lwarp
                                                     289
                                                     290
                                                                          \BeforeBeginEnvironment{#2*}{\renewcommand*{\LWR@mdthisenv}{md#2}}% lwarp
                                                                       }%
                                                     291
                                                     292 }
                                                           [\langle 1: mdframed-options \rangle] \{\langle 2: envname \rangle\} [\langle 3: numberedlike \rangle] \{\langle 4: caption \rangle\} [\langle 5: envname \rangle] \{\langle 4: caption \rangle] \{\langle 4: caption \rangle\} [\langle 6: envname \rangle] \{\langle 4: caption \rangle] \{\langle 4: c
\newmdtheoremenv
                                                       Modified from the original to remember the environment.
                                                     293 \DeclareDocumentCommand\newmdtheoremenv{0{} m o m o }{%
                                                               \ifboolexpr{ test {\IfNoValueTF {#3}} and test {\IfNoValueTF {#5}} }%
                                                     295
                                                                          {\newtheorem{#2}{#4}}%
                                                                              \IfValueT{#3}{\newtheorem{#2}[#3]{#4}}%
                                                     297
                                                                              \IfValueT{#5}{\newtheorem{#2}{#4}[#5]}%
                                                     298
                                                                          }%
                                                     299
                                                     300 \BeforeBeginEnvironment{#2}{%
                                                     301 \renewcommand*{\LWR@mdthisenv}{md#2}%
                                                     302 \begin{mdframed}[#1]}%
                                                     303 \AfterEndEnvironment{#2}{%
                                                     304 \end{mdframed}}%
```

305 }

File 219 lwarp-media9.sty

media9 Package §317

media9 is emulated. media9

The packages multimedia, movie15, and media9 are supported.

HTML5 <audio> and <video> objects are created for .mp3 and .mp4 files.

HTML5 <embed> objects are created for http and ftp links.

\href links are created for other media types. (Unfortunately, there is not much overlap between the file types supported for print output and the file types supported by HTML5.)

For media9, a multimedia object is inserted for each addresource=, as well as each flashvars source= and src=. This may result in duplicate objects.

Undesired objects may be nullified by placing them inside \warpprintonly or the warpprint environment.

Each HTML multimedia object includes the poster text, except for <embed> objects. For movie15, the text option is supported to specify the poster text.

The width, height, and totalheight options are supported. The HTML object is scaled according to the display width, correctly compensating for either tall or wide viewports.

Other options are ignored.

media9 \addmediapath is supported. It is assumed that the same path structure will exist for the HTML document.

HTML5 media controls are always specified for each <audio> and <video> object.

media9 slideshows are not supported.

\hyperlinkmovie, \movieref, and \mediabutton are not supported.

3D objects are not supported.

If using a YouTubeTM video, use an "embedded" url with .../embed/... instead of .../v/...

& in a URL Many special characters are converted to regular catcode 12 characters for use inside a URL. & is used in the flash variables fields, which are split with Xparse \SplitList, which does not seem to work with a catcode 12 divider token, so & is not converted to catcode 12, and will not work in a URL with media9. Using & in a URL in a flashvars field may also cause parsing problems with print output, as well.

```
for HTML output:
                   1 \LWR@ProvidesPackageDrop{media9}[2019/02/21]
                   2 \LWR@origRequirePackage{lwarp-common-multimedia}
                   4 \RequirePackage{xkeyval}
 \addmediapath
                   \{\langle path \rangle\}
                  Supported.
                   5 \newcommand*{\LWR@medianine@path}{}
                   7 \mbox{\mbox{addmediapath}[1]{\mbox{\mbox{wR@medianine@path}{\#1}}}
                  The options and poster text are reused in several places.
                   8 \newcommand*{\LWR@medianine@postertext}{}
                   9 \newcommand*{\LWR@medianine@options}{}
                  Each addresource can generate a multimedia object.
                  10 \define@key{LWR@medianine}{addresource}{%
                         \expandafter\LWR@multimedia\expandafter[\LWR@medianine@options]
                             {\LWR@medianine@postertext}
                  12
                  13
                             {#1}
                  14 }
                  Each flashvars source can generate a multimedia object.
                  15 \newcommand*{\LWR@medianine@flashvarsb}[1]{%
                  16
                         \IfBeginWith{#1}{source=}{%
                             \StrGobbleLeft{#1}{7}[\LWR@tempone]%
                  17
                             \expandafter\LWR@multimedia\expandafter[\LWR@medianine@options]%
                  18
                                 {\LWR@medianine@postertext}%
                  19
                                 {\LWR@tempone}%
                  20
                  21
                         }{}%
                  22
                         \IfBeginWith{#1}{src=}{%
                             \StrGobbleLeft{#1}{4}[\LWR@tempone]%
                  23
                             \expandafter\LWR@multimedia\expandafter[\LWR@medianine@options]%
                  24
                  25
                                 {\LWR@medianine@postertext}%
                                 {\LWR@tempone}%
                  26
                        }{}%
                  27
                  28 }
                  29
                  30 \MewDocumentCommand{\LWR@medianine@flashvars}{ >{\SplitList{\&}} m }{\%}
                         \ProcessList {#1}{\LWR@medianine@flashvarsb}%
                  31
                  32 }
                  33
                  34 \define@key{LWR@medianine}{flashvars}{%
                         \LWR@medianine@flashvars{#1}%
                  36 }
 \includemedia
                   [\langle options \rangle] \{\langle poster\ text \rangle\} \{\langle file\ or\ URL \rangle\}
```

```
37 \newcommand*{\LWR@includemediab}[3][]{%
                       \let\input@path\LWR@medianine@path%
                       \renewcommand*{\LWR@medianine@options}{#1}%
                  39
                       \renewcommand*{\LWR@medianine@postertext}{#2}%
                  40
                       \setkeys*{LWR@medianine}{#1}%
                  41
                       42
                       43
                       44
                  45
                       \frac{1}{\#3}{FTP}_{\LWR@multimedia[\#1]{\#2}{\#3}}{\%}
                  46
                       }}}}%
                  47
                       \endgroup%
                  48 }
                  49
                  50 \newrobustcmd*{\includemedia}{%
                       \begingroup%
                       \catcode'\#=12%
                  52
                       \catcode'\%=12%
                  53
                         \catcode'\&=12% left alone for splitting flash variables
                  54 %
                       \catcode'\~=12%
                  55
                       \colored{`}\colored{'}\colored{'}
                  56
                  57
                       \LWR@includemediab%
                  58 }
                   [\langle options \rangle] \{\langle text \rangle\}
    \mediabutton
                 Ignored.
                  59 \newcommand*{\mediabutton}[2][]{}
        File 220
                 lwarp-memhfixc.sty
                 memhfixc
        Package
§318
                 memhfixc is ignored.
   Pkg
       memhfixc
  for HTML output:
                  1 \LWR@ProvidesPackageDrop{memhfixc}[2013/05/30]
         File 221 lwarp-metalogo.sty
        Package metalogo
$319
                 (Emulates or patches code by Andrew Gilbert Moschou.)
                 metalogo is used in print mode, and emulated in HTML.
   Pkg metalogo
  for HTML output:
                  1 \LWR@ProvidesPackagePass{metalogo}[2010/05/29]
                  2 \newcommand*{\LWR@HTML@setlogokern}[2]{}
                  3 \newcommand*{\LWR@HTML@setlogodrop}[2][XeTeX]{}
                  4 \newcommand*{\LWR@HTML@setLaTeXa}[1]{}
```

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```
5 \newcommand*{\LWR@HTML@setLaTeXee}[1]{}
6 \newcommand*{\LWR@HTML@seteverylogo}[1]{}
7 \newcommand*{\LWR@HTML@everylogo}[1]{}
9 \LWR@formatted{setlogokern}
10 \LWR@formatted{setlogodrop}
11 \LWR@formatted{setLaTeXa}
12 \LWR@formatted{setLaTeXee}
13 \LWR@formatted{seteverylogo}
14 \LWR@formatted{everylogo}
```

lwarp-metalogox.sty File 222

metalogox Package **§320**

(Emulates or patches code by Brian Dunn.)

metalogox is patched for use by lwarp. Pkg metalogox

for HTML output: 1 \LWR@ProvidesPackagePass{metalogox}[2019/01/20]

> \AtBeginDocument, adjust the logo setting according to the font which is active at that moment.

```
2 \AtBeginDocument{
     \let\LWR@metalogox@currentformatting\LWR@formatting
     \verb|\renewcommand*{\LWR@formatting}{print}||
5
     \autoadjustlogos*
     \let\LWR@formatting\LWR@metalogox@currentformatting
7 }
```

lwarp-mhchem.sty File 223

Package mhchem \$321

(Emulates or patches code by MARTIN HENSEL.)

mhchem is patched for use by lwarp.

without MathJax Without MathJax, mhchem expressions are converted to svg math. Inline expres-

sions use hashed filenames to allow reuse, and assume that any mhchem options are global.

MathJax with mhchem extension For MATHJAX, the mhchem extension is used if the mhchem expression is used inside a math expression:

\$\ce{C6H5-CHO}\$

If not used inside a math expression, lwarp converts standalone mhchem expres-

not inside math

sions into svg math images.

MathJax without mhchem extension

If the MathJax mhchem extension is not used, expressions inside math must be placed between \displaymathother and \displaymathnormal:

When producing HTML output without the MATHJAX mhchem extension, lwarp does not support the use of nested dollar signs in mhchem expressions.

For some examples from the mhchem manual, change as follows:

<pre>\$\ce{NaOH(aq,\$\infty\$)}\$ \$\ce{NaOH(aq,\infty)}\$</pre>	 old new
<pre>\$\ce{Fe(CN)_{\$\frac{6}{2}}\$\$ \$\ce{Fe(CN)_{\frac{6}{2}}}\$</pre>	 old new
\$\ce{NO_\$x\$}\$ \$\ce{NO_x}\$	 old new
\$\ce{NO_\${x}\$}\$ \$\ce{NO_{x}}\$	 old new
<pre>\$\ce{\$cis\${-}[PtCl2(NH3)2]}\$ \$\ce{\mathit{cis}{-}[PtCl2(NH3)2]}\$</pre>	 old new

for HTML output:

1 \LWR@ProvidesPackagePass{mhchem}[2018/06/22]

The original definition of \ce:

```
2 \LetLtxMacro\LWR@mhchem@origce\ce
```

The new definition, called from the new \ce after math shift is set. The starred lateximage uses a hashed filename for the svg image. The alt tag is set to the mhchem expression.

```
3 \newcommand{\LWR@mhchem@HTML@ce}[1]{%
4 \begin{lateximage}*[\textbackslash{}ce\{\LWR@HTMLsanitize{#1}\}]%
5 \LWR@mhchem@origce{#1}%
6 \end{lateximage}%
7 \endgroup%
8 \addtocounter{LWR@mhchem@cedepth}{-1}%
9 }
```

Only set math shift if outer depth:

```
10 \newcounter{LWR@mhchem@cedepth}
11 \setcounter{LWR@mhchem@cedepth}{0}
```

The new \ce. Sets math shift then continues.

```
12 \renewcommand{\ce}{%
13 \begingroup%
14 \ifnumequal{\value{LWR@mhchem@cedepth}}{0}{%
15 \catcode'\$=3% math shift
16 }{}%
17 \addtocounter{LWR@mhchem@cedepth}{1}%
18 \LWR@mhchem@HTML@ce%
19 }
```

The original definition of \cesplit:

```
20 \LetLtxMacro\LWR@mhchem@origcesplit\cesplit
```

The new definition, called from the new \cesplit after math shift is set. The starred lateximage uses a hashed filename for the svG image. The alt tag is set to the mhchem expression.

```
21 \newcommand*{\LWR@mhchem@HTML@cesplit}[2]
22 {%
23 \begin{lateximage}*[\textbackslash{}cesplit\{\LWR@HTMLsanitize{#2}\}]%
24 \LWR@mhchem@origcesplit{#1}{#2}%
25 \end{lateximage}%
26 \endgroup%
27 }
```

Only set math shift if outer depth:

```
28 \newcounter{LWR@mhchem@cesplitdepth}
29 \setcounter{LWR@mhchem@cesplitdepth}{0}
```

The new \cesplit. Sets math shift then continues.

```
30 \renewcommand{\cesplit}{%
31 \begingroup%
32 \ifnumequal{\value{LWR@mhchem@cesplitdepth}}{0}{%
33  \catcode'\$=3% math shift
34 }{}%
35 \addtocounter{LWR@mhchem@cesplitdepth}{1}%
36 \LWR@mhchem@HTML@cesplit%
37 }
```

Resore originals inside a lateximage:

```
38 \appto\LWR@restoreorigformatting{%
39 \LetLtxMacro\ce\LWR@mhchem@origce%
40 \LetLtxMacro\cesplit\LWR@mhchem@origcesplit%
41 }
```

File 224 lwarp-microtype.sty

§ 322 Package microtype

(Emulates or patches code by R SCHLICHT.)

Pkg microtype microtype is pre-loaded by lwarp. All user options and macros are ignored and

disabled.

for HTML output:

Discard all options for lwarp-microtype:

```
1 \LWR@ProvidesPackageDrop{microtype}[2018/01/14]
```

- 2 \DeclareDocumentCommand{\DeclareMicrotypeSet}{o m m}{}
- 3 \DeclareDocumentCommand{\UseMicrotypeSet}{o m}{}
- 4 \DeclareDocumentCommand{\DeclareMicrotypeSetDefault}{o m}{}
- 5 \DeclareDocumentCommand{\SetProtrusion}{o m m}{}
- 6 \DeclareDocumentCommand{\SetExpansion}{o m m}{}
- 7 \DeclareDocumentCommand{\SetTracking}{o m m}{}
- 8 \DeclareDocumentCommand{\SetExtraKerning}{o m m}{}
- 9 \DeclareDocumentCommand{\SetExtraSpacing}{o m m}{}
- 10 \DeclareDocumentCommand{\DisableLigatures}{o m}{}
- 11 \DeclareDocumentCommand{\DeclareCharacterInheritance}{o m m}{}
- 12 \DeclareDocumentCommand{\DeclareMicrotypeVariants}{m}{}
- 13 \DeclareDocumentCommand{\DeclareMicrotypeAlias}{m m}{}
- 14 \DeclareDocumentCommand{\LoadMicrotypeFile}{m}{}
- 15 \DeclareDocumentCommand{\DeclareMicrotypeBabelHook}{m m}{}
- 16 \DeclareDocumentCommand{\microtypesetup}{m}{}
- 17 \DeclareDocumentCommand{\microtypecontext}{m}{}
- 18 \DeclareDocumentCommand{\textmicrotypecontext}{m m}{#2}
- 19 \@ifpackageloaded{letterspace}{\let\MT@textls\relax}{%
- 20 \DeclareDocumentCommand{\lsstyle}{}{}
- 21 $\DeclareDocumentCommand{\text{textls}}{o +m}{}$
- 22 \DeclareDocumentCommand{\lslig}{m}{#1}
- 23 }
- 24 \def\DeclareMicrotypeSet#1#{\@gobbletwo}
- 25 \def\DeclareMicrotypeVariants#1#{\@gobble}
- 26 \@onlypreamble\DeclareMicrotypeSet
- 27 \@onlypreamble\UseMicrotypeSet
- 29 \@onlypreamble\DisableLigatures
- 30 \@onlypreamble\DeclareMicrotypeVariants
- $31 \ensuremath{\mbox{\sc MicrotypeBabelHook}}$

File 225 lwarp-midfloat.sty

§ 323 Package midfloat

(Emulates or patches code by Sigitas Tolušis.)

midfloat is emulated. Pkg midfloat for HTML output: 1 \LWR@ProvidesPackageDrop{midfloat}[2012/05/29] 2 \newenvironment{strip}[1][]{}{} 3 \newskip\stripsep File 226 lwarp-midpage.sty midpage § 324 Package midpage is ignored. Pkg midpage for HTML output: 1 \LWR@ProvidesPackageDrop{midpage}[2009/09/03] 2 \newenvironment{midpage} 3 {\begin{BlockClass}[% \LWR@print@mbox{margin-top:6ex}; \LWR@print@mbox{margin-bottom:6ex}% 5]{midpage}} 6 {\end{BlockClass}} File 227 lwarp-minitoc.sty minitoc § 325 Package minitoc is ignored. Pkg minitoc for HTML output: 1 \LWR@ProvidesPackageDrop{minitoc}[2018/07/12] mtcoff disables minitoc. 2 \usepackage{mtcoff} File 228 lwarp-morefloats.sty morefloats § 326 Package morefloats is ignored. for HTML output: 1 \LWR@ProvidesPackageDrop{morefloats}[2015/07/22]

File 229 lwarp-moreverb.sty

```
moreverb
         Package
$327
                   (Emulates or patches code by Robin Fairbairns.)
    Pkg moreverb
                    moreverb is supported with some patches.
                     1 \begin{warpHTML}
  for HTML output:
                     2 \LWR@ProvidesPackagePass{moreverb}[2008/06/03]
                     3 \BeforeBeginEnvironment{verbatimtab}{%
                     4 \LWR@forcenewpage
                    5 \LWR@atbeginverbatim{3}{Verbatim}%
                     7 \AfterEndEnvironment{verbatimtab}{%
                     8 \LWR@afterendverbatim{1}%
                    9 }
                    10
                    12 \LetLtxMacro\LWRMV@orig@verbatimtabinput\@verbatimtabinput
                    14 \renewcommand{\@verbatimtabinput}[2][]{%
                    15 \LWR@forcenewpage
                    16 \LWR@atbeginverbatim{3}{Verbatim}%
                    17 \LWRMV@orig@verbatimtabinput[#1]{#2}%
                    18 \LWR@afterendverbatim{1}%
                    19 }
                    21 \BeforeBeginEnvironment{listing}{%
                    22 \LWR@forcenewpage
                    23 \LWR@atbeginverbatim{3}{programlisting}%
                    26 \AfterEndEnvironment{listing}{%
                    27 \LWR@afterendverbatim{1}%
                    28 }
                    30 \BeforeBeginEnvironment{listingcont}{%
                    31 \LWR@forcenewpage
                    32 \LWR@atbeginverbatim{3}{programlisting}%
                    33 }
                    35 \AfterEndEnvironment{listingcont}{%
                    36 \LWR@afterendverbatim{1}%
                    37 }
                    38 \LetLtxMacro\LWRMV@@listinginput\@listinginput
```

40 \renewcommand{\@listinginput}[3][]{

```
41 \LWR@forcenewpage
42 \LWR@atbeginverbatim{3}{programlisting}%
43 \LWRMV@@listinginput[#1]{#2}{#3}%
44 \LWR@afterendverbatim{1}%
45 }
46
47
48 \renewenvironment*{boxedverbatim}
50 \LWR@forcenewpage
51 \LWR@atbeginverbatim{3}{boxedverbatim}%
52 \verbatim%
53 }
54 {
55 \endverbatim%
56 \LWR@afterendverbatim{1}%
57 }
58 \end{warpHTML}
```

File 230 lwarp-movie15.sty

§ 328 Package movie 15

Pkg movie15 movie15 is emualted.

The packages multimedia, movie15, and media9 are supported.

HTML5 <audio> and <video> objects are created for .mp3 and .mp4 files.

HTML5 <embed> objects are created for http and ftp links.

\href links are created for other media types. (Unfortunately, there is not much overlap between the file types supported for print output and the file types supported by HTML5.)

For media9, a multimedia object is inserted for each addresource=, as well as each flashvars source= and src=. This may result in duplicate objects.

Undesired objects may be nullified by placing them inside \warpprintonly or the warpprint environment.

Each HTML multimedia object includes the poster text, except for <embed> objects. For movie15, the text option is supported to specify the poster text.

The width, height, and totalheight options are supported. The HTML object is scaled according to the display width, correctly compensating for either tall or wide viewports.

Other options are ignored.

media9 \addmediapath is supported. It is assumed that the same path structure will exist for the HTML document.

HTML5 media controls are always specified for each <audio> and <video> object. media9 slideshows are not supported.

\hyperlinkmovie, \movieref, and \mediabutton are not supported.

3D objects are not supported.

If using a YouTubeTM video, use an "embedded" url with .../embed/... instead of .../V/...

```
for HTML output:
```

```
1 \LWR@ProvidesPackageDrop{movie15}[2012/05/16]
   2 \LWR@origRequirePackage{lwarp-common-multimedia}
  4 \RequirePackage{xkeyval}
   6 \newcommand*{\LWR@moviefifteen@text}{}
   8 \end{align*} \\ 8 \end{align*} \end{align*} \\ \text{$1} \end{align*} \\ \text{$1$} \end{align*} \\ \text{$2$} \end{align*} \\ \text{$3$} \end{align
10 \newcommand*{\LWR@includemovieb}[4][]{%
                         \renewcommand{\LWR@moviefifteen@text}{(multimedia)}
11
                         \setkeys*{LWR@moviefifteen}{#1}%
12
                         13
14 }
16 \newrobustcmd*{\includemovie}{%
                        \begingroup%
17
                        \catcode'\#=12%
18
                        \catcode'\%=12%
19
                        \catcode'\&=12%
20
                        \catcode'\~=12%
21
                        \color=12\%
                         \LWR@includemovieb%
23
24 }
25
27 \newcommand*{\movieref}[3][]{}
29 \LetLtxMacro\movie\LWR@multimedia
30 % \LetLtxMacro\sound\LWR@multimedia% not in media15
32 \newcommand{\hyperlinkmovie}[3][]{}
```

File 231 lwarp-mparhack.sty

§ 329 Package mparhack

Pkg mparhack Ignored.

for HTML output: Discard all options for lwarp-mparhack:

```
1 \LWR@ProvidesPackageDrop{mparhack}[2005/04/17]
```

File 232 lwarp-multicap.sty

```
§330 Package multicap
```

```
Pkg multicap multicap is emualted.
```

```
for HTML output: 1 \LWR@ProvidesPackageDrop{multicap}[2002/05/04]

2 \newcommand*{\mfcaption}{\captionof{figure}}
3 \newcommand*{\mtcaption}{\captionof{table}}
4 \newcounter{mcapsize}
5 \newcounter{mcapskip}
6 \newlength{\abvmcapskip}
7 \newlength{\blwmcapskip}
```

File 233 lwarp-multicol.sty

§331 Package multicol

(Emulates or patches code by Frank Mittelbach.)

Pkg multicol multicol is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{multicol}[2018/12/27]

Multicols are converted into a 1-3 column display, browser-supported.

The optional multicols heading is placed inside a <div> of class multicolsheading.

The content is placed inside a <div> of class multicols.

```
2 \begin{warpHTML}

Env multicols * {\langle numcols \rangle} [\langle heading \rangle]
3 \NewDocumentEnvironment{multicols}{s m o}

HTML <div> class to contain everything:

4 {
5 \LWR@forcenewpage
6 \BlockClass{multicols}
```

Optional ${\tt HTML}$
 ${\tt div}{\tt >}$ class for the heading:

7 \IfValueT{#3}{\begin{BlockClass}{multicolsheading}#3\end{BlockClass}}%

Change \linewidth to compensate for expected size:

8 \setlength{\linewidth}{\linewidth/#2}

```
Locally force any minipages to be fullwidth:
                       \booltrue{LWR@forceminipagefullwidth}
                 10 }
                 When done with the environment, close the <div>:
                 11 {\endBlockClass}
                 Emulated null functions which are not used in HTML:
                 12 \newcommand*{\columnbreak}{}
                 13 \newcommand*{\RLmulticolcolumns}{}
                 14 \newcommand*{\LRmulticolcolumns}{}
                 16 \newlength{\premulticols}
                 17 \newlength{\postmulticols}
                 18 \newlength{\multicolsep}
                 19 \newlength{\multicolbaselineskip}
                 20 \newlength{\multicoltolerance}
                 21 \newlength{\multicolpretolerance}
                 22 \newcommand*{\columnseprulecolor}{\normalcolor}
                 23 \newcounter{columnbadness}
                 24 \newcounter{finalcolumnbadness}
                 25 \newcounter{collectmore}
                 26 \newcounter{unbalance}
                 27 \newlength{\multicolovershoot}
                 28 \newlength{\multicolundershoot}
                 29 \NewDocumentCommand{\docolaction}{s o m m m}{%
                       \IfValueTF{#2}{#2}{#3}%
                 31 }
                 32 \end{warpHTML}
       File 234 lwarp-multicolrule.sty
                multicolrule
       Package
                 multicolrule is ignored.
 multicolrule
for HTML output:
                  1 \RequirePackage{multicol}
                  3 \LWR@ProvidesPackageDrop{multicolrule}[2019/01/01]
                  4 \newcommand*{\SetMCRule}[1]{}
                  5 \NewDocumentCommand{\DeclareMCRulePattern}{m m}{}
```

§332

File 235 lwarp-multimedia.sty

§ 333 Package multimedia

Pkg multimedia multimedia is emulated.

The packages multimedia, movie15, and media9 are supported.

HTML5 <audio> and <video> objects are created for .mp3 and .mp4 files.

HTML5 <embed> objects are created for http and ftp links.

\href links are created for other media types. (Unfortunately, there is not much overlap between the file types supported for print output and the file types supported by HTML5.)

For media9, a multimedia object is inserted for each addresource=, as well as each flashvars source= and src=. This may result in duplicate objects.

Undesired objects may be nullified by placing them inside \warpprintonly or the warpprint environment.

Each HTML multimedia object includes the poster text, except for <embed> objects. For movie15, the text option is supported to specify the poster text.

The width, height, and totalheight options are supported. The HTML object is scaled according to the display width, correctly compensating for either tall or wide viewports.

Other options are ignored.

media9 \addmediapath is supported. It is assumed that the same path structure will exist for the HTML document.

HTML5 media controls are always specified for each <audio> and <video> object.

media9 slideshows are not supported.

\hyperlinkmovie, \movieref, and \mediabutton are not supported.

3D objects are not supported.

If using a YouTubetm video, use an "embedded" url with .../embed/... instead of .../v/...

for HTML output:

- 1 \LWR@ProvidesPackageDrop{multimedia}[2012/05/02]
- 2 \LWR@origRequirePackage{lwarp-common-multimedia}

3

- 4 \LetLtxMacro\movie\LWR@multimedia
- ${\tt 5 \ LetLtxMacro\ sound\ LWR@multimedia}$

7 \newcommand{\hyperlinkmovie}[3][]{}

lwarp-multirow.sty File 236

§ 334

Package multirow

(Emulates or patches code by Piet van Oostrum, Øystein Bache, Jerry Leichter.)

multirow multirow is emulated during HTML output, and used as-is while inside a lateximage.

vposn

- Note that recent versions of multirow include a new optional vposn argument.
- multirow cells
- For multirow, insert \mrowcell into any empty multi-row cells. This will be a null function for the print output, and is a placeholder for parsing the table for HTML output. An error is generated if this is missed.

```
\multirow{2}{.5in}{text} & . . .
\mrowcell
```

colored cells

• The multirow documentation regarding colored cells recommends using a negative number of rows. This will not work with lwarp, so \warpprintonly and \warpHTMLonly must be used to make versions for print and HTML.

with \multicolumn \multicolumn & \multirow

skipped cells

empty cells

• See section 334.2 for \multicolumrow.

lwarp does not support directly combining \multicolumn and \multirow. Use \multicolumnrow instead. To create a 2 column, 3 row cell:

```
\multicolumnrow{2}{c}[c]{3}[0]{1in}[0pt]{Text}
```

The two arguments for \multicolumn come first, followed by the five arguments for \multirow, many of which are optional, followed by the contents.

As per \multirow, skipped cells to the right of the \multicolumnrow statement are not included in the source code on the same line. On the following lines, \mcolrowcell must be used for each cell of each column and each row to be skipped. An error is generated if this is missed.

```
\multicolumnrow{2}{c}[c]{3}[0]{1in}[0pt]{Text}
        \mcolrowcell
                                           \mcolrowcell
. . . &
        \mcolrowcell
                                           \mcolrowcell
```

In a lateximage, \LWR@restoreorigformatting restores the original print-mode versions.

See section 72.25 for the print-mode versions.

for HTML output:

Remove the placeholder macro which was used if multirow was not loaded:

```
1 \LetLtxMacro\multirow\relax
```

2 \LWR@ProvidesPackagePass{multirow}[2018/08/03]

\LWR@multirowborder

Set to left or right to create a thick border for the cell, for use by bigdelim:

```
3 \newcommand{\LWR@multirowborder}{}
```

22 \LWR@addleftmostbartag%

24 "%

23 \LWR@printbartag{\arabic{LWR@tableLaTeXcolindex}}%

```
§ 334.1 Multirow
```

```
\multirow [\langle vpos \rangle] \{\langle numrows \rangle\} [\langle bigstruts \rangle] \{\langle width \rangle\} [\langle fixup \rangle] \{\langle text \rangle\}
              4 \NewDocumentCommand{\LWR@HTML@multirow}{O{c} m o m o +m}%
              6 \LWR@traceinfo{*** LWR@HTML@multirow #1 #2 #4}%
              7 \booltrue{LWR@usedmultirow}%
              8 \LWR@maybenewtablerow%
              9 \LWR@tabularleftedge%
             Print the start of a new table data cell:
             10 \LWR@htmltag{td rowspan="#2" %
             The vertical alignment, if given:
             11 \IfValueT{#1}{%
             12 \ifstrequal{#1}{b}{style="\LWR@print@mbox{vertical-align:bottom}" }{}%
             13 \ifstrequal{#1}{t}{style="\LWR@print@mbox{vertical-align:top}" }{}%
             14 }%
             The left/right border, if given:
             15 \ifdefvoid{\LWR@multirowborder}{}{%
             16 style="\LWR@print@mbox{border-\LWR@multirowborder:} 2px dotted black ; %
             17 \LWR@print@mbox{padding-\LWR@multirowborder:} 2px" %
             18 }%
             A class adds the column spec and the rule:
             19 class="td%
             Append this column's spec:
             20 \LWR@getexparray{LWR@tablecolspec}{\arabic{LWR@tableLaTeXcolindex}}%
             If this column has a cmidrule, add "rule" to the end of the HTML class tag. Also add
             the vertical bar class.
             21 \LWR@addcmidruletrim%
```

```
25 \LWR@tdstartstyles%
26 \LWR@addcmidrulewidth%
27 \LWR@addcdashline%
28 \LWR@addtabularrulecolors%
29 \LWR@tdendstyles%
30 }%
The column's < spec:
```

31 \LWR@getexparray{LWR@colbeforespec}{\arabic{LWR@tableLaTeXcolindex}}%

While printing the text, redefine \\ to generate a new line

```
32 \begingroup\LetLtxMacro{\\}{\LWR@endofline}#6\endgroup%
33 \LWR@stoppars%
34 \global\boolfalse{LWR@intabularmetadata}%
35 \renewcommand{\LWR@multirowborder}{}%
36 \LWR@traceinfo{*** LWR@HTML@multirow done}%
37 }%
39 \LWR@formatted{multirow}
```

§ 334.2 Combined multicolumn and multirow

```
\begin{tabular}{ll} $$ \mathbf{(1:cols)} {(2:halign)} [(3:vpos)] {(4:numrows)} [(5:bigstruts)] {(6:width)} [(7:fixup)] \\ \end{tabular}
                        \{\langle 8:text \rangle\}
```

\@ifpackageloaded{multirow} determines if v2.0 or later of multirow was used, which included the \ProvidesPackage macro.

The HTML version follows.

\AtBeginDocument because the print version had to see if multirow was loaded before determining how to define \LWR@print@multicolumnrow.

```
40 \AtBeginDocument{
42 \NewExpandableDocumentCommand{\LWR@HTML@multicolumnrow}{m m O{} m O{} m O{} +m}{%
43 \booltrue{LWR@usedmultirow}%
```

Figure out how many extra HTML columns to add for @ and ! columns:

```
44 \LWR@tabularhtmlcolumns{\arabic{LWR@tableLaTeXcolindex}}{#1}
```

Create the multicolumn/multirow tag:

```
45 \begingroup%
46 \LetLtxMacro{\\}{\LWR@endofline}%
47 \label{locality} $47 \label{locality} $47 \label{locality} $43 \label{locality} $48 \label{locality} $47 \label{locality} $48 \lab
48 \endgroup%
```

Move to the next LATEX column:

```
49 \addtocounter{LWR@tableLaTeXcolindex}{#1}%
          50 \addtocounter{LWR@tableLaTeXcolindex}{-1}%
         Skip any trailing @ or! columns for this cell:
          51 \global\booltrue{LWR@skipatbang}%
          52 }
          54 \LWR@expandableformatted{multicolumnrow}
          56 }% \AtBeginDocument
         lwarp-multitoc.sty
Package multitoc
         multitoc is ignored.
           1 \LWR@ProvidesPackageDrop{multitoc}[1999/06/08]
           2 \newcommand{\multicolumntoc}{2}
           3 \newcommand{\multicolumnlot}{2}
           4 \newcommand{\multicolumnlof}{2}
           5 \newcommand*{\immediateaddtocontents}[2]{}
         lwarp-musicography.sty
         musicography
         (Emulates or patches code by Andrew A. Cashner.)
         musicography is patched for use by lwarp.
         Images are used for the meter symbols, since the HTML fonts tend not to be the
          correct size. The HTML alt tag copies C and 3/2, etc. Hashes are used for the meter
         images, which are then reused as necessary.
         Note that browser support for musical symbols may be buggy. Copy/paste into a
          text editor works well.
           1 \LWR@ProvidesPackagePass{musicography}[2018/05/21]
           2 \RenewDocumentCommand{\musSymbol}{ O{\musFont} m m m m }{%
           3 \begin{lateximage}%
           4 {#1\kern#2\raisebox{#3}{#5}\kern#4}%
          5 \end{lateximage}%
           6 }
```

8 \RenewDocumentCommand{\musStemmedNote}{ m }{%

File 237

multitoc

File 238

Package

 \triangle

for HTML output:

musicography

for HTML output:

§ 335

\$336

```
9 \begin{lateximage}%
10 \musSymbol{0.05em}{0.5ex}{0.2em}{#1\musStem}%
11 \end{lateximage}%
12 }
13
{\tt 14 \ NenewDocumentCommand\{\musFlaggedNote\}\{\ m\ m\ }\{\%
15 \begin{lateximage}%
16 \mbox{musSymbol}\{0.05em\}\{0.5ex\}\{0pt\}\{\#1\mbox{musStem}\}\%
17 \mbox{musSymbol{0pt}{0pt}{0.9em}{#2}%}
18 \end{lateximage}%
19 }
20
21 \mbox{\ensuremath{\mbox{\sc NotedNote}}{\ensuremath{\mbox{\sc m}}} \mbox{\sc NotedNote}{\ensuremath{\mbox{\sc Months}}} \mbox{\sc Months}
22 \begin{lateximage}%
23 #1\musDot%
24 \end{lateximage}%
25 }
26
27 \RenewDocumentCommand{\musMeter}{ m m }{%
28 \begin{lateximage}*[#1/#2][#1#2]%
29 \musStack{#1}{#2}\kern0.05em%
30 \end{lateximage}%
31 }
32
33 \RenewDocumentCommand{\meterCplus}{ m }{%
34 \begin{lateximage}*[C#1]%
      \meterC{}\kern-0.7pt#1%
36 \end{lateximage}%
37 }
38
39 \RenewDocumentCommand{\meterC}{}{%
40 \begin{lateximage}*[C]%
41 \musSymbolMeter{\symbol{83}}%
42 \end{lateximage}%
43 }
45 \RenewDocumentCommand{\meterCutC}{}{%
46 \begin{lateximage}*[C|]%
47 \mbox{musSymbolMeter{\symbol{82}}}\%
48 \end{lateximage}%
49 }
51 \RenewDocumentCommand{\meterCThreeTwo}{}{%
52 \begin{lateximage}*[C3/2]%
53 \text{meterCplus}{\text{s}}
54 \end{lateximage}%
55 }
57 \RenewDocumentCommand{\musFlat}
                                              {}{\HTMLunicode{266D}}
58 \RenewDocumentCommand{\musDoubleFlat} {}{\HTMLunicode{1D12B}}
59 \RenewDocumentCommand{\musSharp}
                                              {}{\HTMLunicode{266F}}
60 \RenewDocumentCommand{\musDoubleSharp}{}\\HTMLunicode{1D12A}}
61 \RenewDocumentCommand{\musNatural}
                                             {}{\HTMLunicode{266E}}
63 \RenewDocumentCommand{\musWhole}{}{\HTMLunicode{1D15D}}
```

```
64 \RenewDocumentCommand{\musHalf}{}{\HTMLunicode{1D15E}}
65 \RenewDocumentCommand{\musQuarter}{}{\HTMLunicode{1D15F}}
66 \RenewDocumentCommand{\musEighth}{}{\HTMLunicode{1D160}}
67 \RenewDocumentCommand{\musSixteenth}{}{\HTMLunicode{1D161}}
68
69 \RenewDocumentCommand{\musWholeDotted}{}{\HTMLunicode{1D15D}\HTMLunicode{1D16D}}
70 \RenewDocumentCommand{\musHalfDotted}{}{\HTMLunicode{1D15E}\HTMLunicode{1D16D}}
71 \RenewDocumentCommand{\musQuarterDotted}{}{\HTMLunicode{1D15F}\HTMLunicode{1D16D}}
72 \RenewDocumentCommand{\musEighthDotted}{}{\HTMLunicode{1D160}\HTMLunicode{1D160}}
73 \RenewDocumentCommand{\musSixteenthDotted}{}{\HTMLunicode{1D161}\HTMLunicode{1D160}}
```

File 239 lwarp-nameauth.sty

§ 337 Package nameauth

(Emulates or patches code by Charles P. Schaum.)

Pkg nameauth nameauth is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{nameauth}[2017/03/22]

lwarp formatting is inserted in the following.

```
2 \renewcommand*\@nameauth@Hook[1]
3 {%
4
    \if@nameauth@Lock
      \@nameauth@InHooktrue%
6
      \protected@edef\test{#1}%
      \expandafter\@nameauth@TestDot\expandafter{\test}%
      \if@nameauth@InAKA
8
        \if@nameauth@AlwaysFormat
9
          \@nameauth@FirstFormattrue%
10
11
12
          \unless\if@nameauth@AKAFormat
13
          \@nameauth@FirstFormatfalse\fi
14
        \if@nameauth@MainFormat
15
          \if@nameauth@FirstFormat
16
            \bgroup\NamesFormat{%
17
18
               \LWR@textcurrentcolor{\LWR@textcurrentfont{#1}}%
                                                                     lwarp
            }\egroup%
19
          \else
20
            \bgroup\MainNameHook{%
21
               \LWR@textcurrentcolor{\LWR@textcurrentfont{#1}}%
22
                                                                     lwarp
            }\egroup%
23
          \fi
24
        \else
25
          \if@nameauth@FirstFormat
26
27
            \bgroup\FrontNamesFormat{%
              \LWR@textcurrentcolor{\LWR@textcurrentfont{#1}}%
28
                                                                     lwarp
29
            }\egroup%
          \else
30
            \bgroup\FrontNameHook{%
31
```

```
32
              \LWR@textcurrentcolor{\LWR@textcurrentfont{#1}}%
                                                                      lwarp
33
            }\egroup%
          \fi
34
        \fi
35
      \else
36
        \if@nameauth@AlwaysFormat
37
          \@nameauth@FirstFormattrue%
38
        \fi
39
        \if@nameauth@MainFormat
40
          \if@nameauth@FirstFormat
41
             \bgroup\NamesFormat{%
42
              \LWR@textcurrentcolor{\LWR@textcurrentfont{#1}}%
                                                                      lwarp
43
            }\egroup%
44
45
          \else
46
             \bgroup\MainNameHook{%
               \LWR@textcurrentcolor{\LWR@textcurrentfont{#1}}%
                                                                      lwarp
47
48
            }\egroup%
          \fi
49
        \else
50
          \if@nameauth@FirstFormat
51
             \bgroup\FrontNamesFormat{%
52
               \LWR@textcurrentcolor{\LWR@textcurrentfont{#1}}%
                                                                      lwarp
            }\egroup%
54
          \else
55
             \bgroup\FrontNameHook{%
56
              \LWR@textcurrentcolor{\LWR@textcurrentfont{#1}}%
                                                                      lwarp
57
58
            }\egroup%
          \fi
59
        \fi
60
61
62
      \@nameauth@FirstFormatfalse%
      \@nameauth@InHookfalse%
63
   \fi
64
65 }
```

File 240 lwarp-nameref.sty

§ 338 Package nameref

Pkg nameref nameref is emulated by lwarp.

for HTML output: Discard all options for lwarp-nameref:

```
1 \PackageInfo{lwarp}{%
2 Using the lwarp HTML version of package 'nameref',\MessageBreak
3 and discarding options.\MessageBreak
4 (Not using \protect\ProvidesPackage, so that other packages\MessageBreak
5 do not attempt to patch lwarp's version of 'nameref'.)\MessageBreak
6 }
7 \DeclareOption*{}
8 \ProcessOptions\relax
```

File 241 lwarp-natbib.sty natbib Package § 339 (Emulates or patches code by Patrick W. Daly.) natbib is patched for use by lwarp. natbib for HTML output: 1 \LWR@ProvidesPackagePass{natbib}[2010/09/13] Replace math < and > with \textless and \textgreater: A macro to compare: To patch \NAT@open and \NAT@close 3 \newcommand{\LWRNB@patchnatbibopenclose}{ 4 \ifdefstrequal{\NAT@open}{\LWRNB@NAT@open} 5 { \renewcommand{\NAT@open}{\textless} \renewcommand{\NAT@close}{\textgreater} 8 }{} 9 } Do it now in case angle was selected as an option: 10 \LWRNB@patchnatbibopenclose Also patch \setcitestyle to patch after settings are made: 11 \let\LWRNB@origsetcitestyle\setcitestyle 13 \renewcommand{\setcitestyle}[1]{% 14 \LWRNB@origsetcitestyle{#1}% 15 \LWRNB@patchnatbibopenclose% 16 } File 242 lwarp-nccfancyhdr.sty Package nccfancyhdr § 340 (Emulates or patches code by Alexander I. Rozhenko.) nccfancyhdr nccfancyhdr is ignored.

1 \LWR@ProvidesPackageDrop{nccfancyhdr}[2004/12/07]

for HTML output:

```
2 \newcommand*{\headrulewidth}{}
3 \newcommand*{\footrulewidth}{}
4 \newcommand{\headstrutheight}{}
 5 \newcommand{\footstrutheight}{}
 6 \newcommand*{\headrule}{}
 7 \newcommand*{\footrule}{}
9 \newdimen\headwidth
10 \newcommand*{\extendedheaders}{}
11 \newcommand*{\normalheaders}{}
13 \newcommand*{\fancyhead}[2][]{}
14 \newcommand*{\fancyfoot}[2][]{}
15 \newcommand*{\fancyhf}[2][]{}
16 \newcommand*{\fancypagestyle}[2]{}
17 \newcommand*{\lhead}[2][]{}
18 \newcommand*{\chead}[2][]{}
19 \newcommand*{\rhead}[2][]{}
20 \newcommand*{\lfoot}[2][]{}
21 \mbox{newcommand} {\cfoot}[2][]{}
22 \newcommand*{\rfoot}[2][]{}
24 \newcommand{\nouppercase}[1]{#1}
26 \NewDocumentCommand{\fancycenter}{o o m m m}{}
28 \NewDocumentCommand{\newpagestyle}{m o m}{}
30 \newcommand*{\iffloatpage}[2]{#2}
31 \newcommand*{\ifftopfloat}[2]{#2}
32 \newcommand*{\iffbotfloat}[2]{#2}
```

File 243 lwarp-needspace.sty

§ 341 Package needspace

(Emulates or patches code by Peter Wilson.)

Pkg needspace needspace is not used during HTML conversion.

for HTML output: Discard all options for lwarp-needspace:

```
1 \LWR@ProvidesPackageDrop{needspace}[2010/09/12]
2
3 \DeclareDocumentCommand{\needspace}{m}{}
4 \DeclareDocumentCommand{\Needspace}{s m}{}
```

File 244 lwarp-nextpage.sty

§ 342 Package nextpage

(Emulates or patches code by Peter Wilson.)

Pkg nextpage nextpage is nullified.

for HTML output: Discard all options for lwarp-nextpage.

1 \LWR@ProvidesPackageDrop{nextpage}[2009/09/03]

- 2 \DeclareDocumentCommand{\cleartoevenpage}{o}{}
- 4 \DeclareDocumentCommand{\cleartooddpage}{o}{}
- 5 \DeclareDocumentCommand{\movetooddpage}{o}{}

File 245 lwarp-nicefrac.sty

§343 Package **nicefrac**

(Emulates or patches code by AXEL REICHERT.)

Pkg nicefrac nicefrac is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{nicefrac}[1998/08/04]

```
2 \DeclareRobustCommand*{\LWR@HTML@@UnitsNiceFrac}[3][]{%
      {% localize font selection
          #1{%
              \LWR@textcurrentfont{%
                   \InlineClass{numerator}{#2}%
                   \InlineClass{denominator}{#3}%
 8
              }%
9
          }%
10
      }%
11
12 }
13
14 \LWR@formatted{@UnitsNiceFrac}
16 \DeclareRobustCommand*{\LWR@HTML@@UnitsUglyFrac}[3][]{%
      {% localize font selection
          #1{\LWR@textcurrentfont{#2/#3}}%
18
      }%
19
20 }
22 \LWR@formatted{@UnitsUglyFrac}
```

```
For Mathjax:
```

```
23 \CustomizeMathJax{\newcommand{\nicefrac}[3][]{#2/#3}}
```

File 246 lwarp-niceframe.sty

§ 344 Package niceframe

Pkg niceframe niceframe is emulated.

```
for HTML output:
```

1 \LWR@ProvidesPackageDrop{niceframe}% the original date is in yyyy/dd/mm format

```
2 \newcommand{\LWR@niceframe}[3]{
3  \setlength{\LWR@templengthone}{#1}
4  \begin{BlockClass}[max-width:\LWR@printlength{\LWR@templengthone}]{#3}
5  #2
6  \end{BlockClass}
7 }
8
9 \newcommand{\niceframe}[2][\textwidth]{\LWR@niceframe{#1}{#2}{niceframe}}
10 \newcommand{\curlyframe}[2][\textwidth]{\LWR@niceframe{#1}{#2}{curlyframe}}
11 \newcommand{\artdecoframe}[2][\textwidth]{\LWR@niceframe{#1}{#2}{artdecoframe}}
12
13 \newcommand{\generalframe}[9]{\LWR@niceframe{\textwidth}{#9}{generalframe}}
```

File 247 lwarp-nomencl.sty

§ 345 Package nomencl

(Emulates or patches code by Boris Veytsman, Bernd Schandl, Lee Netherton, CV Radhakrishnan.)

Pkg nomencl is patched for use by lwarp.

To process the HTML nomenclature:

```
makeindex ct>_html.nlo -s nomencl.ist -o project>_html.nls
```

for HTML output:

```
1 \LWR@ProvidesPackagePass{nomencl}[2005/09/22]
```

```
2 \def\@@enomenclature[#1]#2#3{%
3 \def\@tempa{#2}\def\@tempb{#3}%
4 \protected@write\@nomenclaturefile{}%
5 {\string\nomenclatureentry{#1\nom@verb\@tempa @[{\nom@verb\@tempa}]%
6 \begingroup\nom@verb\@tempb\protect\nomeqref{\theequation}%
7 |nompageref}{\theLWR@previousautopagelabel}}% | warp
8 \endgroup
9 \@esphack}
10
11 \renewcommand*{\pagedeclaration}[1]{, \nameref{autopage-#1}}
```

```
lwarp-nonfloat.sty
         File 248
                  nonfloat
         Package
$346
                  (Emulates or patches code by Kai Rascher.)
                  nonfloat is emulated.
   Pkg nonfloat
  for HTML output:
                   1 \LWR@ProvidesPackageDrop{nonfloat}[1999/07/05]
                   2 \LetLtxMacro\topcaption\caption
                   3 \newcommand{\figcaption}{\def\@captype{figure}\caption}
                   4 \newcommand{\tabcaption}{\def\@captype{table}\topcaption}
                   5 \newenvironment{narrow}[2]{}{}
                 lwarp-nonumonpart.sty
         File 249
                 nonumonpart
$347
         Package
Pkg nonumonpart
                  nonumonpart is ignored.
  for HTML output:
                   1 \LWR@ProvidesPackageDrop{nonumonpart}[2011/04/15]
                 lwarp-nopageno.sty
         File 250
                  nopageno
$348
         Package
                  nopageno is ignored.
        nopageno
  for HTML output:
                   1 \LWR@ProvidesPackageDrop{nopageno}[1989/01/01]
         File 251 lwarp-notes.sty
         Package notes
$349
      Pkg notes
                  notes is emulated.
  for HTML output:
                   1 \LWR@ProvidesPackageDrop{notes}[2002/10/29]
                   2 \newcommand*{\LWR@notes@onenote}[2]{%
                   3 \newenvironment{#1}
                        {
```

File 252 lwarp-notespages.sty

```
§350 Package notespages
```

Pkg notespages notespages is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{notespages}[2016/08/21]

```
2 \newcommand*{\npnotesname}{}
3 \newcommand*{\npnotestext}{}
4 \newcommand*{\remainingtextheight}{}
5 \newdimen\remainingtextheight
6 \newcommand*{\notestitletext}{}
7 \newcommand*{\notesareatext}{}
8 \newcommand*{\npnpinfo}[1]{}
9 \newcommand*{\tracingnpmarks}{}
10 \newcommand*{\notespage}[1][]{}
11 \newcommand*{\notespages}[1][]{}
12 \newcommand*{\notesfill}[1][]{}
13 \newcommand*{\setnotespages}[1]{}
14 \newcommand*{\definenotesoption}[2]{}
15 \newcommand{\definenotesstyle}[2]{}
16 \newcommand{\definetitlestyle}[2]{}
17 \newcommand{\nppatchchapter}[1]{}
18 \newcommand{\npunpatchchapter}{}
```

File 253 lwarp-nowidow.sty

§351 Package **nowidow**

(Emulates or patches code by Raphaël Pinson.)

Pkg nowidow nowidow is not used during HTML conversion.

Discard all options for lwarp-nowidow:

for HTML output: 1 \LWR@ProvidesPackageDrop{nowidow}[2011/09/20]

\nowidow $[\langle lines \rangle]$ \setnowidow $[\langle lines \rangle]$

2 \newcommand*{\nowidow}[1][]{}
3 \newcommand*{\setnowidow}[1][]{}

\noclub $[\langle lines \rangle]$ \setnoclub $[\langle lines \rangle]$

4 \newcommand*{\noclub}[1][]{}
5 \newcommand*{\setnoclub}[1][]{}

File 254 lwarp-ntheorem.sty

§352 Package ntheorem

(Emulates or patches code by Wolfgang May, Andreas Schedler.)

Pkg ntheorem ntheorem is patched for use by lwarp.

Table 15: Ntheorem package—css styling of theorems and proofs

Theorem: <div> of class theorembody<theoremstyle>

Theorem Header: of class theoremheader<style>

where <theoremstyle> is plain, break, etc.

§ 352.1 Limitations

⚠ Font control

This conversion is not total. Font control is via css, and the custom LATEX font settings are ignored.

ntheorem has a bug with equation numbering in $\mathcal{A}_{\mathcal{M}}S$ environmentswhen the option thref is used. Iwarp does not share this bug, so equations with \split, etc, are numbered correctly with Iwarp's HTML output, but not with the print output. It is recommended to use cleveref instead of ntheorem's thref option.

§ 352.2 **Options**

Options amsthm or standard choose which set of theorems and proofs to initialize.

\triangle Disabled options

The options thmmarks and amsmath are disabled, since they heavily modify the underlying math code. Theorem marks are emulated. The AMS-math modifications are not done.

Option thref is disabled because cleveref functions are used instead. \thref is emulated.

Option hyperref is disabled because lwarp emulated hyperref.

for HTML output:

Some disabled options:

```
1 \DeclareOption{thref}{}
2
3
4 \newbool{LWR@ntheoremmarks}
5 \boolfalse{LWR@ntheoremmarks}
6
7 \DeclareOption{thmmarks}{
8 \booltrue{LWR@ntheoremmarks}
9 \newif\ifsetendmark\setendmarktrue
10 }
11
12
13 \newbool{LWR@ntheoremamsthm}
14 \boolfalse{LWR@ntheoremamsthm}
15
16 \DeclareOption{amsthm}{\booltrue{LWR@ntheoremamsthm}}
17
18
19 \DeclareOption{amsmath}{}
20 \DeclareOption{hyperref}{}
21
22 \LWR@ProvidesPackagePass{ntheorem}[2011/08/15]
```

§ 352.3 Remembering the theorem style

Storage for the style being used for new theorems.

```
23 \newcommand{\LWR@newtheoremstyle}{plain}
24 \AtBeginDocument{
25 \@ifpackageloaded{cleveref}{
26 \gdef\@thm#1#2#3{%
     \if@thmmarks
       \stepcounter{end\InTheoType ctr}%
28
29
     \renewcommand{\InTheoType}{#1}%
30
31
     \if@thmmarks
       \stepcounter{curr#1ctr}%
32
       \setcounter{end#1ctr}{0}%
33
34
     \refstepcounter[#1]{#2}% <<< cleveref modification</pre>
35
     \theorem@prework
36
      \LWR@forcenewpage% lwarp
37
      \BlockClass{theorembody#1}%\LWR@thisthmstyle% lwarp
39
     \trivlist % latex's \trivlist, calling latex's \@trivlist unchanged
40
     \ifuse@newframeskips % cf. latex.ltx for topsepadd: \@trivlist
41
       \ifthm@inframe
         \thm@topsep\theoreminframepreskipamount
42
         \thm@topsepadd\theoreminframepostskipamount
43
        \else
44
45
         \thm@topsep\theorempreskipamount
46
         \thm@topsepadd\theorempostskipamount
47
        \fi
```

```
48
      \else% oldframeskips
49
        \thm@topsep\theorempreskipamount
        \thm@topsepadd \theorempostskipamount
50
        \ifvmode\advance\thm@topsepadd\partopsep\fi
51
     \fi
52
     \@topsep\thm@topsep
53
     \@topsepadd\thm@topsepadd
54
     \advance\linewidth -\theorem@indent
55
     \advance\linewidth -\theorem@rightindent
     \advance\@totalleftmargin \theorem@indent
57
     \parshape \@ne \@totalleftmargin \linewidth
58
     \@ifnextchar[{\@ythm{#1}{#2}{#3}}{\@xthm{#1}{#2}{#3}}
59
60 }
61 }{% not @ifpackageloaded{cleveref}
62 \gdef\@thm#1#2#3{%
     \if@thmmarks
       \stepcounter{end\InTheoType ctr}%
64
65
     \renewcommand{\InTheoType}{#1}%
66
     \if@thmmarks
67
68
       \stepcounter{curr#1ctr}%
       \setcounter{end#1ctr}{0}%
69
70
     \refstepcounter{#2}%
71
     \theorem@prework
72
      \LWR@forcenewpage% lwarp
73
74
      \BlockClass{theorembody#1}%\LWR@thisthmstyle% lwarp
75
     \trivlist % latex's \trivlist, calling latex's \@trivlist unchanged
     \ifuse@newframeskips % cf. latex.ltx for topsepadd: \@trivlist
76
77
       \ifthm@inframe
         \thm@topsep\theoreminframepreskipamount
78
         \verb|\thm@topsepadd| theoreminframepostskip amount|
79
        \else
80
         \thm@topsep\theorempreskipamount
81
82
         \thm@topsepadd\theorempostskipamount
83
      \else% oldframeskips
84
        \thm@topsep\theorempreskipamount
85
        \thm@topsepadd \theorempostskipamount
86
87
        \ifvmode\advance\thm@topsepadd\partopsep\fi
88
     \fi
89
     \@topsep\thm@topsep
90
     \@topsepadd\thm@topsepadd
     \verb|\advance| linewidth - \theorem@indent|
91
     \advance\linewidth -\theorem@rightindent
92
     \advance\@totalleftmargin \theorem@indent
93
94
     \parshape \@ne \@totalleftmargin \linewidth
95
     \@ifnextchar[{\@ythm{#1}{#2}{#3}}{\@xthm{#1}{#2}{#3}}
96 }
97 }
98 }% AtBeginDocument
```

Patched to remember the style being used for new theorems:

```
99 \gdef\theoremstyle#1{%
```

```
100
      \@ifundefined{th@#1}{\@warning
101
              {Unknown theoremstyle '#1'. Using 'plain'}%
              \theorem@style{plain}
102
                \renewcommand{\LWR@newtheoremstyle}{plain}% lwarp
103
104
105
           \theorem@style{#1}
106
107
           \renewcommand{\LWR@newtheoremstyle}{#1}% lwarp
108
109 }
```

Patched to remember the style for this theorem type, and set it later when the environment is started.

```
110
111 \gdef\@xnthm#1#2[#3]{%
112
    \ifthm@tempif
113
        \csedef{LWR@thmstyle#1}{\LWR@newtheoremstyle}% lwarp
        \expandafter\@ifundefined{c@#1}%
114
115
           {\@definecounter{#1}}{}%
        \@newctr{#1}[#3]%
116
117
        \expandafter\xdef\csname the#1\endcsname{%
118
          \expandafter\noexpand\csname the#3\endcsname \@thmcountersep
119
             {\noexpand\csname\the\theoremnumbering\endcsname{#1}}}%
        \expandafter\gdef\csname mkheader@#1\endcsname
120
121
          {\csname setparms@#1\endcsname
           \@thm{#1}{#1}{#2}
122
123
           3%
124
        \global\@namedef{end#1}{\@endtheorem}
125
      \AtBeginEnvironment{#1}{\edef\LWR@thisthmstyle{\@nameuse{LWR@thmstyle#1}}}% lwarp
126
    \fi
127 }
128
129 \gdef\@ynthm#1#2{%
    \ifthm@tempif
130
        \csedef{LWR@thmstyle#1}{\LWR@newtheoremstyle}% lwarp
131
132
        \expandafter\@ifundefined{c@#1}%
           {\@definecounter{#1}}{}%
133
        \expandafter\xdef\csname the#1\endcsname
134
           {\noexpand\csname\the\theoremnumbering\endcsname{#1}}%
135
        \expandafter\gdef\csname mkheader@#1\endcsname
136
          {\csname setparms@#1\endcsname
137
138
           \@thm{#1}{#1}{#2}
139
        \global\@namedef{end#1}{\@endtheorem}
140
      \AtBeginEnvironment{#1}{\edef\LWR@thisthmstyle{\@nameuse{LWR@thmstyle#1}}}% lwarp
141
142
143 }
144
145 \gdef\@othm#1[#2]#3{%
    \@ifundefined{c@#2}{\@nocounterr{#2}}%
     {\ifthm@tempif
147
        \csedef{LWR@thmstyle#1}{\LWR@newtheoremstyle}% lwarp
148
        149
        \expandafter\protected@xdef\csname num@addtheoremline#1\endcsname{%
150
```

```
151
              \noexpand @num@addtheoremline{#1}{#3}}\%
152
       \expandafter\protected@xdef\csname nonum@addtheoremline#1\endcsname{%
               \noexpand\@nonum@addtheoremline{#1}{#3}}%
153
      \theoremkeyword{#3}%
154
      \expandafter\protected@xdef\csname #1Keyword\endcsname
155
              {\the\theoremkeyword}%
156
      \expandafter\gdef\csname mkheader@#1\endcsname
157
158
        {\csname setparms@#1\endcsname
                \@thm{#1}{#2}{#3}
159
160
161
       \global\@namedef{end#1}{\@endtheorem}
162
     163
    \fi}
164 }
```

§ 352.4 HTML cross-referencing

Mimics a float by incrementing the float counter and generating an HTML anchor. These are used for list-of-theorem cross-references.

```
165 \newcommand{\LWR@inctheorem}{%
166 \addtocounter{LWR@thisautoid}{1}%
167 \LWR@stoppars%
168 \LWR@htmltag{a id="\LWR@print@mbox{autoid-\arabic{LWR@thisautoid}}"}\LWR@htmltag{/a}%
169 \LWR@startpars%
170 }
```

§352.5 \newtheoremstyle

The following are patched for css.

These were in individual files thp.sty for plain, thmb.sty for margin break, etc. They are gathered together here.

Each theorem is encased in a BlockClass environment of class theorembody<style>.

Each header is encased in an \InlineClass of class theoremheader<style>.

```
171 \gdef\newtheoremstyle#1#2#3{%
     \expandafter\@ifundefined{th@#1}%
      {\expandafter\gdef\csname th@#1\endcsname{%
       \def\@begintheorem###1###2{%
174
       \LWR@inctheorem% lwarp
175
      #2}%
176
177
       \def\@opargbegintheorem###1###2####3{%
178
       \LWR@inctheorem% lwarp
       #3}%
179
180 }%
181 }%
182 {\PackageError{\basename}{Theorem style #1 already defined}\@eha}
183 }
```

§ 352.6 Standard styles

```
184 \renewtheoremstyle{plain}%
     {\item[
186
       \InlineClass{theoremheaderplain}{##1\ ##2\theorem@separator}]}%
187
188
       \InlineClass{theoremheaderplain}{##1\ ##2\ (##3)\theorem@separator}]}
189
190 \renewtheoremstyle{break}%
191
     {\item[
       \InlineClass{theoremheaderbreak}{##1\ ##2\theorem@separator}\newline
192
193
       ]}%
194
     {\item[
       \InlineClass{theoremheaderbreak}%
195
           {##1\ ##2\ (##3)\theorem@separator}\newline
196
197
       ]}
198
199 \renewtheoremstyle{change}%
     {\item[
       \InlineClass{theoremheaderchange}{##2\ ##1\theorem@separator}]}%
201
202
203
       \InlineClass{theoremheaderchange}{##2\ ##1\ (##3)\theorem@separator}]}
204
205 \renewtheoremstyle{changebreak}%
206
     {\item[
207
           \InlineClass{theoremheaderchangebreak}%
               {##2\ ##1\theorem@separator}\newline
208
209
       ]}%
     {\item[
210
           \InlineClass{theoremheaderchangebreak}%
211
               {##2\ ##1\ (##3)\theorem@separator}\newline
212
213
       ]}
215 \renewtheoremstyle{margin}%
216
     {\item[
           \InlineClass{theoremheadermargin}{##2 \qquad ##1\theorem@separator}
217
218
       ]}%
219
     {\item[
        \InlineClass{theoremheadermargin}{##2 \qquad ##1\ (##3)\theorem@separator}
220
221
       ]}
222
223 \renewtheoremstyle{marginbreak}%
     {\item[
       \InlineClass{theoremheadermarginbreak}%
225
226
           {##2 \qquad ##1\theorem@separator}\newline
227
       ]}%
228
     {\item[
229
       \InlineClass{theoremheadermarginbreak}%
           {##2 \qquad ##1\ (##3)\theorem@separator}\newline
230
       ]}
231
232
233 \renewtheoremstyle{nonumberplain}%
235
       \InlineClass{theoremheaderplain}{##1\theorem@separator}]}%
236
     {\item[
       \InlineClass{theoremheaderplain}{##1\ (##3)\theorem@separator}]}
237
```

```
238
239 \renewtheoremstyle{nonumberbreak}%
    {\item[
       \InlineClass{theoremheaderbreak}{##1\theorem@separator}\newline
241
242
       ]}%
    {\item[
243
       \InlineClass{theoremheaderbreak}{##1\ (##3)\theorem@separator}\newline
244
245
       ]}
247 \renewtheoremstyle{empty}%
    {\item[]}%
    {\item[
249
250
       \InlineClass{theoremheaderplain}{##3}]}
252 \renewtheoremstyle{emptybreak}%
    {\item[]}%
253
254
     {\item[
       \InlineClass{theoremheaderplain}{##3}] \ \newline}
```

§ 352.7 Additional objects

The following manually adjust the css for the standard configuration objects which are not a purely plain style:

```
256 \ifbool{LWR@ntheoremamsthm}{}{%
```

Upright text via CSS:

```
257 \newtheoremstyle{plainupright}%
258 {\item[
259 \InlineClass{theoremheaderplain}{##1\ ##2\theorem@separator}]}%
260 {\item[
261 \InlineClass{theoremheaderplain}{##1\ ##2\ (##3)\theorem@separator}]}
```

Upright text and small caps header via CSS:

```
262 \newtheoremstyle{nonumberplainuprightsc}%
263 {\item[
264 \InlineClass{theoremheadersc}{##1\theorem@separator}]}%
265 {\item[
266 \InlineClass{theoremheadersc}{##1\ (##3)\theorem@separator}]}
267 }% not amsthm
```

§ 352.8 Renewed standard configuration

The following standard configuration is renewed using the new css:

```
268 \ifbool{LWR@ntheoremamsthm}{}{%
269 \ifx\thm@usestd\@undefined
270 \else
271 \theoremnumbering{arabic}
272 \theoremstyle{plain}
273 \RequirePackage{latexsym}
```

```
274
       \theoremsymbol{\Box}
275
       \theorembodyfont{\itshape}
       \theoremheaderfont{\normalfont\bfseries}
276
277
       \theoremseparator{}
278
       \renewtheorem{Theorem}{Theorem}
       \renewtheorem{theorem}{Theorem}
279
       \renewtheorem{Satz}{Satz}
280
281
       \renewtheorem{satz}{Satz}
       \renewtheorem{Proposition}{Proposition}
282
       \renewtheorem{proposition}{Proposition}
283
       \renewtheorem{Lemma}{Lemma}
284
       \renewtheorem{lemma}{Lemma}
285
       \renewtheorem{Korollar}{Korollar}
286
287
       \renewtheorem{korollar}{Korollar}
288
       \renewtheorem{Corollary}{Corollary}
       \renewtheorem{corollary}{Corollary}
289
290
291
       \theoremstyle{plainupright}
       \theorembodyfont{\upshape}
292
       \theoremsymbol{\HTMLunicode{25A1}}% UTF-8 white box
293
294
       \renewtheorem{Example}{Example}
295
       \renewtheorem{example}{Example}
       \renewtheorem{Beispiel}{Beispiel}
296
297
       \renewtheorem{beispiel}{Beispiel}
298
       \renewtheorem{Bemerkung}{Bemerkung}
299
       \renewtheorem{bemerkung}{Bemerkung}
300
       \renewtheorem{Anmerkung}{Anmerkung}
301
       \renewtheorem{anmerkung}{Anmerkung}
       \renewtheorem{Remark}{Remark}
302
       \renewtheorem{remark}{Remark}
303
304
       \renewtheorem{Definition}{Definition}
       \renewtheorem{definition}{Definition}
305
306
       \theoremstyle{nonumberplainuprightsc}
307
       \theoremsymbol{\HTMLunicode{220E}}% UTF-8 end-of-proof
308
309
       \renewtheorem{Proof}{Proof}
       \renewtheorem{proof}{Proof}
310
311
       \renewtheorem{Beweis}{Beweis}
312
       \renewtheorem{beweis}{Beweis}
313
       \qedsymbol{\HTMLunicode{220E}}% UTF-8 end-of-proof
314
315
       \theoremsymbol{}
316 \fi
317 }% not amsthm
```

§ 352.9 amsthm option

Only if the amsthm option was given:

```
318 \ifbool{LWR@ntheoremamsthm}{
319
320 \gdef\th@plain{%
321 \def\theorem@headerfont{\normalfont\bfseries}\itshape%
322 \def\@begintheorem##1##2{%
323 \LWR@inctheorem% lwarp
```

```
324
         \item[
325
     \InlineClass{theoremheaderplain}{##1\ ##2.}
326
     \def\@opargbegintheorem##1##2##3{%
327
           \LWR@inctheorem% lwarp
328
        \item[
329
     \InlineClass{theoremheaderplain}{\#1\ \#2\ (\#3).}
330
331
           ]}}
332
333 \gdef\th@nonumberplain{%
     \def\theorem@headerfont{\normalfont\bfseries}\itshape%
334
     \def\@begintheorem##1##2{%
335
           \LWR@inctheorem% lwarp
336
337
         \item[
     \InlineClass{theoremheaderplain}{##1.}
338
339
           ]}%
     \def\@opargbegintheorem##1##2##3{%
340
           \LWR@inctheorem% lwarp
341
        \item[
342
     \InlineClass{theoremheaderplain}{##1\ (##3).}
343
344
           ]}}
345
346 \gdef\th@definition{%
     \def\theorem@headerfont{\normalfont\bfseries}\normalfont%
347
     \def\@begintheorem##1##2{%
348
           \LWR@inctheorem% lwarp
349
350
         \item[
     \InlineClass{theoremheaderdefinition}{##1\ ##2.}
351
352
           ]}%
353
     \def\@opargbegintheorem##1##2##3{%
           \LWR@inctheorem% lwarp
354
        \item[
355
     \InlineClass\{theoremheaderdefinition\}\{\#1\ \#2\ (\#3).\}
356
357
           ]}}
358
359 \gdef\th@nonumberdefinition{%
     \def\theorem@headerfont{\normalfont\bfseries}\normalfont%
360
     \def\@begintheorem##1##2{%
361
362
           \LWR@inctheorem% lwarp
363
         \item[
364
     \InlineClass{theoremheaderdefinition}{##1.}
365
366
     \def\@opargbegintheorem##1##2##3{%
           \LWR@inctheorem% lwarp
367
        \item[
368
     \InlineClass{theoremheaderdefinition}{##1\ (##3).}
369
370
371
372 \gdef\th@remark{%
     \def\theorem@headerfont{\itshape}\normalfont%
373
     \def\@begintheorem##1##2{%
374
375
           \LWR@inctheorem% lwarp
376
         \item[
377
     \InlineClass{theoremheaderremark}{##1\ ##2.}
378
           ]}%
```

```
379
     \def\@opargbegintheorem##1##2##3{%
380
           \LWR@inctheorem% lwarp
        \item[
381
     \InlineClass\{theoremheaderremark\}\{\#1\ \#2\ (\#3).\}
382
383
384
385 \gdef\th@nonumberremark{%
     \def\theorem@headerfont{\itshape}\normalfont%
     \def\@begintheorem##1##2{%
           \LWR@inctheorem% lwarp
388
         \item[
389
     \InlineClass{theoremheaderremark}{##1.}
390
           ]}%
391
     \def\@opargbegintheorem##1##2##3{%
392
393
           \LWR@inctheorem% lwarp
394
     \InlineClass{theoremheaderremark}{##1\ (##3).}
395
396
397
398 \gdef\th@proof{%
     \def\theorem@headerfont{\normalfont\bfseries}\itshape%
399
400
     \def\@begintheorem##1##2{%
           \LWR@inctheorem% lwarp
401
         \item[
402
     \InlineClass{theoremheaderproof}{##1.}
403
           ]}%
404
405
     \def\@opargbegintheorem##1##2##3{%
406
           \LWR@inctheorem% lwarp
407
408
     \InlineClass\{theoremheaderproof\}\{\#1\ (\#3).\}
           ]}}
409
410
411
412
413 \newcounter{proof}%
414 \if@thmmarks
415
       \newcounter{currproofctr}%
416
       \newcounter{endproofctr}%
417 \fi
418
419 \gdef\proofSymbol{\openbox}
421 \newcommand{\proofname}{Proof}
422
423 \newenvironment{proof}[1][\proofname]{
       \th@proof
424
       425
426
       \normalfont
427
       \theoremsymbol{\HTMLunicode{220E}}% UTF-8 end-of-proof
428
       \@thm{proof}{proof}{#1}
429 }%
430 {\@endtheorem}
432 }{}% amsthm option
```

§ 352.10 Ending a theorem

Patched for css:

```
433 \let\LWR@origendtheorem\@endtheorem
434 \renewcommand{\@endtheorem}{%
435 \ifbool{LWR@ntheoremmarks}{%
436 \ifsetendmark%
437 \InlineClass{theoremendmark}{\csname\InTheoType Symbol\endcsname}%
438 \setendmarkfalse%
439 \fi%
440 }{}%
441 \LWR@origendtheorem% also does \@endtrivlist
442 \ifbool{LWR@ntheoremmarks}{\global\setendmarktrue}{}%
443 \endBlockClass%
444 }
```

\$352.11 \NoEndMark

445 \gdef\NoEndMark{\global\setendmarkfalse}

§ 352.12 **List-of**

Redefined to reuse the float mechanism to add list-of-theorem links:

```
 \label{eq:continuous} $$ \left( 2: \# \right) \left( 3: optional \right) \left\{ \left( 4: page \right) \right\} $$ 446 \ensurement \left( 1 \right) \left\{ 1 \right\} \left\{ 4: page \right\} $$ 447 \ensurement \left( 1 \right) \left\{ 1 \right\} \left\{ 1 \right\} \left\{ 4: page \right\} $$ 448 $$ 449 $$ 1 \hookrightarrow \left( 1 \right) \left\{ 1 \right\} \left\{
```

This was redefined by ntheorem when loaded, so it is now redefined for lwarp:

453 \def\thm@@thmline{\thm@@thmline@name}

Patch for css:

```
454 \def\listtheorems#1{
455 \LWR@htmlelementclass{nav}{lothm}%
456 \begingroup
457 \c@tocdepth=-2%
458 \def\thm@list{#1}\thm@processlist
459 \endgroup
460 \LWR@htmlelementclassend{nav}{lothm}%
461 }
```

§ 352.13 **Symbols**

```
Proof QED symbol:
```

```
462 \mbox{ } {\quad\the\qedsymbol}
464 \AtBeginDocument{
465 \@ifundefined{LWR@orig@openbox}{
466 \LetLtxMacro\LWR@orig@openbox\openbox
467 \LetLtxMacro\LWR@orig@blacksquare\blacksquare
468 \LetLtxMacro\LWR@orig@Box\Box
470 \ensuremath{\mbox{\text{NTMLunicode{25A1}}}}\% \ UTF-8 \ white box
471 \def\blacksquare{\text{\HTMLunicode{220E}}}% UTF-8 end-of-proof
472 \left( \frac{5A1}{} \right)  UTF-8 white box
473
474 \appto\LWR@restoreorigformatting{%
475 \LetLtxMacro\openbox\LWR@orig@openbox%
476 \LetLtxMacro\blacksquare\LWR@orig@blacksquare%
477 \LetLtxMacro\Box\LWR@orig@Box%
478 }% appto
479 }{}% @ifundefined
480 }% AtBeginDocument
```

§ 352.14 Cross-referencing

```
\thref \{\langle label \rangle\}
```

481 \newcommand*{\thref}[1]{\cref{#1}}%

File 255 lwarp-octave.sty

§ 353 Package Octave

(Emulates or patches code by Andrew A. Cashner.)

Pkg octave octave is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{octave}[2017/10/31]

Remove the leading 1pt kern:

```
2 \RenewDocumentCommand{\@PrintTicks}{ m }{%
3 \kern-1pt% lwarp
4 \@TickNum = #1%
5 \loop
6 \@Tick{}%
7 \advance\@TickNum by -1
8 \ifnum\@TickNum > 0
9 \repeat
10 }
```

Use unicode for the prime character:

```
11 \ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\
```

Catch the inline font:

```
12 \RenewDocumentCommand{\pitch}{ m o m }{%
13 \if@OctaveNumber%
14 {%
      \pitchfont{%
15
           \LWR@textcurrentfont{% lwarp
16
               \MakeUppercase{#1}%
17
18
               \IfValueTF{#2}{#2}{}\textsubscript{#3}%
19
           }%
      }%
20
21 }%
22 \else%
23 {%
      \pitchfont{%
24
25
           \LWR@textcurrentfont{% lwarp
26
               \@GetOctaveTick{#1}[#2]{#3}%
27
28
      }%
29 }%
30 \fi%
31 }
```

The original was hard to adapt to lwarp's handling of &.

```
32 \StartDefiningTabulars
33 \renewcommand{\octavetable}{%
34 \begin{tabular}{ll}
35 \octaveprimes \pitch{C}{0} & \octavenumbers \pitch{C}{0} \\
36 \octaveprimes \pitch{C}{1} & \octavenumbers \pitch{C}{1} \\
37 \octaveprimes \pitch{C}{2} & \octavenumbers \pitch{C}{2} \\
38 \octaveprimes \pitch{C}{3} & \octavenumbers \pitch{C}{3} \\
39 \octaveprimes \pitch{C}{4} & \octavenumbers \pitch{C}{4} \\
40 \octaveprimes \pitch{C}{5} & \octavenumbers \pitch{C}{4} \\
41 \octaveprimes \pitch{C}{6} & \octavenumbers \pitch{C}{5} \\
41 \octaveprimes \pitch{C}{6} & \octavenumbers \pitch{C}{6} \\
42 \octaveprimes \pitch{C}{7} & \octavenumbers \pitch{C}{6} \\
43 \end{tabular}
44 }
45 \StopDefiningTabulars
```

File 256 lwarp-overpic.sty

§ 354 Package **OVERPIC**

(Emulates or patches code by Rolf Niepraschk.)

Pkg overpic overpic is patched for use by lwarp.

scaling The macros \overpicfontsize and \overpicfontskip are used during HTML gen-

eration. These are sent to \fontsize to adjust the font size for scaling differences between the print and HTML versions of the document. Renew these macros before using the overpic and Overpic environments.

See section 84.2 for the print-mode version of \overpicfontsize and \overpicfontskip.

```
for HTML output:
                    1 \LWR@ProvidesPackagePass{overpic}[2017/10/06]
                    2 \newcommand*{\overpicfontsize}{12}
                    3 \newcommand*{\overpicfontskip}{14}
                    5 \BeforeBeginEnvironment{overpic}{%
                    6
                         \begin{lateximage}%
                         \fontsize{\overpicfontsize}{\overpicfontskip}%
                         \selectfont%
                    8
                    9 }
                   11 \AfterEndEnvironment{overpic}{\end{lateximage}}
                   13 \BeforeBeginEnvironment{Overpic}{%
                         \begin{lateximage}%
                   15
                         \fontsize{\overpicfontsize}{\overpicfontskip}%
                   16
                         \selectfont%
                   17 }
                   19 \AfterEndEnvironment{Overpic}{\end{lateximage}}
         File 257
                  lwarp-pagegrid.sty
                  pagegrid
         Package
§ 355
                   pagegrid is ignored.
        pagegrid
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{pagegrid}[2016/05/16]
                    2 \newcommand*{\pagegridsetup}[1]{}
         File 258
                  lwarp-pagenote.sty
                  pagenote
§356
         Package
                   pagenote works as-is, but the page option is disabled.
        pagenote
  for HTML output:
                    1 \DeclareOption{page}{}
                    2 \LWR@ProvidesPackagePass{pagenote}[2009/09/03]
```

lwarp-pagesel.sty File 259 pagesel \$357 **Package** pagesel is ignored. pagesel for HTML output: 1 \LWR@ProvidesPackageDrop{pagesel}[2016/05/16] File 260 lwarp-paralist.sty Package paralist **§358** (Emulates or patches code by Bernd Schandl.) paralist is supported with minor changes. 1 \LWR@ProvidesPackagePass{paralist}[2017/01/22] for HTML output: The compact environments are identical to the regular ones: 2 \LetLtxMacro\compactitem\itemize 3 \LetLtxMacro\compactenum\enumerate 4 \LetLtxMacro\compactdesc\description 5 \LetLtxMacro\endcompactitem\enditemize $\begin{tabular}{ll} 6 \label{table} LetLtxMacro\endcompactenum\endenumerate \\ \end{tabular}$ 7 \LetLtxMacro\endcompactdesc\enddescription For the inline environments, revert \item to its original print-mode version: 8 \AtBeginEnvironment{inparaitem}{\LetLtxMacro\item\LWR@origitem} 9 \AtBeginEnvironment{inparaenum}{\LetLtxMacro\item\LWR@origitem} 10 \AtBeginEnvironment{inparadesc}{\LetLtxMacro\item\LWR@origitem} Manual formatting of the description labels: 11 \def\paradescriptionlabel#1{{\normalfont\textbf{#1}}} File 261 lwarp-parnotes.sty parnotes **§359** Package (Emulates or patches code by Chelsea Hughes.) parnotes is supported with some patches. parnotes

1 \LWR@ProvidesPackagePass{parnotes}[2016/08/15]

for HTML output:

```
2 \long\def\PN@parnote@real#1#2{%
      \parnotemark{#1}%
     % Unless this is the first parnote in \PN@text, add a separator first
4
     5
     % Redefine \@currentlabel to the parnote label, so \label works
6
      \g@addto@macro\PN@text{%
7
           \phantomsection%
8 %
9
         \def\@currentlabel{#1}%
10
         \def\cref@currentlabel{%
                                         lwarp
             [parnotemark][\arabic{parnotemark}][]\theparnotemark%
11
         }%
12
     }%
13
      \g@addto@macro\PN@text{%
14
15
         \LWR@textcurrentfont{%
                                         lwarp
16
              \parnotemark{#1}\nolinebreak\thinspace#2%
         }%
17
     }%
18
19 }
20
21 \def\PN@parnotes@real{%
22
     % We call \par later, so this avoids recursion with \PN@parnotes@auto
23
     \PN@inparnotestrue
     \unless\ifvmode\par\fi
24
     % Avoid page breaks between a paragraph and its parnotes
25
     \nopagebreak\addvspace{\parnotevskip}%
26
27
     \LWR@forcenewpage%
                                         lwarp
28
     \verb|\begin{BlockClass|{footnotes}||%
                                         lwarp
29
     {\parnotefmt{\PN@text}\par}%
      \end{BlockClass}%
                                         lwarp
30
      \global\def\PN@text{}%
31
     \addvspace{\parnotevskip}%
32
33
     % These can be enabled or disabled by package options
34
35
36
     \PN@disable@indent
37
      \PN@reset@optional
38
      \PN@inparnotesfalse
39 }
40
41 \AtBeginDocument{
42 \crefname{parnotemark}{paragraph note}{paragraph notes}%
43 \Crefname{parnotemark}{Paragraph note}{Paragraph notes}
44 }
```

File 262 lwarp-parskip.sty

```
§360 Package parskip
```

Pkg parskip parskip is ignored.

for HTML output: Discard all options for lwarp-parskip.

1 \LWR@ProvidesPackageDrop{parskip}[2001/04/09]

lwarp-pbox.sty File 263 pbox Package \$361 (Emulates or patches code by Simon Law.) pbox is emulated. Pkg pbox for HTML output: 1 \LWR@ProvidesPackageDrop{pbox}[2011/12/07] $2 \ensuremath{\mbox}{0{t} 0{t} m +m}{\%}$ 3 \global\booltrue{LWR@minipagefullwidth}% 4 \parbox[#1][#2][#3]{#4}{#5}% 5 } 7 \newcommand{\settominwidth}[3][\columnwidth]{% 8 \settowidth{#2}{#3}% 9 } 10 11 \newcommand{\widthofpbox}[1]{% 12 \widthof{#1}% 13 } lwarp-pdfcomment.sty File 264 pdfcomment Package § 362 pdfcomment is ignored. pdfcomment Pkg for HTML output: 1 \LWR@ProvidesPackageDrop{pdfcomment}[2016/06/13] 2 \newenvironment{pdfsidelinecomment}[2][]{}{} 3 \newcommand{\pdfcomment}[2][]{} 4 \newcommand{\pdfmargincomment}[2][]{} 5 \newcommand{\pdfmarkupcomment}[3][]{#2} 6 \newcommand{\pdffreetextcomment}[2][]{} 7 \newcommand{\pdfsquarecomment}[2][]{}

8 \newcommand{\pdfcirclecomment}[2][]{}
9 \newcommand{\pdflinecomment}[2][]{}
10 \newcommand{\pdftooltip}[3][]{#2}
11 \newcommand{\pdfcommentsetup}[2][]{}
12 \newcommand{\listofpdfcomments}[1][]{}
13 \newcommand{\setliststyle}[1]{}
14 \newcommand{\defineliststyle}[2]{}
15 \newcommand{\defineavatar}[2]{}
16 \newcommand{\definestyle}[2]{}

File 265 lwarp-pdflscape.sty

§ 363 Package pdflscape

Pkg pdflscape pdflscape is ignored.

for HTML output: Discard all options for lwarp-pdflscape:

1 \LWR@ProvidesPackageDrop{pdflscape}[2016/05/14]

File 266 lwarp-pdfmarginpar.sty

§ 364 Package pdfmarginpar

Pkg pdfmarginpar pdfmarginpar is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{pdfmarginpar}[2011/08/05]

 $3 \rightarrow \{ \sqrt{1} \}$

File 267 lwarp-pdfpages.sty

§ 365 Package pdfpages

(Emulates or patches code by Andreas Matthias.)

Pkg pdfpages pdfpages is patched for use by lwarp.

Option link and linkname work:

\hyperlink{<filename>.pdf.<pagenubmer}}{some text}
\hyperlink{<linkname>.<pagenubmer}}{some text}</pre>

Options which make no sense in HTML are disabled.

for HTML output: 1 \LWR@ProvidesPackagePass{pdfpages}[2017-10-31]

Disable option which have no meaning for HTML output:

2 \define@key{pdfpages}{fitpaper}[false]{}
3 \define@key{pdfpages}{landscape}[false]{}

```
4 \define@key{pdfpages}{openright}[false]{}
                      5 \define@key{pdfpages}{signature}{}
                      6 \define@key{pdfpages}{signature*}{}
                      7 \define@key{pdfpages}{booklet}[false]{}
                      8 \define@key{pdfpages}{rotateoversize}[false]{}
                      9 \define@key{pdfpages}{doublepages}[false]{}
                     10 \define@key{pdfpages}{doublepagestwist}[false]{}
                     11 \define@key{pdfpages}{doublepagestwistodd}[false]{}
                     12 \define@key{pdfpages}{doublepagestwist*}[false]{}
                     13 \define@key{pdfpages}{doublepagestwistodd*}[false]{}
                     14 \define@key{pdfpages}{duplicatepages}[2]{}
                     15 \define@key{pdfpages}{thread}[false]{}
                     16 \define@key{pdfpages}{threadname}{}
                     17 \define@key{pdfpages}{linkfit}{}
                     18 \define@key{pdfpages}{linktodoc}[false]{}
                     19 \define@key{pdfpages}{linktodocfit}{}
                     20 \define@key{pdfpages}{linkfilename}{}
                     21 \define@key{pdfpages}{survey}[false]{}
                     22 \define@key{pdfpages}{survey-nolink}[false]{}
                     23 \define@key{pdfpages}{newwindow}[false]{}
                    Use print mode while measuring the page numbers:
                     Emulate a bit of eso-pic:
                     25 \newif\ifESO@texcoord
                     26
                     27 \newcommand{\ESO@HookIIBG}{}
                     29 \renewcommand{\AM@AddToShipoutPicture}{\g@addto@macro\ESO@HookIIBG}
                     31 \renewcommand{\ClearShipoutPicture}{}
                      At each \newpage.
\LWR@esopic@newpage
                     32 \newcommand*{\LWR@esopic@newpage}{%
                    Is there something to draw?
                     33 \ifdefvoid{\ESO@HookIIBG}%
                     34 {}%
                     35 {%
                    If the link option was specified, add a hyper taraget:
                           \ifAM@link%
                     37
                               \hypertarget{\AM@linkname.\AM@page}{}%
                    Draw inside a picture environment of the size of a virtual page:
                           \begingroup%
                     39
                           \setlength{\unitlength}{1in}%
                     40
                           \begin{picture}(8,10.5)%
                     41
                           \ESO@HookIIBG%
                     42
```

```
43
                          \end{picture}%
                    44
                          \endgroup%
                          \global\let\ESO@HookIIBG\@empty%
                    45
                    46 }
                    47 }
                     Patched to use \LWR@esopic@newpage.
       \AM@output
                    48 \xpatchcmd{\AM@output}
                          {\newpage}
                          {\LWR@esopic@newpage}
                    50
                    51
                          {}
                    52
                          {\LWR@patcherror{pdfpages}{AM@output-1}}
                    53
                    54 \xpatchcmd{\AM@output}
                          {\newpage}
                    55
                          {\LWR@esopic@newpage}
                    56
                    57
                          {\LWR@patcherror{pdfpages}{AM@output-2}}
                    58
                    60 \xpatchcmd{\AM@output}
                          {\newpage}
                    61
                          {\LWR@esopic@newpage}
                    62
                    63
                          {}
                          {\LWR@patcherror{pdfpages}{AM@output-3}}
                    64
      \includepdf
                     Patched to set a reasonable paper size.
                    65 \xpretocmd{\includepdf}{%
                          \begingroup%
                          \setlength{\paperwidth}{8in}%
                          \setlength{\paperheight}{10.5in}%
                    68
                    69 }{}{}
                    71 \xapptocmd{\includepdf}{%
                          \endgroup%
                    73 }{}{}
 \includepdfmerge
                     Patched to set a reasonable paper size.
                    74 \xpretocmd{\includepdfmerge}{%
                          \begingroup%
                    75
                          \setlength{\paperwidth}{8in}%
                    76
                          \setlength{\paperheight}{10.5in}%
                    77
                    78 }{}{}
                    79
                    80 \xapptocmd{\includepdfmerge}{%
                          \endgroup%
                    82 }{}{}
\AM@hyper@begin@i
                     Hyper links are created by \LWR@esopic@newpage, so don't create them here:
                    83 \renewcommand{\AM@hyper@begin@i}{}
```

lwarp-pdfprivacy.sty File 268 pdfprivacy Package \$366 pdfprivacy is ignored. pdfprivacy for HTML output: 1 \LWR@ProvidesPackageDrop{pdfprivacy}[2017/12/03] lwarp-pdfrender.sty File 269 pdfrender \$367 Package pdfrender is ignored. Pkg pdfrender for HTML output: 1 \LWR@ProvidesPackageDrop{pdfrender}[2016/05/17] 2 \newcommand*{\pdfrender}[1]{} 3 \newcommand{\textpdfrender}[2]{#2} lwarp-pdfsync.sty File 270 pdfsync **§ 368** Package (Emulates or patches code by J. Laurens.) Pkg pdfsync Emulated. Discard all options for lwarp-pdfsync: for HTML output: 1 \LWR@ProvidesPackageDrop{pdfsync}[2008/01/26] 2 \newcommand*{\pdfsync}{} 3 \newcommand*{\pdfsyncstart}{} 4 \newcommand*{\pdfsyncstop}{} File 271 lwarp-pdftricks.sty pdftricks Package \$369 (Emulates or patches code by C. V. Radhakrishnan, C. V. Rajagopal, Antoine Chambert-Loir.) pdftricks pdftricks is patched for use by lwarp.

 The pdftricks image files <jobname>-fig*.pdf must be converted to .svg, or else a missing file error will occur. The image files must also be converted again whenever they change. To convert the images:

```
Enter ⇒ lwarpmk pdftosvg <jobname>-fig*.pdf
```

for HTML output:

1 \LWR@ProvidesPackagePass{pdftricks}[2003/08/10]

Reuse the print-mode images:

```
2 \def\PDFTfigname{\BaseJobname-fig\thepsfig}
```

If the .pdf images have not yet been converted to .svg then an error about a missing file will occur. Warn the user to convert the images.

```
3 \PackageWarning{lwarp-pdftricks}{
4 When the pdftricks images change,
5 remember to convert PDF images to SVG using 'lwarpmk pdftosvg *-fig.pdf',
6 }
7
8 \AfterEndDocument{\typeout{***}}
9 \AfterEndDocument{\typeout{*** Note: If pdftricks images are not found, new, or updated,}}
10 \AfterEndDocument{\typeout{*** \space use 'lwarpmk pdftosvg \BaseJobname-fig*.pdf'}}
11 \AfterEndDocument{\typeout{***}}
```

File 272 lwarp-pdfx.sty

§ 370 Package

Package pdfx

Pkg pdfx pdfx is ignored.

for HTML output:

1 \LWR@ProvidesPackageDrop{pdfx}[2017/05/18]

File 273 lwarp-perpage.sty

§ 371 Package

perpage

(Emulates or patches code by David Kastrup.)

Pkg perpage

perpage is mostly ignored, but support is added for footnote counters.

There is no page number in HTML, so most counters are not reset. If the document redefines \the<countername> to include \theperpage, it is necessary to place that redefininition inside a warpprint environment to avoid modifying the HTML defintions.

\AddAbsoluteCounter must not be inside warpprint, as the counter must be added for HTML also, although it is not incremented.

footnote numbering To have footnote numbers reset each time footnotes are printed:

```
\setcounter{footnoteReset}{1}
For bigfoot, manyfoot, or perpage:
  \MakePerPage{footnoteX}
  — or —
```

\MakeSortedPerPage{footnoteX}

The footnotes are reset when they are printed, according to section level as set by FootnoteDepth, which is not necessarily by HTML page. This is recommended for \alph, \Alph, or \fnsymbol footnotes, due to the limited number of symbols which are available.

for HTML output:

```
1 \LWR@ProvidesPackageDrop{perpage}[2014/10/25]
```

```
2 \newcommand\AddAbsoluteCounter[1]
3 {
 4
      \@ifundefined{c@abs#1}{%
           \expandafter\newcount\csname c@abs#1\endcsname
 5
           \global\value{abs#1}\@ne
 6
7 %
             \global\expandafter\let\csname cl@abs#1\endcsname\@empty
           \verb|\expandafter| x def| csname the abs#1 end csname{% }
 8
                 \noexpand\number \csname c@abs#1\endcsname
9 %
           }%
10
             \global\@namedef{c@pabs@#1}{\pp@cl@begin
11 %
12 %
             \stepcounter{abs#1}%
             \pp@cl@end}%
13 %
14 %
             \@addtoreset{pabs@#1}{#1}
      }
15
16
      {}
17 }
19 \AddAbsoluteCounter{page}
20 \def\theabspage{1}
21
22 \newcommand*\MakePerPage[2][1]{%
      \ifltxcounter{#2Reset}{%
           \setcounter{#2Reset}{#1}%
24
25
      }{
26
27 }%
28 }
29
30 \newcommand*\MakeSorted[1]{}
32 \newcommand*\MakeSortedPerPage[2][1]{%
      \ifltxcounter{#2Reset}{%
33
           \setcounter{#2Reset}{#1}%
34
35
      }{
36 }%
37 }
39 \newcommand*{\theperpage}{1}
```

File 274 lwarp-pfnote.sty

§ 372 Package pfnote

Pkg pfnote pfnote is emulated.

pfnote numbers

While emulating pfnote, lwarp is not able to reset HTML footnote numbers per page number to match the printed version, as HTML has no concept of page numbers. lwarp therefore uses continuous footnote numbering even for pfnote.

for HTML output: 1 \LWR@ProvidesPackageDrop{pfnote}[1999/07/14]

File 275 lwarp-phfqit.sty

§ 373 Package phfqit

(Emulates or patches code by Philippe Faist.)

Pkg phfqit phfqit is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{phfqit}[2017/08/16]

2 \LetLtxMacro\LWR@origbitstring\bitstring
3
4 \renewcommand\bitstring[1]{%
5 \InlineClass[%
6 text-decoration: overline underline;
7]{bitstring}{#1}%
8 % \phfqit@bitstring{#1}%
9 }
10
11 \appto\LWR@restoreorigformatting{%
12 \LetLtxMacro\bitstring\LWR@origbitstring%
13 }

File 276 lwarp-pifont.sty

§374 Package **pifont**

(Emulates or patches code by Walter Schmidt.)

Pkg pifont pifont is patched for use by Iwarp.

Hashed inline images are used, as there may not be Unicode support for all icons.

for HTML output: 1 \LWR@ProvidesPackagePass{pifont}[2005/04/12]

```
2 \renewcommand{\Pisymbol}[2]{%
3  \begin{lateximage}*[(Pisymbol)][pisymbol#1#2]%
4  {\Pifont{#1}\char#2}%
5  \end{lateximage}%
6 }
7
8 \newcommand{\LWR@HTML@Pifill}[2]{
9  \Pisymbol{#1}{#2} \Pisymbol{#1}{#2}
10 }
11 \LWR@formatted{Pifill}
12
13 \newcommand{\LWR@HTML@Piline}[2]{%
14  \par\noindent\hspace*{0.5in}
15  \Pifill{#1}{#2} \Pifill{#1}{#2} \Pifill{#1}{#2}
16 }
17 \LWR@formatted{Piline}
```

File 277 lwarp-placeins.sty

§ 375 Package placeins

(Emulates or patches code by Donald Arseneau.)

Pkg placeins placeins is not used during HTML conversion.

Discard all options for lwarp-placeins:

for HTML output: 1 \LWR@ProvidesPackageDrop{placeins}[2005/04/18]

2 \newcommand*{\FloatBarrier}{}

File 278 lwarp-plarydshln.sty

§ 376 Package plarydshin

Pkg plarydshln is emulated by lwarp-arydshln.

for HTML output: 1 \LWR@ProvidesPackageDrop{plarydshln}[2018/10/20]

2 \LWR@origRequirePackage{lwarp-arydshln}

File 279 lwarp-plext.sty

§377 Package plext

Pkg plext plext is preloaded by jtarticle and related classes.

for HTML output:

```
1 \LWR@loadbefore{plext}
 3 \LWR@ProvidesPackagePass{plext}[2017/07/21]
 4 \let\tate\relax
 6 \DeclareExpandableDocumentCommand{\rensuji}{s o m}{#3}
 8% \layoutfloat(width,height)[pos]#4
 9 \DeclareDocumentCommand{\layoutfloat}{d() o m}{}
11 % \DeclareLayoutCaption{type} <dir>(width)[pos1pos2]
12 \DeclareDocumentCommand{\DeclareLayoutCaption}{m d<> d() o}{}
14 \LetLtxMacro\pcaption\caption
16 % \layoutcaption<dir>(width)[pos]
17 \DeclareDocumentCommand{\layoutcaption}{d<> d() o}{}
19 \let\captiondir\relax
Add the optional <t/y> direction:
20 \RenewDocumentEnvironment{LWR@HTML@minipage}{d<> O{t} O{t} m}
      {\LWR@HTML@sub@minipage{#2}{#3}{#4}{#5}}
      {\endLWR@HTML@sub@minipage}
24 \RenewDocumentCommand{\LWR@HTML@parbox}{d<> 0{t} 0{t} m +m}
26 \LWR@traceinfo{parbox of width #4}%
27 \begin{minipage}[#2][#3][#4]{#5}%
28 #6
29 \end{minipage}%
30 }
31
32 % \pbox <t/y> [width] [l/r] {contents}
33 \ensuremath{\mbox}{d<> 0{0pt} 0{c} m}{%}
34 \global\booltrue{LWR@minipagefullwidth}%
35 \parbox{#2}{#4}%
36 }
picture, as modified by pext, is encapsulated by the lwarp core.
```

File 280 lwarp-plextarydshln.sty

```
plextarydshln
      Package
§378
```

plextarydshln is emulated by lwarp-arydshln. Pkg plextarydshln

for HTML output: 1 \LWR@ProvidesPackageDrop{plextarydshln}[2018/10/20] 2 \LWR@origRequirePackage{lwarp-arydshln}

File 281 lwarp-plextcolortbl.sty plextcolortbl Package §379 plextcolortbl is emulated by lwarp-colortbl. plextcolortbl 1 \LWR@ProvidesPackageDrop{plextcolortbl}[2018/09/19] for HTML output: 2 \LWR@origRequirePackage{lwarp-colortbl} File 282 lwarp-prelim2e.sty prelim2e Package \$380 (Emulates or patches code by Martin Schröder.) Emulated. prelim2e Discard all options for lwarp-prelim2e: for HTML output: 1 \LWR@ProvidesPackageDrop{prelim2e}[2009/05/29] 2 \newcommand{\PrelimText}{} 3 \newcommand{\PrelimTextStyle}{} 4 \newcommand{\PrelimWords}{} File 283 lwarp-prettyref.sty prettyref Package \$381 (Emulates or patches code by Kevin S. Ruland.) prettyref is patched for use by lwarp. Pkg prettyref 1 \LWR@ProvidesPackagePass{prettyref}[1998/07/09] for HTML output: 2 \newrefformat{fig}{Figure \ref{#1}} 3 \newrefformat{tab}{Table \ref{#1}} File 284 lwarp-preview.sty preview Package § 382

preview preview is ignored.

for HTML output:

```
1 \LWR@ProvidesPackageDrop{preview}[2017/04/24]
```

```
2 \newenvironment{preview}{}{}
3 \newenvironment{nopreview}{}{}
```

- 5 \NewDocumentCommand{\PreviewEnvironment}{s o o +m}{}
- 6 \newcommand{\PreviewSnarfEnvironment}[2][]{}
- 7 \NewDocumentCommand{\PreviewOpen}{s o}{}
- 8 \NewDocumentCommand{\PreviewClose}{s o}{}
- 9 \let\ifPreview\iffalse% \fi for syntax highlighting

File 285 lwarp-psfrag.sty

§ 383 Package

Package psfrag

(Emulates or patches code by Michael C. Grant, David Carlisle.)

Pkg psfrag psfrag is patched for use by lwarp.

The psfrags environment is modified to use lateximage to encapsulate the image. Always use a psfrags environment to contain any local \psfrag macros and the associated \includegraphics or \epsfig calls. Outside of a psfrags environment, psfrags adjustments will not be seen by lwarp.

 \triangle

Tip: Use a mono-spaced font for the tags in the EPS file.

for HTML output:

1 \LWR@ProvidesPackagePass{psfrag}[1998/04/11]

A lateximage captures the modified image from the document.

```
2 \BeforeBeginEnvironment{psfrags}{%
3    \begin{lateximage}[(-psfrags-~\packagediagramname)]%
4 }
5
6 \AfterEndEnvironment{psfrags}{\end{lateximage}}
```

File 286 lwarp-psfragx.sty

§ 384 Package

Package psfragx

(Emulates or patches code by PASCAL KOCKAERT.)

Pkg psfragx psfragx is patched for use by lwarp.

for HTML output:

1 \LWR@ProvidesPackagePass{psfragx}[2012/05/02]

A lateximage captures the modified image from the document.

```
2 \def\pfx@includegraphicx#1#2{%
```

```
3
               \begin{lateximage}[(-psfragx-~\packagediagramname)]%
               \mbox{\pfx@overpix{#1}{#2}\endpfx@overpix}%
               \end{lateximage}%
          5
         6 }
         8 \def\@@overpix[#1]<#2>[#3]#4{%
               \begin{lateximage}[(-psfragx-~\packagediagramname)]%
               \pfx@overpix{#1,ovpfgd={#2},ovpbgd={#3}}{#4}%
         10
         11 }
         12
         13 \def\endoverpix{%
         14
               \endpfx@overpix%
               \end{lateximage}%
         15
         16 }
        lwarp-pst-eps.sty
       pst-eps
        (Emulates or patches code by Herbert Voss.)
        pst-eps is patched for use by lwarp.
          1 \LWR@ProvidesPackagePass{pst-eps}[2005/05/20]
         2 \renewenvironment{TeXtoEPS}{}{}
         3 \renewcommand{\PSTtoEPS}[3][]{}
        lwarp-pstool.sty
        pstool
        (Emulates or patches code by Zebb Prime, Will Robertson.)
pstool pstool is patched for use by lwarp.
        \graphicspath is ignored, and the file directory must be stated.
        The filename must not have a file extension.
        Use
                      lwarpmk html
             \mathsf{Enter} \Rightarrow
        followed by
             Enter \Rightarrow
                      lwarpmk limages
         1 \LWR@ProvidesPackagePass{pstool}[2018/01/20]
```

File 287

Package

File 288

Package

path and filename

for HTML output:

Pkg pst-eps

for HTML output:

§ 385

§386

 \triangle

Each image is placed inside a lateximage to capture the results of psfrag.

```
2 \renewcommand\pstool@alwaysprocess[3][]{%
                      \begin{lateximage}[(-pstool-~\packagediagramname)]%
                      \includegraphics{#2.pdf}%
                      \end{lateximage}%
                 5
                 6 }
                 7 \LetLtxMacro\pstool@neverprocess\pstool@alwaysprocess
                 8 \LetLtxMacro\pstool@maybeprocess\pstool@alwaysprocess
                 9
                10 \renewcommand\pstool@@psfragfig[4]{%
                      \begin{lateximage}[(-pstool-~\packagediagramname)]%
                12
                      \includegraphics{#2.pdf}%
                13
                      \end{lateximage}%
                14 }
                lwarp-pstricks.sty
      Package pstricks
                (Emulates or patches code by Timothy Van Zandt.)
                pstricks is patched for use by lwarp.
use pspicture All pstricks content should be contained inside a pspicture environment.
                 1 \LWR@ProvidesPackagePass{pstricks}[2018/01/06]
                 2 \BeforeBeginEnvironment{pspicture}{\begin{lateximage}[(pspicture)]}
                 3 \AfterEndEnvironment{pspicture}{\end{lateximage}}
                lwarp-pxatbegshi.sty
                pxatbegshi
                pxatbegshi is ignored.
                 1 \LWR@ProvidesPackageDrop{pxatbegshi}[2017/11/04]
                 2 \LWR@origRequirePackage{lwarp-atbegshi}
       File 291 lwarp-pxeveryshi.sty
```

File 289

for HTML output:

File 290

Package

Package

pxeveryshi

pxeveryshi is ignored.

pxatbegshi

for HTML output:

\$387

\$388

\$389

```
for HTML output:
                    1 \LWR@ProvidesPackageDrop{pxeveryshi}[2012/05/19]
                    2 \LWR@origRequirePackage{lwarp-everyshi}
                  lwarp-pxftnright.sty
         File 292
         Package pxftnright
§ 390
                   pxftnright is ignored.
      pxftnright
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{pxftnright}[2017/02/28]
                    2 \LWR@origRequirePackage{lwarp-ftnright}
         File 293 lwarp-pxjahyper.sty
         Package pxjahyper
$391
                   pxjahyper is ignored.
   Pkg pxjahyper
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{pxjahyper}[2018/07/15]
                  lwarp-quotchap.sty
         File 294
                  quotchap
$392
         Package
                   (Emulates or patches code by Karsten Tinnefeld, Jan Klever.)
                   quotchap is emulated.
    Pkg quotchap
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{quotchap}[2012/10/20]
                    2 \newcommand{\@quotchap}{}
                    3 \newlength{\LWR@quotchapwidth}
                    5 \let\@printcites\relax
                    7 \newcommand*{\@iprintcites}{%
                   Place the quotes inside a <div> of class quotchap, of the maximum selected width:
                    8 \begin{BlockClass}[max-width: \LWR@printlength{\LWR@quotchapwidth}]{quotchap}
                    9 %\begin{minipage}{\LWR@quotchapwidth}
                   10 \@quotchap
                   11 %\end{minipage}
                   12 \end{BlockClass}
```

```
Deactivate the quote printing:
                   13 \global\let\@printcites\relax
                   14 }
                   16 \NewEnviron{savequote}[1][\linewidth]{%
                  Remember the width, adjusted for HTML, and make the length assignment global,
                  https://tex.stackexchange.com/questions/300823/
                        why-is-setlength-ineffective-inside-a-tabular-environment
                   17 \setlength{\LWR@quotchapwidth}{#1*2}%
                   18 \global\LWR@quotchapwidth=\LWR@quotchapwidth%
                  Remember the body, and activate the quote printing:
                   19 \global\let\@quotchap\BODY
                   20 \global\let\@printcites\@iprintcites%
                   21 }
                  The quotation author is placed inside a <div> of class gauthor:
                   22 \newcommand{\qauthor}[1]{\begin{BlockClass}{qauthor}{#1}\end{BlockClass}}
                  \qsetcnfont is ignored:
                   23 \newcommand{\qsetcnfont}[1]{}
         File 295 lwarp-quoting.sty
                  quoting
§ 393
         Package
                  (Emulates or patches code by Thomas Titz.)
                  quoting is patched for use by lwarp.
    Pkg quoting
  for HTML output:
                   1 \LWR@ProvidesPackagePass{quoting}[2014/01/28]
                   {\begin{LWR@blocktextcurrentfont}\quo@begintext}
                        {\LWR@patcherror{quoting}{quoting}}
                   7 \xpatchcmd{\endquoting}{\quo@endtext}
                        {\quo@endtext\end{LWR@blocktextcurrentfont}}
                   10
                        {\LWR@patcherror{imakeidx}{endquoting}}
```

```
lwarp-ragged2e.sty
          File 296
                   ragged2e
         Package
$394
                   (Emulates or patches code by Martin Schröder.)
        ragged2e
                   ragged2e is not used during HTML conversion.
    Pkg
                   Discard all options for lwarp-ragged2e:
                    1 \LWR@ProvidesPackageDrop{ragged2e}[2009/05/21]
  for HTML output:
                    2 \LetLtxMacro\Centering\centering
                    3 \LetLtxMacro\RaggedLeft\raggedleft
                    4 \LetLtxMacro\RaggedRight\raggedright
                    5 \newcommand*{\justifying}{}
                    6 \newlength{\CenteringLeftskip}
                    7 \newlength{\RaggedLeftLeftskip}
                    8 \newlength{\RaggedRightLeftskip}
                    9 \newlength{\CenteringRightskip}
                    10 \newlength{\RaggedLeftRightskip}
                    11 \newlength{\RaggedRightRightskip}
                    12 \newlength{\CenteringParfillskip}
                    13 \newlength{\RaggedLeftParfillskip}
                    14 \newlength{\RaggedRightParfillskip}
                    15 \newlength{\JustifyingParfillskip}
                    16 \newlength{\CenteringParindent}
                    17 \newlength{\RaggedLeftParindent}
                    18 \newlength{\RaggedRightParindent}
                    19 \newlength{\JustifyingParindent}
                    20 \newenvironment*{Center}{\center}{\endcenter}
                    21 \newenvironment*{FlushLeft}{\flushleft}{\endflushleft}
                    22 \newenvironment*{FlushRight}{\flushright}{\endflushright}
                    23 \newenvironment*{justify}{\justifying}{\endjustifying}
          File 297 lwarp-realscripts.sty
         Package realscripts
$395
                   (Emulates or patches code by Will Robertson.)
     realscripts
                   realscripts is emulated. See lwarp.css for the <span> of class supsubscript.
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{realscripts}[2016/02/13]
                    2 \let\realsuperscript\textsuperscript
                    3 \let\realsubscript\textsubscript
                    4
```

```
5 \let\fakesuperscript\textsuperscript
 6 \let\fakesubscript\textsubscript
8 \newlength{\subsupersep}
10 \newcommand*{\LWR@realscriptsalign}{}
12 \newcommand*{\LWR@setrealscriptsalign}[1]{%
      \renewcommand*{\LWR@realscriptsalign}{}%
      \left\{ \left( \frac{\#1}{c} \right) \right\}
14
          \renewcommand{\LWR@realscriptsalign}{%
15
               \LWR@print@mbox{text-align:center}; %
16
          }%
17
18
      }{}%
19
      \left( \frac{\#1}{r} \right)
          \renewcommand{\LWR@realscriptsalign}{%
20
               \LWR@print@mbox{text-align:right} ; %
21
22
          }%
      }{}%
23
24 }
25
26 \DeclareDocumentCommand \textsubsuperscript {s O{l} mm} {%
      \LWR@setrealscriptsalign{#2}%
27
      \InlineClass[\LWR@realscriptsalign]{supsubscript}{%
28
          \textsuperscript{#4}\textsubscript{#3}%
29
      }%
30
31 }
33 \DeclareDocumentCommand \textsupersubscript {s O{l} mm} {%
      \LWR@setrealscriptsalign{#2}%
34
      \InlineClass[\LWR@realscriptsalign]{supsubscript}{%
35
          \textsubscript{#4}\textsuperscript{#3}%
36
      }%
37
38 }
```

File 298 lwarp-refcheck.sty

File 299 lwarp-register.sty

§ 397 Package register

(Emulates or patches code by MATTHEW LOVELL.)

Pkg register register is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{register}[2019/01/01]

```
2 \xpatchcmd{\register}
      {\centering}
      {\begin{center}\begin{lateximage}[(-register-~\packagediagramname)]}
 5
      {\LWR@patcherror{register}{register}}
 6
 8 \xpatchcmd{\endregister}
      {\leftskip}
10
      {%
          \end{lateximage}\end{center}%
11
          \leftskip%
12
      }%
13
14
      {}
      {\LWR@patcherror{register}{endregister}}
15
16
17 \expandafter\xapptocmd\csname register*\endcsname
      {\begin{center}\begin{lateximage}[(-register-~\packagediagramname)]}
18
19
      {}
20
      {\LWR@patcherror{register}{register*}}
21
22 \expandafter\xpatchcmd\csname endregister*\endcsname
      {\leftskip}
23
24
      {%
          \end{lateximage}\end{center}%
25
          \leftskip%
26
27
      }%
28
      {\LWR@patcherror{register}{endregister*}}
31 \setlength{\regWidth}{5in}
```

File 300 lwarp-relsize.sty

§ 398 Package relsize

(Emulates or patches code by Donald Arseneau, Bernie Cosell, Matt Swift.)

Pkg relsize relsize is patched for use by lwarp.

For HTML, only the inline macros are supported: \textlarger, \textsmaller, and \textscale. Each becomes an inline span of a modified font-size.

\relsize, \larger, \smaller, and \relscale are ignored.

While creating svg math for HTML, the original definitions are temporarilty restored, and so should work as expected.

not small The HTML browser's setting for minumum font size may limit how small the output will be displayed.

for HTML output: 1 \LWR@ProvidesPackagePass{relsize}[2013/03/29]

```
2 \let\LWR@origrelsize\relsize
3 \LetLtxMacro\LWR@origlarger\larger
4 \LetLtxMacro\LWR@origsmaller\smaller
5 \let\LWR@relscale\relscale
6 \LetLtxMacro\LWR@origtextlarger\textlarger
7 \LetLtxMacro\LWR@origtextsmaller\textsmaller
8 \let\LWR@textscale\textscale
10 \appto\LWR@restoreorigformatting{%
11 \let\relsize\LWR@origrelsize%
12 \LetLtxMacro\larger\LWR@origlarger%
13 \LetLtxMacro\smaller\LWR@origsmaller%
14 \let\relscale\LWR@relscale%
15 \LetLtxMacro\textlarger\LWR@origtextlarger%
16 \LetLtxMacro\textsmaller\LWR@origtextsmaller%
17 \let\textscale\LWR@textscale%
18 }
19
20 \newcounter{LWR@relsizetemp}
22 \renewcommand*{\relsize}[1]{}
23 \renewcommand*{\larger}[1][]{}
24 \renewcommand*{\smaller}[1][]{}
25 \renewcommand*{\relscale}[1]{}
27 \renewcommand*{\textlarger}[2][1]{%
28 \setcounter{LWR@relsizetemp}{100+(#1*20)}%
29 \InlineClass[font-size:\arabic{LWR@relsizetemp}\%]{textlarger}{#2}%
30 }
32 \renewcommand*{\textsmaller}[2][1]{%
33 \setcounter{LWR@relsizetemp}{100-(#1*20)}%
34 \InlineClass[font-size:\arabic{LWR@relsizetemp}\%]{textsmaller}{#2}%
35 }
36
37 \renewcommand*{\textscale}[2]{%
38 \setcounter{LWR@relsizetemp}{100*\real{#1}}%
39 \InlineClass[font-size:\arabic{LWR@relsizetemp}\%]{textscale}{#2}%
40 }
```

File 301 lwarp-repeatindex.sty

§ 399 Package repeatindex

Pkg repeatindex repeatindex is emulated for lwarp.

lwarp must be used with a special style file:

\usepackage[makeindex,makeindexStyle={lwarp_repeatindex}]{lwarp}

where lwarp_repeatindex.ist may be copied from the following modified version of lwarp.ist:

```
preamble
"\\begin{theindex}
  \\providecommand*\\lettergroupDefault[1]{}
  \\providecommand*\\lettergroup[1]{%
      \protect\
      \\nopagebreak
  }
headings_flag 1
heading_prefix "
 \\lettergroup{"
heading_suffix "}"
delim_0 "], \\hyperindexref{"
delim_1 ", \\hyperindexref{"
delim_2 ", \\hyperindexref{"
delim_n "}, \\hyperindexref{"
delim_r "} -- \\hyperindexref{"
delim_t "}"
item_0 "\n \land ["
```

(The modifications are the delim_0 and item_0 entries.)

for HTML output:

1 \LWR@ProvidesPackageDrop{repeatindex}[2001/10/13]

In the lwarp core, $\LWR@indexitem$ is modified to accept the optional $\int memory argument.$

```
2 \RequirePackage{makeidx}
3 \def\entryprefix{\itshape}
4 \def\entrypostfix{\dots}
```

```
File 302 lwarp-resizegather.sty
                  resizegather
         Package
§ 400
                   resizegather is ignored.
 Pkg resizegather
   for HTML output:
                    1 \LWR@ProvidesPackageDrop{resizegather}[2016/05/16]
                    2 \newcommand*{\resizegathersetup}[1]{}
                  lwarp-rmpage.sty
          File 303
                  rmpage
§ 401
         Package
                   rmpage is ignored.
      Pkg
          rmpage
                    1 \LWR@ProvidesPackageDrop{rmpage}[1997/09/29]
   for HTML output:
          File 304 lwarp-romanbar.sty
         Package romanbar
§ 402
                   (Emulates or patches code by H.-Martin Münch.)
         romanbar
                   romanbar is patched for use by lwarp.
                   An inline class with an overline and underline is used.
   for HTML output:
                    1 \LWR@ProvidesPackagePass{romanbar}[2012/01/01]
                    2 \DeclareRobustCommand{\Roman@bar}[1]{% #1 is in Roman, i.e. MMXII
                    3 \InlineClass[%
                         text-decoration: overline underline ;
                    5 ]{romanbar}{#1}%
                    6 }
                  lwarp-romanbarpagenumber.sty
          File 305
                   romanbarpagenumber
§ 403
         Package
                   romanbarpagenumber is ignored.
romanbarpagenumber
                    1 \LWR@ProvidesPackageDrop{romanbarpagenumber}[2015/02/06]
   for HTML output:
```

```
lwarp-rotating.sty
          File 306
                   rotating
          Package
§ 404
                    (Emulates or patches code by Robin Fairbairns, Sebastian Rahtz, Leonor Barroca.)
        rotating
                    rotating is emulated.
                    All rotations are ignored in HTML output.
                      1 \LWR@ProvidesPackageDrop{rotating}[2016/08/11]
  for HTML output:
                     2 \RequirePackage{graphicx}
                     3 \LetLtxMacro\sidewaystable\table
                     4 \let\endsidewaystable\endtable
                     6 \LetLtxMacro\sidewaysfigure\figure
                     7 \let\endsidewaysfigure\endfigure
                     9 \newenvironment*{sideways}{}{}
                     10 \newenvironment*{turn}[1]{}{}
                     11 \newenvironment*{rotate}[1]{}{}
                     12 \NewDocumentCommand{\turnbox}{m +m}{#2}
                     13 \let\rotcaption\caption
                     14 \let\@makerotcaption\@makecaption
          File 307 lwarp-rotfloat.sty
         Package rotfloat
§ 405
                    (Emulates or patches code by AXEL SOMMERFELDT.)
    Pkg rotfloat
                    rotfloat is emulated.
                     1 \LWR@ProvidesPackageDrop{rotfloat}[2004/01/04]
  for HTML output:
                     3 \RequirePackage{float}
        \newfloat \{\langle 1: type \rangle\} \{\langle 2: placement \rangle\} \{\langle 3: ext \rangle\} [\langle 4: within \rangle]
                    Emulates the \newfloat command from the float package. Sideways floats are \let
                    to the same as regular floats.
                    "placement" is ignored.
                     4 \RenewDocumentCommand{\newfloat}{m m m o}{%
                     5 \IfValueTF{#4}%
```

6 {%

```
7 \DeclareFloatingEnvironment[fileext=#3,within=#4]{#1}%
8 }%
9 {%
10 \DeclareFloatingEnvironment[fileext=#3]{#1}%
11 }%
12 \csletcs{sideways#1}{#1}%
13 \csletcs{endsideways#1}{end#1}%
```

Remember the float style:

```
14 \csedef{LWR@floatstyle@#1}{\LWR@floatstyle}%
15 \csedef{LWR@floatstyle@sideways#1}{\LWR@floatstyle}%
```

newfloat package automatically creates the \listof command for new floats, but float does not, so remove \listof here in case it is manually created later:

```
16 \cslet{listof#1s}\relax%
17 \cslet{listof#1es}\relax%
18 \cslet{listofsideways#1s}\relax%
19 \cslet{listofsideways#1es}\relax%
20 }
```

File 308 lwarp-rviewport.sty

§ 406 Package rviewport

Pkg rviewport rviewport is honored inside a lateximage, and otherwise ignored for HTML output.

If rviewport is important for an image, enclose the image inside a lateximage environment.

for HTML output: 1 \LWR@ProvidesPackagePass{rviewport}[2011/08/27]

2 \define@key{igraph}{rviewport}{}

File 309 lwarp-savetrees.sty

§ 407 Package **Savetrees**

Pkg savetrees Emulated.

for HTML output: Discard all options for lwarp-savetrees:

1 \LWR@ProvidesPackageDrop{savetrees}[2016/04/13]

```
lwarp-scalefnt.sty
         File 310
                   scalefnt
         Package
§ 408
                   (Emulates or patches code by D. CARLISLE.)
                   scalefnt is ignored.
    Pkg scalefnt
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{scalefnt}
                    2 \DeclareRobustCommand\scalefont[1]{}
          File 311 lwarp-schemata.sty
         Package schemata
$409
                   (Emulates or patches code by Charles P. Schaum.)
                   schemata is patched for use by lwarp.
        schemata
  for HTML output:
                    1 \LWR@ProvidesPackagePass{schemata}[2016/01/25]
                    2 \LetLtxMacro\LWR@schemata@origschema\schema
                    3 \LetLtxMacro\LWR@schemata@origSchema\Schema
                    5 \renewcommand{\schema}[3][open]{%
                    6 \begin{lateximage}%
                    7 \LWR@print@normalsize
                     \verb|8 \LWR@schemata@origschema[#1]{#2}{#3}| 
                    9 \end{lateximage}%
                   10 }
                   12 \renewcommand{\Schema}[5][open]{%
                   13 \begin{lateximage}%
                   14 \LWR@print@normalsize
                   15 \LWR@schemata@origSchema[#1]{#2}{#3}{#4}{#5}%
                   16 \end{lateximage}%
                   17 }
         File 312 lwarp-scrextend.sty
```

scrextend

scrextend scrextend is emulated.

\$410

Package

This package may be loaded standalone, but is also loaded automatically if koma-script classes are in use. \DeclareDocumentCommand is used to overwrite the koma-script definitions.

```
for HTML output:
```

```
1 \LWR@ProvidesPackageDrop{scrextend}[2018/03/30]
2 \DeclareDocumentCommand{\setkomafont}{m m}{}
3 \DeclareDocumentCommand{\addkomafont}{m m}{}
4 \DeclareDocumentCommand{\usekomafont}{m}{}
6 \DeclareDocumentCommand{\usefontofkomafont}{m}{}
7 \DeclareDocumentCommand{\useencodingofkomafont}{m}{}
8 \DeclareDocumentCommand{\usesizeofkomafont}{m}{}
9 \DeclareDocumentCommand{\usefamilyofkomafont}{m}{}
10 \DeclareDocumentCommand{\useseriesofkomafont}{m}{}
11 \DeclareDocumentCommand{\useshapeofkomafont}{m}{}
13 \AtBeginDocument{
14 \let\LWR@maketitle\maketitle
15 \DeclareDocumentCommand{\maketitle}{o}{\LWR@maketitle}
16 }
18 \DeclareDocumentCommand{\extratitle}{m}{}
19 \DeclareDocumentCommand{\titlehead}{m}{}
20 \DeclareDocumentCommand{\subject}{m}{}
21 \DeclareDocumentCommand{\publishers}{m}{\published{#1}}
22 \DeclareDocumentCommand{\uppertitleback}{m}{}
23 \DeclareDocumentCommand{\lowertitleback}{m}{}
24 \DeclareDocumentCommand{\dedication}{m}{}
26 \DeclareDocumentCommand{\ifthispageodd}{m m}{#1}
27
28 \DeclareDocumentCommand{\titlepagestyle}{}{}
30 \DeclareDocumentCommand{\cleardoublepageusingstyle}{m}{}
31 \DeclareDocumentCommand{\cleardoubleemptypage}{}{}
32 \DeclareDocumentCommand{\cleardoubleplainpage}{}{}
33 \DeclareDocumentCommand{\cleardoublestandardpage}{}{}
34 \DeclareDocumentCommand{\cleardoubleoddpage}{}{}
35 \DeclareDocumentCommand{\cleardoubleoddpageusingstyle}{m}{}
36 \DeclareDocumentCommand{\cleardoubleoddemptypage}{}{}
37 \DeclareDocumentCommand{\cleardoubleoddplainpage}{}{}
38 \DeclareDocumentCommand{\cleardoubleoddstandardpage}{}{}
39 \DeclareDocumentCommand{\cleardoubleevenpage}{}{}
41 \DeclareDocumentCommand{\cleardoubleevenemptypage}{}{}
42 \DeclareDocumentCommand{\cleardoubleevenplainpage}{}{}
43 \DeclareDocumentCommand{\cleardoubleevenstandardpage}{}{}
45 \DeclareDocumentCommand{\multiplefootnoteseparator}{}{%
    \begingroup\let\thefootnotemark\multfootsep\@makefnmark\endgroup
47 }
49 \DeclareDocumentCommand{\multfootsep}{}{,}
```

```
51 \DeclareDocumentCommand{\footref}{m}{%
            \begingroup
                 \unrestored@protected@xdef\@thefnmark{\ref{#1}}%
  53
           \endgroup
  54
            \@footnotemark
  55
  56 }
  57
  58 \DeclareDocumentCommand{\deffootnote}{o m m m}{}
  59 \DeclareDocumentCommand{\deffootnotemark}{m}{}
  60 \DeclareDocumentCommand{\setfootnoterule}{o m}{}
  61 \DeclareDocumentCommand{\raggedfootnote}{}{}
  63 \DeclareDocumentCommand{\dictum}{o m}{
  \label{lockClassWP} $$ \ \end{align:right} {\colored{conditions} } $$ \ \end{align:right} $$ {\colored{conditions} } $$ \ \end{align:right} $$ $$ \colored{conditions} $$ \c
                 \IfValueT{#1}
  66
  67
                {
                           \ifbool{FormatWP}
  68
                   {\begin{BlockClass}[\LWR@print@mbox{border-top:} 1px solid gray]{dictumauthor}}
  69
                           {\begin{BlockClass}{dictumauthor}}
  70
  71
                           \dictumauthorformat{#1}
  72
                           \end{BlockClass}
  73
  74 \end{LWR@BlockClassWP}
  75 }
  77 \DeclareDocumentCommand{\dictumwidth}{}{}
  78 \DeclareDocumentCommand{\dictumauthorformat}{m}{(#1)}
  79 \DeclareDocumentCommand{\dictumrule}{}{}
  80 \DeclareDocumentCommand{\raggeddictum}{}{}
  81 \DeclareDocumentCommand{\raggeddictumtext}{}{}
  82 \DeclareDocumentCommand{\raggeddictumauthor}{}{}
  84 \DeclareDocumentEnvironment{labeling}{o m}
  86 \def\sc@septext{#1}%
  87 \list{}{}%
  88 \let\makelabel\labelinglabel%
 89 }
  90 {
  91 \endlist
 92 }
  93
  94 \DeclareDocumentCommand{\labelinglabel}{m}{%
  95 #1 \qquad \sc@septext%
 96 }
  97
  98 \let\addmargin\relax
 99 \let\endaddmargin\relax
100 \cslet{addmargin*}{\relax}
101 \cslet{endaddmargin*}{\relax}
103 \NewDocumentEnvironment{addmargin}{s O{} m}
104 {
105 \setlength{\LWR@templengthtwo}{#3}
```

```
106 \ifblank{#2}
          107 {
           108
                  \begin{BlockClass}[
                      \LWR@print@mbox{margin-left:\LWR@printlength{\LWR@templengthtwo}} ;
           109
                      \LWR@print@mbox{margin-right:\LWR@printlength{\LWR@templengthtwo}}
          110
          111
                 ]{addmargin}
          112 }
          113 {
                 \setlength{\LWR@templengthone}{#2}
          114
                  \begin{BlockClass}[
          115
          116
                      \LWR@print@mbox{margin-left:\LWR@printlength{\LWR@templengthone}};
          117
                      \verb|\LWR@print@mbox{margin-right:\LWR@printlength{\LWR@templengthtwo}}| \\
          118
                 ]{addmargin}
          119 }
          120 }
          121 {\end{BlockClass}}
           Ref to create a starred environment:
           https://tex.stackexchange.com/questions/45401/
                 use-the-s-star-argument-with-newdocumentenvironment
          122
          123 \ExplSyntaxOn
          124 \cs_new:cpn {addmargin*} {\addmargin*}
          125 \cs_new_eq:cN {endaddmargin*} \endaddmargin
          126 \ExplSyntaxOff
          127
          128 \DeclareDocumentCommand{\marginline}{m}{\marginpar{#1}}
 File 313 lwarp-scrhack.sty
          scrhack
           scrhack is ignored.
            1 \LWR@ProvidesPackageDrop{scrhack}[2018/03/30]
  File 314 lwarp-scrlayer.sty
 Package scrlayer
           (Emulates or patches code by Markus Конм.)
scrlayer scrlayer is emulated.
```

\$411

§ 412

Pkg

for HTML output:

for HTML output:

Package

scrhack

Not fully tested! Please send bug reports!

1 \LWR@ProvidesPackageDrop{scrlayer}[2018/03/30]

```
2 \newcommand*{\DeclareSectionNumberDepth}[2]{}
3 \newcommand*{\DeclareLayer}[2][]{}
4 \newcommand*{\DeclareNewLayer}[2][]{}
5 \newcommand*{\ProvideLayer}[2][]{}
6 \newcommand*{\RedeclareLayer}[2][]{}
7 \newcommand*{\ModifyLayer}[2][]{}
8 \newcommand*{\layerhalign}{}
9 \newcommand*{\layervalign}{}
10 \newcommand*{\layerxoffset}{}
11 \newcommand*{\layeryoffset}{}
12 \newcommand*{\layerwidth}{}
13 \newcommand*{\layerheight}{}
14 \providecommand*{\LenToUnit}[1]{\strip@pt\dimexpr#1*\p@/\unitlength}
15 \newcommand*{\putUL}[1]{}
16 \newcommand*{\putUR}[1]{}
17 \newcommand*{\putLL}[1]{}
18 \newcommand*{\putLR}[1]{}
19 \newcommand*{\putC}[1]{}
20 \newcommand*{\GetLayerContents}[1]{}
21 \newcommand{\IfLayerExists}[3]{#3}
22 \newcommand*{\DestroyLayer}[1]{}
23 \newcommand*{\layercontentsmeasure}{}
24 \newcommand*{\currentpagestyle}{}
25 \newcommand*{\BeforeSelectAnyPageStyle}[1]{}
26 \newcommand*{\AfterSelectAnyPageStyle}[1]{}
27 \newcommand*{\DeclarePageStyleAlias}[2]{}
28 \newcommand*{\DeclareNewPageStyleAlias}[2]{}
29 \newcommand*{\ProvidePageStyleAlias}[2]{}
30 \newcommand*{\RedeclarePageStyleAlias}[2]{}
31 \newcommand*{\DestroyPageStyleAlias}[1]{}
32 \newcommand*{\GetRealPageStyle}[1]{}
33 \newcommand*{\DeclarePageStyleByLayers}[3][]{}
34 \newcommand*{\DeclareNewPageStyleByLayers}[3][]{}
35 \newcommand*{\ProvidePageStyleByLayers}[3][]{}
36 \newcommand*{\RedeclarePageStyleByLayers}[3][]{}
37 \NewDocumentCommand{\ForEachLayerOfPageStyle}{s m m}{}
38 \newcommand*{\AddLayersToPageStyle}[2]{}
39 \newcommand*{\AddLayersAtBeginOfPageStyle}[2]{}
40 \newcommand*{\AddLayersAtEndOfPageStyle}[2]{}
41 \newcommand*{\RemoveLayersFromPageStyle}[2]{}
42 \newcommand*{\AddLayersToPageStyleBeforeLayer}[3]{}
43 \newcommand*{\AddLayersToPageStyleAfterLayer}[3]{}
44 \newcommand*{\UnifyLayersAtPageStyle}[1]{}
45 \newcommand*{\ModifyLayerPageStyleOptions}[2]{}
46 \newcommand*{\AddToLayerPageStyleOptions}[2]{}
47 \newcommand{\IfLayerPageStyleExists}[3]{#3}
48 \newcommand{\IfRealLayerPageStyleExists}[3]{#3}
49 \newcommand{\IfLayerAtPageStyle}[4]{#4}
50 \newcommand{\IfSomeLayerAtPageStyle}[4]{#4}
51 \newcommand{\IfLayersAtPageStyle}[4]{#4}
52 \newcommand*{\DestroyRealLayerPageStyle}[1]{}
53 \@ifundefined{footheight}{\newlength\footheight}{}
54 \DeclareDocumentCommand{\automark}{s o m}{}
55 \DeclareDocumentCommand{\manualmark}{}{}
```

56 \DeclareDocumentCommand{\MakeMarkcase}{m}{#1}

```
57 \newcommand{\partmarkformat}{}
                  58 \if@chapter
                  59 \newcommand{\chaptermarkformat}{}
                  60 \fi
                  61 \newcommand{\sectionmarkformat}{}
                  62 \DeclareDocumentCommand{\GenericMarkFormat}{m}{}
                  63 \newcommand*{\@mkleft}[1]{}
                  64 \newcommand*{\@mkright}[1]{}
                  65 \newcommand*{\@mkdouble}[1]{}
                  66 \newcommand*{\@mkboth}[2]{}
                  67 \newcommand*{\scrlayerInitInterface}[1][]{}
                  68 \newcommand{\scrlayerAddToInterface}[3][]{}
                  69 \newcommand{\scrlayerAddCsToInterface}[3][]{}
                  70 \newcommand{\scrlayerOnAutoRemoveInterface}[2][]{}
        File 315 lwarp-scrlayer-notecolumn.sty
                 scrlayer-notecolumn
        Package
                  (Emulates or patches code by MARKUS KOHM.)
                 scrlayer-notecolumn is emulated.
Not fully tested!
                 Please send bug reports!
                   1 \LWR@ProvidesPackageDrop{scrlayer-notecolumn}[2018/02/02]
                   2 \newcommand*{\DeclareNoteColumn}[2][]{}
                   3 \newcommand*{\DeclareNewNoteColumn}[2][]{}
                   4 \newcommand*{\ProvideNoteColumn}[2][]{}
                   5 \newcommand*{\RedeclareNoteColumn}[2][]{}
                   6 \NewDocumentCommand{\makenote}{s o m}{\marginpar{#3}}
                   7 \newcommand*{\syncwithnotecolumn}[1][]{}
                   8 \newcommand*{\syncwithnotecolumns}[1][]{}
                   9 \newcommand*{\clearnotecolumn}[1][]{}
                  10 \newcommand*{\clearnotecolumns}[1][]{}
        File 316 lwarp-scrlayer-scrpage.sty
                 scrlayer-scrpage
        Package
                 (Emulates or patches code by Markus Kohm.)
                 scrlayer-scrpage is emulated.
```

§413

\$414

scrlayer-scrpage

Not fully tested!

for HTML output:

Please send bug reports!

1 \LWR@ProvidesPackageDrop{scrlayer-scrpage}[2018/03/30]

scrlayer-notecolumn

for HTML output:

```
2 \@ifundefined{footheight}{\newlength\footheight}{}
3 \NewDocumentCommand{\lehead}{s o m}{}
4 \NewDocumentCommand{\cehead}{s o m}{}
5 \NewDocumentCommand{\rehead}{s o m}{}
6 \NewDocumentCommand{\lohead}{s o m}{}
7 \NewDocumentCommand{\cohead}{s o m}{}
8 \NewDocumentCommand{\rohead}{s o m}{}
9 \NewDocumentCommand{\lefoot}{s o m}{}
10 \NewDocumentCommand{\cefoot}{s o m}{}
11 \NewDocumentCommand{\refoot}{s o m}{}
12 \NewDocumentCommand{\lofoot}{s o m}{}
13 \NewDocumentCommand{\cofoot}{s o m}{}
14 \NewDocumentCommand{\rofoot}{s o m}{}
15 \NewDocumentCommand{\ohead}{s o m}{}
16 \NewDocumentCommand{\chead}{s o m}{}
17 \NewDocumentCommand{\ihead}{s o m}{}
18 \NewDocumentCommand{\ofoot}{s o m}{}
19 \NewDocumentCommand{\cfoot}{s o m}{}
20 \NewDocumentCommand{\ifoot}{s o m}{}
21 \DeclareDocumentCommand{\MakeMarkcase}{m}{#1}
22 \newcommand*{\defpairofpagestyles}[3][]{}
23 \newcommand*{\newpairofpagestyles}[3][]{}
24 \newcommand*{\renewpairofpagestyles}[3][]{}
25 \newcommand*{\providepairofpagestyles}[3][]{}
26 \newcommand*{\clearmainofpairofpagestyles}{}
27 \newcommand*{\clearplainofpairofpagestyles}{}
28 \newcommand*{\clearpairofpagestyles}{}
29 \newcommand*{\clearscrheadings}{}
30 \mbox{\clearscrheadfoot}{}
31 \newcommand*{\clearscrplain}{}
32 \NewDocumentCommand{\deftriplepagestyle}{m o o m m m m m}{}
33 \NewDocumentCommand{\newtriplepagestyle}{m o o m m m m m}{}
34 \NewDocumentCommand{\renewtriplepagestyle}{m o o m m m m m}{}
35 \NewDocumentCommand{\providetriplepagestyle}{m o o m m m m m}{}
36 \newcommand*{\defpagestyle}[3]{}
37 \newcommand*{\newpagestyle}[3]{}
38 \newcommand*{\providepagestyle}[3]{}
39 \newcommand*{\renewpagestyle}[3]{}
```

File 317 lwarp-scrpage2.sty

§ 415 Package SCrpage2

(Emulates or patches code by MARKUS KOHM.)

Pkg scrpage2 scrpage2 is emulated.

Not fully tested! Please send bug reports!

for HTML output: 1 \LWR@ProvidesPackageDrop{scrpage2}[2018/03/30]

```
2 \@ifundefined{footheight}{\newlength\footheight}{}
3 \NewDocumentCommand{\lehead}{o m}{}
4 \NewDocumentCommand{\cehead}{o m}{}
5 \NewDocumentCommand{\rehead}{o m}{}
6 \NewDocumentCommand{\lohead}{o m}{}
7 \NewDocumentCommand{\cohead}{o m}{}
8 \NewDocumentCommand{\rohead}{o m}{}
9 \NewDocumentCommand{\lefoot}{o m}{}
10 \NewDocumentCommand{\cefoot}{o m}{}
11 \NewDocumentCommand{\refoot}{o m}{}
12 \NewDocumentCommand{\lofoot}{o m}{}
13 \NewDocumentCommand{\cofoot}{o m}{}
14 \NewDocumentCommand{\rofoot}{o m}{}
15 \NewDocumentCommand{\ohead}{o m}{}
16 \NewDocumentCommand{\chead}{o m}{}
17 \NewDocumentCommand{\ihead}{o m}{}
18 \NewDocumentCommand{\ofoot}{o m}{}
19 \NewDocumentCommand{\cfoot}{o m}{}
20 \NewDocumentCommand{\ifoot}{o m}{}
21 \DeclareDocumentCommand{\automark}{o m}{}
22 \DeclareDocumentCommand{\manualmark}{}{}
23 \DeclareDocumentCommand{\MakeMarkcase}{m}{#1}
24 \NewDocumentCommand{\deftripstyle}{m o o m m m m m}{}
25 \NewDocumentCommand{\defpagestyle}{s m m m}{}
26 \MewDocumentCommand{\newpagestyle}{s m m m}{}
27 \NewDocumentCommand{\renewpagestyle}{s m m m}{}
28 \NewDocumentCommand{\providepagestyle}{s m m m}{}
29 \newcommand{\partmarkformat}{}
30 \if@chapter
31 \newcommand{\chaptermarkformat}{}
32 \fi
33 \newcommand{\sectionmarkformat}{}
34 \newcommand{\subsectionmarkformat}{}
35 \newcommand{\subsubsectionmarkformat}{}
36 \newcommand{\paragraphmarkformat}{}
37 \newcommand{\subparagraphmarkformat}{}
38
39 \newcommand*{\clearscrheadings}{}
40 \newcommand*{\clearscrheadfoot}{}
41 \newcommand*{\clearscrplain}{}
```

File 318 lwarp-section.sty

\$416 Package **Section**Pkg section section is ignored. (Emulates or patches code by OLIVER PRETZEL.) for HTML output: 1 \LWR@ProvidesPackageDrop{section} 2 \ifx\chapter\undefined 3 \def\chsize{\Large}\def\hdsize{\huge}\else

```
4 \def\chsize{\huge}\def\hdsize{\Huge}
6 \let\ttsize\LARGE
7 \let\ausize\large
8 \let\dasize\large
9 \let\secsize\Large
10 \let\subsize\large
11 \let\hdpos\raggedright
12 \newcounter{hddepth}
13 \let\fpind\relax
14 \def\ttfnt{}
15 \def\hdfnt{}
16 \def\fefnt{}
17 \def\thfnt{}
18 \def\pgfnt{}
19 \def\hmkfnt{}
20 \let\mkcse\uppercase
21 \def\hddot{}
22 \def\cpdot{:}
23 \def\nmdot{}
24 \ifx\secindent\undefined
25 \newdimen\secindent
26 \newskip\secpreskp
27 \newskip\secpstskp
28 \newdimen\subindent
29 \newskip\subpreskp
30 \newskip\subpstskp
31 \newskip\parpstskp
32 \newcount\c@hddepth
33 \fi
```

File 319 lwarp-sectionbreak.sty

§417 Package sectionbreak

(Emulates or patches code by Michal Hoftich.)

Pkg sectionbreak sectionbreak is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{sectionbreak}[2018-01-03]

```
2 \renewcommand\asterism{\HTMLunicode{2042}}
3
4 \renewcommand\pre@sectionbreak{}
5 \renewcommand\post@sectionbreak{}
6
7 \renewcommand\print@sectionbreak[1]{%
8 \begin{center}
9 #1
10 \end{center}
11 }
12
```

File 320 lwarp-sectsty.sty

§ 418 Package **Sectsty**

(Emulates or patches code by Rowland McDonnell.)

Pkg sectsty sectsty is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{sectsty}[2002/02/25]

```
2 \newcommand*{\partfont}
                                    [1] {}
3 \newcommand*{\partnumberfont}
                                    [1] {}
4 \newcommand*{\parttitlefont}
                                    [1] {}
5 \newcommand*{\chapterfont}
                                    [1] {}
6 \newcommand*{\chapternumberfont} [1] {}
7 \newcommand*{\chaptertitlefont} [1] {}
8 \newcommand*{\sectionfont}
                                    [1] {}
9 \newcommand*{\subsectionfont}
                                    [1] {}
10 \newcommand*{\subsubsectionfont} [1] {}
11 \newcommand*{\paragraphfont}
                                    [1] {}
12 \newcommand*{\subparagraphfont} [1] {}
13 \newcommand*{\minisecfont} [1] {}
14 \newcommand*{\allsectionsfont}[1] {}
15 \newcommand{\nohang}{}
```

\sectionrule is only to be used in *font commands, thus it is ignored.

```
16 \newcommand*{\sectionrule}[5]{}
17
18 \def\ulemheading#1#2{}
```

File 321 lwarp-semantic-markup.sty

§419 Package semantic-markup

(Emulates or patches code by Andrew A. Cashner.)

Pkg semantic-markup semantic-markup is patched for use by lwarp.

If using the endnotes option, add \theendnotes where desired.

for HTML output: 1 \LWR@ProvidesPackagePass{semantic-markup}[2018/05/21]

The endnotes must be printed by the user before the end of the document, since the end is after the HTML footer, etc.

```
2 \ifendnotes
3 \RenewDocumentCommand{\SetupEndnotes}{}{%
```

```
4 \let\footnote=\endnote
5 % \AtEndDocument{\DoBeforeEndnotes{\EndnoteFont\theendnotes}}%
6 }
7 \fi
```

HTML unicode characters from musicography are used.

```
8 \RequirePackage{musicography}
9
10 \let\fl\musFlat
11 \let\sh\musSharp
12 \let\na\musNatural
```

The \musfig is placed inside a hashed image, with a simple alt tag.

```
13 \RequirePackage{amsmath}
15 \RenewDocumentCommand{\musfig}{ m m }{%
      \LWR@subsingledollar*%
16
          {#1/#2}% alt tag
17
          {musfig}% addl' hashing
18
          {% contents
19
               \LWR@origensuredmath{%
20
21
                   \genfrac{}{}{0pt}{1}{\text{#1}}{\text{#2}}%
22
               }%
          }%
23
24 }
```

The \meter is taken from musicography, and becomes a hashed image with a simple alt tag.

```
25 \RenewDocumentCommand{\meter}{ m m }{%
26 \musMeter{#1}{#2}%
27 }
```

File 322 lwarp-setspace.sty

§ 420 Package setspace

(Emulates or patches code by Robin Fairbairns.)

Pkg setspace setspace is not used during HTML conversion.

Discard all options for lwarp-setspace:

```
for HTML output: 1 \LWR@ProvidesPackageDrop{setspace}[2011/12/19]
2
3 \newcommand*{\setstretch}[1]{}
4 \newcommand*{\SetSinglespace}[1]{}
5 \newcommand*{\singlespacing}{}
6 \newcommand*{\onehalfspacing}{}
7 \newcommand*{\doublespacing}{}
```

```
9 \newenvironment*{singlespace}
11 \LWR@forcenewpage
12 \BlockClass{singlespace}
13 }
14 {\endBlockClass}
16 \newenvironment*{singlespace*}
18 \LWR@forcenewpage
19 \BlockClass{singlespace}
20 }
21 {\endBlockClass}
23 \newenvironment*{spacing}[1]{
24
25 }{
26
27 }
29 \newenvironment*{onehalfspace}
31 \LWR@forcenewpage
32 \BlockClass{onehalfspace}
34 {\endBlockClass}
36 \newenvironment*{doublespace}
38 \LWR@forcenewpage
39 \BlockClass{doublespace}
40 }
41 {\endBlockClass}
```

File 323 lwarp-shadow.sty

§ 421 Package shadow

(Emulates or patches code by Mauro Orlandini.)

Pkg shadow shadow is emulated.

 $\begin{tabular}{ll} \textbf{for HTML output:} & Discard all options for lwarp-shadow: \\ \end{tabular}$

```
1 \LWR@ProvidesPackageDrop{shadow}[2003/02/19]
2 \newdimen\sboxsep
3 \newdimen\sboxrule
4 \newdimen\sdim
5
6 \newcommand{\shabox}[1]{%
7 \InlineClass{shabox}{#1}%
```

8 }

File 324 lwarp-showidx.sty

§ 422 Package showidx

Pkg showidx showidx is ignored.

for HTML output: Discard all options for lwarp-showidx:

1 \LWR@ProvidesPackageDrop{showidx}[2014/09/29]

\@wrindex is redefined \AtBeginDocument by the lwarp core.

File 325 lwarp-showkeys.sty

§ 423 Package showkeys

(Emulates or patches code by David Carlisle, Morten Høgholm.)

Pkg showkeys showkeys is ignored.

for HTML output: Discard all options for lwarp-showkeys:

1 \LWR@ProvidesPackageDrop{showkeys}[2014/10/28]

 ${\tt 2 \ NewDocumentCommand \{\ showkeys\} \{s\} \{\} }$

File 326 lwarp-showtags.sty

§ 424 Package showtags

Pkg showtags showtags is ignored.

 $\begin{tabular}{ll} \textbf{for HTML output:} & 1 \LWR@ProvidesPackageDrop\{showtags\}\% \ no \ version \ is \ given \end{tabular}$

2 \newcommand{\thecitetag}[1]{}

File 327 lwarp-sidecap.sty

§ 425 Package sidecap

 $(Emulates\ or\ patches\ code\ by\ Rolf\ Niepraschk,\ Hubert\ G\"{asslein}.)$

```
sidecap is emulated.
     Pkg sidecap
                    Discard all options for lwarp-sidecap.
  for HTML output:
                     1 \LWR@ProvidesPackageDrop{sidecap}[2003/06/06]
                    See:
                    http://tex.stackexchange.com/questions/45401/
                    use-the-s-star-argument-with-newdocumentenvironment
                    regarding the creation of starred environments with xparse.
                     2 \NewDocumentEnvironment{SCtable}{soo}
                     3 {\IfValueTF{#3}{\table[#3]}{\table}}
                     4 {\endtable}
                     6 \ExplSyntaxOn
                     7 \cs_new:cpn {SCtable*} {\SCtable*}
                     8 \cs_new_eq:cN {endSCtable*} \endSCtable
                     9 \ExplSyntaxOff
                    10
                    12 \NewDocumentEnvironment{SCfigure}{soo}
                    13 {\IfValueTF{#3}{\figure[#3]}{\figure}}
                    14 {\endfigure}
                    15
                    16 \ExplSyntaxOn
                    17 \cs_new:cpn {SCfigure*} {\SCfigure*}
                    18 \cs_new_eq:cN {endSCfigure*} \endSCfigure
                    19 \ExplSyntaxOff
                    22 \newenvironment*{wide}{}{}
          File 328 lwarp-sidenotes.sty
                  sidenotes
$426
         Package
                    (Emulates or patches code by Andy Thomas, Oliver Schebaum.)
                    Patched for lwarp.
       sidenotes
                    Load the original package:
  for HTML output:
                     1 \LWR@ProvidesPackagePass{sidenotes}
                    The following patch sidenotes for use with lwarp:
                     * [\langle entry \rangle] [\langle offset \rangle] \{\langle text \rangle\}
     \sidecaption
                     2 \RenewDocumentCommand \sidecaption {s o o +m}
                     3 {
```

\LWR@stoppars

\begingroup

4 5

```
\captionsetup{style=sidecaption}
    \IfBooleanTF{#1}
   { % starred
      \begin{BlockClass}[border:none ; box-shadow:none]{marginblock}
      \caption*{#4}
10
      \end{BlockClass}
11
12 }
   { % unstarred
    \IfNoValueOrEmptyTF{#2}
      {\def\@sidenotes@sidecaption@tof{#4}}
15
      {\def\@sidenotes@sidecaption@tof{#2}}
16
      \begin{BlockClass}[border:none ; box-shadow:none]{marginblock}
17
      \caption[\@sidenotes@sidecaption@tof]{#4}
18
19
      \end{BlockClass}
20
21
      \endgroup
      \LWR@startpars
22
23 }
Borrowed from the lwarp version of keyfloat:
24 \NewDocumentEnvironment{KFLTsidenotes@marginfloat}{O{-1.2ex} m}
25 {% start
26 \LWR@BlockClassWP{float:right; width:2in; margin:10pt}{}{marginblock}%
27 \captionsetup{type=#2}%
28 }
```

The following were changed by sidenotes, and now are reset back to their lwarp-supported originals:

Restoring the definition from the LATEX $2_{\mathcal{E}}$ article.cls source:

33 \RenewDocumentEnvironment{marginfigure}{o}
34 {\begin{KFLTsidenotes@marginfloat}{figure}}

{\end{KFLTsidenotes@marginfloat}}

37 \RenewDocumentEnvironment{margintable}{0}
38 {\begin{KFLTsidenotes@marginfloat}{table}}

{\end{KFLTsidenotes@marginfloat}}

30 \endLWR@BlockClassWP%

31 } 32

File 329 lwarp-SIunits.sty

§ 427 Package Slunits

(Emulates or patches code by MARCEL HELDOORN.)

Pkg SIunits Slunits is patched for use by lwarp.

It is recommended to use \unit where possible, which combines the entire expression into a single lateximage, and adds the alt tag containing the LATEX code, allowing for copy/paste. When units are used outside of the \unit macro, each unit macro will have its own lateximage, and each will have the alt tag set to "(<\mathimagename>)", which defaults to "(math image)".

for HTML output:

1 \LWR@ProvidesPackagePass{SIunits}[2007/12/02]

Patched for copy/paste with the HTML alt tag:

```
2 \DeclareRobustCommand{\unit}[2]{%
3 \@inunitcommandtrue%
                          original
4 \LWR@subsingledollar*% lwarp
5 {% alt tag
      \textbackslash{}unit\{\LWR@HTMLsanitize{#1}\}%
          \{ \LWR@HTMLsanitize{#2}\}% extra space
8 }%
9 {SIunits}% add'l hashing
10 {%
      \LWR@origensuredmath{% lwarp modification
11
          \SI@fstyle{#1\@qsk\period@active{#2}}% original
12
      }%
13
14 }% contents
15 \@inunitcommandfalse%
                          original
16 }
```

File 330 lwarp-siunitx.sty

§ 428 Package Siunitx

(Emulates or patches code by Joseph Wright.)

Pkg siunitx siunitx is patched for use by Iwarp.

fractions Due to *pdftotext* limitations, fraction output is replaced by symbol output for per-mode and quotient-mode.

math mode required Some units will require that the expression be placed inside math mode.

NOTE: As of this writing, the siunitx extension for MathJax is not currently hosted at any public CDN, thus siunitx is not usable with MathJax unless a local copy of this extension is created first. See \MathJaxFilename to select a custom MathJax script.

Tabular S columns are rendered as simple c columns, and tabular s columns are not supported. These may be replaced by c columns with each cell contained in \num or \si.

for HTML output:

```
1 \RequirePackage{xcolor}% for \convertcolorspec
2
3 \LWR@ProvidesPackagePass{siunitx}[2018/05/17]

4 \AtBeginDocument{% in case textcomp was not loaded
5 \DeclareSIUnit\bohr{\textit{a}\textsubscript{0}}}
6 \DeclareSIUnit\clight{\textit{c}\textsubscript{0}}}
7 \DeclareSIUnit\elementarycharge{\textit{e}}}
8 \DeclareSIUnit\electronmass{\textit{m}\textsubscript{e}}}
9 \DeclareSIUnit\hartree{\textit{E}\textsubscript{h}}}
10 \DeclareSIUnit\planckbar{\LWR@siunitx@textplanckbar}}
11 }% AtBeginDocument
```

\@ensuredmath is not supported inside an \hbox, so it must temporarily be restored to its original. Similar for \mbox. SVG math is created explicitly when necessary, using \LWR@subsingledollar.

```
12
13 \ExplSyntaxOn
14 %
```

Modified to set set HTML \textcolor if not black:

```
15 \cs_undefine:N \__siunitx_print_aux:
16 \cs_new_protected:Npn \__siunitx_print_aux:
17
   {
      \text
18
19
             _siunitx_ensure_ltr:n
20
21
              \color@begingroup
22
23
               \__siunitx_print_color:
               \__siunitx_font_shape:
24
25
              \__siunitx_font_weight:
26
              \use:c
27
                   @@_ \l__siunitx_print_type_tl _
28
                   text \l__siunitx_font_family_tl :
29
30
               \bool_if:NTF \l__siunitx_font_math_mode_bool
31
                { \__siunitx_print_math: }
32
                {
33
                   \LWR@findcurrenttextcolor% lwarp
34
                   \ifdefstring{\LWR@tempcolor}{000000}% lwarp
35
36
                   {\__siunitx_print_text:}% lwarp
```

```
37
                   {% lwarp
38
                        \LWR@textcurrentcolor{% lwarp
                            \__siunitx_print_text:
39
                       }% lwarp
40
                   }% lwarp
41
                 }
42
               \color@endgroup
43
44
             }
45
         }
46
    }
47
48
49 \cs_undefine:N \__siunitx_set_math_fam:n
50 \cs_new_protected:Npn \__siunitx_set_math_fam:n #1 {
    \int_new:c { c__siunitx_math #1 _int }
    \group_begin:% lwarp
52
       \LetLtxMacro\@ensuredmath\LWR@origensuredmath% lwarp
53
      \LetLtxMacro\mbox\LWR@print@mbox% lwarp
54
       \hbox_set:Nn \l__siunitx_tmp_box
55
         {
56
           \ensuremath
57
58
             {
               \use:c { math #1 }
59
60
                   \int_gset:cn { c__siunitx_math #1 _int } { \fam }
61
                 }
62
63
             }
64
    \group_end:% lwarp
65
66 }
67
68 \cs_undefine:N \__siunitx_combined_output:n
69 \cs_new_protected:Npn \__siunitx_combined_output:n #1 {
       \group_begin:% lwarp
71
       \LetLtxMacro\@ensuredmath\LWR@origensuredmath% lwarp
72
       \LetLtxMacro\mbox\LWR@print@mbox% lwarp
73
    \bool_if:NTF \l__siunitx_number_parse_bool
74
75
         \tl_clear:N \l__siunitx_number_out_tl
76
         \bool_set_false:N \l__siunitx_number_compound_bool
77
         \__siunitx_number_output_parse:n {#1}
78
      }
79
80
         \__siunitx_unit_output_pre_print:
For parse-numbers=false:
           \__siunitx_print:nn { number } { \ensuremath {#1} }
81 %
           \LWR@subsingledollar{% lwarp
82
               \textbackslash( \LWR@HTMLsanitize{#1} \textbackslash)% lwarp
83
84
           }{siunitx}{%
85
               \__siunitx_print:nn { number } {%
86
                   \LWR@origensuredmath{#1}%
               }%
87
           }% lwarp
88
```

```
\__siunitx_unit_output_print:
 89
 90
 91
       \group_end:% lwarp
 92 }
 93 %
For quotients, the fraction code is replaced by the symbol code:
 94 \cs_undefine:N \__siunitx_number_output_quotient_fraction:
 95 \cs_new_protected:Npn \__siunitx_number_output_quotient_fraction: {
    \bool_set_true:N \l__siunitx_number_compound_bool
     \__siunitx_number_output_quotient_aux_i:
     \tl_set_eq:NN \l__siunitx_number_out_tl
       \l__siunitx_number_numerator_tl
100
     \tl_put_right:NV \l__siunitx_number_out_tl \l__siunitx_output_quotient_tl
     \tl_put_right:NV \l__siunitx_number_out_tl
101
102
       \l__siunitx_number_denominator_tl
103
     \__siunitx_number_output_single_aux:
104 }
For units, the fraction code is replaced by the symbol code:
105 \cs_undefine:N \__siunitx_unit_format_fraction_fraction:
106 \cs_new_protected:Npn \__siunitx_unit_format_fraction_fraction: {
     \__siunitx_unit_format_fraction_symbol_aux:
108
     \int_compare:nNnT { \l__siunitx_unit_denominator_int } > { 1 }
109
      {
         \bool_if:NT \l__siunitx_unit_denominator_bracket_bool
110
111
          {
         \tl_put_left:NV \l__siunitx_unit_denominator_tl \l__siunitx_bracket_open_tl
112
         \tl_put_right:NV \l__siunitx_unit_denominator_tl \l__siunitx_bracket_close_tl
113
114
           }
115
116
     \tl_set_eq:NN \l__siunitx_unit_tl \l__siunitx_unit_numerator_tl
     \tl_put_right:NV \l__siunitx_unit_tl \l__siunitx_per_symbol_tl
     \tl_put_right:NV \l__siunitx_unit_tl \l__siunitx_unit_denominator_tl
118
119 }
120 \cs_undefine:N \__siunitx_angle_print_astronomy_aux:
121 \cs_new_protected:Npn \__siunitx_angle_print_astronomy_aux: {
122
     \prop_get:NnNT \l__siunitx_number_out_prop { mantissa-integer }
123
       \l__siunitx_tmpa_tl
       { \__siunitx_print:nV { number } \l__siunitx_tmpa_tl }
125 \ifnumcomp{\value{LWR@lateximagedepth}}{>}{0}% lwarp
    {% lateximage
126
     \hbox_set:Nn \l__siunitx_angle_marker_box
127
128
      {
129
         }
130
131
     \hbox_set:Nn \l__siunitx_angle_unit_box
132
           _siunitx_print:nV {    unit } \l__siunitx_unit_tl
133
134
         \skip_horizontal:n { -\scriptspace }
135
      }
     \__siunitx_angle_print_astronomy_aux:n { marker }
```

```
\__siunitx_angle_print_astronomy_aux:n { unit }
138
     \hbox_set:Nn \l__siunitx_angle_marker_box
139
         \box_use:N \l__siunitx_angle_marker_box
140
         \box_use:N \l__siunitx_angle_unit_box
141
142
     \dim_compare:nNnTF
143
       { \l_siunitx_angle_marker_dim } > { \l_siunitx_angle_unit_dim }
144
       { \__siunitx_angle_print_astronomy_marker: }
       { \__siunitx_angle_print_astronomy_unit: }
146
147 }% lateximage
148 {% not a lateximage
         \__siunitx_print:nV { unit } \l__siunitx_unit_tl
149
150
         \__siunitx_print:nn { number } { { \l__siunitx_output_decimal_tl } }
151
    }% not a lateximage
     \prop_get:NnNT \l__siunitx_number_out_prop { mantissa-decimal }
152
153
       \l__siunitx_tmpa_tl
       { \__siunitx_print:nV { number } \l__siunitx_tmpa_tl }
154
155 }
156 \RenewDocumentCommand \num { o m } {
     \leavevmode
157
     \group_begin:% lwarp
158
       \LetLtxMacro\@ensuredmath\LWR@origensuredmath% lwarp
159
       \LetLtxMacro\mbox\LWR@print@mbox% lwarp
160
       \bool_set_false:N \l__siunitx_font_set_bool
161
162
       \IfNoValueF {#1}
         { \keys_set:nn { siunitx } {#1} }
163
       \__siunitx_number_output:n {#2}
164
     \group_end:% lwarp
165
166 }
167
168 \RenewDocumentCommand \numrange { o m m } {
     \leavevmode
169
170
     \group_begin:% lwarp
       \LetLtxMacro\@ensuredmath\LWR@origensuredmath% lwarp
171
       \LetLtxMacro\mbox\LWR@print@mbox% lwarp
172
       \bool_set_false:N \l__siunitx_font_set_bool
173
174
       \IfNoValueF {#1}
175
         { \keys_set:nn { siunitx } {#1} }
       \__siunitx_range_numbers:nn {#2} {#3}
176
177
     \group_end:% lwarp
178 }
179
180 \RenewDocumentCommand \ang { o > { \SplitArgument { 2 } { ; } } m } {
     \group_begin:% lwarp
181
       \LetLtxMacro\@ensuredmath\LWR@origensuredmath% lwarp
       \LetLtxMacro\mbox\LWR@print@mbox% lwarp
183
       \IfNoValueF {#1}
184
         { \keys_set:nn { siunitx } {#1} }
185
       \__siunitx_angle_output:nnn #2
186
187
     \group_end:% lwarp
188 }
190 \RenewDocumentCommand \si { o m } {
```

```
191
                              \leavevmode
  192
                              \group_begin:% lwarp
                                            \LetLtxMacro\@ensuredmath\LWR@origensuredmath% lwarp
 193
                                            \LetLtxMacro\mbox\LWR@print@mbox% lwarp
 194
                                            \bool_set_false:N \l__siunitx_font_set_bool
 195
                                           \IfNoValueTF {#1}
  196
                                                       { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ 
 197
  198
  199
                                                                   \keys_set:nn { siunitx } {#1}
 200
                                                                   \_siunitx_unit_output:nn {#2} {#1}
 201
                              \group_end:% lwarp
 202
 203 }
 204
 205
206 \RenewDocumentCommand{\SIrange}{o m m m}
 207 {%
 208
                              \leavevmode
                              \group_begin:% lwarp
 209
                                           \LetLtxMacro\@ensuredmath\LWR@origensuredmath% lwarp
 210
 211
                                           \LetLtxMacro\mbox\LWR@print@mbox% lwarp
 212
                                           \bool_set_false:N \l__siunitx_font_set_bool
                                           \IfNoValueTF {#1}
 213
                                                       { \ \ \ } { \ \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } { \ \ } 
 214
 215
                                                                   \keys_set:nn { siunitx } {#1}
 216
 217
                                                                   \_siunitx_range_unit:nnnn {#4} {#1} {#2} {#3}
 218
                              \group_end:% lwarp
 219
 220 }
 221
222 \ExplSyntaxOff
```

File 331 lwarp-soul.sty

§ 429 Package **SOU**

(Emulates or patches code by Melchior FRANZ.)

```
Pkg soul Emulated.
```

```
for HTML output:
```

- 1 \LWR@ProvidesPackageDrop{soul}[2003/11/17]
- 2 \RequirePackage{xcolor}% for \convertcolorspec

Storage for the colors to use:

```
3 \newcommand*{\LWR@soululcolor}{}
4
5 \newcommand*{\LWR@soulstcolor}{}
6
7 % \definecolor{LWR@soulhlcolordefault}{HTML}{F8E800}
8 % \newcommand*{\LWR@soulhlcolor}{LWR@soulhlcolordefault}
9 \newcommand*{\LWR@soulhlcolor}{}
```

```
\so
                    \{\langle text \rangle\}
                  Basic markup with css:
                   10 \newcommand{\so}[1]{%
                   11 \InlineClass(letter-spacing:.2ex){letterspacing}{#1}%
                   12 }
                   \{\langle text \rangle\}
          \caps
                   13 \newcommand{\caps}[1]{\%}
                         \InlineClass%
                              (font-variant:small-caps;letter-spacing:.1ex)%
                   15
                              {capsspacing}{#1}%
                   16
                   17 }
                    \{\langle text \rangle\} \{\langle color \rangle\} \{\langle class \rangle\} \{\langle colorstyle \rangle\} \{\langle FormatWPstyle \rangle\}
\LWR@soulcolor
                  Add colors if not empty:
                   18 \newcommand{\LWR@soulcolor}[5]{%
                   19 \ifcsempty{#2}%
                   20 {%
                          \InlineClass(#5){#3}{#1}%
                   21
                  22 }%
                  23 {%
                          \convertcolorspec{named}{\@nameuse{#2}}{HTML}\LWR@tempcolor%
                   24
                          \LWR@htmlspanclass[#5;#4:\LWR@origpound\LWR@tempcolor]{#3}{#1}%
                   25
                   26 }%
                  27 }
                   28 \newcommand{\ul}[1]{%
                   {\tt 29 \ LWR@soulcolor{\#1}{LWR@soululcolor}{uline}{text-decoration-color}{\%}}
                         {text-decoration:underline; text-decoration-skip: auto;}%
                  31 }
                   33 \newcommand{\st}[1]{
                   {\tt 34 \LWR@soulcolor\{\#1\}\{LWR@soulstcolor\}\{sout\}\{text-decoration-color\}\%}
                          {text-decoration:line-through}%
                   36 }
                   38 \newcommand{\hl}[1]{
                   39 \LWR@soulcolor{#1}{LWR@soulhlcolor}{highlight}{background-color}%
                          {background:\LWR@origpound{}F8E800}
                   40
                   41 }
                  Nullified:
                   42 \newcommand*{\soulaccent}[1]{}
                   43 \newcommand*{\soulregister}[2]{}
                   44 \newcommand{\sloppyword}[1]{#1}
                   45 \end{tabular} $$15]{\end{tabular} Command $$\#1[1]{\so{\#1}}} $$
                   46 \newcommand*{\resetso}{}
                   47 \newcommand*{\capsdef}[5]{}
                   48 \newcommand*{\capsreset}{}
```

```
49 \newcommand*{\capssave}[1]{}
          50 \newcommand*{\capsselect}[1]{}
          51 \newcommand*{\setul}[2]{}
          52 \newcommand*{\resetul}{}
         53 \newcommand*{\setuldepth}[1]{}
         54 \newcommand*{\setuloverlap}[1]{}
         Set colors:
         55 \newcommand*{\setulcolor}[1]{\renewcommand{\LWR@soululcolor}{#1}}
         56 \newcommand*{\setstcolor}[1]{\renewcommand{\LWR@soulstcolor}{#1}}
         57 \newcommand*{\sethlcolor}[1]{\renewcommand{\LWR@soulhlcolor}{#1}}
         Long versions of the user-level macros:
         58 \let\textso\so
         59 \let\textul\ul
          60 \let\texthl\hl
          61 \let\textcaps\caps
File 332 lwarp-soulpos.sty
```

Package soulpos § 430

(Emulates or patches code by Javier Bezos.)

```
soulpos
         soulpos is emulated.
```

```
for HTML output:
                  1 \RequirePackage{soul}
                  2 \RequirePackage{soulutf8}
                  3 \LWR@ProvidesPackageDrop{soulpos}[2012/02/25]
                  4 \NewDocumentCommand{\ulposdef}{m o m}{}
                  6 \newdimen\ulwidth
```

```
8 \newcommand\ifulstarttype[1]{%
9 \expandafter\@secondoftwo%
10 }
12 \newcommand\ifulendtype[1]{%
13 \expandafter\@secondoftwo%
14 }
16 \newcommand{\ulstarttype}{0}
17 \newcommand{\ulendtype}{0}
```

18 \newcommand\ulpostolerance{0}%

File 333 lwarp-soulutf8.sty

§ 431 Package **soulutf8**

Pkg soulutf8 soulutf8 is emulated.

lwarp's HTML output naturally supports UTF-8 encoding.

for HTML output: 1 \LWR@ProvidesPackageDrop{soulutf8}[2016/05/16]

File 334 lwarp-splitidx.sty

§ 432 Package **splitidx**

(Emulates or patches code by MARKUS KOHM.)

Pkg splitidx splitidx is patched for use by lwarp.

If the latexmk option is selected for lwarp, *latexmk* will compile the document but will *not* compile the indexes. **lwarpmk printindex** and **lwarpmk htmlindex** will still be required.

∴ \thepage

When using \AtWriteToIndex or \AtNextWriteToIndex, the user must not refer to \thepage during HTML output, as the concept of a page number is meaningless. Instead, do

```
\addtocounter{LWR@autoindex}{1}
\LWR@new@label{LWRindex-\arabic{LWR@autoindex}}
```

where the \index -like action occurs, and then refer to $\arabic\{LWR@autoindex\}$ instead of \thepage where the reference should occur.

See section 521.17 in the lwarp-patch-memoir package for the \@@wrspindexhyp macro as an example.

for HTML output:

```
1 \LWR@ProvidesPackagePass{splitidx}[2016/02/18]
```

```
2 \catcode'\_=12%
3 \xpatchcmd{\newindex}
4     {\jobname-#2.idx}
5     {\jobname-#2_html.idx}
6     {}
7     {\LWR@patcherror{splitidx}{@newindex}}
8 \catcode'\_=8%
```

Patched to use lwarp's automatic indexing counter instead of \thepage:

```
9 \renewcommand*{\@wrsindex}[2][]{%
    \ifx\relax#1\relax
       \if@splitidx
11
         \@wrsindex[idx]{#2}%
12
       \else
13
         \def\ensuremath{\$2}\%
14
         \if@verbindex\@onelevel@sanitize\@tempa\fi
15
16
         \@wrindex{\@tempa}%
17
      \fi
18
    \else
       \def\ensuremath{\def}\
19
       \csname index@#1@hook\endcsname
20
21 %
         \expandafter\ifx\csname @@wrsindex\endcsname\relax
22
       \addtocounter{LWR@autoindex}{1}%
                                                                 lwarp
23
       \LWR@new@label{LWRindex-\arabic{LWR@autoindex}}%
                                                                 lwarp
           \@@@wrsindex{#1}{{\@tempa}{\thepage}}%
24 %
         \@@@wrsindex{#1}{{\@tempa}{\arabic{LWR@autoindex}}}%
25
26 %
         \else
           \def\ensuremath{\def}\def\ensuremath{\def}\def\findex{\#1}}%
27 %
           \expandafter\@tempb\@tempa||\\%
28 %
29 %
         \fi
30
       \endgroup
       \@esphack
31
32
    \fi
33 }
```

lwarp defines sectioning commands with xparse, so the below patches are done as temporary redefinitions instead of being \let.

```
34 \xpatchcmd{\printsubindex}
      {\let\section\subsection}
      {\renewcommand*{\section}{\subsection}}
36
37
      {}
      {\LWR@patcherror{splitidx}{printsubindex-section}}
38
39
40 \xpatchcmd{\printsubindex}
      {\let\chapter\section}
      {\renewcommand*{\chapter}{\section}}
42
43
      {\LWR@patcherror{splitidx}{printsubindex-chapter}}
44
45
46 \xpatchcmd{\printsubindex}
47
      {\let\@makechapterhead\section}
48
      {\def\@makechapterhead{\section}}
49
      {\LWR@patcherror{splitidx}{printsubindex-chapter}}
50
```

File 335 lwarp-srcltx.sty

§ 433 Package **srcltx**

Pkg srcltx srcltx is ignored.

```
for HTML output:
                     1 \LWR@ProvidesPackageDrop{srcltx}[2006/11/12]
                     2 \newif\ifSRCOK \SRCOKfalse
                     4 \newcommand*\srcInputHook[1]{}
                     5 \newcommand*\MainFile{}
                     6 \def\MainFile{\jobname.tex}
                     7 \newcommand*\CurrentInput{}
                     8 \gdef\CurrentInput{\MainFile}
                     9 \newcommand\Input{}
                    10 \let\Input\input
          File 336 lwarp-srctex.sty
         Package Srctex
§ 434
                    srctex is ignored.
      Pkg srctex
  for HTML output:
                     1 \LWR@ProvidesPackageDrop{srctex}[2006/11/12]
                     2 \LWR@origRequirePackage{lwarp-srcltx}
                    lwarp-stabular.sty
         Package stabular
§ 435
                    (Emulates or patches code by Sigitas Tolušis.)
                    stabular is emulated.
    Pkg stabular
  for HTML output:
                     1 \LWR@ProvidesPackageDrop{stabular}[2014/03/20]
    Env stabular [\langle vpos \rangle] \{\langle colspec \rangle\}
                     2 \newenvironment{stabular}[2][c]
                     4 \begin{tabular}[#1]{#2}
                     5 \renewcommand{\noalign}[1]{}
                     6 }
                     7 {\end{tabular}}
    Env stabular \{\langle width \rangle\} [\langle vpos \rangle] \{\langle colspec \rangle\}
                     8 \NewDocumentEnvironment{stabular*}{m o m}
                    10 \begin{tabular}[#2]{#3}
                    11 \renewcommand{\noalign}[1]{}
                    13 {\end{tabular}}
```

```
lwarp-stfloats.sty
         File 338
                   stfloats
         Package
§ 436
                   stfloats is ignored.
        stfloats
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{stfloats}[2017/03/27]
                   stfloats may have been preloaded by a ltj* class.
                   The following are provided in case they have not yet been defined:
                    2 \providecommand*{\fnbelowfloat}{}
                    3 \providecommand*{\fnunderfloat}{}
                    4 \providecommand*{\setbaselinefloat}{}
                    5 \providecommand*{\setbaselinefixed}{}
                   Nullified for HTML:
                    6 \renewcommand*{\fnbelowfloat}{}
                    7 \renewcommand*{\fnunderfloat}{}
                    8 \renewcommand*{\setbaselinefloat}{}
                    9 \renewcommand*{\setbaselinefixed}{}
          File 339 lwarp-struktex.sty
                   struktex
§ 437
         Package
                   (Emulates or patches code by Jobst Hoffmann.)
        struktex
                   struktex is patched for use by lwarp.
  for HTML output:
                    1 \LWR@ProvidesPackagePass{struktex}[2018/06/04]
                    2 \BeforeBeginEnvironment{struktogramm}{\begin{lateximage}[(struktogramm)]}
                    3 \AfterEndEnvironment{struktogramm}{\end{lateximage}}
                    4
                    5 \newenvironment{LWR@HTML@centernss}{\begin{center}}{\end{center}}
                    6 \LWR@formattedenv{centernss}
                    8 \newcommand{\LWR@HTML@CenterNssFile}[1]{%
                         \begin{center}
                   10
                          \input{#1.nss}
                          \end{center}
                   11
                   12 }
                   13 \LWR@formatted{CenterNssFile}
                   15 \newcommand{\LWR@HTML@centernssfile}{\LWR@HTML@CenterNssFile}
```

```
16 \LWR@formatted{centernssfile}
```

lwarp-subcaption.sty File 340

subcaption § 438 Package

(Emulates or patches code by AXEL SOMMERFELDT.)

subcaption subcaption is patched for use by lwarp.

1 \LWR@ProvidesPackagePass{subcaption}[2018/05/01] for HTML output:

> Tells lwarp to ignore minipage widths inside a subfigure or subtable. In print mode the minipages are used to place the items next to each other. In HTML they are placed side-by-side automatically.

```
2 \ifdef{\subcaption@minipage}{
     \xpatchcmd{\subcaption@minipage}
4
         {\minipage}
         {\minipagefullwidth\minipage}
5
6
         {\LWR@patcherror{subcaption}{subcaption@minipage}}
8 }{}
```

Likewise for a \subcaptionbox:

```
9 \ifdef{\subcaptionbox}{
      \xpretocmd{\subcaptionbox}
          {\minipagefullwidth}
11
12
          {\LWR@patcherror{subcaption}{subcaptionbox}}
13
14 }{}
```

lwarp-subfig.sty

subfig § 439 **Package**

(Emulates or patches code by Steven Douglas Cochran.)

subfig subfig is supported and patched by lwarp.

lof/lotdepth At present, the package options for lofdepth and lotdepth are not working. These counters must be set separately after the package has been loaded.

> In the document source, use \hfill and \hspace* subfig>inline between subfigures to spread them apart horizontally. The use of other forms of whitespace may cause paragraph tags to be generated, resulting in subfigures appearing on the following lines instead of all on a single line.

for HTML output:

Accept all options for lwarp-subfig:

```
1 \LWR@ProvidesPackagePass{subfig}[2005/06/28]
                    \{\langle 1 \ type \rangle\} \ [\langle 2 \ LoF \ entry \rangle] \ [\langle 3 \ caption \rangle] \ \{\langle 4 \ contents \rangle\}
\sf@@subfloat
                  The outer minipage allows side-by-side subfloats with \hfill between.
                   2 \long\def\sf@@subfloat#1[#2][#3]#4{%
                   3 \begin{minipage}{\linewidth}% lwarp
                    4 \IfValueTF{#2}{%
                          \LWR@setlatestname{#2}%
                   6 }{%
                    7
                          \IfValueTF{#3}{%
                              \LWR@setlatestname{#3}%
                    8
                         }{}%
                   9
                   10 }%
                   11 \LWR@stoppars% lwarp
                          \@ifundefined{FBsc@max}{}%
                              {\FB@readaux{\let\FBsuboheight\relax}}%
                   13
                          \@tempcnta=\@ne
                   14
                         \if@minipage
                   15
                            \ensuremath{\texttt{@tempcnta=}}\ensuremath{\texttt{z@}}
                   16
                         \else\ifdim \lastskip=\z@ \else
                   17
                   18
                            \@tempcnta=\tw@
                          \fi\fi
                   19
                   20
                          \ifmaincaptiontop
                   21
                            \sf@top=\sf@nearskip
                            \sf@bottom=\sf@farskip
                   22
                  23
                            \sf@top=\sf@farskip
                   24
                   25
                            \sf@bottom=\sf@nearskip
                  26
                          \leavevmode
                   27
                   28 %
                            \setbox\@tempboxa \hbox{#4}%
                            \@tempdima=\wd\@tempboxa
                   29 %
                            \@ifundefined{FBsc@max}{}%
                   30 %
                                 {\global\advance\Xhsize-\wd\@tempboxa
                   31 %
                   32 %
                                  \dimen@=\ht\@tempboxa
                   33 %
                                  \advance\dimen@\dp\@tempboxa
                                  \ifdim\dimen@>\FBso@max
                  34 %
                  35 %
                                    \global\FBso@max\dimen@
                                  \fi}%
                   36 %
                  Do not use boxes, which interfere with lateximages:
                            \vtop%
                  37 %
                   38
                          \bgroup
                   39 %
                              \vbox%
                   40
                            \bgroup
                              \ifcase\@tempcnta
                   41
                                 \@minipagefalse
                   42
                   43
                              \or
```

\vskip\sf@top

44 %

```
45
          \or
46
             \ifdim \lastskip=\z@ \else
47 %
                 \@tempskipb\sf@top\relax\@xaddvskip
             \fi
48
          \fi
49
          \sf@ifpositiontop{%
50
            \ifx \@empty#3\relax \else
51
               \sf@subcaption{#1}{#2}{#3}%
52
53 %
                 \vskip\sf@capskip
                 \vskip\sf@captopadj
54 %
             \fi\egroup
55
56 %
               \hrule width0pt height0pt depth0pt
57
               \LWR@startpars% lwarp
     \box\@tempboxa
58 %
59
               #4
               \LWR@stoppars% lwarp
60
          }{%
61
          \LWR@startpars% lwarp
62
          \@ifundefined{FBsc@max}%
63
               {
64
     \box\@tempboxa
65 %
                   #4
67
68
               {\ifx\FBsuboheight\relax
                    \box\@tempboxa
69 %
                   #4
70
                \else
71
                    \vbox to \FBsuboheight{\FBafil\box\@tempboxa\FBbfil}%
72 %
                   #4
73
74
                \fi}%
          \LWR@stoppars% lwarp
75
             \egroup
76
             \ifx \@empty#3\relax \else
77
                 \vskip\sf@capskip
78 %
79 %
                 \hrule width0pt height0pt depth0pt
               \sf@subcaption{#1}{#2}{#3}%
80
81
           \fi
          }%
82
83 %
          \vskip\sf@bottom
84
      \egroup
85
      \@ifundefined{FBsc@max}{}%
86
          {\addtocounter{FRobj}{-1}%
87
            \ifnum\c@FRobj=0\else
              \subfloatrowsep
88
           \fi}%
89
      \ifmaincaptiontop\else
90
91
        \global\advance\@nameuse{c@\@captype}\m@ne
      \fi
93 \end{minipage}% lwarp
94 \LWR@startpars% lwarp
   \endgroup\ignorespaces%
96 }%
```

```
97 \long\def\sf@subcaption#1#2#3{%
   98 \LWR@stoppars% lwarp
                     \ifx \relax#2\relax \else
 100
                               \bgroup
                                        \let\label=\@gobble
 101
                                        \let\protect=\string
 102
                                        \def\@subcaplabel{%
103
                                                \caption@lstfmt{\ensure{p@#1}}{\ensure{the#1}}}\%
104
                                       105
                              \egroup
106
                     \fi
107
                     \bgroup
108
                              \ifx \relax#3\relax
109
110
                                        \let\captionlabelsep=\relax
111
                                        \setbox0\vbox{%
112 %
                                                    \he \ensuremath{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mb}\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow}\mbelow{\mbelow{\mbelow}\mbelow{\mbelow{\mbelow}\mbelow}\mbelow}\mbelow{\mbelow}\mbelow{\mbelow}\mbelow}\mbelow{\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}
113 %
114 %
115 % %
                                                                      \hss
116 % %
                                                                 \parbox[t]{\theta}\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox[t]{\parbox
117 %
                                                                 \caption@make
118 %
                                                                                   {\@nameuse{sub\@captype name}}%
119 %
                                                                                   {\@nameuse{thesub\@captype}}%
120 %
                                                                                   {#3}
121 % %
122 % %
                                                                               \hspace{$\hspace}
123 %
124 %
                               \@ifundefined{FBsc@max}%
125
126 %
                                                        {\box0}%
127
128 % \parbox[t]{\the\@tempdima}{%
129 \LWR@traceinfo{sfsubcap B1}% lwarp
                                                                 \LWR@figcaption% lwarp
131
                                                                 \caption@make
132
                                                                                   {\@nameuse{sub\@captype name}}%
                                                                                   {\@nameuse{thesub\@captype}}%
133
                                                                                   {\LWR@isolate{#3}}%
134
                                                                 \endLWR@figcaption% lwarp
135
136 \LWR@traceinfo{sfsubcap B2}% lwarp
137 %
                      }%
138
                                                }%
                                                {\dimen@\ht0%
139
                                                     \advance\dimen@\dp0%
140
                                                     \ifdim\dimen@>\FBsc@max
141
                                                              \global\FBsc@max\dimen@
142
                                                    \fi
143
                                                    \FB@readaux{\let\FBsubcheight\relax}%
144
                                                    \ifx\FBsubcheight\relax
145
146
                                                              \def\next{
                         \parbox[t]{\theta \neq \theta \in \parbox[t]}
147 %
                                                                 }%
148
149
                                                     \else
                                                              \def\next{}
150
                         \parbox[t][\FBsubcheight][t]{\the\@tempdima}
```

```
152
                                                                                          }%
                                                                                  \fi
                                                153
                                               154 %
                                                                                       \vbox{%
                                                                                             \he \ensuremath{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mb}\mbelow{\mbelow{\mbelow{\mbelow{\mbelow{\mbelow}\mbelow{\mbelow{\mbelow{\mbelow{\mbelow}\mbelow{\mbelow}\mbelow{\mbelow}\mbelow{\mbelow}\mbelow{\mbelow}\mbelow{\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}\mbelow}
                                               155 %
                                               156
                                               157 %
                                                                                                   \hss
                                                                                                   \next{%}
                                               158 %
                                               159 \LWR@traceinfo{sfsubcap C1}% lwarp
                                                                                                   \caption@make
                                                                                                               {\@nameuse{sub\@captype name}}%
                                               161
                                                                                                              {\@nameuse{thesub\@captype}}%
                                               162
                                                                                                               {#3}
                                               163
                                               164 \LWR@traceinfo{sfsubcap C1}% lwarp
                                               165 % }%
                                                166 %
                                                                                                   \hss
                                                167
                                               168 %
                                               169 %
                                                                                          }
                                                                              }%
                                               170
                                               171
                                                             \egroup
                                               172 \LWR@startpars% lwarp
\subfloat@label
                                                     Patches for \sf@sub@label:
                                               174 \def\subfloat@label{%
                                               175 \LWR@ensuredoingapar% lwarp
                                                             \@ifnextchar(%
                                                                                                              %) match left parenthesis
                                               177
                                                                   {\sf@sub@label}
                                                                   {\sf@sub@label(Sub\@captype\space
                                               178
                                                                                                               \@ifundefined{thechapter}{}{\@nameuse{thechapter}\%pace}%
                                               179
                                                                                                               \@nameuse{p@sub\@captype}%
                                               180
                                                181
                                                                                                               \@nameuse{thesub\@captype}.)}}
                                                Patches for \subref.
              \sf@subref
                                                     \{\langle label \rangle\}
                                                The unstarred version uses a \ref link whose printed text comes from the sub@<label>:
                                                182 \renewcommand{\sf@subref}[1]{%
                                               183 \LWR@subnewref{#1}{sub@#1}%
                                               184 }
           \sf@@subref
                                                     \{\langle label \rangle\}
                                                The starred version uses the printed sub@<label> which is stored as if it were a page
                                                number:
                                                185 \renewcommand{\sf@@subref}[1]{\LWR@orig@pageref{sub@#1}}
                                                Defining new subfloats. The l@sub<type> for each is redefined.
     \@newsubfloat
                                                     [\langle keys/values \rangle] \{\langle float \ name \rangle\}
                                               186 \LetLtxMacro\LWR@orig@newsubfloat\@newsubfloat
```

```
187
                   188 \def\@newsubfloat[#1]#2{%
                   189 \LWR@orig@newsubfloat[#1]{#2}%
                   191 }
                   Pre-defined for figures and tables:
     \l@subfigure
                    \{\langle text \rangle\} \{\langle pagenum \rangle\}
                   192 \renewcommand{\l@subfigure}[2]{\hypertocfloat{2}{subfigure}{lof}{#1}{#2}}
      \l@subtable
                     \{\langle text \rangle\} \{\langle pagenum \rangle\}
                   193 \renewcommand{\l@subtable}[2]{\hypertocfloat{2}{subtable}{lot}{\#1}{\#2}}
          File 342 lwarp-subfigure.sty
                   subfigure
         Package
§ 440
       subfigure
                   subfigure is emulated by subfig.
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{subfigure}[2002/03/15]
                    2 \RequirePackage{subfig}
                    3 \LetLtxMacro\subfigure\subfloat
                    4 \LetLtxMacro\subtable\subfloat
                    5 \LetLtxMacro\Subref\subref
                    6 \@ifundefined{figuretopcaptrue}{\newif\iffiguretopcap}{}
                    7 \newif\ifsubfiguretopcap
                    8 \newif\ifsubcaphang
                    9 \newif\ifsubcapcenter
                   10 \newif\ifsubcapcenterlast
                   11 \newif\ifsubcapnooneline
                   12 \newif\ifsubcapraggedright
                   13 \newskip\subfigtopskip
                   14 \newskip\subfigcapskip
                   15 \newdimen\subfigcaptopadj
                   16 \newskip\subfigbottomskip
                   17 \newdimen\subfigcapmargin
                   18 \newskip\subfiglabelskip
                   19 \newcommand*{\subcapsize}{}
                   20 \newcommand*{\subcaplabelfont}{}
                   21 \newcommand*{\subcapfont}{}
```

File 343 lwarp-supertabular.sty

§ 441 Package supertabular

(Emulates or patches code by Johannes Braams, Theo Jurriens.)

Pkg supertabular supertabular is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{supertabular}[2004/02/20]

Misplaced alignment tab character &

For \tablefirsthead, etc., enclose them as follows:

\StartDefiningTabulars \tablefirsthead ... \StopDefiningTabulars

See section 8.10.1.

supertabular and xtab are not supported inside a lateximage.

```
2 \newcommand{\LWRST@firsthead}{}
4 \newcommand{\tablefirsthead}[1]{%
      6 }
 8 \newcommand{\tablehead}[1]{}
9 \newcommand{\tabletail}[1]{}
10
11 \newcommand{\LWRST@lasttail}{}
12
13 \newcommand{\tablelasttail}[1]{%
      \long\gdef\LWRST@lasttail{#1}%
15 }
16 \newcommand{\tablecaption}[2][]{%
      \long\gdef\LWRST@caption{%
17
          \ifblank{#1}%
18
              {\caption{#2}}%
19
20
              {\caption[#1]{#2}}%
      }%
21
22 }
24 \let\topcaption\tablecaption
25 \let\bottomcaption\tablecaption
26 \newcommand*{\LWRST@caption}{}
28 \newcommand*{\shrinkheight}[1]{}
30 \NewDocumentEnvironment{supertabular}{s o m}
31 {%
32 \LWR@traceinfo{supertabular}%
33 \begin{table}%
34 \LWRST@caption%
35 \begin{tabular}{#3}%
36 \TabularMacro\ifdefvoid{\LWRST@firsthead}%
37 {\LWR@getmynexttoken}%
38 {\expandafter\LWR@getmynexttoken\LWRST@firsthead}%
39 }%
```

```
40 {%
41 \ifdefvoid{\LWRST@lasttail}%
42 {}%
43 {%
44 \TabularMacro\ResumeTabular%
45 \LWRST@lasttail%
46 }%
47 \end{tabular}%
48 \end{table}%

49 \gdef\LWRST@caption{}%

50 \LWR@traceinfo{supertabular done}%
51 }
52
53 \NewDocumentEnvironment{mpsupertabular}{s o m}
54 {\minipage{\linewidth}\supertabular{#3}}
55 {\endsupertabular\endminipage}
```

File 344 lwarp-syntonly.sty

§442 Package **syntonly**

(Emulates or patches code by Frank Mittelbach, Rainer Schöpf.)

Pkg syntonly Emulated.

for HTML output:

Discard all options for lwarp-syntonly:

```
1 \LWR@ProvidesPackageDrop{syntonly}[2017/06/30]
2 \newif\ifsyntax@
3 \syntax@false
4
5 \newcommand*{\syntaxonly}{}
6
```

File 345 lwarp-tablefootnote.sty

7 \@onlypreamble\syntaxonly

§ 443 Package tablefootnote

Pkg tablefootnote tablefootnote is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{tablefootnote}[2014/01/26]

This works because in HTML tables are no longer floats.

2 \LetLtxMacro\tablefootnote\footnote

File 346 lwarp-tabls.sty

§ 444 Package tabls

(Emulates or patches code by Donald Arseneau.)

Pkg tabls is emulated. \LWR@hline is used to handle the optional argument when tabls is loaded.

for HTML output: 1 \LWR@ProvidesPackageDrop{tabls}

- 2 \newdimen\tablinesep
- 3 \newdimen\arraylinesep
- 4 \newdimen\extrarulesep

File 347 lwarp-tabularx.sty

§ 445 Package tabularx

(Emulates or patches code by David Carlisle.)

Pkg tabularx tabularx is emulated by lwarp.

for HTML output: Discard all options for lwarp-tabularx:

- 1 \LWR@ProvidesPackageDrop{tabularx}[2016/02/03]
- 2 \RequirePackage{array}
- 3 \DeclareDocumentEnvironment{tabularx}{m o m}
- 4 {\tabular{#3}}
- 5 {\endtabular}
- 6
- 7 \DeclareDocumentEnvironment{tabularx*}{m o m}
- 8 {\tabular{#3}}
- 9 {\endtabular}

File 348 lwarp-tabulary.sty

§ 446 Package tabulary

(Emulates or patches code by David Carlisle.)

Pkg tabulary tabulary is emulated by Iwarp.

for HTML output:

Discard all options for lwarp-tabulary.

Column types L, C, R, and J are emulated by lwarp core code.

```
1 \LWR@ProvidesPackageDrop{tabulary}[2014/06/11]
2 \RequirePackage{array}

3 \NewDocumentEnvironment{tabulary}{m o m}
4 {\tabular{#3}}
5 {\endtabular}
6
7 \NewDocumentEnvironment{tabulary*}{m o m}
8 {\tabular{#3}}
9 {\endtabular}
10
11 \newdimen\tymin
12 \newdimen\tymax
13 \def\tyformat{}
```

File 349 lwarp-tascmac.sty

§ 447 Package tascmac

Pkg tascmac tascmac is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{tascmac}[2018/03/09]

```
2 \newenvironment*{boxnote}
      {
3
          \BlockClass[
4
               padding: .5ex ;
5
               border: 1px solid black;
 6
               border-top: 1px dashed black;
8
          ]{boxnote}
9
      {\endBlockClass}
10
11
12 \newenvironment*{screen}[1][]
13
          \BlockClass[
14
15
               padding: .5ex ;
               border: 1px solid gray ;
16
               border-radius: 8pt
17
          ]{boxnote}
18
19
      {\endBlockClass}
20
21
22 \newenvironment*{itembox}[2][]
23
      {
          \BlockClass[
24
               padding: .5ex ;
25
              border: 1px solid gray ;
26
```

```
27
              border-radius: 8pt
28
          \InlineClass{itemboxtitle}{#2}\par
29
30
      }
      {\endBlockClass}
31
32
33 \newenvironment*{shadebox}
34
          \BlockClass[
35
              padding: .5ex ;
36
37
              border: 1px solid black;
              box-shadow: 3px 3px \#808080 ;
38
          ]{boxnote}
39
40
      }
      {\endBlockClass}
41
42
43 \newcommand*{\mask}[2]{%
      \InlineClass[background: lightgray]{mask}{#1}%
44
45 }
46
47 \newcommand*{\maskbox}[5]{%
      \InlineClass[background: lightgray]{mask}{#5}%
49 }
50
51 \newcommand*{\Maskbox}[6]{%
      \InlineClass[
52
53
          background: lightgray ;
          border: #5 solid black
54
55
      ]{mask}{#6}%
56 }
57
58 \newcommand*{\keytop}[2][]{%
      \InlineClass[%
59
          padding: .2ex ;
60
61
          border: 1px solid black;
62
          border-radius: .7ex ;
63
      ]{keytop}{#2}%
64 }
65
66 \def\yen{\HTMLunicode{00A5}}
68 \def\return{\HTMLunicode{23CE}}
70 \def\Return{\HTMLunicode{23CE}}
72 \def\ascii{ASCII Corporation}
74 \def\Ascii{ASCII Corporation}
76 \def\ASCII{ASCII Corporation}
```

File 350 lwarp-textarea.sty

§ 448 Package **textarea**

(Emulates or patches code by Alexander I. Rozhenko.)

Pkg textarea textarea is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{textarea}[2005/12/26]

- 2 \newcommand\StartFromTextArea{}
- 3 \newcommand\StartFromHeaderArea{}
- 4 \newcommand*\RestoreTextArea{}
- 5 \newcommand*\ExpandTextArea[1][*]{}
- 6 \let\NCC@restoretextarea\@empty

File 351 lwarp-textcomp.sty

§ 449 Package textcomp

(Emulates or patches code by Frank Mittelbach, Robin Fairbairns, Werner Lemberg.)

Pkg textcomp is patched for use by lwarp.

§ 449.1 Limitations

Some textcomp symbols do not have Unicode equivalents, and thus are not supported.

⚠ missing symbols

Many textcomp symbols are not supported by many system/browser fonts. In the css try referencing fonts which are more complete, but expect to see gaps in coverage.

§ 449.2 Package loading

for HTML output: 1 \LWR@ProvidesPackagePass{textcomp}[2017/04/05]

§ 449.3 **HTML symbols**

For HTML, use HTML entities or direct Unicode, depending on the engine.

\AtBeginDocument improves support for LualATEX and XELATEX.

§ 449.3.1 pdfI/TEX symbols

```
2 \AtBeginDocument{
3\ifPDFTeX% pdflatex or dvi latex
4 \newcommand*{\LWR@HTML@textdegree}{\HTMLentity{deg}}
5 \newcommand*{\LWR@HTML@textcelsius}{\HTMLunicode{2103}}
6 \newcommand*{\LWR@HTML@textohm}{\HTMLunicode{2126}}
7 \newcommand*{\LWR@HTML@textmu}{\HTMLunicode{00B5}}
8 \newcommand*{\LWR@HTML@textlquill}{\HTMLunicode{2045}}
9 \newcommand*{\LWR@HTML@textrquill}{\HTMLunicode{2046}}
10 \newcommand*{\LWR@HTML@textcircledP}{\HTMLunicode{2117}}
11 \newcommand*{\LWR@HTML@texttwelveudash}{\HTMLunicode{2014}}% emdash
13 \newcommand*{\LWR@HTML@textmho}{\HTMLunicode{2127}}
14 \newcommand*{\LWR@HTML@textnaira}{\HTMLunicode{20A6}}
15 \newcommand*{\LWR@HTML@textpeso}{\HTMLunicode{20B1}}
16 \newcommand*{\LWR@HTML@textrecipe}{\HTMLunicode{211E}}
17 \newcommand*{\LWR@HTML@textinterrobang}{\HTMLunicode{203D}}
19 \newcommand*{\LWR@HTML@textperthousand}{\HTMLunicode{2030}}
20 \newcommand*{\LWR@HTML@textpertenthousand}{\HTMLunicode{2031}}
21 \newcommand*{\LWR@HTML@textbaht}{\HTMLunicode{0E3F}}
22 \newcommand*{\LWR@HTML@textdiscount}{\%}
23 \newcommand*{\LWR@HTML@textservicemark}{\HTMLunicode{2120}}
24 \else
```

§ 449.3.2 XHITEX and LualITEX symbols

NOTE: Some of the following do not print well in the listing. Consult the .dtx or .sty file for the actual characters.

```
25 \newcommand*{\LWR@HTML@textdegree}{°}
26 \newcommand*{\LWR@HTML@textcelsius}{}
27 \newcommand*{\LWR@HTML@textohm}{}
28 \newcommand*{\LWR@HTML@textmu}{\mu}
29 \newcommand*{\LWR@HTML@textlquill}{}
30 \newcommand*{\LWR@HTML@textrquill}{}
31 \newcommand*{\LWR@HTML@textcircledP}{}
32 \newcommand*{\LWR@HTML@texttwelveudash}{---}% emdash
33 \newcommand*{\LWR@HTML@textthreequartersemdash}{---}% emdash
34 \newcommand*{\LWR@HTML@textmho}{}
35 \newcommand*{\LWR@HTML@textnaira}{}
36 \newcommand*{\LWR@HTML@textpeso}{}
37 \newcommand*{\LWR@HTML@textrecipe}{}
38 \newcommand*{\LWR@HTML@textinterrobang}{}
39 \newcommand*{\LWR@HTML@textinterrobangdown}{}
40 \newcommand*{\LWR@HTML@textperthousand}{%}
41 \newcommand*{\LWR@HTML@textpertenthousand}{%}
42 \newcommand*{\LWR@HTML@textbaht}{}
43 \newcommand*{\LWR@HTML@textdiscount}{\%}
44 \newcommand*{\LWR@HTML@textservicemark}{}
45 \fi
46
47 \LWR@formatted{textdegree}
```

```
48 \LWR@formatted{textcelsius}
49 \LWR@formatted{textohm}
50 \LWR@formatted{textmu}
51 \LWR@formatted{textlquill}
52 \LWR@formatted{textrquill}
53 \LWR@formatted{textcircledP}
54 \LWR@formatted{texttwelveudash}
55 \LWR@formatted{textthreequartersemdash}
56 \LWR@formatted{textmho}
57 \LWR@formatted{textnaira}
58 \LWR@formatted{textpeso}
59 \LWR@formatted{textrecipe}
60 \LWR@formatted{textinterrobang}
61 \LWR@formatted{textinterrobangdown}
62 \LWR@formatted{textperthousand}
63 \LWR@formatted{textpertenthousand}
64 \LWR@formatted{textbaht}
65 \LWR@formatted{textdiscount}
66 \LWR@formatted{textservicemark}
```

§ 449.4 HTML diacritics

For HTML, Unicode diacritical marks are used:

```
67 \newcommand*{\LWR@HTML@capitalcedilla}[1]{#1\HTMLunicode{0327}}
68 \newcommand*{\LWR@HTML@capitalogonek}[1]{#1\HTMLunicode{0328}}
69 \newcommand*{\LWR@HTML@capitalgrave}[1]{#1\HTMLunicode{0300}}
70 \newcommand*{\LWR@HTML@capitalacute}[1]{#1\HTMLunicode{0301}}
71 \newcommand*{\LWR@HTML@capitalcircumflex}[1]{#1\HTMLunicode{0302}}
72 \newcommand*{\LWR@HTML@capitaltilde}[1]{#1\HTMLunicode{0303}}
73 \newcommand*{\LWR@HTML@capitaldieresis}[1]{#1\HTMLunicode{0308}}
74 \newcommand*{\LWR@HTML@capitaldieresis}[1]{#1\HTMLunicode{0308}}
75 \newcommand*{\LWR@HTML@capitalring}[1]{#1\HTMLunicode{30A}}
76 \newcommand*{\LWR@HTML@capitalcaron}[1]{#1\HTMLunicode{30C}}
77 \newcommand*{\LWR@HTML@capitalbreve}[1]{#1\HTMLunicode{306}}
78 \newcommand*{\LWR@HTML@capitalmacron}[1]{#1\HTMLunicode{304}}
79 \newcommand*{\LWR@HTML@capitaldotaccent}[1]{#1\HTMLunicode{307}}
```

\textcircled becomes a span with a rounded border. \providecommand is used to avoid conflict with xunicode.

```
80 \providecommand*{\LWR@HTML@textcircled}[1]{%
81 \InlineClass[border: 1px solid \LWR@currenttextcolor]{textcircled}{#1}%
82 }
83
84 \LWR@formatted{capitalcedilla}
85 \LWR@formatted{capitalogonek}
86 \LWR@formatted{capitalgrave}
87 \LWR@formatted{capitalacute}
88 \LWR@formatted{capitalcircumflex}
89 \LWR@formatted{capitaltilde}
90 \LWR@formatted{capitaldieresis}
91 \LWR@formatted{capitalhungarumlaut}
92 \LWR@formatted{capitalciron}
```

```
94 \LWR@formatted{capitalbreve}
95 \LWR@formatted{capitalmacron}
96 \LWR@formatted{capitaldotaccent}
97 \LWR@formatted{textcircled}
```

Nullify textcomp macros when generating filenames:

```
98 \FilenameNullify{%
       \renewcommand*{\textdegree}{}%
99
       \renewcommand*{\textcelsius}{}%
100
101
       \renewcommand*{\textohm}{}%
102
       \renewcommand*{\textmu}{}%
103
       \renewcommand*{\textlquill}{}%
104
       \renewcommand*{\textrquill}{}%
105
       \renewcommand*{\textcircledP}{}%
       \renewcommand*{\texttwelveudash}{}%
106
       \renewcommand*{\textthreequartersemdash}{}%
107
108
       \renewcommand*{\textmho}{}%
109
       \renewcommand*{\textnaira}{}%
       \renewcommand*{\textpeso}{}%
110
       \renewcommand*{\textrecipe}{}%
111
       \renewcommand*{\textinterrobang}{}%
112
113
       \renewcommand*{\textinterrobangdown}{}%
       \renewcommand*{\textperthousand}{}%
114
115
       \renewcommand*{\textpertenthousand}{}%
116
       \renewcommand*{\textbaht}{}%
117
       \renewcommand*{\textdiscount}{}%
118
       \renewcommand*{\textservicemark}{}%
       \renewcommand*{\textcircled}[1]{#1}%
119
       \renewcommand*{\capitalcedilla}[1]{#1}%
120
       \renewcommand*{\capitalogonek}[1]{#1}%
121
122
       \renewcommand*{\capitalgrave}[1]{#1}%
       \renewcommand*{\capitalacute}[1]{#1}%
123
       \renewcommand*{\capitalcircumflex}[1]{#1}%
124
125
       \renewcommand*{\capitaltilde}[1]{#1}%
       \renewcommand*{\capitaldieresis}[1]{#1}%
126
       \renewcommand*{\capitalhungarumlaut}[1]{#1}%
127
128
       \renewcommand*{\capitalring}[1]{#1}%
129
       \renewcommand*{\capitalcaron}[1]{#1}%
130
       \renewcommand*{\capitalbreve}[1]{#1}%
131
       \renewcommand*{\capitalmacron}[1]{#1}%
       \renewcommand*{\capitaldotaccent}[1]{#1}%
132
133 }% FilenameNullify
134
135 }% AtBeginDocument
```

File 352 lwarp-textfit.sty

§ 450 Package **textfit**

Pkg textfit textfit is emulated.

Text is placed into a of class textfit. Sizes are approximated, and also limited by browser min/max font-size settings.

```
for HTML output:
                1 \LWR@ProvidesPackageDrop{textfit}[1994/04/15]
                2 \newsavebox{\LWR@textfitbox}
                4 \newcommand*{\LWR@textfitscale}[2]{%
                5 \setlength{\LWR@templengthone}{#1}%
                 6 \setlength{\LWR@templengthone}{%
                      1em*\ratio{\LWR@templengthone}{\LWR@templengthtwo}%
                8 }%
                9 \InlineClass[font-size:\LWR@printlength{\LWR@templengthone}]{textfit}{#2}%
                10 }
                12 \newcommand*{\scaletowidth}[2]{%
                13 \sbox{\LWR@textfitbox}{#2}%
                15 \LWR@textfitscale{#1}{#2}%
                16 }
                18 \newcommand*{\scaletoheight}[2]{%
                19 \sbox{\LWR@textfitbox}{#2}%
                20 \settoheight{\LWR@templengthtwo}{\usebox{\LWR@textfitbox}}%
                21 \LWR@textfitscale{#1}{#2}%
                22 }
```

File 353 lwarp-textpos.sty

§ 451 Package **textpos**

(Emulates or patches code by Norman Gray.)

17 \newcommand{\textblockorigin}[2]{}

```
Pkg textpos textpos is emulated.
```

```
for HTML output:
```

```
1 \LWR@ProvidesPackageDrop{textpos}[2019/04/15]
```

```
2 \NewDocumentEnvironment{textblock}{m o r()}{}{}
3 \NewDocumentEnvironment{textblock*}{m o r()}{}{}
4 \newcommand*{\TPGrid}[3][]{}
5 \NewDocumentCommand{\TPMargin}{s o}{}
6 \newcommand*{\textblockcolour}[1]{}
7 \newcommand*{\textblockculecolour}[1]{}
8 \newcommand*{\textblockculecolor}[1]{}
9 \newcommand*{\textblockrulecolor}[1]{}
10 \newcommand*{\textblockrulecolor}[1]{}
11 \newcommand*{\textblockrulekulur}[1]{}
12 \newlength{\TPHorizModule}}
13 \newlength{\TPVertModule}}
14 \newlength{\TPboxrulesize}}
15 \newcommand*{\showtextsize}{}
16 \newcommand*{\showtextsize}{}
```

```
18 \newcommand*{\TPoptions}[1]{}
19 \newcommand*{\TPReferencePosition}[1]{}
```

File 354 lwarp-theorem.sty

§ 452 Package theorem

(Emulates or patches code by Frank Mittelbach.)

Pkg theorem theo

theorem is patched for use by lwarp.

Table 16: Theorem package—css styling of theorems and proofs

Theorem: <div> of class theorembody<theoremstyle>

Theorem Header: of class theoremheader

where <theoremstyle> is plain, break, etc.

for HTML output:

1 \LWR@ProvidesPackagePass{theorem}[2014/10/28]

§ 452.1 Remembering the theorem style

Storage for the style being used for new theorems:

```
2 \newcommand{\LWR@newtheoremstyle}{plain}
```

Patched to remember the style being used for new theorems:

```
3 \gdef\theoremstyle#1{%
     \@ifundefined{th@#1}{\@warning
            {Unknown theoremstyle '#1'. Using 'plain'}%
5
            \theorem@style{plain}%
6
             \renewcommand{\LWR@newtheoremstyle}{plain}% lwarp
7
            }%
8
        {%
9
            \theorem@style{#1}%
10
            \renewcommand{\LWR@newtheoremstyle}{#1}% lwarp
        }%
12
        \begingroup
13
          \csname th@\the\theorem@style \endcsname
14
        \endgroup}
15
```

Patched to remember the style for this theorem type, and set it later when the environment is started.

```
16 \gdef\@xnthm#1#2[#3]{%
17 \expandafter\@ifdefinable\csname #1\endcsname
18 {%
19 \csedef{LWR@thmstyle#1}{\LWR@newtheoremstyle}% \lambda \text{lwarp}
```

```
20
             \@definecounter{#1}\@newctr{#1}[#3]%
21
             \expandafter\xdef\csname the#1\endcsname
                  {\expandafter \noexpand \csname the#3\endcsname
22
23
                    \@thmcountersep \@thmcounter{#1}}%
             \def\@tempa{\global\@namedef{#1}}%
24
             \expandafter \@tempa \expandafter{%
25
                 \csname th@\the \theorem@style
26
                              \expandafter \endcsname \the \theorem@bodyfont
27
               \@thm{#1}{#2}}%
28
             \global \expandafter \let \csname end#1\endcsname \@endtheorem
29
          \AtBeginEnvironment{#1}{\edef\LWR@thisthmstyle{\@nameuse{LWR@thmstyle#1}}}% lwarp
30
31
           }}
32
33 \gdef\@ynthm#1#2{%
34
             \expandafter\@ifdefinable\csname #1\endcsname
35
           {
             \csedef{LWR@thmstyle#1}{\LWR@newtheoremstyle}% lwarp
36
             \@definecounter{#1}%
37
             38
             \def\ensuremath{\def}{\#1}}\
39
               \expandafter{\csname th@\the \theorem@style \expandafter
40
               \end{small} \end
41
             \global \expandafter \let \csname end#1\endcsname \@endtheorem
42
          \AtBeginEnvironment{#1}{\edef\LWR@thisthmstyle{\@nameuse{LWR@thmstyle#1}}}% lwarp
43
44
           }}
45
46 \gdef\@othm#1[#2]#3{%
        \expandafter\ifx\csname c@#2\endcsname\relax
           \@nocounterr{#2}%
48
49
           \expandafter\@ifdefinable\csname #1\endcsname
50
51
             \csedef{LWR@thmstyle#1}{\LWR@newtheoremstyle}% lwarp
52
             \expandafter \xdef \csname the#1\endcsname
53
               {\expandafter \noexpand \csname the#2\endcsname}%
55
             \def\@tempa{\global\@namedef{#1}}\expandafter \@tempa
               \expandafter{\csname th@\the \theorem@style \expandafter
56
               \endcsname \the\theorem@bodyfont \@thm{#2}{#3}}%
57
             \global \expandafter \let \csname end#1\endcsname \@endtheorem
58
59
          \AtBeginEnvironment{#1}{\edef\LWR@thisthmstyle{\@nameuse{LWR@thmstyle#1}}}% lwarp
60
            }%
        \fi}
```

§ 452.2 css patches

The following are patched for css.

These were in individual files thp.sty for plain, thmb.sty for margin break, etc. They are gathered together here.

Each theorem is encased in a BlockClass environment of class theorembody<style>.

Each header is encased in an \InlineClass of class theoremheader.

```
62 \gdef\th@plain{%
```

```
\def\@begintheorem##1##2{%
64
           \item[
               \InlineClass{theoremheader}{##1\ ##2}
65
66
       }%
67
 68 \ensuremath{\mbox{\mbox{\mbox{$def$}\mbox{\mbox{$q$}}}} 1\#4\#2\#3\{\%
      \item[
           \InlineClass\{theoremheader\}\{\#1\ \#2\ (\#3)\}
70
71
       ]
       }
 72
73 }
74
 75 \gdef\th@break{%
     77
       \item[
 78
           \InlineClass{theoremheader}{\#1\ \#2}\newline%
 79
80
       }%
81 \def\@opargbegintheorem##1##2##3{%
     \item[
           \InlineClass{theoremheader}{\#1\ \#2\ (\#3)}\newline
83
84
       ]
85
       }
86 }
87
88 \gdef\th@marginbreak{%
89
     90
       \item[
           \InlineClass{theoremheader}{##2 \qquad ##1}\newline
91
92
       ]
       }%
93
94 \def\@opargbegintheorem##1##2##3{%
       \item[
95
           \InlineClass{theoremheader}{\#2 \neq 2 \neq 0}
 96
 97
           (##3)}\newline
       ]
 98
99
       }
100 }
101
102 \gdef\th@changebreak{%
     \def\@begintheorem##1##2{
104
       \item[
105
           \InlineClass{theoremheader}{##2\ ##1}\newline
106
       }%
107
108 \def\@opargbegintheorem##1##2##3{%
109
       \item[
           \InlineClass{theoremheader}{ ##2\ ##1\ %
110
111
           (##3)}\newline
       ]
112
       }
113
114 }
115
116 \gdef\th@change{%
    \def\@begintheorem##1##2{
```

```
118
                 \item[
                     \InlineClass{theoremheader}{##2\ ##1}
         119
          120
                }%
         121
         122 \def\@opargbegintheorem##1##2##3{%
                 \item[
         123
                     \InlineClass{theoremheader}{\#2\ \#\#1\ (\#\#3)}
         124
                 ]
         125
         126
                }
         127 }
         128
         129 \gdef\th@margin{%
              \def\@begintheorem##1##2{
         130
         131
                 \item[
                     \InlineClass{theoremheader}{##2 \qquad ##1}
         132
                 ]
          133
                }%
         134
         135 \def\@opargbegintheorem##1##2##3{%
                \item[
         136
                         \InlineClass{theoremheader}{\#2 \neq 1 \pmod{\#1}}
         137
                ]
          138
          139
                 }
         140 }
          Patched for css:
         141 \gdef\@thm#1#2{\refstepcounter{#1}%
         142 \LWR@forcenewpage% lwarp
                \BlockClass{theorembody\LWR@thisthmstyle}% lwarp
         143
                \trivlist
         144
                                                               % used by first \item
                \@topsep \theorempreskipamount
         145
                                                               % used by \@endparenv
                \@topsepadd \theorempostskipamount
         146
                \@ifnextchar [%
                {\@ythm{#1}{#2}}%
                {\@begintheorem{#2}{\csname the#1\endcsname}\ignorespaces}}
         149
         150
         151 \gdef\@endtheorem{%
         152 \endtrivlist
         153 \endBlockClass
         154 }
File 355 lwarp-thinsp.sty
         thinsp
Package
```

§ 453

```
thinsp is emulated.
   Pkg thinsp
for HTML output:
                  1 \LWR@ProvidesPackageDrop{thinsp}[2016/10/02]
                  2 \AtBeginDocument{
                  3 \left( \text{defined by some packages} \right)
                  4 \newcommand*{\thinthinspace}{\thinspace}
```

```
5 }
                     7 \newcommand*{\stretchthinspace}{\thinspace}
                    8 \newcommand*{\stretchthinthinspace}{\thinthinspace}
                    9 \newcommand*{\stretchnegthinspace}{\negthinspace}
          File 356 lwarp-threadcol.sty
         Package threadcol
§ 454
                   threadcol is ignored.
       threadcol
  for HTML output:
                    1 \LWR@ProvidesPackageDrop{threadcol}[2013/01/06]
                    2 \newcommand{\setthreadname}[1]{}
          File 357 lwarp-threeparttable.sty
         Package threeparttable
§ 455
                   (Emulates or patches code by Donald Arseneau.)
  threeparttable
                  threeparttable is emulated.
                   Table note are contained inside a css <div> of class tnotes. If enumitem is used,
                   the note item labels are also individually highlighted with an additional css <span>
                   of class thoteitemheader, otherwise they are plain text.
                    1 \LWR@ProvidesPackageDrop{threeparttable}[2003/06/13]
  for HTML output:
                     [\langle alignment \rangle] To emulate threeparttable:
  threeparttable
                    2 \newenvironment*{threeparttable}[1][b]
                          {\def\@captype{table}}
                          {}
      tablenotes
                     [\langle options \rangle]
                    5 \newenvironment*{tablenotes}[1][]
                    6 {%
                    7 \LWR@forcenewpage
                    8 \BlockClass{tnotes}%
                    9 \description%
                    10 }
                    11 {%
                    12 \enddescription%
```

13 \endBlockClass%

14 }

```
\tnote
            \{\langle text \rangle\}
           15 \newcommand{\tnote}[1]{\LWR@htmlspan{sup}{#1}}
```

File 358 lwarp-threeparttablex.sty

§ 456

Package threeparttablex

threeparttablex threeparttablex is patched for use by lwarp.

threeparttablex is used with longtable and booktabs as follows:

```
\begin{longtable}{ [column specifiers] }
[ . . . ] \endfirsthead
                        % or \endhead, for print and HTML
\warpprintonly{
                        % not used in HTML
  [ . . . ] \endhead
                        % or \endfirsthead
  [ . . . ] \endfoot
  \bottomrule \insertTableNotes \endlastfoot
. . . table contents . . .
\warpHTMLonly{
                 % HTML last footer
  \bottomrule
  \UseMinipageWidths
                         % optional
  \insertTableNotes
  \endlastfoot
\end{longtable}
```

The table notes are created using a \multicolumn. By default the width is not specified to the browser, so long table notes can cause the table to be spread out horizontally. For HTML output, warp guesses the width of the table depending on the number of columns, then restricts its guess to a min/max range. To use this guess for the width of the table notes, use \UseMinipageWidths before \insertTableNotes. The width is then specified, and in many cases the result is an improvement in overall table layout.

for HTML output:

1 \LWR@ProvidesPackagePass{threeparttablex}[2013/07/23]

The width is guessed depending on the number of columns, then limited to a min/max.

```
2 \renewcommand\insertTableNotes{%
      \setlength{\LWR@templengthone}{.375in*\value{LWR@tabletotalLaTeXcols}}%
      \setlength{\LWR@templengthone}{\minof{\textwidth}{\LWR@templengthone}}%
4
      \ \ \setlength{\LWR@templengthone}{\maxof{2.5in}{\LWR@templengthone}}%
5
    \multicolumn{\value{LWR@tabletotalLaTeXcols}}{c}{%
6
7
        \parbox{\LWR@templengthone}{%
          \begin{tablenotes}[\TPTL@optarg]%
            \TPTL@font%
9
            \TPTL@body%
10
```

```
11
                                                                        \end{tablenotes}%
                                                  }%
                                    13
                                    14 }
                                    15
                                    16 \end{TPTL}  \label{thm:lemmand} $$16 \end{TPTL} $$16 \end{Lemmand} $$16 \end{Lemmandd} $$16 \end{Lemmandd} $$16 \end{Lemmandd} $$16 \end{Lemmandd} $$16 \end{Lem
                                   lwarp-thumb.sty
Package thumb
                                   thumb is ignored.
                                       1 \LWR@ProvidesPackageDrop{thumb}[1997/12/24]
                                       2 \newcommand*{\Overviewpage}{}
                                       3 \newlength{\thumbheight}
                                       4 \newlength{\thumbwidth}
  File 360 lwarp-thumbs.sty
Package thumbs
                                   thumbs is ignored.
                                       1 \LWR@ProvidesPackageDrop{thumbs}[2014/03/09]
                                       2 \newcommand{\addthumb}[4]{}
                                       3 \newcommand{\addtitlethumb}[5]{}
                                       4 \newcommand{\stopthumb}{}
                                       5 \newcommand{\continuethumb}{}
                                       6 \newcommand{\thumbsoverview}[1]{}
                                       7 \newcommand{\thumbsoverviewback}[1]{}
                                       8 \newcommand{\thumbsoverviewverso}[1]{}
                                       9 \newcommand{\thumbsoverviewdouble}[1]{}
                                    10 \newcommand{\thumbnewcolumn}{}
                                    11 \newcommand{\addthumbsoverviewtocontents}[2]{}
                                    12 \newcommand{\thumbsnophantom}{}
```

File 361 lwarp-tikz.sty

tikz Package **§ 459**

File 359

thumb

thumbs

for HTML output:

for HTML output:

§ 457

§ 458

(Emulates or patches code by Till Tantau.)

tikz tikz is supported.

matrices

displaymath and If using display math with tikzpicture or \tikz, along with matrices with the & character, the document must be modified as follows:

```
\usepackage{tikz}
\tikzset{every picture/.style={ampersand replacement=\&}}
```

and each instance of & in the tikz expression must be replaced with \&.

Accept all options for lwarp-tikz:

```
1 \LWR@ProvidesPackagePass{tikz}[2015/08/07]
```

catcodes

lwarp changes the catcode of \$ for its own use. The Tikz babel library temporarily changes catcodes back to normal for Tikz's use. tikz v3.0.0 introduced the babel library which handles catcode changes. For older versions, lwarp must change \$'s catcode itself.

Also see:

https://tex.stackexchange.com/questions/16199/ test-if-a-package-or-package-option-is-loaded

```
2 \newbool{LWR@tikzbabel}
4 \@ifpackagelater{tikz}{2013/12/20}% Test for Tikz version v3.0.0
5 {\usetikzlibrary{babel}\booltrue{LWR@tikzbabel}}
6 {\boolfalse{LWR@tikzbabel}}
```

pgfpicture

The \pgfpicture environment is enclosed inside a \lateximage. Enclose the lowlevel \pgfpicture in a lateximage. This is also used by the higher-level \tikz and tikzpicture.

```
7 \preto\pgfpicture{%
      \begin{lateximage}%
      \ifbool{LWR@tikzbabel}% Test for Tikz version v3.0.0
10
      {\catcode'\$=3}% dollar sign is math shift
11
12 }
14 \appto\endpgfpicture{\end{lateximage}}
```

Tikz is placed inside an svG image, so use the original meanings of the following:

```
15 \LetLtxMacro\pgfutil@minipage\LWR@print@minipage
16 \let\pgfutil@endminipage\endLWR@print@minipage
18 \let\pgfutil@raggedleft\LWR@print@raggedleft
19 \let\pgfutil@raggedright\LWR@print@raggedright
21 \def\pgfutil@font@tiny{\LWR@printtiny}
22 \def\pgfutil@font@scriptsize{\LWR@printscriptsize}
23 \def\pgfutil@font@footnotesize{\LWR@printfootnotesize}
24 \def\pgfutil@font@small{\LWR@print@small}
25 \def\pgfutil@font@normalsize{\LWR@print@normalsize}
```

26 \def\pgfutil@font@large{\LWR@printlarge}

§ 460

\footrule

```
27 \def\pgfutil@font@Large{\LWR@printLarge}
                      28 \def\pgfutil@font@huge{\LWR@printhuge}
                      29 \def\pgfutil@font@Huge{\LWR@printHuge}
                      31 \def\pgfutil@font@itshape{\LWR@origitshape}
                      32 \def\pgfutil@font@bfseries{\LWR@origbfseries}
                      34 \def\pgfutil@font@normalfont{\LWR@orignormalfont}
         File 362 lwarp-titleps.sty
        Package titleps
                     (Emulates or patches code by JAVIER BEZOS.)
                     titleps is loaded and used by lwarp during HTML output. All user options and macros
        titleps
                     are ignored and disabled.
                     Discard all options for lwarp-titleps:
                      1 \LWR@ProvidesPackageDrop{titleps}[2016/03/15]
for HTML output:
                     \pagestyle and \thispagestyle are already disabled in the lwarp code.
  \newpagestyle
                       \{\langle name \rangle\} [\langle style \rangle] \{\langle commands \rangle\}
                       2 \NewDocumentCommand{\newpagestyle}{m o m}{}
                       \{\langle name \rangle\} [\langle style \rangle] \{\langle commands \rangle\}
\renewpagestyle
                      3 \NewDocumentCommand{\renewpagestyle}{m o m}{}
        \sethead
                       [\langle el \rangle] [\langle ec \rangle] [\langle er \rangle] {\langle ol \rangle} {\langle oc \rangle} {\langle or \rangle}
                       4 \NewDocumentCommand{\sethead}{o o o m m m}{}
        \setfoot
                       [\langle el \rangle] [\langle ec \rangle] [\langle er \rangle] {\langle ol \rangle} {\langle oc \rangle} {\langle or \rangle}
                       5 \NewDocumentCommand{\setfoot}{o o o m m m}{}
 \settitlemarks
                       * \{\langle names \rangle\}
                       6 \NewDocumentCommand{\settitlemarks}{s m}{}
       \headrule
                       7 \newcommand*{\headrule}{}
```

```
8 \newcommand*{\footrule}{}
                      \{\langle length \rangle\}
    \setheadrule
                      9 \newcommand*{\setheadrule}[1]{}
                      \{\langle length \rangle\}
    \setfootrule
                     10 \newcommand*{\setfootrule}[1]{}
   \makeheadrule
                     11 \newcommand*{\makeheadrule}{}
   \makefootrule
                     12 \newcommand*{\makefootrule}{}
    \setmarkboth
                      \{\langle code \rangle\}
                     13 \newcommand{\setmarkboth}[1]{}
       \widenhead
                     14 \NewDocumentCommand{\widenhead}{s o o m m}{}
  \bottitlemarks
                     15 \newcommand*{\bottitlemarks}{}
  \toptitlemarks
                     16 \newcommand*{\toptitlemarks}{}
\firsttitlemarks
                     17 \newcommand*{\firsttitlemarks}{}
 \nexttitlemarks
                     18 \newcommand*{\nexttoptitlemarks}{}
\outertitlemarks
                     19 \newcommand*{\outertitlemarks}{}
\innertitlemarks
                     20 \newcommand*{\innertitlemarks}{}
                      * {\(\langle name \rangle \)}
   \newtitlemark
```

```
21 \NewDocumentCommand{\newtitlemark}{s m}{}
                               * \{\langle section \rangle\} \{\langle text \rangle\}
    \pretitlemark
                             22 \NewDocumentCommand{\pretitlemark}{s m m}{}
                              \{\langle group \rangle\} \{\langle command \rangle\} \{\langle true \rangle\} \{\langle false \rangle\}
       \ifsamemark
                             23 \newcommand{\ifsamemark}[4]{}
                              * [\langle . \rangle] [\langle . \rangle] [\langle . \rangle] \{\langle . \rangle\} \{\langle . \rangle\} \{\langle extra \rangle\} [\langle which \rangle]
    \setfloathead
                             24 \NewDocumentCommand{\setfloathead}{s o o o m m m m m}{}
                              * [\langle . \rangle] [\langle . \rangle] [\langle . \rangle] \{\langle . \rangle\} \{\langle . \rangle\} \{\langle extra \rangle\} [\langle which \rangle]
    \setfloatfoot
                             25 \NewDocumentCommand{\setfloatfoot}{s o o o m m m m m}{}
   \nextfloathead
                              * [\langle . \rangle] [\langle . \rangle] [\langle . \rangle] \{\langle . \rangle\} \{\langle . \rangle\} \{\langle extra \rangle\} [\langle which \rangle]
                             26 \NewDocumentCommand{\nextfloathead}{s o o o m m m m m}{}
                              * [\langle . \rangle] [\langle . \rangle] [\langle . \rangle] \{\langle . \rangle\} \{\langle . \rangle\} \{\langle extra \rangle\} [\langle which \rangle]
   \nextfloatfoot
                             27 \NewDocumentCommand{\nextfloatfoot}{s o o o m m m m m}{}
       \newmarkset
                              \{\langle markset \rangle\}
                             28 \newcommand{\newmarkset}[1]{}
                              * \{\langle markset \rangle\} \{\langle macro-name \rangle\}
    \newextramark
                             29 \NewDocumentCommand{\newextramarkset}{s m m}{}
   \botextramarks
                              \{\langle markset \rangle\}
                             30 \newcommand{\botextramarks}[1]{}
                              \{\langle markset \rangle\}
   \topextramarks
                             31 \newcommand{\topextramarks}[1]{}
\firstextramarks
                              \{\langle markset \rangle\}
                             32 \newcommand{\firstextramarks}[1]{}
                              \{\langle markset \rangle\}
 \nextextramarks
                             33 \newcommand{\nexttopextramarks}[1]{}
                              \{\langle markset \rangle\}
\outerextramarks
```

```
34 \newcommand{\outerextramarks}[1]{}
 \innerextramarks
                        \{\langle markset \rangle\}
                      35 \newcommand{\innerextramarks}[1]{}
           File 363 lwarp-titleref.sty
          Package titleref
§ 461
                      titleref is emulated.
         titleref
                       1 \LWR@ProvidesPackageDrop{titleref}[2001/04/05]
  for HTML output:
                       3 \LetLtxMacro\titleref\nameref
                       5 \providecounter{LWR@currenttitle}
                       7 \newcommand*{\currenttitle}{%
                              \addtocounter{LWR@currenttitle}{1}%
                              \label{currenttitle\arabic{LWR@currenttitle}}%
                       9
                              \nameref{currenttitle\arabic{LWR@currenttitle}}%
                      10
                      11 }
                      13 \newcommand*{\theTitleReference}[2]{}
           File 364 lwarp-titlesec.sty
                     titlesec
§ 462
          Package
                      (Emulates or patches code by Javier Bezos.)
    Pkg titlesec titlesec is emulated. All user options and macros are ignored and disabled.
                      Discard all options for lwarp-titlesec:
                       1 \LWR@ProvidesPackageDrop{titlesec}[2016/03/21]
  for HTML output:
      \titlelabel
                       \{\langle label-format \rangle\}
                       2 \newcommand*{\titlelabel}[1]{}
                       \{\langle command \rangle\} \{\langle format \rangle\}
    \titleformat*
     \titleformat
                        \{\langle command \rangle\} [\langle shape \rangle] \{\langle format \rangle\} \{\langle label \rangle\} \{\langle sep \rangle\} \{\langle begfore \rangle\} [\langle after \rangle]
                       3 \newcommand\titleformat{%
                           \@ifstar{\ttl@format@s}%
                                    {\ttl@format@i}}
```

```
6 \newcommand{\ttl@format@s}[1]{}
                        7 \NewDocumentCommand{\ttl@format@i}{m o m m m o}{}
\chaptertitlename
                        8 \@ifundefined{@chapapp}{\let\@chapapp\chaptername}{}
                        9 \newcommand\chaptertitlename{\@chapapp}
    \titlespacing
                        * \{\langle command \rangle\} \{\langle left \rangle\} \{\langle before \rangle\} \{\langle after \rangle\} [\langle right \rangle]
                       10 \NewDocumentCommand{\titlespacing}{s m m m m o}{}
         \filright
                       11 \newcommand*{\filright}{}
        \filcenter
                       12 \newcommand*{\filcenter}{}
          \filleft
                       13 \newcommand*{\filleft}{}
          \fillast
                       14 \newcommand*{\fillast}{}
         \filinner
                       15 \newcommand*{\filinner}{}
         \filouter
                       16 \newcommand*{\filouter}{}
          \wordsep
                       17 \newcommand\wordsep{\fontdimen\tw@\font \@plus
                       18 \fontdimen\thr@@\font \@minus \fontdimen4\font}
                        * [\langle align \rangle] \{\langle material \rangle\}
        \titleline
                       19 \NewDocumentCommand{\titleline}{s o m}{}
        \titlerule
                        [\langle height \rangle]
                       20 \providecommand*\titlerule{\@ifstar{\ttl@row}{\ttl@rule}}
                       21 \newcommand*{\ttl@rule}[1][]{}
                       22 \newcommand*{\ttl@row}[2][]{}
                        \{\langle true \rangle\} \{\langle false \rangle\}
\iftitlemeasuring
```

```
23 \newcommand{\iftitlemeasuring}[2]{#2}
 \assignpagestyle
                        \{\langle command \rangle\} \{\langle pagestyle \rangle\}
                       24 \newcommand{\assignpagestyle}[2]{#2}
       \titleclass
                        \{\langle name \rangle\} [\langle startlevel \rangle] \{\langle class \rangle\} [\langle cmd \rangle]
                       25 \NewDocumentCommand{\titleclass}{m o m o}
                     lwarp-titletoc.sty
           File 365
           Package titletoc
§ 463
                      (Emulates or patches code by Javier Bezos.)
         titletoc is emulated. All user options and macros are ignored and disabled.
                      Discard all options for lwarp-titletoc:
                        1 \LWR@ProvidesPackageDrop{titletoc}[2011/12/15]
  for HTML output:
  \dottedcontents
                        \{\langle section \rangle\} \ [\langle left \rangle] \ \{\langle above \rangle\} \ \{\langle label \rangle\} \ \{\langle leader \rangle\}
                        2 \NewDocumentCommand{\dottedcontents}{m o m m m}{}
   \titlecontents
                        begin] [\langle separator \rangle] [\langle end \rangle]
                        \label{lem:contents} $$ \operatorname{\operatorname{titlecontents}}(\difstar{\tilde{\distar}}) $$
                        4 \NewDocumentCommand{\ttl@tcstar}{m o m m m o o o}{}
                        5 \NewDocumentCommand{\ttl@tcnostar}{m o m m m o}{}
                        [\langle correction \rangle] \{\langle right \rangle\}
  \contentsmargin
                        6 \newcommand{\contentsmargin}[2][]{}
\thecontentslabel
                        7 \newcommand*{\thecontentslabel}{thecontentslabel}
 \thecontentspage
                        8 \newcommand*{\thecontentspage}{thecontentspage}
   \contentslabel
                        [\langle format \rangle] \{\langle space \rangle\}
                        9 \newcommand{\contentslabel}[2][]{\thecontentslabel}
                        [\langle format \rangle]
    \contentspage
```

```
10 \newcommand{\contentspage}[1][]{\thecontentspage}
     \contentspush
                           \{\langle text \rangle\}
                          11 \newcommand{\contentspush}[1]{}
                            \{\langle name \rangle\} \{\langle text \rangle\}
      \contentsuse
                          12 \newcommand{\contentsuse}[2]{}
                            [\langle name \rangle]
    \startcontents
                          13 \newcommand*{\startcontents}[1][]{}
     \stopcontents
                            [\langle name \rangle]
                          14 \newcommand*{\stopcontents}[1][]{}
                            [\langle name \rangle]
  \resumecontents
                          15 \newcommand*{\resumecontents}[1][]{}
                            [\langle name \rangle] \{\langle prefix \rangle\} \{\langle start \rangle\} \{\langle code \rangle\}
    \printcontents
                          16 \newcommand{\printcontents}[4][]{}
         \startlist
                            [\langle name \rangle] \{\langle list \rangle\}
                          17 \newcommand{\startlist}[2][]{}
          \stoplist
                            [\langle name \rangle] \{\langle list \rangle\}
                          18 \mbox{\newcommand{\stoplist}[2][]{}}
        \resumelist
                            [\langle name \rangle] \{\langle list \rangle\}
                          19 \newcommand{\resumelist}[2][]{}
         \printlist
                            [\langle name \rangle] \{\langle list \rangle\} \{\langle prefix \rangle\} \{\langle code \rangle\}
                          20 \newcommand{\printlist}[4][]{}
             File 366 lwarp-titling.sty
                        titling
§ 464
            Package
                         (Emulates or patches code by Peter Wilson.)
      Pkg titling
 package support lwarp supports the native LATEX titling commands, and also supports the packages
```

```
load order authblk and titling. If both are used, authblk should be loaded before titling.
\published and \subtitle
                            If using the titling package, additional titlepage fields for \published and \subtitle
                             may be added by using \AddSubtitlePublished in the preamble. See section 66.8.
                            The various titling footnote restyling commands have no effect.
                            Pass all options to lwarp-titling:
                              1 \LWR@ProvidesPackagePass{titling}[2009/09/04]
           for HTML output:
           \@bsmtitlempty
                            Patch \@bsmtitlempty:
                              2 \let\LWR@orig@bsmtitlempty\@bsmtitlempty
                              3 \renewcommand*{\@bsmtitlempty}{%
                              4 \LWR@orig@bsmtitlempty%
                              5 }
            \keepthetitle Patch \keepthetitle:
                              6 \let\LWR@origkeepthetitle\keepthetitle
                              7 \renewcommand*{\keepthetitle}{%
                              8 \LWR@orig@keepthetitle%
                              9 }
               \killtitle Patch \killtitle:
                             10 \let\LWR@origkilltitle\killtitle
                             11 \renewcommand*{\killtitle}{%
                             12 \LWR@orig@killtitle%
                             13 }
          Env titlingpage
                             14 \renewenvironment*{titlingpage}
                             15 {%
                            Start an HTML titlepage div:
                             16 \LWR@printpendingfootnotes
                             17 \begin{titlepage}
                            Prepare for a custom version of \maketitle inside the titlingpage:
                             18 \LWR@maketitlesetup
                             19 \let\maketitle\LWR@titlingmaketitle
                             20 }
                             21 {
                            At the end of the environment, end the HTML titlepage div:
                             22 \end{titlepage}
                             23 }
```

Patch the pre/post title/author/date to add HTML tags, then initilize:

```
25 \pretitle{}
                         26 \posttitle{}
                         28 \preauthor{}
                         29 \postauthor{}
                         31 \predate{}
                         32 \postdate{}
\LWR@maketitlesetup Patches \thanks macros.
                         33 \renewcommand*{\LWR@maketitlesetup}{%
                        Redefine the footnote mark:
                         34 \def\@makefnmark{\textsuperscript{\@thefnmark}}
                                      \theta \Rightarrow \text{nameuse}\{arabic\}\{footnote\}, or
                                       \theta \Rightarrow \mathcal{S}_{footnote}
                        Redefine the footnote text:
                         35 \long\def\@makefntext##1{%
                        Make the footnote mark and some extra horizontal space for the tags:
                         36 \makethanksmark~%
                                       \mbox{\mbox{\it makethanksmark}} \rightarrow \mbox{\mbox{\it thanksfootmark}} \Rightarrow \mbox{\mbox{\it tamark}} \Rightarrow
                                                            \ensuremath{\lozenge} thefnmark \Rightarrow \itshape a (or similar)
                        Print the text:
                         37 ##1%
                         38 }% \@makefntext
                         39 }
    \thanksfootmark
                         40 \renewcommand{\thanksfootmark}{%
                               \hb@xt@\thanksmarkwidth{\hfil\normalfont%
                         41 %
                                    \thanksscript{%
                         42
                                         \thanksfootpre \tamark \thanksfootpost%
                         43
                                    }%
                         44
                         45 %
                                }%
                         46 }
```

\maketitle HTML mode. Creates an HTML titlepage div and typesets the title, etc. Code from the titling package is adapted, simplified, and modified for HTML output. 47 \renewcommand*{\maketitle}{% An HTML titlepage <div> is used for all classes. 48 \begin{titlepage} Select which kind of footnote marks to use: 49 \@bsmarkseries Set up special patches: 50 \LWR@maketitlesetup Typeset the title, etc: 51 \@maketitle Immediately generate any \thanks footnotes: 52 \@thanks Close the HTML titlepage div: 53 \end{titlepage} Reset the footnote counter: 54 \@bscontmark 55 } \@maketitle Typesets the title, etc. Patched for HTML. 56 \DeclareDocumentCommand{\@maketitle}{}{% \maketitlehooka 57 58 \LWR@stoppars\LWR@htmltag{\LWR@tagtitle}% 59 60 \@bspretitle \@title \@bsposttitle% \LWR@htmltag{\LWR@tagtitleend}\LWR@startpars% 61 62 **\maketitlehookb** 63 64 65 \begin{BlockClass}{author} 66 \renewcommand{\and}{% \end{BlockClass}% 67

\begin{BlockClass}{oneauthor}%

\begin{BlockClass}{oneauthor}%

68 69

70

```
\@bspreauthor \@author \@bspostauthor%
                                   \end{BlockClass}%
                        72
                        73
                                   \end{BlockClass}%
                        74
                              }
                              \maketitlehookc
                        75
                        76
                                   \begin{BlockClass}{titledate}%
                        77
                                   \@bspredate \@date \@bspostdate%
                        78
                                   \end{BlockClass}%
                        79
                        80
                        81
                              \maketitlehookd
                        82 }
\LWR@titlingmaketitle \maketitle for use inside an HTML titlingpage environment.
                        83 \renewcommand*{\LWR@titlingmaketitle}{%
                        Keep pending footnotes out of the title block:
                        84 \@thanks
                       Select which kind of footnote marks to use:
                        85 \@bsmarkseries
                       Set up special patches:
                        86 \LWR@maketitlesetup
                       Typeset the title, etc:
                        87 \@maketitle
                       Immediately generate any \thanks footnotes:
                        88 \@thanks
                       Reset the footnote counter:
                        89 \@bscontmark
                        90 }
   \thanksmarkseries \{\langle series \rangle\}
                       Sets the type of footnote marks used by \thanks, where type is 'arabic', 'roman',
                       'fnsymbol', etc.
                        91 \renewcommand{\thanksmarkseries}[1]{%
                        92 \def\@bsmarkseries{\renewcommand{\thefootnote}{\@nameuse{#1}{footnote}}}%
                        93 }
```

Set default titlepage thanks footnote marks. See section 66.7.

```
94 \@ifclassloaded{memoir}{
95   \thanksmarkseries{arabic}
96 }{% not memoir
97 \if@titlepage
98   \thanksmarkseries{arabic}
99 \else
100   \thanksmarkseries{fnsymbol}
101 \fi
102 }% not memoir
```

File 367 lwarp-tocbasic.sty

§ 465 Package tocbasic

(Emulates or patches code by Markus Kohm.)

Pkg tocbasic tocbasic is nullified for lwarp.

This package may be loaded standalone, but is also loaded automatically if koma-script classes are in use. \DeclareDocumentCommand is used to overwrite the koma-script definitions.

for HTML output:

1 \LWR@ProvidesPackagePass{tocbasic}[2018/12/30]

```
2 \DeclareDocumentCommand{\usetocbasicnumberline}{o}{}
3 \DeclareDocumentCommand{\DeclareTOCStyleEntry}{o m m}{}
4 \DeclareDocumentCommand{\DeclareTOCStyleEntries}{o m m}{}
5 \DeclareDocumentCommand{\DeclareTOCEntryStyle}{m o m}{}
6 \DeclareDocumentCommand{\DefineTOCEntryOption}{m o m}{}
7 \DeclareDocumentCommand{\DefineTOCEntryBooleanOption}{m o m m m}{}
8 \DeclareDocumentCommand{\DefineTOCEntryCommandOption}{m o m m m}{}
9 \DeclareDocumentCommand{\DefineTOCEntryIfOption}{m o m m m}{}
10 \DeclareDocumentCommand{\DefineTOCEntryLengthOption}{m o m m m}{}
11 \DeclareDocumentCommand{\DefineTOCEntryStyleption}{m o m m m}{}
12 \DeclareDocumentCommand{\CloneTOCEntryStyle}{m m}{}
13 \DeclareDocumentCommand{\TOCEntryStyleInitCode}{m m}{}
14 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
15 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
16 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
17 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
18 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
19 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
19 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
10 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
10 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
11 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
12 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
13 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
14 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
15 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
16 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
17 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
17 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
18 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
18 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
18 \DeclareDocumentCommand{\TOCEntryStyleStartInitCode}{m m}{}
18 \DeclareDocumentCommand{\TOCEntryStyle
```

File 368 lwarp-tocbibind.sty

§ 466 Package tocbibind

(Emulates or patches code by Peter Wilson.)

Pkg tocbibind tocbibind is patched for use by lwarp.

placement and toc options An index may be placed inline with other HTML text, or on its own HTML page:

Pkg makeidx Inline, with a manual Toc entry:

```
A commonly-used method to introduce an index in a LATEX document: \cleardoublepage \phantomsection
```

Pkg makeidx On its own HTML page, with a manual Toc entry:

```
\begin{warpprint}
\cleardoublepage
\phantomsection
\addcontentsline{toc}{section}{\indexname}% or chapter
\end{warpprint}
\ForceHTMLPage
\ForceHTMLTOC
\printindex
```

Pkg tocbibind Inline, with an automatic Toc entry:

The tocbibind package may be used to automatically place an entry in the

```
\usepackage[nottoc]{tocbibind}
...
\cleardoublepage
\phantomsection % to fix print-version index link
\printindex
```

Pkg tocbibind On its own HTML page, with an automatic Toc entry:

```
\usepackage[nottoc]{tocbibind}
...
\cleardoublepage
\phantomsection % to fix print-version index link
\ForceHTMLPage
\printindex
```

Opt [tocbibind] numindex numbered index section

Use the tocbibind numindex option to generate a numbered index. Without this option, the index heading has no number.

Other packages, such as imakeidx, may also have options for including the index in the Table of Contents.

\addcontentsline{toc}{chapter}{\LWR@isolate{\indexname}}

```
for HTML output:
                  1 \let\simplechapterdelim\relax
                  3 \LWR@ProvidesPackagePass{tocbibind}[2010/10/13]
                  4 \renewenvironment{theindex}%
                  5 {%
                         \if@bibchapter
                  6
                   7
                            \if@donumindex
                  8
                                \chapter{\indexname}
                            \else
                  9
                               \if@dotocind
                  10
                                \chapter*{\indexname}
                  11
```

\else

12

13

```
\chapter*{\indexname}
             \fi
 15
           \fi
 16
         \else
 17
            \if@donumindex
 18
                \section{\indexname}
 19
 20
            \else
 21
             \if@dotocind
                \section*{\indexname}
                \addcontentsline{toc}{\@tocextra}{\LWR@isolate{\indexname}}
 23
 24
                \section*{\indexname}
 25
              \fi
 26
            \fi
 27
         \fi
 29 \let\item\LWR@indexitem%
 30 \let\subitem\LWR@indexsubitem%
 31 \let\subsubitem\LWR@indexsubsubitem%
 32 }{}
 The following code is shared by anonchap.
 33 \DeclareDocumentCommand{\simplechapter}{0{\@empty}}{%}
       \def\@chapcntformat##1{%
 35
            #1~\csname the##1\endcsname\simplechapterdelim\quad%
 36
       }%
 37 }
 39 \DeclareDocumentCommand{\restorechapter}{}{%
 40 \let\@chapcntformat\@seccntformat%
 41 }
lwarp-tocdata.sty
```

File 369

tocdata **Package § 467**

(Emulates or patches code by Brian Dunn.)

tocdata is patched for use by lwarp. tocdata

for HTML output: 1 \LWR@ProvidesPackagePass{tocdata}[2019/03/21]

```
2 \renewcommand*{\LWR@maybetocdata}{%
3
      \ifdefempty{\TD@thistocdata}{}{%
          \qquad --- \InlineClass{authorartist}{\TD@thistocdata}%
4
          \def\TD@thistocdata{}
5
      }
6
7 }
9 \renewrobustcmd{\tocdatapartprint}[4]
11
      \LWR@htmltagc{br /}%
```

```
12
                      \InlineClass{authorartist}{%
13
                                     \qquad --- %
                                     \TD@optionalname{#1}\TD@optionalname{#2}#3#4%
14
                     }%
15
16 }
17
18 \@ifundefined{chapter}{}{
                     \let\tocdatachapterprint\tocdatapartprint
21 \let\tocdatasectionprint\tocdatapartprint
22 \let\tocdatasubsectionprint\tocdatapartprint
24 \newcommand*{\LWR@TD@settextalign}[1]{%
25
                       \def\LWR@TD@textalign{justify}%
26
                       \ifcsstring{TD@#1align}{\centering}%
27
                                     {\def\LWR@TD@textalign{center}}%
28
                                     {}%
                       \ifcsstring{TD@#1align}{\raggedleft}%
29
                                     {\def\LWR@TD@textalign{right}}%
30
                                     {}%
31
                      \ifcsstring{TD@#1align}{\raggedright}%
32
                                     {\def\LWR@TD@textalign{left}}%
33
                                     {}%
34
35 }
36
37 \renewcommand{\TD@artistauthorprint}[5]{%
38
                       \LWR@TD@settextalign{#1}%
                       \begin{BlockClass}[text-align:\LWR@TD@textalign]{floatnotes}%
39
                       \label{local-continuous} $$ \ \Gamma(x) = \Gamma(x) + \Gamma(x) 
40
41
                       \end{BlockClass}%
42 }
43
44 \newcommand*{\LWR@TD@setnamealign}[1]{%
                      \def\LWR@TD@textalign{justify}%
46
                       \ifcsstring{TD@#1textalign}{\centering}%
47
                                     {\def\LWR@TD@textalign{center}}%
48
                                     {}%
                      \ifcsstring{TD@#1textalign}{\raggedleft}%
49
                                     {\def\LWR@TD@textalign{right}}%
50
51
52
                       \ifcsstring{TD@#1textalign}{\raggedright}%
53
                                     {\def\LWR@TD@textalign{left}}%
54
                                     {}%
55 }
56
57 \renewcommand{\TD@artistauthortextprint}[2]{%
                      \LWR@TD@setnamealign{#1}%
                      \begin{BlockClass}[text-align:\LWR@TD@textalign]{floatnotes}%
59
60
61
                      \end{BlockClass}%
62 }
```

File 370 lwarp-tocenter.sty tocenter Package **§ 468** tocenter is ignored. tocenter for HTML output: 1 \LWR@ProvidesPackageDrop{tocenter}[2004/12/09] 2 \NewDocumentCommand{\ToCenter}{s o m m}{} 3 \NewDocumentCommand{\FromMargins}{s o m m m m}{} File 371 lwarp-tocloft.sty Package tocloft \$469 (Emulates or patches code by Peter Wilson.) tocloft tocloft is emulated. Most user options and macros are ignored and disabled. \newlistof and \cftchapterprecis are supported. If using tocloft with tocbibind, anonchap, fncychap, or other packages which Pkg tocloft change chapter title formatting, load tocloft with its titles option, which tells tocloft & other tocloft to use standard LATEX commands to create the titles, allowing other packages packages to work with it. Discard all options for lwarp-tocloft: 1 \LWR@ProvidesPackageDrop{tocloft}[2017/08/31] for HTML output: $\{\langle style \rangle\}$ \tocloftpagestyle 2 \newcommand{\tocloftpagestyle}[1]{} \cftmarktoc 3 \newcommand*{\cftmarktoc}{} \cfttoctitlefont 4 \newcommand*{\cfttoctitlefont}{} \cftaftertoctitle

5 \newcommand*{\cftaftertoctitle}{}

6 \newlength{\cftbeforetoctitleskip}
7 \newlength{\cftaftertoctitleskip}

```
\cftmarklof
                     8 \newcommand*{\cftmarklof}{}
\cftloftitlefont
                     9 \newcommand*{\cftloftitlefont}{}
\cftafterloftitle
                    10 \newcommand*{\cftafterloftitle}{}
                    11 \newlength{\cftbeforeloftitleskip}
                    12 \newlength{\cftafterloftitleskip}
      \cftmarklot
                    13 \newcommand*{\cftmarklot}{}
\cftlottitlefont
                    14 \newcommand*{\cftlottitlefont}{}
\cftafterlottitle
                    15 \newcommand*{\cftafterlottitle}{}
                    17 \newlength{\cftafterlottitleskip}
          \c
                    18 \providecommand*{\cftdot}{.}
       \cftdotsep
                    19 \providecommand*{\cftdotsep}{1}
       \cftnodots
                    20 \providecommand*{\cftnodots}{5000}
      \cftdotfill
                    \{\langle sep \rangle\}
                    {\tt 21 \ horovidecommand \{\cftdotfill\}[1]\{\}}\\
\cftsetpnumwidth
                     \{\langle length \rangle\}
                    22 \DeclareDocumentCommand{\cftsetpnumwidth}{m}{}
```

931

```
\cftsetrmarg
                 \{\langle length \rangle\}
                23 \DeclareDocumentCommand{\cftsetrmarg}{m}{}
                 \{\langle alignment \rangle\}
\cftpnumalign
                24 \DeclareDocumentCommand{\cftpnumalign}{m}{}
                25 \LWR@providelength{\cftparskip}
               The part-related items are also provided by memoir:
                26 \LWR@providelength{\cftbeforepartskip}
                27 \LWR@providelength{\cftpartindent}
                28 \LWR@providelength{\cftpartnumwidth}
                29 \providecommand*{\cftpartfont}{}
                30 \providecommand*{\cftpartpresnum}{}
                31 \providecommand*{\cftpartaftersnum}{}
                32 \providecommand*{\cftpartaftersnumb}{}
                33 \providecommand*{\cftpartleader}{}
                34 \providecommand*{\cftpartdotsep}{1}
                35 \providecommand*{\cftpartpagefont}{}
                36 \providecommand*{\cftpartafterpnum}{}
               memoir uses the full name "chapter" instead of "chap":
                37 \LWR@providelength{\cftbeforechapskip}
                38 \LWR@providelength{\cftchapindent}
                39 \LWR@providelength{\cftchapnumwidth}
                40 \newcommand*{\cftchapfont}{}
                41 \newcommand*{\cftchappresnum}{}
                42 \newcommand*{\cftchapaftersnum}{}
                43 \newcommand*{\cftchapaftersnumb}{}
                44 \newcommand*{\cftchapleader}{}
                45 \newcommand*{\cftchapdotsep}{1}
                46 \newcommand*{\cftchappagefont}{}
                47 \newcommand*{\cftchapafterpnum}{}
               The following do not appear in memoir:
                48 \LWR@providelength{\cftbeforesecskip}
                49 \LWR@providelength{\cftsecindent}
                50 \LWR@providelength{\cftsecnumwidth}
                51 \newcommand*{\cftsecfont}{}
                52 \newcommand*{\cftsecpresnum}{}
                53 \newcommand*{\cftsecaftersnum}{}
                54 \newcommand*{\cftsecaftersnumb}{}
                55 \newcommand*{\cftsecleader}{}
                56 \newcommand*{\cftsecdotsep}{1}
                57 \newcommand*{\cftsecpagefont}{}
                58 \newcommand*{\cftsecafterpnum}{}
                59 \LWR@providelength{\cftbeforesubsecskip}
```

```
60 \LWR@providelength{\cftsubsecindent}
 61 \LWR@providelength{\cftsubsecnumwidth}
 62 \newcommand*{\cftsubsecfont}{}
 63 \newcommand*{\cftsubsecpresnum}{}
 64 \newcommand*{\cftsubsecaftersnum}{}
 65 \newcommand*{\cftsubsecaftersnumb}{}
 66 \newcommand*{\cftsubsecleader}{}
 67 \newcommand*{\cftsubsecdotsep}{1}
 68 \newcommand*{\cftsubsecpagefont}{}
 69 \newcommand*{\cftsubsecafterpnum}{}
 70 \LWR@providelength{\cftbeforesubsubsecskip}
 71 \LWR@providelength{\cftsubsubsecindent}
 72 \LWR@providelength{\cftsubsubsecnumwidth}
 73 \newcommand*{\cftsubsubsecfont}{}
 74 \newcommand*{\cftsubsubsecpresnum}{}
 75 \newcommand*{\cftsubsubsecaftersnum}{}
 76 \newcommand*{\cftsubsubsecaftersnumb}{}
 77 \newcommand*{\cftsubsubsecleader}{}
 78 \newcommand*{\cftsubsubsecdotsep}{1}
 79 \newcommand*{\cftsubsubsecpagefont}{}
 80 \newcommand*{\cftsubsubsecafterpnum}{}
 81 \LWR@providelength{\cftbeforeparaskip}
 82 \LWR@providelength{\cftparaindent}
 83 \LWR@providelength{\cftparanumwidth}
 84 \newcommand*{\cftparafont}{}
 85 \newcommand*{\cftparapresnum}{}
 86 \newcommand*{\cftparaaftersnum}{}
 87 \newcommand*{\cftparaaftersnumb}{}
 88 \newcommand*{\cftparaleader}{}
 89 \newcommand*{\cftparadotsep}{1}
 90 \newcommand*{\cftparapagefont}{}
 91 \newcommand*{\cftparaafterpnum}{}
 92 \LWR@providelength{\cftbeforesubparaskip}
 93 \LWR@providelength{\cftsubparaindent}
 94 \LWR@providelength{\cftsubparanumwidth}
 95 \newcommand*{\cftsubparafont}{}
 96 \newcommand*{\cftsubparapresnum}{}
 97 \newcommand*{\cftsubparaaftersnum}{}
 98 \newcommand*{\cftsubparaaftersnumb}{}
99 \newcommand*{\cftsubparaleader}{}
100 \newcommand*{\cftsubparadotsep}{1}
101 \newcommand*{\cftsubparapagefont}{}
102 \newcommand*{\cftsubparaafterpnum}{}
103 \LWR@providelength{\cftbeforefigskip}
104 \LWR@providelength{\cftfigindent}
105 \LWR@providelength{\cftfignumwidth}
106 \newcommand*{\cftfigfont}{}
107 \newcommand*{\cftfigpresnum}{}
108 \newcommand*{\cftfigaftersnum}{}
109 \newcommand*{\cftfigaftersnumb}{}
110 \newcommand*{\cftfigleader}{}
```

```
111 \newcommand*{\cftfigdotsep}{1}
112 \newcommand*{\cftfigpagefont}{}
113 \newcommand*{\cftfigafterpnum}{}
114 \LWR@providelength{\cftbeforesubfigskip}
115 \LWR@providelength{\cftsubfigindent}
116 \LWR@providelength{\cftsubfignumwidth}
117 \newcommand*{\cftsubfigfont}{}
118 \newcommand*{\cftsubfigpresnum}{}
119 \newcommand*{\cftsubfigaftersnum}{}
120 \newcommand*{\cftsubfigaftersnumb}{}
121 \newcommand*{\cftsubfigleader}{}
122 \newcommand*{\cftsubfigdotsep}{1}
123 \newcommand*{\cftsubfigpagefont}{}
124 \newcommand*{\cftsubfigafterpnum}{}
125 \LWR@providelength{\cftbeforetabskip}
126 \LWR@providelength{\cfttabindent}
127 \LWR@providelength{\cfttabnumwidth}
128 \newcommand*{\cfttabfont}{}
129 \newcommand*{\cfttabpresnum}{}
130 \newcommand*{\cfttabaftersnum}{}
131 \newcommand*{\cfttabaftersnumb}{}
132 \newcommand*{\cfttableader}{}
133 \newcommand*{\cfttabdotsep}{1}
134 \newcommand*{\cfttabpagefont}{}
135 \newcommand*{\cfttabafterpnum}{}
136 \LWR@providelength{\cftbeforesubtabskip}
137 \LWR@providelength{\cftsubtabindent}
138 \LWR@providelength{\cftsubtabnumwidth}
139 \newcommand*{\cftsubtabfont}{}
140 \newcommand*{\cftsubtabpresnum}{}
141 \newcommand*{\cftsubtabaftersnum}{}
142 \newcommand*{\cftsubtabaftersnumb}{}
143 \newcommand*{\cftsubtableader}{}
144 \newcommand*{\cftsubtabdotsep}{1}
145 \newcommand*{\cftsubtabpagefont}{}
146 \newcommand*{\cftsubtabafterpnum}{}
147 \DeclareDocumentCommand{\cftsetindents}{m m m}{}
148 \newcommand{\pagenumbersoff}[1]{}
149 \newcommand{\pagenumberson}[1]{}
  [\langle within \rangle] \{\langle counter \rangle\} \{\langle ext \rangle\} \{\langle level-1 \rangle\}
150 \DeclareDocumentCommand{\newlistentry}{o m m m}
152 \LWR@traceinfo{newlistentry #2 #3 #4}%
153 \IfValueTF{#1}%
154 {%
       \@ifundefined{c@#2}{%
155
156
           \newcounter{#2}[#1]%
```

\newlistentry

\expandafter\edef\csname the#2\endcsname{%

157

```
158
                                                                                 \expandafter\noexpand\csname the#1\endcsname.\noexpand\arabic{#2}%
                                                                       }%
                                             159
                                                             }{}%
                                             160
                                             161 }%
                                             162 {%
                                                              \@ifundefined{c@#2}{%
                                             163
                                             164
                                                                       \newcounter{#2}%
                                                             }{}%
                                             165
                                             166 }%
                                             167 \@namedef{l@#2}##1##2{%
                                                              \hypertocfloat{1}{#2}{#3}{##1}{##2}%
                                             168
                                                              \def\cftwhatismyname{#2}% from memoir
                                             169
                                            170 }%
                                             171 \expandafter\newlength\csname cftbefore#2skip\endcsname%
                                             172 \expandafter\newlength\csname cft#2indent\endcsname%
                                             173 \expandafter\newlength\csname cft#2numwidth\endcsname%
                                             174 \@namedef{cft#2font}{}%
                                             175 \@namedef{cft#2presnum}{}%
                                             176 \@namedef{cft#2aftersnum}{}%
                                             177 \@namedef{cft#2aftersnumb}{}%
                                             178 \@namedef{cft#2leader}{}%
                                             179 \@namedef{cft#2dotsep}{1}%
                                             180 \@namedef{cft#2pagefont}{}%
                                             181 \@namedef{cft#2afterpnum}{}%
                                             182 \@namedef{toclevel@#2}{#4}%
                                             183 \@namedef{cft#2fillnum}##1{}%
                                             184 \LWR@traceinfo{newlistentry done}%
                                             185 }
                                                  [\langle within \rangle] \{\langle type \rangle\} \{\langle ext \rangle\} \{\langle listofname \rangle\}
                 \newlistof
                                              Emulated through the \newfloat mechanism.
                                             186 \DeclareDocumentCommand{\newlistof}{o m m m}
                                             187 {%
                                             188 \IfValueTF{#1}
                                             189 {\newlistentry[#1]{#2}{#3}{0}}
                                             190 {\newlistentry{#2}{#3}{0}}
                                             191 \@namedef{ext@#2}{#3}
                                             192 \ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{
                                             193 \setcounter{#3depth}{1}
                                             194 \@namedef{cftmark#3}{}
                                             195 \@namedef{listof#2}{\listof{#2}{#4}}
                                             196 \@namedef{@cftmake#3title}{}
                                             197 \expandafter\newlength\csname cftbefore#3titleskip\endcsname
                                             198 \expandafter\newlength\csname cftafter#3titleskip\endcsname
                                             199 \@namedef{cft#3titlefont}{}
                                             200 \@namedef{cftafter#3title}{}
                                             201 \@namedef{cft#3prehook}{}
                                             202 \@namedef{cft#3posthook}{}
                                             203 }
\cftchapterprecis
                                                  \{\langle text \rangle\}
                                             204 \newcommand{\cftchapterprecis}[1]{%
```

```
205 \cftchapterprecishere{#1}
206 \cftchapterprecistoc{#1}}
207 \newcommand{\cftchapterprecishere}[1]{%
208 \begin{quote}\textit{#1}\end{quote}}
209 \newcommand{\cftchapterprecistoc}[1]{
210 \addtocontents{toc}{%
211 {
212 \protect\begin{quote}#1\protect\end{quote}}
213 }
214 }
```

File 372 lwarp-tocstyle.sty

```
$470 Package tocstyle

Pkg tocstyle tocstyle is ignored.

Not fully tested! Please send bug reports!

for HTML output: 1 \LWR@ProvidesPackageDrop{tocstyle}[2017/02/23]

2 \newcommand*{\usetocstyle}[2][]{}
3 \newcommand*{\deactivatetocstyle}[1][]{}
4 \newcommand*{\reactivatetocstyle}[1][]{}
5 \NewDocumentCommand{\settocfeature}{o o m m}{}
6 \NewDocumentCommand{\settocstyle}{o o m m}{}
7 \NewDocumentCommand{\newtocstyle}{o o m m}{}
8 \newcommand*{\aliastoc}[2]{}
```

9 \newcommand*{\showtoc}[2][]{}
10 \newcommand{\iftochasdepth}[4]{}

File 373 lwarp-todo.sty

§ 471 Package todo

(Emulates or patches code by Federico Garcia.)

Pkg todo todo is patched for use by lwarp.

```
for HTML output: 1 \LWR@ProvidesPackagePass{todo}[2010/03/31]
```

```
2 \renewcommand\todoitem[2]{%
3  \refstepcounter{todo}%
4  \item[%
5  \HTMLunicode{2610} \quad
6  \ref{todopage:\thetodo}
7  ]: {\todoformat\ifx#1\todomark\else\textbf{#1} \fi}#2%
8  \label{todolbl:\thetodo}%
9 }%
10
```

```
11 \renewcommand\doneitem[2]{%
     \stepcounter{todo}%
     \item[%
13
         \HTMLunicode{2611} \quad
14
         \ref{todopage:\thetodo}
15
     ] \@nameuse{@done\the\c@todo}:
16
         {\todoformat\ifx#1\todomark\else\textbf{#1} \fi}#2%
17
18 }
19
20 \xpatchcmd{\@displaytodo}
     {\todoformat #1}{\todoformat \textbf{#1}}{}
     {\PackageWarning{lwarp-todo}{Unable to patch @displaytodo.}}
22
24 \xpatchcmd{\@displayfulltodo}
     {\todoformat #1}{\todoformat \textbf{#1}}{}
     {\PackageWarning{lwarp-todo}{Unable to patch @displayfulltodo.}}
26
27
28 \patchcmd{\todoenv}{\itshape see text.}{\textit{see text.}}{}
     {\PackageWarning{lwarp-todo}{Unable to patch todoenv.}}
29
30
31 \ \text{#1}}{\text{#1}}{}
     {\PackageWarning{lwarp-todo}{Unable to patch astodos.}}
34 \AtBeginDocument{
     \crefname{todo}{todo}{todos}
35
      \Crefname{todo}{Todo}{Todos}
36
37 }
```

File 374 lwarp-todonotes.sty

§ 472 Package todonotes

(Emulates or patches code by Henrik Skov Midtiby.)

Pkg todonotes todonotes is emulated.

The documentation for todonotes and luatodonotes have an example with a todo inside a caption. If this example does not work it will be necessary to move the todo outside of the caption.

for HTML output: 1 \LWR@ProvidesPackagePass{todonotes}[2012/07/25]

```
2 \if@todonotes@disabled
3 \else
4
5 \newcommand{\ext@todo}{tdo}
6
7 \renewcommand{\l@todo}[2]{\hypertocfloat{1}{todo}{ldo}{#1}{#2}}
8 \let\LWRTODONOTES@orig@todototoc\todototoc
9
10 \renewcommand*{\todototoc}{%
```

```
11 \phantomsection%
12 \LWRTODONOTES@orig@todototoc%
13 }
15 \renewcommand{\@todonotes@drawMarginNoteWithLine}{
16 \fcolorbox
      {\@todonotes@currentbordercolor}
      {\@todonotes@currentbackgroundcolor}
      {\arabic{@todonotes@numberoftodonotes}}
20 \marginpar{\@todonotes@drawMarginNote}
21 }
22
23 \renewcommand{\@todonotes@drawInlineNote}{%
24 \fcolorboxBlock%
      {\@todonotes@currentbordercolor}%
      {\@todonotes@currentbackgroundcolor}%
26
27
      {%
28
          \if@todonotes@authorgiven%
          {\@todonotes@author:\,}%
29
          \fi%
30
31
          \@todonotes@text%
32
      }%
33 }
34
35 \renewcommand{\@todonotes@drawMarginNote}{%
      \if@todonotes@authorgiven%
36
37
          \@todonotes@author\par%
38
      \arabic{@todonotes@numberoftodonotes}: %
39
      \fcolorbox%
40
      {\@todonotes@currentbordercolor}%
41
      {\@todonotes@currentbackgroundcolor}%
42
43
      {%
          \verb|\@todonotes@sizecommand%||
44
45
          \@todonotes@text %
46
      }%
47 }%
48
49 \renewcommand{\@todonotes@drawLineToRightMargin}{}
51 \renewcommand{\@todonotes@drawLineToLeftMargin}{}
53 \renewcommand{\missingfigure}[2][]{%
54 \setkeys{todonotes}{#1}%
55 \addcontentsline{tdo}{todo}{\@todonotes@MissingFigureText: #2}%
56 \fcolorboxBlock%
      {\@todonotes@currentbordercolor}%
      {\@todonotes@currentfigcolor}%
      {%
59
60
          \setlength{\fboxrule}{4pt}%
          \fcolorbox{red}{white}{Missing figure} \quad #2%
61
      }
62
63 }
65 \LetLtxMacro\LWRTODONOTES@orig@todo\@todo
```

```
66
67 \RenewDocumentCommand{\@todo}{o m}{%
68 \begingroup%
69 \renewcommand*{\phantomsection}{}%
70 \IfValueTF{#1}{%
71  \LWRTODONOTES@orig@todo[#1]{#2}%
72 }{%
73  \LWRTODONOTES@orig@todo{#2}%
74 }
75 \endgroup%
76 }
77
78 \fi% \if@todonotes@disabled
```

File 375 lwarp-topcapt.sty

§ 473 Package **topcapt**

Pkg topcapt topcapt is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{topcapt}[2004/12/11]

2 \LetLtxMacro\topcaption\caption

File 376 lwarp-tram.sty

§ 474 Package **tram**

Pkg tram is emulated.

block only

The HTML emulation uses a <div>, which must not appear inside an HTML or an HTML paragraph. For this reason, the tram environment should only be used to contain paragraphs inside a \parbox or minipage. tram should not be used to mark up inline text.

To disable tram, allowing source compatibility with inline uses:

```
\begin{warpHTML}
\renewenvironment{tram}[1][]{}{}
\end{warpHTML}
```

for HTML output:

1 \LWR@ProvidesPackageDrop{tram}[2013/04/04]

```
2 \newenvironment{tram}[1][]%
3      {\BlockClass[background:lightgray]{tram}}
4      {\endBlockClass}
```

File 377 lwarp-transparent.sty

transparent Package § 475

(Emulates or patches code by Heiko Oberdiek.)

Emulated. \texttransparent works for inline objects. \transparent only works for transparent \includegraphics.

 \triangle

Not Xalatex. Note that transparent does not work with Xalatex.

for HTML output:

Discard all options for lwarp-transparent:

```
1 \LWR@ProvidesPackageDrop{transparent}[2016/05/16]
2 \newcommand*{\transparent}[1]{\edef\LWR@opacity{#1}}
4 \newcommand*{\texttransparent}[2]{%
5 \begingroup%
6 \transparent{#1}%
7 \InlineClass[opacity: #1]{transparent}{#2}%
8 \endgroup%
9 }
```

File 378 lwarp-trimclip.sty

trimclip Package § 476

trimclip trimclip is nullified.

for HTML output: 1 \LWR@ProvidesPackageDrop{trimclip}[2018/04/08]

> The third argument, the text, is not touched. This allows \bgroup / \egroup, and verbatim content.

```
2 \csdef{trimbox}{\@ifstar\@gobble\@gobble}
3 \csletcs{trimbox*}{trimbox}
4 \def\endtrimbox{}
5 \csletcs{endtrimbox*}{endtrimbox}
7 \csletcs{clipbox}{trimbox}
8 \csletcs{clipbox*}{trimbox}
9 \csletcs{endclipbox}{endtrimbox}
10 \csletcs{endclipbox*}{endtrimbox}
12 \csletcs{marginbox}{trimbox}
13 \csletcs{marginbox*}{trimbox}
14 \csletcs{endmarginbox}{endtrimbox}
```

15 \csletcs{endmarginbox*}{endtrimbox}

File 379 lwarp-trivfloat.sty

§ 477 Package trivfloat

(Emulates or patches code by JOSEPH WRIGHT.)

Pkg trivfloat trivfloat is forced to use the built-in lwarp emulation for floats.

To create a new float type and change its name:

\trivfloat{example}
\renewcommand{\examplename}{Example Name}
\crefname{example}{examples}
\Crefname{example}{Examples}

Discard all options for lwarp-trivfloat. This tells trivfloat not to use floatrow or memoir.

- 1 \LWR@ProvidesPackageDrop{trivfloat}[2009/04/23]
- 2 \LWR@origRequirePackage{trivfloat}

\tfl@chapter@fix

Nullified at the beginning of the document. Is used by trivfloat to correct float chapter numbers, but is not needed for lwarp.

for HTML output:

- 3 \begin{warpHTML}
- 4 \AtBeginDocument{\DeclareDocumentCommand{\tfl@chapter@fix}{m m}{}}
- 5 \end{warpHTML}

§ 477.1 Combining \newfloat, \trivfloat, and algorithmicx

for HTML & PRINT:

6 \begin{warpall}

For both print and HTML output:

When using float, trivfloat, or algorithmicx at the same time, be aware of conflicting file usage. algorithmicx uses .loa. trivfloat by default starts with .loa and goes up for additional floats, skipping .lof and .lot.

When using \newfloat, be sure to manually assign higher letters to the \newfloat files to avoid .loa used by algorithmicx, and any files used by trivfloat. Also avoid using .lof and .lot.

When using \trivfloat, you may force it to avoid conflicting with algorithmicx by starting trivfloat's file extensions with .lob:

\makeatletter

\setcounter{tfl@float@cnt}{1} % start trivfloats with .lob \makeatletter

7 \end{warpall}

File 380 lwarp-truncate.sty

§ 478 Package truncate

Pkg truncate truncate is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{truncate}[2001/08/20]

2 \providecommand{\TruncateMarker}{}

3 \newcommand{\truncate}[3][\TruncateMarker]{#3}

File 381 lwarp-turnthepage.sty

§ 479 Package turnthepage

Pkg turnthepage turnthepage is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{turnthepage}[2011/03/24]

2 \newcommand{\turnthepage}{}

File 382 lwarp-twoup.sty

§ 480 Package **twoup**

Pkg twoup is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{twoup}[2007/02/26]

2 \newcommand{\cleartolastpage}{}

File 383 lwarp-typearea.sty

§ 481 Package **typearea**

(Emulates or patches code by Markus Kohm.)

Pkg typearea typearea is emulated.

This package may be loaded standalone, but is also loaded automatically if koma-script classes are in use. \DeclareDocumentCommand is used to overwrite the koma-script definitions.

for HTML output:

```
1 \LWR@ProvidesPackageDrop{typearea}[2018/03/30]
```

```
2 \DeclareDocumentCommand{\typearea}{o m}{}
3 \DeclareDocumentCommand{\recalctypearea}{}{}
4 \@ifundefined{footheight}{\newlength\footheight}{}
5 \DeclareDocumentCommand{\areaset}{o m m}{}
6 \DeclareDocumentCommand{\activateareas}{}{}
7 \DeclareDocumentCommand{\storeareas}{m}{}
8 \DeclareDocumentCommand{\BeforeRestoreareas}{s m}{}
9 \DeclareDocumentCommand{\AfterRestoreareas}{s m}{}
10 \DeclareDocumentCommand{\AfterCalculatingTypearea}{s m}{}
11 \DeclareDocumentCommand{\AfterSettingArea}{s m}{}
```

File 384 lwarp-typicons.sty

§ 482 Package **typicons**

(Emulates or patches code by Arthur Vigil, Xavier Danaux.)

Pkg typicons typicons is patched for use by lwarp.

If \ticon is used, the name of the icon is used in the alt tag. Otherwise, for each of the individual icon macros, a generic alt tag is used.

for HTML output:

```
1 \LWR@ProvidesPackagePass{typicons}[2015/05/20]
```

```
2 \LetLtxMacro\LWR@orig@symbol\symbol
4 \let\LWR@orig@typicon@TI\TI
6 \newcommand*{\LWR@typicon@symbol}[1]{%
      \begin{lateximage}*[(typicon)][typicon#1]%
      \begingroup%
8
      \LWR@orig@typicon@TI%
      \LWR@orig@symbol{#1}%
10
11
      \endgroup%
12
      \end{lateximage}%
13 }
14
15 \renewcommand*{\TI}{%
      \LetLtxMacro\symbol\LWR@typicon@symbol%
16
17 }
18
19 \renewcommand*{\ticon}[1]
20 {%
      \begin{lateximage}*[(#1 icon)][typicon#1]%
```

```
22 \TI\csname ticon@#1\endcsname%
23 \end{lateximage}%
24 }
```

File 385 lwarp-ulem.sty

§ 483 Package **ulem**

(Emulates or patches code by Donald Arseneau.)

Pkg ulem Patched for use by lwarp.

for HTML output:

Use the original package:

1 \LWR@ProvidesPackagePass{ulem}[2012/05/18]

Basic markup commands, using css:

```
2 \NewDocumentCommand{\LWR@HTML@uline}{+m}{%
      \InlineClass%
          (text-decoration:underline; text-decoration-skip: auto)%
4
5
          {uline}{\LWR@isolate{#1}}%
6 }
 7 \LWR@formatted{uline}
9 \NewDocumentCommand{\LWR@HTML@uuline}{+m}{%
      \InlineClass%
10
11
              text-decoration:underline; text-decoration-skip: auto;%
12
              text-decoration-style:double%
13
14
          {uuline}{\LWR@isolate{#1}}%
15
16 }
17 \LWR@formatted{uuline}
19 \NewDocumentCommand{\LWR@HTML@uwave}{+m}{%
      \InlineClass%
20
          (%
21
              text-decoration:underline; text-decoration-skip: auto;%
22
              text-decoration-style:wavy%
23
24
          {uwave}{\LWR@isolate{#1}}%
25
26 }
27 \LWR@formatted{uwave}
28
29 \NewDocumentCommand{\LWR@HTML@sout}{+m}{%
      \InlineClass%
          (text-decoration:line-through)%
31
32
          {sout}{\LWR@isolate{#1}}%
34 \LWR@formatted{sout}
36 \NewDocumentCommand{\LWR@HTML@xout}{+m}{%
```

```
37
      \InlineClass%
38
           (text-decoration:line-through)%
           {xout}{\LWR@isolate{#1}}%
39
40 }
41
42 \NewDocumentCommand{\LWR@HTML@dashuline}{+m}{%
      \InlineClass%
43
44
           (%
45
               text-decoration:underline;%
               text-decoration-skip: auto;%
46
               text-decoration-style:dashed%
47
           )%
48
           {dashuline}{\LWR@isolate{#1}}%
49
50 }
51 \LWR@formatted{xout}
52
53 \NewDocumentCommand{\LWR@HTML@dotuline}{+m}{%
      \InlineClass%
54
           (%
55
               text-decoration:underline;%
56
               text-decoration-skip: auto;%
57
               text-decoration-style: dotted%
59
60
           {dotuline}{\LWR@isolate{#1}}%
61 }
62 \LWR@formatted{dotuline}
Nullified/emulated macros:
{\tt 63 \ NewDocumentCommand\{\LWR@HTML@markoverwith\}\{m\}\{\}}
64 \LWR@formatted{markoverwith}
66 \NewDocumentCommand{\LWR@HTML@ULon}{+m}{\uline{#1}\egroup}
67 \LWR@formatted{ULon}
```

File 386 lwarp-umoline.sty

§ 484 Package umoline

9 }

(Emulates or patches code by Hiroshi Nakashima.)

Pkg umoline is patched for use by lwarp.

```
for HTML output: 1 \LWR@ProvidesPackagePass{umoline}[2000/07/11]

2 \newcommand*{\LWR@HTML@Underline}[1]{%
3 \InlineClass{uline}{#1}%
4 }
5 \LWR@formatted{Underline}
6
7 \newcommand*{\LWR@HTML@Midline}[1]{%
8 \InlineClass{sout}{#1}%
```

```
10 \LWR@formatted{Midline}
11
12 \newcommand*{\LWR@HTML@Overline}[1]{%
13  \InlineClass{oline}{#1}%
14 }
15 \LWR@formatted{Overline}
16
17 \newcommand*{\LWR@HTML@UMOline}[2]{%
18  \InlineClass{uline}{#2}%
19 }
20 \LWR@formatted{UMOline}
21
22 \NewDocumentCommand{\LWR@HTML@UMOspace}{s m o}{\hspace*{#2}}
23 \LWR@formatted{UMOspace}
24
25 \NewDocumentCommand{\LWR@HTML@UMOnewline}{s}{\newline}
26 \LWR@formatted{UMOnewline}
```

File 387 lwarp-underscore.sty

```
§ 485 Package underscore
```

Pkg underscore underscore is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{underscore}[2006/09/13]

File 388 lwarp-units.sty

§ 486 Package units

(Emulates or patches code by AXEL REICHERT.)

Pkg units units is patched for use by lwarp.

Values are not styled by css, and take the style of the surrounding HTML text.

Units are styled according to the print version, so they will be forced to upright roman in HTML if the print version does so. It may be necessary to adjust the document's body css to match the print version.

for HTML output: 1 \LWR@ProvidesPackagePass{units}[1998/08/04]

```
2 \DeclareRobustCommand*{\LWR@HTML@unit}[2][]{%
3 \ifblank{#1}%
4     {\LWR@textcurrentfont{#2}}%
5     {%
6      #1%
7     \ifthenelse{\boolean{B@UnitsLoose}}{~}{\,}%
8     \LWR@textcurrentfont{#2}%
9    }%
```

10 }

§ 487

```
11 \LWR@formatted{unit}
                 12 \DeclareRobustCommand*{\LWR@HTML@unitfrac}[3][]{%
                 13 \ifblank{#1}%
                 14
                        {%
                                \nicefrac{#2}{#3}%
                 15
                        }%
                 16
                 17
                        {%
                 18
                                \left\{\begin{array}{c} \left(B@UnitsLoose\right)_{\sim}^{\infty}, \right\}_{\infty}^{\infty} \end{array}
                 19
                                \nicefrac{#2}{#3}%
                 20
                        }%
                 21
                 22 }
                 24 \LWR@formatted{unitfrac}
                 For Mathjax:
                 25 \CustomizeMathJax{\newcommand{\unit}[2][]{#1 #2}}
                 26 \CustomizeMathJax{\newcommand{\unitfrac}[3][]{#1 #2/#3}}
       File 389
                 lwarp-unitsdef.sty
                 unitsdef
       Package
                 (Emulates or patches code by Patrick Happel.)
 Pkg unitsdef
                 unitsdef is patched for use by lwarp.
for HTML output:
                  1 \LWR@ProvidesPackagePass{unitsdef}[2005/01/04]
                  2 \renewcommand{\unitvaluesep}{\,}
                  6 \renewunit{\arcmin}{%
                        \label{locality} $$ \ifnumcomp{\value{LWR@lateximagedepth}}{>}{0}% $$
                            {\ensuremath{{}^\prime}}%
                            {\HTMLunicode{2032}}% prime
                  9
                 10 }
                 11
                 12 \renewunit{\arcsec}{%
                        \ifnumcomp{\value{LWR@lateximagedepth}}{>}{0}%
                 13
                 14
                            {\ensuremath{{}^{\prime\prime}}}%
                 15
                            {\HTMLunicode{2033}}% dbl prime
                 16 }
                 17
                 18 \renewrobustcmd{\SI}[2]{%
                     \begingroup%
                 19
                 20
                        \let\unit@@xspace\relax%
```

\unitSIdef\selectfont%

21

File 390 lwarp-upref.sty

§ 488 Package **upref**

Pkg upref Ignored.

for HTML output: Discard all options for lwarp-upref:

1 \LWR@ProvidesPackageDrop{upref}[2007/03/14]

File 391 lwarp-url.sty

§ 489 Package **url**

(Emulates or patches code by Donald Arseneau.)

Pkg url url is patched for use by lwarp.

for HTML output: 1 \LWR@ProvidesPackagePass{url}[2013/09/16]

url uses math mode to print its string inside a group, so the original meaning of math is restored first.

```
2 \LetLtxMacro\LWR@url@origUrl@FormatString\Url@FormatString
3
4 \renewcommand*{\Url@FormatString}{%
5  \InlineClass{verbatim}{%
6   \LWR@restoreorigformatting%
7   \LWR@url@origUrl@FormatString%
8  }%
9 }
```

File 392 lwarp-uspace.sty

§ 490 Package USPACE

Pkg uspace uspace is ignored.

 $\begin{tabular}{ll} \textbf{for HTML output:} & 1 \LWR@ProvidesPackageDrop\{uspace\}[2016/11/06] \end{tabular}$

File 393 lwarp-verse.sty

§ 491 Package Verse

(Emulates or patches code by Peter Wilson.)

Pkg verse verse is supported and patched by lwarp.

for HTML output: Pass all options for lwarp-verse:

1 \LWR@ProvidesPackagePass{verse}[2009/09/04]

When using verse or memoir, always place a \\ after each line.

\attrib The documentation for the verse and memoir packages suggest defining an \attrib command, which may already exist in current documents, but it will only work for print output. Iwarp provides \attribution, which works for both print and HTML output. To combine the two so that \attrib is used for print and \attribution is

used for HTML:

\begin{warpHTML}
\let\attrib\attribution
\end{warpHTML}

Len \vleftskip
Len \vleftmargini
Len \HTMLvleftskip
Len \HTMLleftmargini

These lengths are used by verse and memoir to control the left margin, and they may already be set by the user for print output. New lengths \HTMLvleftskip and \HTMLleftmargini are provided to control the margins in HTML output. These new lengths may be set by the user before any verse environment, and persist until they are manually changed again. One reason to change \HTMLleftmargini is if there is a wide \flagverse in use, such as the word "Chorus", in which case the value of \HTMLleftmargini should be set to a wide enough length to contain "Chorus". The default is wide enough for a stanza number.

Horizontal spacing relies on *pdftotext*'s ability to discern the layout (-layout option) of the text in the HTML-tagged PDF output. For some settings of \HTMLleftmargini or \HTMLleftskip the horizontal alignment may not work out exactly, in which case a label may be shifted by one space.

```
2 \AfterEndPreamble{
3 \LWR@traceinfo{Patching verse.}
```

At the beginning of the verse environment:

```
4 \AtBeginEnvironment{verse}
5 {%
```

Use the original list environment inside a to attempt to preserve formatting.

```
6 \LWR@restoreoriglists%
```

Pkg verse
Cls memoir
\flagverse
Len \vleftskip

The verse or memoir packages can place stanza numbers to the left with their \flagverse command. Do not allow them to go into the left margin, which would cause *pdfcrop* to crop the entire page further to the left:

```
7 \ifdef{\vleftskip}{%
8 \setlength{\vleftskip}{\HTMLvleftskip}
9 \setlength{\leftmargini}{\HTMLleftmargini}
10 }{}
11 \LWR@forcenewpage
12 \LWR@atbeginverbatim{3}{verse}%
13 }
```

After the end of the verse environment, which places the tag at the regular left margin:

```
14 \AtEndEnvironment{verse}{%
15 \leavevmode%
16 \LWR@afterendverbatim{1}%
17 }
```

Patch to place poemtitle inside an HTML of class poemtitle:

```
18 \ifdef{\poemtitle}{
19 \DeclareDocumentCommand{\@vstypeptitle}{m}{%
20  \vspace{\beforepoemtitleskip}%
21   {\InlineClass{poemtitle}{\poemtitlefont #1}\par}%
22  \vspace{\afterpoemtitleskip}%
23  }
24 }{}
25
26 \LWR@traceinfo{Finished patching verse.}
27 }% AfterEndPreamble
```

File 394 lwarp-versonotes.sty

§ 492 Package **Versonotes**

(Emulates or patches code by Norman Gray.)

```
Pkg versonotes versonotes is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{versonotes}[2015/12/08]

2 \newcommand{\versonote}[1]{\marginpar{#1}}

3 \newdimen\versotextwidth

4 \newdimen\versoleftmargin

5 \newcommand*{\versolayout}{}
```

lwarp-vertbars.sty File 395 vertbars § 493 Package (Emulates or patches code by Peter Wilson.) Pkg vertbars vertbars is emulated. for HTML output: 1 \LWR@ProvidesPackageDrop{vertbars}[2010/11/27] 2 \newlength{\barwidth} 3 \setlength{\barwidth}{0.4pt} 4 \newlength{\barspace} 5 \setlength{\barspace}{1em} 7 \newenvironment{vertbar}{ \LWR@forcenewpage \LWR@forceminwidth{\barwidth} 10 \begin{BlockClass}[% $border-left: \verb|\LWR@printlength{\LWR@atleastonept}| solid black ; % | (A the substitution of the substit$ 11 padding-left: \LWR@printlength{\barspace}% 12]{vertbar} 13 14 }{ \end{BlockClass} 15 16 } File 396 lwarp-vmargin.sty vmargin **§** 494 Package vmargin vmargin is ignored. Pkg for HTML output: 1 \LWR@ProvidesPackageDrop{vmargin}[2004/07/15] 2 \newcommand*{\LWRVM@customsize}[2]{} 3 \newcommand*{\setpapersize}[2][]{\ifstrequal{#2}{custom}{\LWRVM@customsize}{}} 4 \newcommand*{\setmargins}[8]{} 5 \newcommand*{\setmarginsrb}[8]{} 6 \newcommand*{\setmargnohf}[4]{} 7 \newcommand*{\setmargnohfrb}[4]{} 8 \newcommand*{\setmarg}[4]{} 9 \newcommand*{\setmargrb}[4]{} 10 \newlength{\PaperWidth}

11 \setlength{\PaperWidth}{8.5in}
12 \newlength{\PaperHeight}
13 \setlength{\PaperHeight}{11in}

14 \newif\ifLandscape

File 397 lwarp-vowel.sty

§ 495 Package **VOWe**

(Emulates or patches code by FUKUI Rei.)

Pkg vowel vowel is patched for use by lwarp.

This package has been tested with *pdflatex* and the Type 1 TIPA fonts using the following package load sequence:

```
\usepackage[T3,T1]{fontenc}
\usepackage[utf8]{inputenc}
\usepackage[noenc]{tipa}
\usepackage{vowel}
```

for HTML output:

1 \LWR@ProvidesPackagePass{vowel}[2002/08/08]

File 398 lwarp-vpe.sty

§ 496 Package **VPE**

Pkg vpe vpe is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{vpe}[2012/04/18]

File 399 lwarp-vwcol.sty

§ 497 Package **VWCO**

(Emulates or patches code by Will Robertson.)

Pkg vwcol vwcol is patched for use with lwarp.

The width option is ignored. All vwcol environments adjust to 1-3 equal-width columns, depening on the width of the browser window.

The remaining options are supported, except for lines and maxrecursion.

for HTML output:

```
1 \LWR@ProvidesPackagePass{vwcol}[2015/02/10]
```

Factored from \vwcol. Each is given a style tag to append to the final style.

```
\{\langle style\ tag \rangle\}
\LWR@vwcol@addrule
                       2 \newcommand*{\LWR@vwcol@addrule}[1]{%
                            \appto{\LWR@vwcolstyle}{%
                                #1: %
                             \LWR@printlength{\vwcol@rule} solid \LWR@origpound\LWR@vwcol@rulecolor; %
                       5
                            }%
                      6
                       7 }
\LWR@vwcol@addrule
                       \{\langle style\ tag \rangle\}
                       8 \newcommand*{\LWR@vwcol@addgap}[1]{%
                            \appto{\LWR@vwcolstyle}{%
                      9
                      10
                                #1: %
                                 \LWR@printlength{\vwcol@sep}; %
                      11
                            }%
                      12
                      13 }
                       \{\langle key/values \rangle\}
        Env vwcol
                     Redefine the environment to add a HTML style. The style is built depending on the
                     required options.
                      14 \renewenvironment*{vwcol}[1][]{%
                     New paragraph, and process the options:
                      15 \par\noindent%
                      16 \vwcolsetup{#1}%
                     Begin with no style:
                      17 \newcommand*{\LWR@vwcolstyle}{}
                     presep and postsep are created with HTML margins:
                      18 \if@vwcol@presep
                      19
                            \appto{\LWR@vwcolstyle}{margin-left: 1em ; padding-left: .5em ; }
                      20 \fi
                      21 \if@vwcol@postsep
                            \appto{\LWR@vwcolstyle}{margin-right: 1em ; padding-right: .5em ; }
                     23 \fi
                     sep becomes column-gap:
                      24 \ifdimgreater{\vwcol@sep}{1sp}{
                      25
                            \LWR@vwcol@addgap{column-gap}
                            \LWR@vwcol@addgap{-moz-column-gap}
                      26
                            \LWR@vwcol@addgap{-webkit-column-gap}
                      27
```

rule become column-rule, while prerule and postrule become HTML borders:

28 }{}

```
29 \convertcolorspec{named}{\vwcol@rulecol}{HTML}\LWR@vwcol@rulecolor%
30 \ifdimgreater{\vwcol@rule}{0pt}{
      \ifdimless{\vwcol@rule}{1pt}{
32
          \setlength{\vwcol@rule}{1pt}
33
      }{}
      \LWR@vwcol@addrule{column-rule}
34
      \LWR@vwcol@addrule{-moz-column-rule}
35
36
      \LWR@vwcol@addrule{-webkit-column-rule}
37
      \if@vwcol@prerule\LWR@vwcol@addrule{border-left}\fi
      \if@vwcol@postrule\LWR@vwcol@addrule{border-right}\fi
38
39 }{}
Each of the justify options becomes a text-align. Indentation is added where
appropriate.
40 \ifdefequal{\vwcol@justify}{\RaggedRight}{
      \appto{\LWR@vwcolstyle}{text-align: left; }
      \ifdimgreater{\vwcol@parindent}{0pt}{
42
          \appto{\LWR@vwcolstyle}{%
43
               text-indent: \LWR@printlength{\vwcol@parindent}; %
44
45
      }{}
46
47 }{}
48 \ifdefequal{\vwcol@justify}{\RaggedLeft}{
      \appto{\LWR@vwcolstyle}{text-align: right ; }
50 }{}
51 \ifdefequal{\vwcol@justify}{\Centering}{
      \appto{\LWR@vwcolstyle}{text-align: center ; }
52
53 }{}
54 \ifdefequal{\vwcol@justify}{\justifying}{
      \appto{\LWR@vwcolstyle}{text-align: justify ; }
55
56
      \ifdimgreater{\vwcol@parindent}{0pt}{
57
          \appto{\LWR@vwcolstyle}{%
58
               text-indent: \LWR@printlength{\vwcol@parindent}; %
60
      }{}
61 }{}
Create the <div> with the assembled style:
62 \BlockClass[\LWR@vwcolstyle]{multicols}
63 }
When the environment ends:
65 \endBlockClass
66 }
```

File 400 lwarp-wallpaper.sty

§ 498 Package wallpaper

Pkg wallpaper wallpaper is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{wallpaper}[2005/01/18]

2 \newcommand*{\CenterWallPaper}[2]{}
3 \newcommand*{\ThisCenterWallPaper}[2]{}

4 \newcommand*{\TileWallPaper}[3]{}

5 \newcommand*{\ThisTileWallPaper}[3]{}

6 \newcommand*{\TileSquareWallPaper}[2]{}

 $\label{lem:command*} $$ \newcommand*{\ThisTileSquareWallPaper}[2]{} $$$

 $8 \newcommand * {\ULCornerWallPaper}[2]{}$

 ${\tt 9 \ lPaper}[2]{\tt }$

14 \newcommand*{\LRCornerWallPaper}[2]{}

15 \newcommand*{\ThisLRCornerWallPaper}[2]{}

16 \newcommand*{\ClearWallPaper}{}

17 $\mbox{newlength{\wpXoffset}}$

18 \newlength{\wpYoffset}

File 401 lwarp-watermark.sty

§ 499 Package watermark

(Emulates or patches code by Alexander I. Rozhenko.)

Pkg watermark watermark is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{watermark}[2004/12/09]

2 \newcommand{\watermark}[1]{}

3 \newcommand{\leftwatermark}[1]{}

4 \newcommand{\rightwatermark}[1]{}

5 \newcommand{\thiswatermark}[1]{}

6 \newcommand{\thispageheading}[1]{}

File 402 lwarp-widows-and-orphans.sty

§ 500 Package widows-and-orphans

Pkg widows-and-orphans widows-and-orphans is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{widows-and-orphans}[2018/09/01]

2 \NewDocumentCommand\WaOsetup{m}{}

3 \NewDocumentCommand\WaOparameters{}{}

 ${\tt 4 \NewDocumentCommand\WaOignorenext\{\}\{\}}$

File 403 lwarp-wrapfig.sty

§ 501 Package wrapfig

(Emulates or patches code by Donald Arseneau.)

Pkg wrapfig wrapfig is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{wrapfig}[2003/01/31]

```
2 \newcommand*{\LWR@wrapposition}{}
4 \newcommand*{\LWR@subwrapfigure}[2]{%
 5 \renewcommand*{\LWR@wrapposition}{}%
6 \ifthenelse{%
      \equal{#1}{r}\OR\equal{#1}{R}\OR%
      \qquad \equal {\#1}{o}\equal {\#1}{0}{\%}
8
9 }%
10
      {\renewcommand*{\LWR@wrapposition}{float:right}}%
      {\renewcommand*{\LWR@wrapposition}{float:left}}%
12 \setlength{\LWR@templengthone}{#2}%
13 \LWR@BlockClassWP{%
      width:\LWR@printlength{\LWR@templengthone}; \LWR@wrapposition; %
14
      margin:10pt%
15
16 }%
17 {%
      width:\LWR@printlength{\LWR@templengthone}; \LWR@wrapposition%
18
19 }%
20 {marginblock}%
21 }
22
24 \NewDocumentEnvironment{wrapfigure}{o m o m}
26 \LWR@subwrapfigure{#2}{#4}%
27 \captionsetup{type=figure}%
28 }
29 {%
30 \endLWR@BlockClassWP%
31 }
34 \NewDocumentEnvironment{wraptable}{o m o m}
35 {%
36 \LWR@subwrapfigure{#2}{#4}%
37 \captionsetup{type=table}%
38 }
39 {%
40 \endLWR@BlockClassWP%
41 }
42
```

```
44 \NewDocumentEnvironment{wrapfloat}{m o m o m}
46 \LWR@subwrapfigure{#3}{#5}%
47 \captionsetup{type=#1}%
48 }
49 {%
50 \endLWR@BlockClassWP%
51 }
53 \newlength{\wrapoverhang}
```

lwarp-xbmks.sty File 404

Package xbmks **§ 502**

> xbmks is ignored. xbmks

for HTML output: 1 \LWR@ProvidesPackageDrop{xbmks}[2018/07/04]

2 \newcommand{\xbmksetup}[1]{}

3 \NewDocumentCommand{\pdfbookmarkx}{o m o m}{}

4 \NewDocumentCommand{\currentpdfbookmarkx}{m o m}{}

5 \NewDocumentCommand{\subpdfbookmarkx}{m o m}{}

6 \NewDocumentCommand{\belowpdfbookmarkx}{m o m}{}

File 405 lwarp-xcolor.sty

xcolor Package **§ 503**

(Emulates or patches code by Dr. Uwe Kern.)

xcolor xcolor is supported by lwarp.

§ 503.1 Limitations

\fcolorboxBlock

\colorboxBlock and \colorboxBlock and \fcolorboxBlock are provided for increased HTML compatibility, and they are identical to \colorbox and \fcolorbox in print mode. In HTML mode they place their contents into a <div> instead of a . These <div>s are set to display: inline-block so adjacent \colorboxBlocks appear side-by-side in HTML, although text is placed before or after each.

> Print-mode definitions for \colorboxBlock and \fcolorboxBlock are created by lwarp's core if xcolor is loaded.

background: none \fcolorbox and \fcolorboxBlock allow a background color of none, in which case only the frame is drawn, which can be useful for HTML.

color support Color definitions, models, and mixing are fully supported without any changes re-

quired.

colored tables \rowcolors is supported, except that the optional argument is ignored so far.

colored text and boxes \textcolor, \colorbox, and \fcolorbox are supported.

\color and \pagecolor \color and \pagecolor are ignored. Use css or \textcolor where possible.

§ 503.2 xcolor definitions: location and timing

The lwarp core and its lwarp-xcolor package are tightly integrated to allow comparable results for print, HTML, and print inside an HTML lateximage. This requires a number of definitions and redefintions depending on whether each of xcolor and lateximage is being used, and whether print or HTML is being generated. Some of these actions are one-time when xcolor is loaded, and others are temporary as lateximage is used.

When **xcolor** is loaded in print mode: No special actions are taken at the time that xcolor is loaded in print mode, but see \AtBeginDocument below.

When lwarp-xcolor is loaded in HTML mode: xcolor's original definitions are saved for later restoration. \LWR@restoreorigformatting is appended to restore these definitions for use inside a lateximage. New HTML-mode definitions are created for \textcolor, \pagecolor, \nopagecolor, \colorbox, \colorboxBlock, \fcolorbox, \fcolorboxBlock, and fcolorminipage.

\AtBeginDocument in print or HTML mode: See Section 85. If xcolor has been loaded, the print-mode \fcolorbox is modified to accept a background color of none, and additional definitions are created for lwarp's new macros print-mode macros \colorboxBlock, \fcolorboxBlock, and fcolorminipage. The HTML versions of these macros will already have been created by lwarp-xcolor if it has been loaded.

For use inside an HTML lateximage, \LWR@restoreorigformatting is appended to temporarily set these functions to their print-mode versions.

In a lateximage in HTML mode: \LWR@restoreorigformatting temporarily restores the print-mode definitions of xcolor's functions. See \LWR@restoreorigformatting on page 482.

\color:

Print: Used as-is.

HTML: Ignored by *pdftotext*, and will not appear. **HTML lateximage:** Colors will appear in a lateximage.

\textcolor:

Print: Used as-is.

HTML: Redefined by lwarp-xcolor, page 960.

HTML lateximage: Remembers and reuses the print version.

\pagecolor:

```
Print: Used as-is.
     HTML: Ignored.
     HTML lateximage: Colors will be picked up in a lateximage.
\nopagecolor:
     Print: Used as-is.
     HTML: Ignored.
     HTML lateximage: Colors will be picked up in a lateximage.
\colorbox:
     Print: Used as-is.
     HTML: Redefined by lwarp-xcolor, page 961.
     HTML lateximage: Remembers and reuses the print version.
\colorboxBlock:
     Print: Becomes \colorbox.
     HTML: Newly defined by lwarp-xcolor to use a <div>, page 961.
     HTML lateximage: Remembers and reuses the print version \colorbox.
\fcolorbox:
     Print: Modified to allow a background of none.
          \LWR@print@fcolorbox at section 85
     HTML: Redefined by lwarp-xcolor, page 962.
     HTML lateximage: Remembers and reuses the print version.
\fcolorboxBlock:
     Print: Becomes \fcolorbox. Section 85
     HTML: Newly defined by lwarp-xcolor to use a <div>, page 963.
     HTML lateximage: Remembers and reuses the print version \fcolorbox.
fcolorminipage:
     Print: Newly defined in the lwarp core.
          LWR@print@fcolorminipage at section 85
     HTML: Newly defined by lwarp-xcolor, page 963.
     HTML lateximage: Uses the print version.
\boxframe:
     Print: Used as-is.
     HTML: Redefined by lwarp-xcolor, page 964.
     HTML lateximage: Remembers and reuses the print version.
```

§ 503.3 Package loading

for HTML output:

1 \LWR@ProvidesPackagePass{xcolor}[2016/05/11]

2 \begin{warpHTML}

§ 503.4 Remembering and restoring original definitions

Remember the following print-mode actions to be restored when inside a lateximage environment:

```
3 \LetLtxMacro\LWR@print@pagecolor\pagecolor
4 \LetLtxMacro\LWR@print@nopagecolor\nopagecolor
```

\LWR@restoreorigformatting

Inside a lateximage the following gets restored to their print-mode actions:

```
5 \appto\LWR@restoreorigformatting{%
6 \LetLtxMacro\pagecolor\LWR@print@pagecolor%
7 \LetLtxMacro\nopagecolor\LWR@print@nopagecolor%
8 }
```

§ 503.5 HTML color style

\LWR@findcurrenttextcolor

Sets \LWR@tempcolor to the current color.

```
9 \renewcommand*{\LWR@findcurrenttextcolor}{%
10 \protect\colorlet{LWR@current@color}{.}%
11 \protect\convertcolorspec{named}{LWR@current@color}{HTML}\LWR@tempcolor%
12 }
```

Prints a color style for the current color.

\LWR@currenttextcolorstyle

```
13 \newcommand*{\LWR@currenttextcolorstyle}{%
14 \LWR@findcurrenttextcolor%
15 \ifdefstring{\LWR@tempcolor}{000000}%
16 {}%
17 {color: \LWR@origpound\LWR@tempcolor ; }%
18 }
```

\LWR@textcurrentcolor

 $\{\langle text \rangle\}$ Like \textcolor but uses the current \color instead.

19 \DeclareDocumentCommand{\LWR@textcurrentcolor}{m}{%

```
20 \begingroup%
21 \LWR@FBcancel%
22 \LWR@findcurrenttextcolor%
23 \InlineClass[color:\LWR@origpound\LWR@tempcolor]{textcolor}{%
24 \renewcommand*{\LWR@currenttextcolor}{\LWR@origpound\LWR@tempcolor}%
25 #1%
26 }%
27 \endgroup%
28 }
```

```
\LWR@colorstyle \{\langle 2: model \rangle\} \{\langle 3: color \rangle\}
```

For a color style, prints the color converted to HTML colors.

```
29 \NewDocumentCommand{\LWR@colorstyle}{m m}{%
30 \begingroup%
31 \LWR@FBcancel%
```

Use the xcolor package to convert to an HTML color space:

32 \convertcolorspec{#1}{#2}{HTML}\LWR@tempcolor%

Print the converted color:

```
33 \LWR@origpound\LWR@tempcolor%
34 \endgroup%
35 }
```

```
\LWR@backgroundcolor [\langle model \rangle] \{\langle color \rangle\} \{\langle text \rangle\}
```

Similar to \textcolor, but prints black text against a color background.

Converted into an HTML hex color span.

```
36 \NewDocumentCommand{\LWR@backgroundcolor}{O{named} m m}{%
37 \begingroup%
38 \LWR@FBcancel%
39 \InlineClass[background:\LWR@colorstyle{#1}{#2}]{backgroundcolor}{%
40 #3%
41 }%
42 \endgroup%
43 }
```

§ 503.6 **HTML border**

\LWR@borderpadding

 $\{\langle colorstyle \rangle\} \{\langle color \rangle\}$ Prints the HTML attributes for a black border and padding. \LWR@forceminwidth must be used first in order to set the border width.

```
44 \newcommand*{\LWR@borderpadding}[2]{%
45 border:\LWR@printlength{\LWR@atleastonept} solid \LWR@colorstyle{#1}{#2}; %
46 padding:\LWR@printlength{\fboxsep}%
47 }
```

§ 503.7 High-level macros

```
\textcolor [\langle model \rangle] \{\langle color \rangle\} \{\langle text \rangle\}
```

Converted into an HTML hex color span.

```
48 \NewDocumentCommand{\LWR@HTML@textcolor}{o m m}{%
49 \begingroup%
```

Set the PDF color, to be picked up by svg math if possible.

The print-mode \color command cannot accept the named option with color mixing, but it works with no option at all.

```
50 \IfValueTF{#1}{%
                       \color[#1]{#2}%
                52 }{%
                       \color{#2}%
                53
                54 }%
                55 \LWR@FBcancel%
                56 \IfValueTF{#1}{%
                57 \InlineClass[color:\LWR@colorstyle{#1}{#2}]{textcolor}{%
                58 \renewcommand*{\LWR@currenttextcolor}{\LWR@origpound\LWR@tempcolor}%
                59 #3%
                60 }%
                61 }{%
                62 \InlineClass[color:\LWR@colorstyle{named}{#2}]{textcolor}{%
                63 \renewcommand*{\LWR@currenttextcolor}{\LWR@origpound\LWR@tempcolor}%
                64 #3%
                65 }%
                66 }%
                67 \endgroup%
                68 }
                70 \LWR@formatted{textcolor}
  \verb|\pagecolor| [\langle model \rangle] \{\langle color \rangle\}|
               Ignored. Use css instead.
                71 \renewcommand*{\pagecolor}[2][named]{}
               Ignored.
\nopagecolor
                72 \renewcommand*{\nopagecolor}{}
   \colorbox [\langle model \rangle] \{\langle color \rangle\} \{\langle text \rangle\}
                Converted into an HTML hex background color <span>.
                73 \MewDocumentCommand{\LWR@HTML@colorbox}{O{named} m +m}{% }
                74 \begingroup%
                75 \LWR@FBcancel%
                76 \InlineClass[%
                77 background:\LWR@colorstyle{#1}{#2} ; %
                78 padding:\LWR@printlength{\fboxsep}%
                79 ]{colorbox}{#3}%
                80 \endgroup%
                81 }
                82
                83 \AtBeginDocument{
                84 \LWR@formatted{colorbox}
                85 }
```

```
\colorboxBlock [\langle model \rangle] \{\langle color \rangle\} \{\langle text \rangle\}
```

Converted into an HTML hex background color <div>.

```
86 \NewDocumentCommand{\LWR@HTML@colorboxBlock}{O{named} m +m}{%
87 \begingroup%
88 \LWR@FBcancel%

89 \LWR@stoppars%

90 \begin{BlockClass}[%
91 background:\LWR@colorstyle{#1}{#2}; %
92 padding:\LWR@printlength{\fboxsep}%
93 ]{colorboxBlock}
94 #3
95 \end{BlockClass}%
96 \endgroup%
```

Prevent paragraph tags around horizontal white space until the start of the next paragraph:

```
97 \global\booltrue{LWR@minipagethispar}%
98 }
99
100 \AtBeginDocument{
101 \LWR@formatted{colorboxBlock}
102 }
```

 $\lceil \langle framemodel \rangle \rceil \{\langle framecolor \rangle \} [\langle boxmodel \rangle] \{\langle boxcolor \rangle \} \{\langle text \rangle \}$

Converted into a framed HTML hex background color span.

A background color of none creates a colored frame without a background color.

```
103 \NewDocumentCommand{\LWR@HTML@fcolorbox}{O{named} m 0{named} m +m}{%
104 \LWR@traceinfo{HTML fcolorbox #2 #4}%
105 \begingroup%
106 \LWR@FBcancel%
107 \LWR@forceminwidth{\fboxrule}%
108 \ifthenelse{\equal{#4}{none}}%
       {% no background color
109
           \InlineClass[%
110
111
           \LWR@borderpadding{#1}{#2}%
112
           ]{fcolorbox}{#5}%
113
       }%
114
       {% yes background color
           \InlineClass[%
115
           \LWR@borderpadding{#1}{#2}; %
116
117
           background:\LWR@colorstyle{#3}{#4}%
           ]{fcolorbox}{#5}%
118
119
       }%
120 \endgroup%
```

```
121 }
123 \AtBeginDocument{
124 \LWR@formatted{fcolorbox}
125 }
```

```
\footnote{fcolorboxBlock} [\langle framemodel \rangle] {\langle framecolor \rangle} [\langle boxmodel \rangle] {\langle boxcolor \rangle} {\langle text \rangle}
```

Converted into a framed HTML hex background color span.

A background color of none creates a colored frame without a background color.

```
126 \NewDocumentCommand{\LWR@HTML@fcolorboxBlock}{O{named} m O{named} m +m}{%
127 \LWR@traceinfo{HTML fcolorboxBlock #2 #4}%
128 \begingroup%
129 \LWR@FBcancel%
130 \LWR@forceminwidth{\fboxrule}%
131 \LWR@stoppars%
132 \ifthenelse{\equal{#4}{none}}%
       {% no background color
133
           \begin{BlockClass}[%
134
               \LWR@borderpadding{#1}{#2}%
135
           ]{fcolorboxBlock}
136
137
           #5
138
           \end{BlockClass}%
139
       }%
       {% yes background color
140
141
           \convertcolorspec{#3}{#4}{HTML}\LWR@tempcolortwo%
142
           \begin{BlockClass}[%
143
               background:\LWR@origpound\LWR@tempcolortwo\ ; %
               \LWR@borderpadding{#1}{#2}%
           ]{fcolorboxBlock}
145
146
           \end{BlockClass}%
147
       }%
148
149 \endgroup%
```

Prevent paragraph tags around horizontal white space until the start of the next paragraph:

```
150 \global\booltrue{LWR@minipagethispar}%
151 \LWR@traceinfo{HTML fcolorboxBlock done}%
152 }
153
154 \AtBeginDocument{
155 \LWR@formatted{fcolorboxBlock}
156 }
```

Creates a framed HTML <div> around its contents.

A print-output version is defined in the lwarp core: section 85

```
\{\langle frame model \rangle\} \{\langle frame color \rangle\} \{\langle background tag \rangle\} \{\langle height \rangle\}
\LWR@subfcolorminipage
                            157 \NewDocumentCommand{\LWR@subfcolorminipage}{m m m m}{%
                            158 \LWR@stoppars%
                            159 \begin{BlockClass}[%
                            160 #3%
                            161 \LWR@borderpadding{#1}{#2} ; %
                            162 \IfValueT{#4}{height:\LWR@printlength{\LWR@tempheight}; }%
                            163 width:\LWR@printlength{\LWR@tempwidth}%
                            164 ]{fcolorminipage}%
                            165 }
         fcolorminipage [\langle 1:framemodel \rangle] \{\langle 2:framecolor \rangle\} [\langle 3:boxmodel \rangle] \{\langle 4:boxcolor \rangle\} [\langle 5:align \rangle] [\langle 6:height \rangle]
                             [\langle 7:inner-align\rangle] \{\langle 8:width\rangle\}
                            166 \NewDocumentEnvironment{LWR@HTML@fcolorminipage}{O{named} m O{named} m O{c} o o m}
                            167 {%
                            168 \LWR@FBcancel%
                            169 \setlength{\LWR@tempwidth}{#8}%
                            170 \IfValueT{#6}{\setlength{\LWR@tempheight}{#6}}%
                            171 \LWR@forceminwidth{\fboxrule}%
                            172 \convertcolorspec{#1}{#2}{HTML}\LWR@tempcolor%
                            173 \ifthenelse{\equal{#4}{none}}%
                                     {\LWR@subfcolorminipage{#1}{#2}{}{#6}}%
                            174
                            175
                                     {%
                                          \convertcolorspec{#3}{#4}{HTML}\LWR@tempcolortwo%
                            176
                                          \LWR@subfcolorminipage{#1}{#2}%
                            177
                            178
                                               {background:\LWR@origpound\LWR@tempcolortwo\;}%
                                               {#6}%
                            180
                                     }%
                            181 }%
                            182 {%
                                     \end{BlockClass}%
                             Prevent paragraph tags around horizontal white space until the start of the next
                             paragraph:
                                     \global\booltrue{LWR@minipagethispar}%
                            184
                            185 }
                            186
                            187 \AtBeginDocument{
                            188 \LWR@formattedenv{fcolorminipage}
                            189 }
                \boxframe \{\langle width \rangle\} \{\langle height \rangle\} \{\langle depth \rangle\}
```

The depth is added to the height, but the box is not decended below by the depth. \textcolor is honored.

```
190 \newcommand*{\LWR@HTML@boxframe}[3]{%
            192 \setlength{\LWR@tempwidth}{#1}%
            193 \setlength{\LWR@tempheight}{#2}%
            194 \addtolength{\LWR@tempheight}{#3}%
            195 \LWR@forceminwidth{\fboxrule}%
            196 \LWR@findcurrenttextcolor%
            197 \InlineClass[%
            198 display:inline-block ; %
            199 border:\LWR@printlength{\LWR@atleastonept} solid \LWR@currenttextcolor{}; %
            200 width:\LWR@printlength{\LWR@tempwidth} ; %
            201 height:\LWR@printlength{\LWR@tempheight}%
            202 ]{boxframe}{}%
            203 }%
            204 }
            205
            206 \LWR@formatted{boxframe}
   § 503.8 Row colors
\rowc@l@rs
              [\langle cmds \rangle] \{\langle startrow \rangle\} \{\langle odd \ color \rangle\} \{\langle even \ color \rangle\}
            207 \newcommand*{\LWR@xcolortempcolor}{}
            209 \def\rowc@l@rs[#1]#2#3#4%
            210 {
            211 \global\rownum=1
                  \global\@rowcolorstrue
            212
            213
                  \@ifxempty{#3}%
            214
                    {\def\@oddrowcolor{\@norowcolor}}%
            215
                       \convertcolorspec{named}{#3}{HTML}\LWR@xcolortempcolor%
            216
                       \edef\@oddrowcolor{%
            217
                            218
                       }%
            219
                    }%
            220
            221
                  \@ifxempty{#4}%
            222
                    {\def\@evenrowcolor{\@norowcolor}}%
            223
                    {%
                       \convertcolorspec{named}{#4}{HTML}\LWR@xcolortempcolor%
            224
            225
                       \edef\@evenrowcolor{%
                            \csdef{LWR@xcolorrowHTMLcolor}{\LWR@xcolortempcolor}%
            226
            227
                       }%
            228
                    }%
                  \if@rowcmd
            229
            230
                    \def\@rowcolors
                    {%
            231
                          #1%
            232 %
                       \if@rowcolors
            233
            234 %
            235
                            \relax\ifnum\rownum<#2\@norowcolor\else
                            \ifodd\rownum\@oddrowcolor\else\@evenrowcolor\fi\fi%
            236
            237 %
                           }%
                       \fi%
            238
                    }%
            239
            240
                  \else
```

```
\def\@rowcolors
                   241
                   242
                              \if@rowcolors
                   243
                                  \ifnum\rownum<#2%
                   244
                                   \noalign{%
                   245 %
                                      \@norowcolor
                   246
                   247 %
                                    }
                                  \else
                   248
                   249 %
                                   #1%
                   250 %
                                   \noalign{%
                   251
                                      \ifodd\rownum\@oddrowcolor\else\@evenrowcolor\fi%
                   252 %
                                    }%
                                  \fi
                   253
                              \fi%
                   254
                   255
                           }%
                   256
                         \fi
                   257
                         \ignorespaces%
                   258 }
                    Turns off color for this row.
     \@norowcolor
                   259 \def\@norowcolor{%
                   260 \renewcommand{\LWR@xcolorrowHTMLcolor}{}%
      \@rowc@lors
                    Executed at the end of each row.
                   262 \def\@rowc@lors{%
                   263 %
                          \noalign{%
                   264
                              \global\advance\rownum\@ne%
                   265 %
                          \@rowcolors%
                   266
                   267 }
                   268 \end{warpHTML}
                  lwarp-xechangebar.sty
                   xechangebar
§ 504
         Package
                   xechangebar is ignored.
     xechangebar
                    1 \LWR@ProvidesPackageDrop{xechangebar}[2017/08/03]
  for HTML output:
                    2 \LWR@origRequirePackage{lwarp-changebar}
          File 407 lwarp-xellipsis.sty
         Package xellipsis
§ 505
```

(Emulates or patches code by Donald P. Goodman III.)

Pkg xellipsis xellipsis is patched for use by lwarp.

When non-zero, each of the spaces is converted to an HTML thin unbreakable space.

```
for HTML output:
```

```
1 \LWR@ProvidesPackagePass{xellipsis}[2015/11/01]
```

```
2 \newcommand*{\LWR@xellipsespace}[1]{%
3 \ifdim#1=0pt\else%
      \ifdim#1<\fontdimen2\font%
5
      \else%
6
 7
      \fi%
8
9 \fi%
10 }
12 \def\xelip{%
13 \mbox{%
      \LWR@xellipsespace{\xelipprebef}%
14
      \xelipprechar%
15
      \LWR@xellipsespace{\xelippreaft}%
16
17
      \LWR@xellipsespace{\xelipbef}%
18
      \xelipchar%
      \xel@loopi = 1%
19
      \loop\ifnum\xelipnum>\xel@loopi%
20
          \advance\xel@loopi by1%
21
          \LWR@xellipsespace{\xelipgap}%
22
23
          \xelipchar%
      \repeat%
24
      \LWR@xellipsespace{\xelipaft}%
25
      \LWR@xellipsespace{\xelippostbef}%
26
      \xelippostchar%
27
      \LWR@xellipsespace{\xelippostaft}%
28
29 }%
30 }%
```

File 408 lwarp-xetexko-vertical.sty

§ 506 Package xetexko-vertical

(Emulates or patches code by Dohyun Kim.)

```
Pkg xetexko-vertical xetexko-vertical is patched for use by lwarp.
```

```
for HTML output: 1 \LWR@loadbefore{xetexko-vertical}
2
3 \LWR@ProvidesPackagePass{xetexko-vertical}[2018/04/06]

4 \renewcommand{\verticaltypesetting}{}
5 \renewenvironment{vertical}[1]{\BlockClass{verticalrl}}{\endBlockClass}
6 \renewenvironment{horizontal}[1]{\BlockClass{horizontaltb}}{\endBlockClass}
7 \renewcommand{\vertlatin}[1]{#1}
```

File 409 lwarp-xfakebold.sty

§ 507 Package **xfakebold**

(Emulates or patches code by Herbert Voss.)

Pkg xfakebold xfakebold is patched for use by lwarp, and additional underlying support is found in the lwarp core.

Note that the print version resets to unbold at each page break, whereas the HTML version maintains the bold state until it is undone.

for HTML output: 1 \LWR@ProvidesPackagePass{xfakebold}[2018/07/25]

```
2 \let\LWR@orig@setBold\setBold
3 \let\LWR@orig@unsetBold\unsetBold
4 \renewcommand*{\setBold}{\booltrue{LWR@xfakebold}}
5 \renewcommand*{\unsetBold}{\boolfalse{LWR@xfakebold}}
6
7 \renewcommand*{\LWR@applyxfakebold}{%
8 \ifbool{LWR@xfakebold}{\LWR@orig@setBold}{\LWR@orig@unsetBold}%
9 }
```

File 410 lwarp-xfrac.sty

§ 508 Package **xfrac**

 $(\textit{Emulates or patches code by The } \verb|LATEX3 Project.|)$

Pkg xfrac Supported by adding xfrac instances.

for HTML output: 1 \LWR@ProvidesPackagePass{xfrac}[2018-08-23]

⚠ font size

In the user's document preamble, lwarp should be loaded after font-related setup. During HTML conversion, this font is used by lwarp to generate its initial PDF output containing HTML tags, later to be converted by *pdftotext* to a plain text file. While the text may be in any font which *pdftotext* can read, the math is directly converted into svG images using this same user-selected font. xfrac below is set for the Latin Modern (lmr) font. If another font is used, it may be desirable to redefine \xfracHTMLfontsize with a different em size.

\sfrac $[\langle instance \rangle] \{\langle num \rangle\} [\langle sep \rangle] \{\langle denom \rangle\}$

A text-mode instance for the default font is provided below. The numerator and denominator formats are adjusted to encase everything in HTML tags. \scalebox is made null inside the numerator and denominator, since the HTML tags should not be scaled, and we do not want to introduce additional HTML tags for scaling.

In math mode, which will appear inside a lateximage, no adjustments are necessary.

```
for HTML & PRINT: 2 \begin{warpall}
```

\xfracHTMLfontsize User-redefinable macro which controls the font size of the fraction.

```
3 \newcommand*{\xfracHTMLfontsize}{.6em}
4 \end{warpall}
5 \begin{warpHTML}
```

for HTML output:

instances

Instances of xfrac for various font choices:

Produce css for a small raised numerator and a small denominator.

Scaling is turned off so that *pdftotext* correctly reads the result.

```
6 \DeclareInstance{xfrac}{default}{text}{
      numerator-format = {%
          \begingroup%
8
          \RenewDocumentCommand{\scalebox}{m o m}{##3}%
9
10
          \InlineClass{numerator}{#1}\,%
11
          \endgroup%
12
      },
      denominator-format = {%
13
          \begingroup%
14
          \RenewDocumentCommand{\scalebox}{m o m}{##3}%
15
          \InlineClass{denominator}{#1}%
16
17
          \endgroup%
      },
18
```

For pdftotext, do not scale the text:

```
scaling = false
19
20 }
21
22 \DeclareInstance{xfrac}{lmr}{text}{
      numerator-format = {%
23
          \begingroup%
24
          \RenewDocumentCommand{\scalebox}{m o m}{##3}%
25
26
          \InlineClass{numerator}{#1}\,%
          \endgroup%
27
28
      },
      denominator-format = {%
29
          \begingroup%
30
          \RenewDocumentCommand{\scalebox}{m o m}{##3}%
31
          \InlineClass{denominator}{#1}%
32
33
          \endgroup%
      },
34
```

For pdftotext, do not scale the text:

```
35
      scaling = false
36 }
37
38 \DeclareInstance{xfrac}{lmss}{text}{
      numerator-format = {%
39
          \begingroup%
40
          41
          \InlineClass{numerator}{#1}\,%
42
43
          \endgroup%
44
      },
45
      denominator-format = {%
46
          \begingroup%
          \RenewDocumentCommand{\scalebox}{m o m}{##3}%
47
          \InlineClass{denominator}{#1}%
48
49
          \endgroup%
50
      },
For pdftotext, do not scale the text:
      scaling = false
51
52 }
53
54 \DeclareInstance{xfrac}{lmtt}{text}{
      numerator-format = {%
          \begingroup%
56
57
          \RenewDocumentCommand{\scalebox}{m o m}{##3}%
58
          \InlineClass{numerator}{#1}\,%
          \endgroup%
59
60
      },
      denominator-format = {%
61
          \begingroup%
62
          \RenewDocumentCommand{\scalebox}{m o m}{##3}%
63
          \InlineClass{denominator}{#1}%
65
          \endgroup%
      },
66
For pdftotext, do not scale the text:
67
      scaling = false
68 }
69 \end{warpHTML}
```

File 411 lwarp-xltabular.sty

§ 509 Package **xltabular**

(Emulates or patches code by Rolf Niepraschk, Herbert Voss.)

Pkg xltabular xltabular is emulated by lwarp.

for HTML output:

Relies on tabularx.

∆ table numbering

At present, an xltabular without a caption or with only a \caption* may be misnumbered in HTML, so it may be necessary to place at the end of the table:

\warpHTMLonly{\addtocounter{table}{-1}}

```
1 \RequirePackage{tabularx}
2
3 \LWR@ProvidesPackageDrop{xltabular}[2018/05/23]
4
5 \DeclareDocumentEnvironment{xltabular}{o m m}
6 {\longtable{#3}}
7 {\endlongtable}
```

File 412 lwarp-xltxtra.sty

§510 Package **xltxtra**

(Emulates or patches code by Will Robertson, Jonathan Kew.)

Pkg xltxtra xltxtra is emulated.

```
\quad \text{for HTML output:} \quad
```

```
1 \LWR@ProvidesPackageDrop{xltxtra}[2016/01/21]
```

```
2 \RequirePackage{realscripts}
3 \RequirePackage{metalogo}
4 \newcommand*\TeX@logo@spacing[6]{}
6 \newcommand*{\vfrac}[2]{%
7 \textsuperscript{#1}/\textsubscript{#2}%
8 }
10 \newcommand\namedglyph[1]{%
    \@tempcnta=\XeTeXglyphindex "#1"\relax
    \ifnum\@tempcnta>0
13
      \XeTeXglyph\@tempcnta
14
15
      \xxt@namedglyph@fallback{#1}%
   \fi}
16
17
18 \newcommand\xxt@namedglyph@fallback[1]{[#1]}
20 \DeclareDocumentCommand{\showhyphens}{m}{}
```

File 413 lwarp-xmpincl.sty

§511 Package xmpincl

(Emulates or patches code by Maarten Sneep.)

```
\begin{array}{ll} & \text{Pkg} & \text{xmpincl} & Emulated. \\ \\ & \text{for HTML output:} & Discard all options for lwarp-xmpincl:} \end{array}
```

1 \LWR@ProvidesPackageDrop{xmpincl}[2008/05/10]

2 \newcommand*{\includexmp}[1]{}

File 414 lwarp-xpiano.sty

§512 Package Xpiano

(Emulates or patches code by Enrico Gregorio.)

Pkg xpiano xpiano is patched for use by lwarp.

```
for HTML output: 1 \LWR@ProvidesPackagePass{xpiano}
```

File 415 lwarp-xpinyin.sty

§513 Package **xpinyin**

(Emulates or patches code by Soben Lee.)

Pkg xpinyin xpinyin is partly supported. \xpinyin and pinyinscope are nullified, but \pinyin works.

for HTML output: 1 \LWR@ProvidesPackagePass{xpinyin}[2018/01/28]

2 \RenewDocumentEnvironment{pinyinscope}{0{}}{}}{}
3

```
4 \RenewDocumentCommand{\xpinyin}{s 0{} m}{%
5  \IfBooleanTF{#1}{#3}{\@firstoftwo#3}%
6 }
7
8 \RenewDocumentCommand{\enablepinyin}{}{}
```

File 416 lwarp-xtab.sty

§514 Package **xtab**

(Emulates or patches code by Peter Wilson.)

Pkg xtab xtab is emulated.

for HTML output: 1 \LWR@ProvidesPackageDrop{xtab}[2011/07/31]

Misplaced alignment tab character &

Misplaced alignment For \tablefirsthead, etc., enclose them as follows:

\StartDefiningTabulars \tablefirsthead ... \StopDefiningTabulars

See section 8.10.1.

supertabular and xtab are not supported inside a lateximage.

```
2 \newcommand{\LWRXT@firsthead}{}
4 \newcommand{\tablefirsthead}[1]{%
      \long\gdef\LWRXT@firsthead{#1}%
6 }
8 \newcommand{\tablehead}[1]{}
10 \newcommand{\tablelasthead}[1]{}
12 \newcommand{\notablelasthead}{}
14 \newcommand{\tabletail}[1]{}
16 \newcommand{\LWRXT@lasttail}{}
18 \newcommand{\tablelasttail}[1]{%
      \long\gdef\LWRXT@lasttail{#1}%
19
20 }
21 \newcommand{\tablecaption}[2][]{%
      \long\gdef\LWRXT@caption{%
          \ifblank{#1}%
23
              {\caption{#2}}%
24
              {\caption[#1]{#2}}%
25
```

```
26
      }%
27 }
28
29 \let\topcaption\tablecaption
30 \let\bottomcaption\tablecaption
31 \newcommand*{\LWRXT@caption}{}
33 \newcommand*{\shrinkheight}[1]{}
35 \newcommand*{\xentrystretch}[1]{}
37 \NewDocumentEnvironment{xtabular}{s o m}
39 \LWR@traceinfo{xtabular}%
40 \table%
41 \LWRXT@caption%
42 \begin{tabular}{#3}%
43 \TabularMacro\ifdefvoid{\LWRXT@firsthead}%
44 {\LWR@getmynexttoken}%
45 {\expandafter\LWR@getmynexttoken\LWRXT@firsthead}%
46 }%
47 {%
48 \ifdefvoid{\LWRXT@lasttail}%
49 {}%
50 {%
51 \TabularMacro\ResumeTabular%
52 \LWRXT@lasttail%
53 }%
54 \end{tabular}%
55 \endtable%
56 \gdef\LWRXT@caption{}%
57 \LWR@traceinfo{xtabular done}%
58 }
60 \NewDocumentEnvironment{mpxtabular}{s o m}
61 {\minipage{\linewidth}\xtabular{#3}}
62 {\endxtabular\endminipage}
```

File 417 lwarp-xunicode.sty

§515 Package **xunicode**

Pkg xunicode Error if xunicode is loaded after lwarp.

Patch lwarp-xunicode, but also verify that is was loaded before lwarp:

```
for HTML output: 1 \LWR@loadbefore{xunicode}%
2
3 \LWR@ProvidesPackagePass{xunicode}[2011/09/09]
```

\textcircled becomes a span with a rounded border. \providecommand is used to avoid conflict with textcomp.

```
4 \providecommand*{\LWR@HTML@textcircled}[1]{%
5 \InlineClass[border: 1px solid \LWR@currenttextcolor]{textcircled}{#1}%
6 }
7
8 \LWR@formatted{textcircled}
```

Nullify xunicode macros when generating filenames:

```
9 \FilenameNullify{%
      \renewcommand*{\textdegree}{}%
11
      \renewcommand*{\textcelsius}{}%
      \renewcommand*{\textohm}{}%
12
      \renewcommand*{\textmu}{}%
13
      \renewcommand*{\textlquill}{}%
14
      \renewcommand*{\textrquill}{}%
15
      \renewcommand*{\textcircledP}{}%
16
17
      \renewcommand*{\texttwelveudash}{}%
18
      \renewcommand*{\textthreequartersemdash}{}%
      \renewcommand*{\textmho}{}%
19
20
      \renewcommand*{\textnaira}{}%
21
      \renewcommand*{\textpeso}{}%
22
      \renewcommand*{\textrecipe}{}%
23
      \renewcommand*{\textinterrobang}{}%
24
      \renewcommand*{\textinterrobangdown}{}%
25
      \renewcommand*{\textperthousand}{}%
      \renewcommand*{\textpertenthousand}{}%
26
27
      \renewcommand*{\textbaht}{}%
      \renewcommand*{\textdiscount}{}%
28
      \renewcommand*{\textservicemark}{}%
29
      \renewcommand*{\textcircled}[1]{#1}%
30
31
      \renewcommand*{\capitalcedilla}[1]{#1}%
      \renewcommand*{\capitalogonek}[1]{#1}%
32
33
      \renewcommand*{\capitalgrave}[1]{#1}%
34
      \renewcommand*{\capitalacute}[1]{#1}%
35
      \renewcommand*{\capitalcircumflex}[1]{#1}%
36
      \renewcommand*{\capitaltilde}[1]{#1}%
37
      \renewcommand*{\capitaldieresis}[1]{#1}%
      \renewcommand*{\capitalhungarumlaut}[1]{#1}%
38
      \renewcommand*{\capitalring}[1]{#1}%
39
40
      \renewcommand*{\capitalcaron}[1]{#1}%
      \renewcommand*{\capitalbreve}[1]{#1}%
41
      \renewcommand*{\capitalmacron}[1]{#1}%
42
      \renewcommand*{\capitaldotaccent}[1]{#1}%
44 }% FilenameNullify
```

File 418 lwarp-xurl.sty

§516 Package **XUrl**

Pkg xurl xurl is ignored.

```
for HTML output:
                    1 \LWR@ProvidesPackageDrop{xurl}[2018/06/02]
         File 419 lwarp-xy.sty
         Package XY
$517
                   (Emulates or patches code by Kristoffer H. Rose, Ross Moore.)
              xy xy is patched for use by lwarp.
     \xypolygon \xypolygon must be used inside the xy environment, or inside \xy ...\endxy.
  for HTML output:
                    1 \LWR@ProvidesPackagePass{xy}[2013/10/06]
                    2 \AtBeginDocument{
                    4 \preto{\xy}{\begin{lateximage}[(-xy-~\packagediagramname)]}
                    5 \appto{\endxy}{\end{lateximage}}
                    7 \@ifundefined{xymatrix}{}{
                    8 \LetLtxMacro\LWR@origxymatrix\xymatrix
                    10 \renewcommand{\xymatrix}[1]{%
                    11 \begin{lateximage}[(-xy- xymatrix \packagediagramname)]
                    12 \LWR@origxymatrix{#1}
                    13 \end{lateximage}
                    14 }
                    15 }
                    17 \@ifundefined{xygraph}{}{
                    18 \LetLtxMacro\LWR@origxygraph\xygraph
                   19
                    20 \renewcommand{\xygraph}[1]{%
                    21 \begin{lateximage}[(-xy- xygraph \packagediagramname)]
                    22 \LWR@origxygraph{#1}
                    23 \end{lateximage}
                   24 }
                   25 }
                   26
                   27 }
         File 420 lwarp-zhlineskip.sty
         Package zhlineskip
§518
                   zhlineskip is ignored.
      zhlineskip
```

1 \LWR@ProvidesPackageDrop{zhlineskip}[2018/11/30]

for HTML output:

```
2 \newcommand*\SetTextEnvironmentSinglespace[1]{}
3 \newcommand*\RestoreTextEnvironmentLeading{}
4 \newcommand*\SetMathEnvironmentSinglespace[1]{}
5 \newcommand*\RestoreMathEnvironmentLeading{}
```

File 421 lwarp-zwpagelayout.sty

§519 Package zwpagelayout

 $(Emulates\ or\ patches\ code\ by\ Zdeněk\ Wagner.)$

Pkg zwpagelayout **zwpagelayout** is ignored.

for HTML output: 1 \LWR@ProvidesPackageDrop{zwpagelayout}[2013/01/13]

```
2 \def\noBboxes{}
3 \@onlypreamble\noBboxes
5 \exp \frac{i fx\csname\ definecolor\endsname\relax\ else}{}
   \definecolor{cmykblack}{cmyk}{0,0,0,1}
    \definecolor{grblack}{gray}{0}
8 %
      \ifzwpl@redefineblack
9 %
        \definecolor{black}{cmyk}{0,0,0,1}\color{black}
10 %
    \fi
11 \definecolor{cmykred}{cmyk}{0,1,1,0}
    \definecolor{cmykgreen}{cmyk}{1,0,1,0}
    \definecolor{cmykblue}{cmyk}{1,1,0,0}
    \definecolor{rgbred}{rgb}{1,0,0}
    \definecolor{rgbgreen}{rgb}{0,1,0}
    \definecolor{rgbblue}{rgb}{0,0,1}
16
17 %
      \ifzwpl@redefinetocmyk
18 %
        \definecolor{red}{cmyk}{0,1,1,0}
19 %
        \definecolor{green}{cmyk}{1,0,1,0}
20 %
        \definecolor{blue}{cmyk}{1,1,0,0}
21 %
22 \fi
24 \let\OverprintXeTeXExtGState\relax
26 \DeclareRobustCommand\SetOverprint{\ignorespaces}
27 \DeclareRobustCommand\SetKnockout{\ignorespaces}
28 \DeclareRobustCommand\textoverprint[1]{{\SetOverprint#1}}
29 \DeclareRobustCommand\textknockout[1]{{\SetKnockout#1}}
31 \def\SetPDFminorversion#1{}
32 \@onlypreamble\SetPDFminorversion
34 \newcommand*\Vcorr{}
36 \DeclareRobustCommand\vb[1][]{}
37 \NewDocumentCommand{\NewOddPage}{* o}{}
38 \NewDocumentCommand{\NewEvenPage}{* o}{}
39 \def\SetOddPageMessage#{\gdef\ZW@oddwarning}
```

```
40 \def\SetEvenPageMessage#{\gdef\Z@@evenwarning}
41 \def\ZW@oddwarning{Empty page inserted}\let\ZW@evenwarning\ZW@oddwarning
43 \def\clap#1{#1}
45 \def\CropFlap{2in}
46 \def\CropSpine{1in}
47 \def\CropXSpine{1in}
48 \def\CropXtrim{.25in}
49 \def\CropYtrim{.25in}
50 \def\UserWidth{5in}
51 \def\UserLeftMargin{1in}
52 \def\UserRightMargin{1in}
53 \def\UserTopMargin{1in}
54 \def\UserBotMargin{1in}
55 \def\thePageNumber{\LWR@origpound\,\arabic{page}}
56 \ifXeTeX
57 \def\ifcaseZWdriver{\ifcase2}
58 \else
59 \def\ifcaseZWdriver{\ifcase1}
60 \fi
61 \DeclareRobustCommand\ZWifdriver[2]{}
```

File 422 lwarp-patch-komascript.sty

patch-komascript Package **§ 520**

lwarp-patch-komascript Patches for komascript classes.

lwarp loads this package when scrbook, scrartcl, or scrreprt classes are detected.

Many features are ignored during the HTML conversion. The goal is source-level compatibility.

\titlehead, \subject, \captionformat, \figureformat, and \tableformat are not yet emulated.

Not fully tested! Please send bug reports!

Some features have not yet been tested. Please contact the author with any bug reports.

for HTML output:

1 \ProvidesPackage{lwarp-patch-komascript}

typearea is emulated.

2 \RequirePackage{lwarp-typearea}

tocbasic is emulated.

3 \RequirePackage{lwarp-tocbasic}

scrextend patches most of the new macros.

39 \LetLtxMacro\captionbelow\caption
40 \LetLtxMacro\captionabove\caption

44

42 \LetLtxMacro\captionofbelow\captionof
43 \LetLtxMacro\captionofabove\captionof

```
4 \RequirePackage{lwarp-scrextend}
Indexing macros, simplified for lwarp:
 5 \AtBeginDocument{
 7 \renewcommand*{\idx@heading}{%
 8 \idx@@heading{\indexname}%
 9 }
10
11 \renewenvironment{theindex}{%
    \idx@heading%
    \index@preamble\par\nobreak
      \let\item\LWR@indexitem%
14
      \let\subitem\LWR@indexsubitem%
15
      \let\subsubitem\LWR@indexsubsubitem%
16
17 }
18 {}
20 \renewcommand*\indexspace{}
22 }% AtBeginDocument
The \minisec is placed inside a <div> of class minisec.
23 \renewcommand*{\minisec}[1]{
24 \begin{BlockClass}{minisec}
25 #1
26 \end{BlockClass}
27 }
The part and chapter preambles are placed as plain text just after each heading.
28 \@ifundefined{setpartpreamble}{}{
29 \RenewDocumentCommand{\setpartpreamble}{o o +m}{%
30 \renewcommand{\part@preamble}{#3}%
31 }
32 }
34 \@ifundefined{setchapterpreamble}{}{
35 \RenewDocumentCommand{\setchapterpreamble}{o o +m}{%
36 \renewcommand{\chapter@preamble}{#3}%
37 }
38 }
Simple captions are used in all cases.
```

```
45 \RenewDocumentEnvironment{captionbeside}{o m o o o s}
46 {}
47 {%
48 \IfValueTF{#1}%
49 {\caption[#1]{#2}}%
50 {\caption{#2}}%
51 }
53 \RenewDocumentEnvironment{captionofbeside}{m o m o o o s}
54 {}
55 {%
56 \IfValueTF{#2}%
57 {\captionof{#1}[#2]{#3}}%
58 {\captionof{#1}{#3}}%
59 }
60
61 \RenewDocumentCommand{\setcapindent}{s m}{}
62 \renewcommand*{\setcaphanging}{}
63 \renewcommand*{\setcapwidth}[2][]{}
64 \renewcommand*{\setcapdynwidth}[2][]{}
65 \RenewDocumentCommand{\setcapmargin}{s o m}{}
```

File 423 lwarp-patch-memoir.sty

§ 521 Package patch-memoir

(Emulates or patches code by Peter Wilson.)

Pkg lwarp-patch-memoir Patches for memoir class.

A Not fully tosted!

Not fully tested! Please send bug reports!

lwarp loads this package when the memoir class is detected.

While emulating memoir, lwarp pre-loads a number of packages (section 521.1). This can cause an options clash when the user's document later loads the same packages with options. To fix this problem, specify the options before loading lwarp:

```
\documentclass{memoir}
...
\PassOptionsToPackage{options_list}{package_name}
...
\usepackage{lwarp}
...
\usepackage{package_name}
```

version numbers

memoir emulates a number of packages, and declares a version date for each which often does not match the date of the corresponding freestanding package. This can cause warnings about incorrect version numbers. Since lwarp is intended to support the freestanding packages, which are often newer than the date declared by memoir, it is hoped that memoir will update and change its emulated version numbers to match.

\verbfootnote is not supported.

\newfootnoteseries, etc. are not supported.

lwarp loads pagenote to perform memoir's pagenote functions, but there are minor differences in \pagenotesubhead and related macros.

Poem numbering is not supported.

The verbatim environment does not yet support the memoir enhancements. It is currently recommended to load and use fancyvrb instead.

The memoir glossary system is not yet supported by *lwarpmk*. The glossaries package may be used instead, but does require the glossary entries be changed from the memoir syntax to the glossaries syntax.

for HTML output:

1 \ProvidesPackage{lwarp-patch-memoir}

§ 521.1 Packages

These are pre-loaded to provide emulation for many of memoir's functions. memoir pretends that abstract, etc. are already loaded, via its "emulated" package mechanism, but lwarp is directly loading the "lwarp-" version of each, which happens to avoid memoir's emulation system.

```
2 \RequirePackage{lwarp-abstract}% req'd
3 \RequirePackage{lwarp-array}% req'd
4 \RequirePackage{lwarp-booktabs}% req'd
5 % \RequirePackage{lwarp-ccaption}% emualated below
6 \RequirePackage{lwarp-changepage}% req'd
7 \RequirePackage{lwarp-crop}
8 \RequirePackage{lwarp-dcolumn}% req'd
9 \RequirePackage{lwarp-enumerate}% req'd
10 \RequirePackage{lwarp-epigraph}% req'd
11 \RequirePackage{lwarp-fancyvrb}% req'd
12 \RequirePackage{lwarp-footmisc}% req'd
13 \RequirePackage{lwarp-framed}% req'd
14 \RequirePackage{lwarp-hanging}% req'd
15 \RequirePackage{lwarp-makeidx}% req'd
16 \DisemulatePackage{moreverb}
17 \RequirePackage{lwarp-moreverb}
18 \RequirePackage{lwarp-mparhack}
19 \RequirePackage{lwarp-needspace}% req'd
20 \RequirePackage{lwarp-nextpage}% req'd
21 \RequirePackage{lwarp-pagenote}% reg'd
22 \RequirePackage{lwarp-parskip}
23 \RequirePackage{lwarp-setspace}% req'd
24 \RequirePackage{lwarp-showidx}
25 \RequirePackage{lwarp-subfigure}% red'q
26 \makeindex
```

subfigure is emulated via subfig, which pre-defines subfigure and subtable, but memoir does not, so they must be tested for here:

```
27 \LetLtxMacro\LWR@memorignewsubfloat\newsubfloat
28 \RenewDocumentCommand{\newsubfloat}{0{} m}{%
29 \@ifundefined{c@sub#2}{%
30 \LWR@memorignewsubfloat[#1]{#2}%
31 }{}%
32 }
33
34 \RequirePackage{\lwarp-tabularx}% req'd
35 \RequirePackage{\lwarp-titling}% req'd
36 % \RequirePackage{\lwarp-tocbibind}% not emulated by memoir
37 \RequirePackage{\lwarp-tocloft}% req'd
38 \RequirePackage{\lwarp-verse}% req'd
```

§ 521.2 **Preliminary setup**

Bypass the memoir package mechanism:

```
39 \LetLtxMacro\LWR@orig@label\@mem@old@label
```

memoir already set the page size to a default, so it must be forced large for lwarp's use, to avoid tag overflows off the page.

```
40 \setstocksize{190in}{20in}
41 \setlrmarginsandblock{2in}{2in}{*}
42 \setulmarginsandblock{1in}{1in}{*}
```

§ 521.3 Laying out the page

```
43 \renewcommand*{\stockavi}{}
44 \renewcommand*{\stockav}{}
45 \renewcommand*{\stockaiv}{}
46 \renewcommand*{\stockaiii}{}
47 \renewcommand*{\stockbvi}{}
48 \renewcommand*{\stockbv}{}
49 \renewcommand*{\stockbiv}{}
50 \renewcommand*{\stockbiii}{}
51% \renewcommand*{\stockmetriccrownvo}{}% in docs but not in the package
52 \renewcommand*{\stockmlargecrownvo}{}
53 \renewcommand*{\stockmdemyvo}{}
54 \renewcommand*{\stockmsmallroyalvo}{}
55 \renewcommand*{\pageavi}{}
56 \renewcommand*{\pageav}{}
57 \renewcommand*{\pageaiv}{}
58 \renewcommand*{\pageaiii}{}
59 \renewcommand*{\pagebvi}{}
60 \renewcommand*{\pagebv}{}
61 \renewcommand*{\pagebiv}{}
62 \renewcommand*{\pagebiii}{}
63% \renewcommand*{\pagemetriccrownvo}{}% in docs but not in the package
64 \renewcommand*{\pagemlargecrownvo}{}
65 \renewcommand*{\pagemdemyvo}{}
66 \renewcommand*{\pagemsmallroyalvo}{}
68 \renewcommand*{\stockdbill}{}
69 \renewcommand*{\stockstatement}{}
```

```
70 \renewcommand*{\stockexecutive}{}
71 \renewcommand*{\stockletter}{}
72 \renewcommand*{\stockold}{}
73 \renewcommand*{\stocklegal}{}
74 \renewcommand*{\stockledger}{}
75 \renewcommand*{\stockbroadsheet}{}
76 \renewcommand*{\pagedbill}{}
77 \renewcommand*{\pagestatement}{}
78 \renewcommand*{\pageexecutive}{}
79 \renewcommand*{\pageletter}{}
80 \renewcommand*{\pageold}{}
81 \renewcommand*{\pagelegal}{}
82 \renewcommand*{\pageledger}{}
83 \renewcommand*{\pagebroadsheet}{}
85 \renewcommand*{\stockpottvo}{}
86 \renewcommand*{\stockfoolscapvo}{}
87 \renewcommand*{\stockcrownvo}{}
88 \renewcommand*{\stockpostvo}{}
89 \renewcommand*{\stocklargecrownvo}{}
90 \renewcommand*{\stocklargepostvo}{}
91 \renewcommand*{\stocksmalldemyvo}{}
92 \renewcommand*{\stockdemyvo}{}
93 \renewcommand*{\stockmediumvo}{}
94 \renewcommand*{\stocksmallroyalvo}{}
95 \renewcommand*{\stockroyalvo}{}
96 \renewcommand*{\stocksuperroyalvo}{}
97 \renewcommand*{\stockimperialvo}{}
98 \renewcommand*{\pagepottvo}{}
99 \renewcommand*{\pagefoolscapvo}{}
100 \renewcommand*{\pagecrownvo}{}
101 \renewcommand*{\pagepostvo}{}
102 \renewcommand*{\pagelargecrownvo}{}
103 \renewcommand*{\pagelargepostvo}{}
104 \renewcommand*{\pagesmalldemyvo}{}
105 \renewcommand*{\pagedemyvo}{}
106 \renewcommand*{\pagemediumvo}{}
107 \renewcommand*{\pagesmallroyalvo}{}
108 \renewcommand*{\pageroyalvo}{}
109 \renewcommand*{\pagesuperroyalvo}{}
110 \renewcommand*{\pageimperialvo}{}
112 \renewcommand*{\memfontfamily}{}
113 \renewcommand*{\memfontenc}{}
114 \renewcommand*{\memfontpack}{}
116 \renewcommand*{\anyptfilebase}{}
117 \renewcommand*{\anyptsize}{10}
119 \renewcommand*{\setstocksize}[2]{}
120 \renewcommand*{\settrimmedsize}[3]{}
121 \renewcommand*{\settrims}[2]{}
123 % \newlength{\lxvchars}
124 % \setlength{\lxvchars}{305pt}
```

```
125 % \newlength{\xlvchars}
126 % \setlength{\xlvchars}{190pt}
127 \renewcommand*{\setxlvchars}[1]{}
128 \renewcommand*{\setlxvchars}[1]{}
130 \renewcommand*{\settypeblocksize}[3]{}
131 \renewcommand*{\setlrmargins}[3]{}
132 \renewcommand*{\setlrmarginsandblock}[3]{}
133 \renewcommand*{\setbinding}[1]{}
134 \renewcommand*{\setulmargins}[3]{}
135 \renewcommand*{\setulmarginsandblock}[3]{}
136 \renewcommand*{\setcolsepandrule}[2]{}
138 \renewcommand*{\setheadfoot}[2]{}
139 \renewcommand*{\setheaderspaces}[3]{}
140 \renewcommand*{\setmarginnotes}[3]{}
141 \renewcommand*{\setfootins}[2]{}
142 \renewcommand*{\checkandfixthelayout}[1][]{}
143 \renewcommand*{\checkthelayout}[1]{}
144 \renewcommand*{\fixthelayout}{}
146 % \newlength{\stockheight}
147 % \newlength{\trimtop}
148 % \newlength{\trimedge}
149 % \newlength{\stockwidth}
150 % \newlength{\spinemargin}
151 % \newlength{\foremargin}
152 % \newlength{\uppermargin}
153 % \newlength{\headmargin}
155 \renewcommand*{\typeoutlayout}{}
156 \renewcommand*{\typeoutstandardlayout}{}
157 \renewcommand*{\settypeoutlayoutunit}[1]{}
158 \renewcommand*{\fixpdflayout}{}
159 \renewcommand*{\fixdvipslayout}{}
161 \renewcommand*{\medievalpage}[1][]{}
162 \renewcommand*{\isopage}[1][]{}
163 \renewcommand*{\semiisopage}[1][]{}
165 \renewcommand{\setpagebl}[3]{}
166 \renewcommand{\setpageml}[3]{}
167 \renewcommand{\setpagetl}[3]{}
168 \renewcommand{\setpagetm}[3]{}
169 \renewcommand{\setpagetr}[3]{}
170 \renewcommand{\setpagemr}[3]{}
171 \renewcommand{\setpagebr}[3]{}
172 \renewcommand{\setpagebm}[3]{}
173 \renewcommand{\setpagecc}[3]{}
```

§ 521.4 Text and fonts

174 \let\miniscule\tiny 175 \let\HUGE\Huge 176

```
177 \renewcommand*{\abnormalparskip}[1]{}
        178 \renewcommand*{\nonzeroparskip}{}
        179 \renewcommand*{\traditionalparskip}{}
        181 \let\onelineskip\baselineskip
        183 \let\OnehalfSpacing\onehalfspacing
        184 \let\DoubleSpacing\doublespacing
        185 \renewcommand*{\setPagenoteSpacing}[1]{}
        186 \renewcommand*{\setFloatSpacing}[1]{}
        187 \let\SingleSpacing\singlespacing
        188 \let\setSingleSpace\SetSinglespace
        189 \let\SingleSpace\singlespace
        190 \let\endSingleSpace\endsinglespace
        191 \let\Spacing\spacing
        192 \let\endSpacing\endspacing
        193 \let\OnehalfSpace\onehalfspace
        194 \let\endOnehalfSpace\endonehalfspace
        195 \csletcs{OnehalfSpace*}{onehalfspace}
        196 \csletcs{endOnehalfSpace*}{endonehalfspace}
        197 \let\DoubleSpace\doublespace
        198 \let\endDoubleSpace\enddoublespace
        199 \csletcs{DoubleSpace*}{doublespace}
        200 \csletcs{endDoubleSpace*}{enddoublespace}
        201 \renewcommand*{\setDisplayskipStretch}[1]{}
        202 \renewcommand*{\memdskipstretch}{}
        203 \renewcommand*{\noDisplayskipStretch}{}
        204 \renewcommand*{\memdskips}{}
        206 \renewcommand*{\midsloppy}{}
        207 \renewenvironment*{midsloppypar}{}{}
        209 \renewcommand*{\sloppybottom}{}
§ 521.5 Titles
        210 \csletcs{titlingpage*}{titlingpage}
        211 \csletcs{endtitlingpage*}{endtitlingpage}
        212 \let\titlingpageend\relax
        213 \newcommand{\titlingpageend}[2]{}
        214 \let\andnext\and
        215 \renewcommand*{\thanksmarkstyle}[1]{}
        216 \renewcommand{\thanksfootmark}{%
        217 \thanksscript{\tamark}%
        218 }
        220 % \newlength{\thanksmarksep}
§ 521.6 Abstracts
        221 \renewcommand*{\abstractcol}{}
        222 \renewcommand*{\abstractintoc}{}
        223 \renewcommand*{\abstractnum}{}
        224 \renewcommand*{\abstractrunin}{}
```

§ 521.7 **Docment divisions**

```
225
226 \def\@apppage{%
227
       \part*{\appendixpagename}
228 }
229 \renewcommand\mempreaddapppagetotochook{}
230 \renewcommand\mempostaddapppagetotochook{}
232 \def\@sapppage{\%
233
       \part*{\appendixpagename}
234 }
236 \csletcs{frontmatter*}{frontmatter}
237 \csletcs{mainmatter*}{mainmatter}
238 \renewcommand*{\raggedbottomsection}{}
239 \renewcommand*{\normalbottomsection}{}
240 \renewcommand*{\bottomsectionskip}{}
241 \renewcommand*{\bottomsectionpenalty}{}
242 \csletcs{appendixpage*}{appendixpage}
243 \renewcommand*{\namedsubappendices}{}
244 \renewcommand*{\unnamedsubappendices}{}
245 \renewcommand*{\setsecnumdepth}[1]{}% todo tocvsec2
246 \renewcommand*{\maxsecnumdepth}[1]{}% todo tocvsec2
247 \renewcommand*{\beforebookskip}{}
248 \renewcommand*{\afterbookskip}{}
249 \renewcommand*{\beforepartskip}{}
250 \renewcommand*{\afterpartskip}{}
251 \renewcommand*{\midbookskip}{}
252 \renewcommand*{\midpartskip}{}
253 \renewcommand*{\printbookname}{}
254 \renewcommand*{\booknamefont}{}
255 \renewcommand*{\booknamenum}{}
256 \renewcommand*{\printbooknum}{}
257 \renewcommand*{\booknumfont}{}
258 \renewcommand*{\printpartname}{}
259 \renewcommand*{\partnamefont}{}
260 \renewcommand*{\partnamenum}{}
261 \renewcommand*{\printpartnum}{}
262 \renewcommand*{\partnumfont}{}
263 \renewcommand*{\printbooktitle}[1]{}
264 \renewcommand*{\booktitlefont}{}
265 \renewcommand{\printparttitle}[1]{}
266 \renewcommand*{\parttitlefont}{}
267 \renewcommand*{\bookpageend}{}
268 \renewcommand*{\bookblankpage}{}
269 \renewcommand*{\nobookblankpage}{}
270 \renewcommand*{\partpageend}{}
271 \renewcommand*{\partblankpage}{}
272 \renewcommand*{\nopartblankpage}{}
273 \RenewDocumentCommand{\newleadpage}{s o m m}{}% todo
274 \RenewDocumentCommand{\renewleadpage}{s o m m}{}% todo
275 \renewcommand*{\leadpagetoclevel}{chapter}
277 \renewcommand*{\openright}{}
278 \renewcommand*{\openleft}{}
```

```
279 \renewcommand*{\openany}{}
280 \renewcommand*{\clearforchapter}{}
281 \renewcommand*{\memendofchapterhook}{}
282 \renewcommand*{\chapterheadstart}{}
283 % \newlength{\beforechapskip}
284 \renewcommand*{\afterchapternum}{}
285 % \newlength{\midchapskip}
286 \renewcommand*{\afterchaptertitle}{}
287 % \newlength{\afterchapskip}
288 \renewcommand*{\printchaptername}{}
289 \renewcommand*{\chapnamefont}{}
290 \renewcommand*{\chapternamenum}{}
291 \renewcommand*{\printchapternum}{}
292 \renewcommand*{\chapnumfont}{}
293 \renewcommand{\printchaptertitle}[1]{}
294 \renewcommand*{\chaptitlefont}{}
295 \renewcommand*{\printchapternonum}{}
296 \renewcommand*{\indentafterchapter}{}
297 \renewcommand*{\noindentafterchapter}{}
298 \renewcommand*{\insertchapterspace}{}
300 \renewcommand*{\chapterstyle}[1]{}
301 \renewcommand{\makechapterstyle}[2]{}
302 \renewcommand*{\chapindent}{}
303 \let\chapterprecis\cftchapterprecis
304 \let\chapterprecishere\cftchapterprecishere
305 \let\chapterprecistoc\cftchapterprecistoc
306 \renewcommand*{\precisfont}{}
307 \renewcommand*{\prechapterprecis}{}
308 \renewcommand*{\postchapterprecis}{}
309 \renewcommand{\precistoctext}[1]{}
310 \renewcommand*{\precistocfont}{}
311 \renewcommand*{\precistocformat}{}
312 % \newlength{\prechapterprecisshift}
314 \renewcommand*{\setbeforesecskip}[1]{}
315 \renewcommand*{\setaftersecskip}[1]{}
316 \renewcommand*{\setsecindent}[1]{}
317 \renewcommand*{\setsecheadstyle}[1]{}
318 \renewcommand*{\setbeforesubsecskip}[1]{}
319 \renewcommand*{\setaftersubsecskip}[1]{}
320 \renewcommand*{\setsubsecindent}[1]{}
321 \renewcommand*{\setsubsecheadstyle}[1]{}
322 \renewcommand*{\setbeforesubsubsecskip}[1]{}
323 \renewcommand*{\setaftersubsubsecskip}[1]{}
324 \renewcommand*{\setsubsubsecindent}[1]{}
325 \renewcommand*{\setsubsubsecheadstyle}[1]{}
326 \renewcommand*{\setbeforeparaskip}[1]{}
327 \renewcommand*{\setafterparaskip}[1]{}
328 \renewcommand*{\setparaindent}[1]{}
329 \renewcommand*{\setparaheadstyle}[1]{}
330 \renewcommand*{\setbeforesubparaskip}[1]{}
331 \renewcommand*{\setaftersubparaskip}[1]{}
332 \renewcommand*{\setsubparaindent}[1]{}
333 \renewcommand*{\setsubparaheadstyle}[1]{}
```

```
334 \renewcommand{\@hangfrom}[1]{#1}
335 \renewcommand{\sethangfrom}[1]{}
336 \renewcommand{\setsecnumformat}[1]{}
338 \renewcommand*{\hangsecnum}{}
339 \renewcommand*{\defaultsecnum}{}
341 \renewcommand*{\sechook}{}
342 \renewcommand{\setsechook}[1]{}
343 \renewcommand*{\subsechook}{}
344 \renewcommand{\setsubsechook}[1]{}
345 \renewcommand*{\subsubsechook}{}
346 \renewcommand{\setsubsubsechook}[1]{}
347 \renewcommand*{\parahook}{}
348 \renewcommand{\setparahook}[1]{}
349 \renewcommand*{\subparahook}{}
350 \renewcommand{\setsubparahook}[1]{}
351
{\tt 352 \ RenewDocumentCommand \ height sm} {\tt begin \{center\}^{\ height} } \\
353
354 \RenewDocumentCommand{\frac{\  +m}{%}}
355 \begin{center}#2\end{center}%
356 }
357
358 \RenewDocumentCommand{\plainfancybreak}{s m m +m}{%
359 \begin{center}#4\end{center}%
360 }
362 \RenewDocumentCommand{\pfbreak}{s}{%
363 \begin{center}
364 \pfbreakdisplay
365 \end{center}
366 }
368 % \newlength{\pfbreakskip}
369 \renewcommand{\pfbreakdisplay}{*\quad*\quad*}
370
371 \renewcommand{\makeheadstyles}[2]{}
372 \renewcommand*{\headstyles}[1]{}
```

§ 521.8 Pagination and headers

```
373 \renewcommand*{\savepagenumber}{}
374 \renewcommand*{\restorepagenumber}{}
375 \renewcommand*{\uppercaseheads}{}
376 \renewcommand*{\uppercaseheads}{}
377
378 \renewcommand*{\uppercaseheads}{}
379 \renewcommand*{\uppercaseheads}{}
380 \renewcommand*{\uppercaseheads}{}
381 \renewcommand*{\uppercaseheads}{}
382 \renewcommand*{\uppercaseheads}{}
383 \renewcommand*{\uppercaseheads}{}
384 \LWR@origpagestyle{empty}
385 \renewcommand*{\uppercaseheads}{}
```

```
386 \renewcommand*{\makepagestyle}[1]{}
387 \renewcommand*{\emptypshook}{}%
388 % \renewcommand*{\empty@oddhead}{}
389 % \renewcommand*{\empty@oddfoot}{}
390 % \renewcommand*{\empty@evenhead}{}
391 % \renewcommand*{\empty@evenfoot}{}
392 \renewcommand*{\@oddhead}{}
393 \renewcommand*{\@oddfoot}{}
394 \renewcommand*{\@evenhead}{}
395 \renewcommand*{\@evenfoot}{}
396 \renewcommand*{\aliaspagestyle}[2]{}
397 \renewcommand*{\copypagestyle}[2]{}
399 \renewcommand*{\makeevenhead}[4]{}
400 \renewcommand*{\makeoddhead}[4]{}
401 \renewcommand*{\makeevenfoot}[4]{}
402 \renewcommand*{\makeoddfoot}[4]{}
403 \renewcommand*{\makerunningwidth}[3]{}
404 % \newlength{\headwidth}
405 \renewcommand*{\makeheadrule}[3]{}
406 \renewcommand*{\makefootrule}[3]{}
407 \renewcommand*{\makeheadfootruleprefix}[3]{}
408 % \newlength{\normalrulethickness}
409 % \setlength{\normalrulethickness}{.4pt}
410 % \newlength{\footruleheight}
411 % \newlength{\footruleskip}
412 \renewcommand*{\makeheadposition}[5]{}
413 \renewcommand{\makepsmarks}[2]{}
414 \renewcommand*{\makeheadfootstrut}[3]{}
416 \renewcommand{\createplainmark}[3]{}
417 \renewcommand{\memUChead}[1]{}
418 \renewcommand{\createmark}[5]{}
419 \renewcommand*{\clearplainmark}[1]{}
420 \renewcommand*{\clearmark}[1]{}
421 \renewcommand{\addtopsmarks}[3]{}
422 \renewcommand{\ifonlyfloats}[2]{#2}
423 \renewcommand*{\mergepagefloatstyle}[3]{}
424
425 \renewcommand*{\framepichead}{}
426 \renewcommand*{\framepictextfoot}{}
427 \renewcommand*{\framepichook}{}
428 \renewcommand*{\showheadfootlocoff}{}
429 \renewcommand*{\showtextblocklocoff}{}
```

§ 521.9 Paragraphs and lists

```
430 \renewcommand{\hangfrom}[1]{#1}
431 \let\centerfloat\centering
432 \renewcommand*{\raggedyright}[1][]{}
433 % \newlength{\ragrparindent}
434 \renewcommand{\sourceatright}[2][]{\attribution{#2}}
435 \let\memorigdbs\LWR@endofline
436 \let\memorigpar\par
437 \let\atcentercr\LWR@endofline
```

```
439 \renewcommand*{\linenottooshort}[1][]{}
440 \renewcommand*{\russianpar}{}
441 \renewcommand*{\lastlinerulefill}{}
442 \renewcommand*{\lastlineparrule}{}
443 \renewcommand*{\justlastraggedleft}{}
444 \renewcommand*{\raggedrightthenleft}{}
445 \renewcommand*{\leftcenterright}{}
447 \renewcommand{\leftspringright}[4]{%
448 \ensuremath{\mbox{\mbox{\mbox{$W$}}}{\mbox{\mbox{\mbox{$W$}}}}\ and $\ensuremath{\mbox{\mbox{\mbox{$W$}}}{\mbox{\mbox{$W$}}}\
\label{thm:local_self-local} 449 \left[ \frac{440}{flushright}\right] + 4\left[ \frac{41}{flushright}\right] + 4\left[ \frac{41}
451
452 \renewenvironment*{blockdescription}
453 \ \{ LWR@descriptionstart \ LWR@origdescription \}
454 {\enddescription}
455 \renewcommand*{\blockdescriptionlabel}[1]{\textbf{#1}}
456 \renewenvironment*{labelled}[1]{\begin{description}}{\end{description}}
457 \renewenvironment*{flexlabelled}[6]{\begin{description}}{\\ \text{description}}}
458 \renewcommand*{\tightlists}{}
459 \renewcommand*{\defaultlists}{}
460 \RenewDocumentCommand{\firmlists}{s}{}
461 \renewcommand*{\firmlist}{}
462 \renewcommand*{\tightlist}{}
463 \renewcommand*{\zerotrivseps}{}
464 \renewcommand*{\savetrivseps}{}
465 \renewcommand*{\restoretrivseps}{}
```

§ 521.10 Contents lists

```
466 \csletcs{tableofcontents*}{tableofcontents}
467 \csletcs{listoffigures*}{listoffigures}
468 \csletcs{listoftables*}{listoftables}
469 \renewenvironment{KeepFromToc}{}{}
470 \renewcommand*{\onecoltocetc}{}
471 \renewcommand*{\twocoltocetc}{}
472 \renewcommand*{\ensureonecol}{}
473 \renewcommand*{\restorefromonecol}{}
474 \renewcommand*{\doccoltocetc}{}
475 \renewcommand*{\maxtocdepth}[1]{}% tocvsec2
476 \renewcommand*{\settocdepth}[1]{}% tocvsec2
478 \renewcommand{\tocheadstart}{}
479 \renewcommand{\printtoctitle}[1]{}
480 \renewcommand{\tocmark}{}
481 \renewcommand{\aftertoctitle}{}
482 \renewcommand{\lofheadstart}{}
483 \renewcommand{\printloftitle}[1]{}
484 \renewcommand{\lofmark}{}
485 \renewcommand{\afterloftitle}{}
486 \renewcommand{\lotheadstart}{}
487 \renewcommand{\printlottitle}[1]{}
488 \renewcommand{\lotmark}{}
489 \renewcommand{\afterlottitle}{}
```

```
490
491 \renewcommand*{\setpnumwidth}[1]{}
492 \renewcommand*{\setrmarg}[1]{}
493 \renewcommand*{\cftbookbreak}{}
494 \renewcommand*{\cftpartbreak}{}
495 \renewcommand*{\cftchapterbreak}{}
496 % \newlength{\cftbeforebookskip}
497 % \newlength{\cftbookindent}
498 % \newlength{\cftbooknumwidth}
499 \renewcommand*{\cftbookfont}{}
500 \renewcommand*{\cftbookname}{}
501 \renewcommand*{\cftbookpresnum}{}
502 \renewcommand*{\cftbookaftersnum}{}
503 \renewcommand*{\cftbookaftersnumb}{}
504 \renewcommand*{\cftbookleader}{}
505 \renewcommand*{\cftbookdotsep}{1}
506 \renewcommand*{\cftbookpagefont}{}
507 \renewcommand*{\cftbookafterpnum}{}
508 \renewcommand*{\cftbookformatpnum}[1]{}
509 \renewcommand*{\cftbookformatpnumhook}[1]{}
Part is already defined by tocloft.
510 % \newlength{\cftbeforechapterskip}
511 % \newlength{\cftchapterindent}
512 % \newlength{\cftchapternumwidth}
513 \renewcommand*{\cftchapterfont}{}
514 \renewcommand*{\cftchaptername}{}
515 \renewcommand*{\cftchapterpresnum}{}
516 \renewcommand*{\cftchapteraftersnum}{}
517 \renewcommand*{\cftchapteraftersnumb}{}
518 \renewcommand*{\cftchapterleader}{}
519 \renewcommand*{\cftchapterdotsep}{1}
520 \renewcommand*{\cftchapterpagefont}{}
521 \renewcommand*{\cftchapterafterpnum}{}
522 \renewcommand*{\cftchapterformatpnum}[1]{}
523 \renewcommand*{\cftchapterformatpnumhook}[1]{}
524 % \newlength{\cftbeforesectionskip}
525 % \newlength{\cftsectionindent}
526 % \newlength{\cftsectionnumwidth}
527 \renewcommand*{\cftsectionfont}{}
528 \renewcommand*{\cftsectionname}{}
529 \renewcommand*{\cftsectionpresnum}{}
530 \renewcommand*{\cftsectionaftersnum}{}
531 \renewcommand*{\cftsectionaftersnumb}{}
532 \renewcommand*{\cftsectionleader}{}
533 \renewcommand*{\cftsectiondotsep}{1}
534 \renewcommand*{\cftsectionpagefont}{}
535 \renewcommand*{\cftsectionafterpnum}{}
536 \renewcommand*{\cftsectionformatpnum}[1]{}
537 \renewcommand*{\cftsectionformatpnumhook}[1]{}
538 % \newlength{\cftbeforesubsectionskip}
539 % \newlength{\cftsubsectionindent}
```

```
540 % \newlength{\cftsubsectionnumwidth}
541 \renewcommand*{\cftsubsectionfont}{}
542 \renewcommand*{\cftsubsectionname}{}
543 \renewcommand*{\cftsubsectionpresnum}{}
544 \renewcommand*{\cftsubsectionaftersnum}{}
545 \renewcommand*{\cftsubsectionaftersnumb}{}
546 \renewcommand*{\cftsubsectionleader}{}
547 \renewcommand*{\cftsubsectiondotsep}{1}
548 \renewcommand*{\cftsubsectionpagefont}{}
549 \renewcommand*{\cftsubsectionafterpnum}{}
550 \renewcommand*{\cftsubsectionformatpnum}[1]{}
551 \renewcommand*{\cftsubsectionformatpnumhook}[1]{}
552 % \newlength{\cftbeforesubsubsectionskip}
553 % \newlength{\cftsubsubsectionindent}
554 % \newlength{\cftsubsubsectionnumwidth}
555 \renewcommand*{\cftsubsubsectionfont}{}
556 \renewcommand*{\cftsubsubsectionname}{}
557 \renewcommand*{\cftsubsubsectionpresnum}{}
558 \renewcommand*{\cftsubsubsectionaftersnum}{}
559 \renewcommand*{\cftsubsubsectionaftersnumb}{}
560 \renewcommand*{\cftsubsubsectionleader}{}
561 \renewcommand*{\cftsubsubsectiondotsep}{1}
562 \renewcommand*{\cftsubsubsectionpagefont}{}
563 \renewcommand*{\cftsubsubsectionafterpnum}{}
564 \renewcommand*{\cftsubsubsectionformatpnum}[1]{}
565 \renewcommand*{\cftsubsubsectionformatpnumhook}[1]{}
566 % \newlength{\cftbeforeparagraphskip}
567 % \newlength{\cftparagraphindent}
568 % \newlength{\cftparagraphnumwidth}
569 \renewcommand*{\cftparagraphfont}{}
570 \renewcommand*{\cftparagraphname}{}
571 \renewcommand*{\cftparagraphpresnum}{}
572 \renewcommand*{\cftparagraphaftersnum}{}
573 \renewcommand*{\cftparagraphaftersnumb}{}
574 \renewcommand*{\cftparagraphleader}{}
575 \renewcommand*{\cftparagraphdotsep}{1}
576 \renewcommand*{\cftparagraphpagefont}{}
577 \renewcommand*{\cftparagraphafterpnum}{}
580 % \newlength{\cftbeforesubparagraphskip}
581 % \newlength{\cftsubparagraphindent}
582 % \newlength{\cftsubparagraphnumwidth}
583 \renewcommand*{\cftsubparagraphfont}{}
584 \renewcommand*{\cftsubparagraphname}{}
585 \renewcommand*{\cftsubparagraphpresnum}{}
586 \renewcommand*{\cftsubparagraphaftersnum}{}
587 \renewcommand*{\cftsubparagraphaftersnumb}{}
588 \renewcommand*{\cftsubparagraphleader}{}
589 \renewcommand*{\cftsubparagraphdotsep}\{1\}
590 \renewcommand*{\cftsubparagraphpagefont}{}
591 \renewcommand*{\cftsubparagraphafterpnum}{}
592 \renewcommand*{\cftsubparagraphformatpnum}[1]{}
```

```
593 \renewcommand*{\cftsubparagraphformatpnumhook}[1]{}
594 % \newlength{\cftbeforefigureskip}
595 % \newlength{\cftfigureindent}
596 % \newlength{\cftfigurenumwidth}
597 \renewcommand*{\cftfigurefont}{}
598 \renewcommand*{\cftfigurename}{}
599 \renewcommand*{\cftfigurepresnum}{}
600 \renewcommand*{\cftfigureaftersnum}{}
601 \renewcommand*{\cftfigureaftersnumb}{}
602 \renewcommand*{\cftfigureleader}{}
603 \renewcommand*{\cftfiguredotsep}{1}
604 \renewcommand*{\cftfigurepagefont}{}
605 \renewcommand*{\cftfigureafterpnum}{}
606 \renewcommand*{\cftfigureformatpnum}[1]{}
607 \renewcommand*{\cftfigureformatpnumhook}[1]{}
608 % \newlength{\cftbeforesubfigureskip}
609 % \newlength{\cftsubfigureindent}
610 % \newlength{\cftsubfigurenumwidth}
611 \newcommand*{\cftsubfigurefont}{}
612 \newcommand*{\cftsubfigurename}{}
613 \newcommand*{\cftsubfigurepresnum}{}
614 \newcommand*{\cftsubfigureaftersnum}{}
615 \newcommand*{\cftsubfigureaftersnumb}{}
616 \newcommand*{\cftsubfigureleader}{}
617 \newcommand*{\cftsubfiguredotsep}{1}
618 \newcommand*{\cftsubfigurepagefont}{}
619 \newcommand*{\cftsubfigureafterpnum}{}
620 \newcommand*{\cftsubfigureformatpnum}[1]{}
621 \newcommand*{\cftsubfigureformatpnumhook}[1]{}
622 % \newlength{\cftbeforetableskip}
623 % \newlength{\cfttableindent}
624 % \newlength{\cfttablenumwidth}
625 \renewcommand*{\cfttablefont}{}
626 \renewcommand*{\cfttablename}{}
627 \renewcommand*{\cfttablepresnum}{}
628 \renewcommand*{\cfttableaftersnum}{}
629 \renewcommand*{\cfttableaftersnumb}{}
630 \renewcommand*{\cfttableleader}{}
631 \renewcommand*{\cfttabledotsep}{1}
632 \renewcommand*{\cfttablepagefont}{}
633 \renewcommand*{\cfttableafterpnum}{}
634 \renewcommand*{\cfttableformatpnum}[1]{}
635 \renewcommand*{\cfttableformatpnumhook}[1]{}
636 % \newlength{\cftbeforesubtableskip}
637 % \newlength{\cftsubtableindent}
638 % \newlength{\cftsubtablenumwidth}
639 \newcommand*{\cftsubtablefont}{}
640 \newcommand*{\cftsubtablename}{}
641 \newcommand*{\cftsubtablepresnum}{}
642 \newcommand*{\cftsubtableaftersnum}{}
643 \newcommand*{\cftsubtableaftersnumb}{}
644 \newcommand*{\cftsubtableleader}{}
```

```
645 \newcommand*{\cftsubtabledotsep}{1}
            646 \newcommand*{\cftsubtablepagefont}{}
            647 \newcommand*{\cftsubtableafterpnum}{}
            648 \newcommand*{\cftsubtableformatpnum}[1]{}
            649 \newcommand*{\cftsubtableformatpnumhook}[1]{}
            650 \renewcommand*{\booknumberline}[1]{}
            651 \renewcommand*{\partnumberline}[1]{}
            652 \renewcommand*{\chapternumberline}[1]{}
            653 \renewcommand*{\numberlinehook}[1]{}
            654 % \renewcommand*{\cftwhatismyname}{}%
            655 \renewcommand*{\booknumberlinehook}[1]{}
            656 \renewcommand*{\partnumberlinehook}[1]{}
            657 \renewcommand*{\chapternumberlinehook}[1]{}
            658 \renewcommand{\numberlinebox}[2]{}
            659 \renewcommand{\booknumberlinebox}[2]{}
            660 \renewcommand{\partnumberlinebox}[2]{}
            661 \renewcommand{\chapternumberlinebox}[2]{}
            662 %
            663 % \newlength{\cftparfillskip}
            664 \renewcommand*{\cftpagenumbersoff}[1]{}
            665 \renewcommand*{\cftpagenumberson}[1]{}
            666 \renewcommand*{\cftlocalchange}[3]{}
            667 \renewcommand*{\cftaddtitleline}[4]{}
            668 \renewcommand*{\cftaddnumtitleline}[4]{}
            669 \renewcommand{\cftinsertcode}[2]{}
            670 \renewcommand{\cftinserthook}[2]{}
            671 \renewcommand{\settocpreprocessor}[2]{}
            672 \DeclareRobustCommand{\cftpagenumbersoff}[1]{}
            673 \DeclareRobustCommand{\cftpagenumberson}[1]{}
  § 521.11 Floats and captions
              [\langle 1: within \rangle] \{\langle 2: type \rangle\} \{\langle 3: ext \rangle\} \{\langle 4: capname \rangle\}
\newfloat
            674 \RenewDocumentCommand{\newfloat}{o m m m}{%
            675 \IfValueTF{#1}%
            676 {\DeclareFloatingEnvironment[fileext=#3,within=#1,name={#4}]{#2}}%
            677 {\DeclareFloatingEnvironment[fileext=#3,name={#4}]{#2}}%
            newfloat package automatically creates the \listof command for new floats, but
            float does not, so remove \listof here in case it is manually created later.
            678 \cslet{listof#2s}\relax%
            679 \cslet{listof#2es}\relax%
            680 }
              [\langle within \rangle] \{\langle type \rangle\} \{\langle ext \rangle\} \{\langle listofname \rangle\}
\newlistof
             Emulated through the \newfloat mechanism. Note that memoir uses a different
             syntax than tocloft for the name.
            681 \RenewDocumentCommand{\newlistof}{o m m m}
            682 {%
            683 \IfValueTF{#1}
            684 {\newlistentry[#1]{#2}{#3}{0}}
            685 {\newlistentry{#2}{#3}{0}}
```

```
686 \@namedef{ext@#2}{#3}%
687 \@ifundefined{c@#3depth}{\newcounter{#3depth}}{}%
688 \setcounter{#3depth}{1}%
689 \@namedef{#3mark}{}%
690 \@namedef{#2}{\listof{#2}{#4}}
691 \@namedef{@cftmake#3title}{}
692 \@ifundefined{cftbefore#3titleskip}{
                \verb|\expandafter\\| newlength\\| csname cftbefore \#3titleskip\\| endcsname | cftbefore #3titleskip\\| endcsname | cftbefore #3titleskip\\| endc
693
                \expandafter\newlength\csname cftafter#3titleskip\endcsname
694
695 }{}
696 \@namedef{cft#3titlefont}{}
697 \@namedef{cftafter#3title}{}
698 \@namedef{cft#3prehook}{}
699 \@namedef{cft#3posthook}{}
700 }
701 \renewcommand{\setfloatadjustment}[2]{}
 Borrowed from the lwarp version of keyfloat:
702 \NewDocumentEnvironment{KFLTmemoir@marginfloat}{O{-1.2ex} m}
703 {% start
704 \LWR@BlockClassWP{float:right; width:2in; margin:10pt}{}{marginblock}%
705 \captionsetup{type=#2}%
706 }
707 {%
708 \endLWR@BlockClassWP%
709 }
710
711 \DeclareDocumentEnvironment{marginfigure}{o}
          {\begin{KFLTmemoir@marginfloat}{figure}}
          {\end{KFLTmemoir@marginfloat}}
713
714
715 \DeclareDocumentEnvironment{margintable}{o}
          {\begin{KFLTmemoir@marginfloat}{table}}
           {\end{KFLTmemoir@marginfloat}}
718 \renewcommand{\setmarginfloatcaptionadjustment}[2]{}
719 \renewcommand{\setmpjustification}[2]{}
720 \renewcommand*{\mpjustification}{}
721 \renewcommand*{\setfloatlocations}[2]{}
722 \DeclareDocumentCommand{\suppressfloats}{o}{}
723 \renewcommand*{\FloatBlock}{}
724 \renewcommand*{\FloatBlockAllowAbove}{}
725 \renewcommand*{\FloatBlockAllowBelow}{}
726 \renewcommand*{\setFloatBlockFor}{}
727
728 \renewcommand{\captiontitlefinal}[1]{}
730 \renewcommand{\flegtable}{\tablename}
731 \renewcommand{\flegfigure}{\figurename}
732 \renewcommand{\flegtoctable}{}
733 \renewcommand{\flegtocfigure}{}
734
735
```

```
736 \renewcommand{\subcaption}[2][]{%
737 \ifblank{#1}{\subfloat[#2]{}}{\subfloat[#1][#2]{}}%
740 \renewcommand{\contsubcaption}{\ContinuedFloat\subcaption}
742 \LetLtxMacro\subcaptionref\subref
744 \renewcommand*{\tightsubcaptions}{}
745 \renewcommand*{\loosesubcaptions}{}
747 \renewcommand*{\subcaptionsize}[1]{}
748 \renewcommand*{\subcaptionlabelfont}[1]{}
749 \renewcommand*{\subcaptionfont}[1]{}
750 \renewcommand*{\subcaptionstyle}[1]{}
751
752 \renewcommand*{\hangsubcaption}{}
753 \renewcommand*{\shortsubcaption}{}
754 \renewcommand*{\normalsubcaption}{}
755
756 \RenewDocumentEnvironment{sidecaption}{o m o}
757 {}
759 \IfValueTF{#1}{\caption[#1]{#2}}{\caption{#2}}%
760 \IfValueT{#3}{\label{#3}}%
761 }
763 % \newlength{\sidecapwidth}
764 % \newlength{\sidecapsep}
765 \renewcommand*{\setsidecaps}[2]{}
766 \renewcommand*{\sidecapmargin}[1]{}
767% \newif\ifscapmargleft
768 \scapmargleftfalse
769 \renewcommand*{\setsidecappos}[1]{}
771 \RenewDocumentEnvironment{sidecontcaption}{m o}
772 {}
773 {%
774 \ContinuedFloat%
775 \caption{#1}%
Without \@captype, the section is referred to instead.
776 \IfValueT{#2}{\label[\@captype]{#2}}%
777 }
\sidenamedlegend does not appear to use the ToC argument.
778 \renewenvironment{sidenamedlegend}[2][]{
779 \begin{center}
780 \@nameuse{\@captype name}\CaptionSeparator#2
781 \end{center}
782 }
783 {}
784
```

```
785 \renewenvironment{sidelegend}[1]
786 {\begin{center}
787 #1
788
789 }
790 {\end{center}}
792 \renewcommand*{\sidecapstyle}{}
793 \renewcommand*{\overridescapmargin}[1]{}
794 % \newlength{\sidecapraise}
795 \renewcommand*{\sidecapfloatwidth}{\linewidth}
797 \LetLtxMacro\ctabular\tabular
798 \LetLtxMacro\endctabular\endtabular
800 \renewcommand{\autorows}[5][]{%
801 #5
802 }
803
804 \renewcommand{\autocols}[5][]{%
805 #5
806 }
```

§ 521.12 Page notes

```
807 \renewcommand*{\feetabovefloat}{}
808 \renewcommand*{\feetbelowfloat}{}
809 \renewcommand*{\feetatbottom}{}
811 \renewcommand*{\verbfootnote}[2][]{
812 \PackageError{lwarp, memoir}
813 {Verbatim footnotes are not yet supported by lwarp.}
814 {This may be improved some day.}
815 }
816
817 \renewcommand*{\plainfootnotes}{}
818 \renewcommand*{\twocolumnfootnotes}{}
819 \renewcommand*{\threecolumnfootnotes}{}
820 \renewcommand*{\paragraphfootnotes}{}
821 \renewcommand*{\footfudgefiddle}{}
822
823 \renewcommand*{\newfootnoteseries}[1]{
824 \PackageError{lwarp,memoir}
825 {Memoir footnote series are not yet supported by lwarp.}
826 {This may be improved some day.}
827 }
828
829 \renewcommand*{\plainfootstyle}[1]{}
830 \renewcommand*{\twocolumnfootstyle}[1]{}
831 \renewcommand*{\threecolumnfootstyle}[1]{}
832 \renewcommand*{\paragraphfootstyle}[1]{}
834 \renewcommand*{\footfootmark}{}
835 \renewcommand*{\footmarkstyle}[1]{}
836
```

```
837 % \newlength{\footmarkwidth}
838 % \newlength{\footmarksep}
839 % \newlength{\footparindent}
841 \renewcommand*{\foottextfont}{}
843 \renewcommand*{\marginparmargin}[1]{}
844 \renewcommand*{\sideparmargin}[1]{}
846 \LetLtxMacro\sidepar\marginpar
847 \renewcommand*{\sideparfont}{}
848 \renewcommand*{\sideparform}{}
849 \LWR@providelength{\sideparvshift}
850
851 \renewcommand*{\parnopar}{}
853 \renewcommand{\sidebar}[1]{\begin{quote}#1\end{quote}}
854 \renewcommand*{\sidebarmargin}[1]{}
855 \renewcommand*{\sidebarfont}{}
856 \renewcommand*{\sidebarform}{}
857 % \newlength{\sidebarhsep}
858 % \newlength{\sidebarvsep}
859 % \newlength{\sidebarwidth}
860 % \newlength{\sidebartopsep}
861 \renewcommand{\setsidebarheight}[1]{}
862 \renewcommand*{\setsidebars}[6]{}
863 \renewcommand*{\footnotesatfoot}{}
864 \renewcommand*{\footnotesinmargin}{}
866 \LetLtxMacro\sidefootnote\footnote
867 \LetLtxMacro\sidefootnotemark\footnotemark
868 \LetLtxMacro\sidefootnotetext\footnotetext
869
870 \renewcommand*{\sidefootmargin}[1]{}
871 % \newlength{\sidefoothsep}
872 % \newlength{\sidefootvsep}
873 % \newlength{\sidefootwidth}
874 % \newlength{\sidefootadjust}
875 % \newlength{\sidefootheight}
876 \renewcommand*{\setsidefootheight}[1]{}
877 % \renewcommand*{\sidefootfont}{}% in docs but not in the package
878 \renewcommand*{\setsidefeet}[6]{}
879 \renewcommand*{\sidefootmarkstyle}[1]{}
880 \renewcommand*{\sidefoottextfont}{}
881 \renewcommand*{\sidefootform}{}
883 \renewcommand*{\continuousnotenums}{\pncontopttrue}% from pagenote
884 \renewcommand*{\notepageref}{}
885 \renewcommand*{\prenotetext}{}
886 \renewcommand*{\postnotetext}{}
887 \renewcommand*{\idtextinnotes}[1]{}
888 \renewcommand*{\printpageinnotes}[1]{}
889 \renewcommand*{\printpageinnoteshyperref}[1]{}
890 \renewcommand*{\foottopagenote}{}
891 \renewcommand*{\pagetofootnote}{}
```

§ 521.13 Decorative text

```
892 \renewcommand*{\epigraphposition}[1]{}
893 \renewcommand*{\epigraphtextposition}[1]{}
894 \renewcommand*{\epigraphsourceposition}[1]{}
895 \renewcommand*{\epigraphfontsize}[1]{}
896 \renewcommand*{\epigraphforheader}[2][]{}
897 \renewcommand*{\epigraphpicture}{}
```

§ 521.14 **Poetry**

```
898 \renewcommand*{\vinphantom}{}
899 \renewcommand*{\vleftofline}[1]{#1}
900 % \let\linenumberfrequency\poemlines
901 % \renewcommand*{\linenumberfont}[1]{}
903 \DeclareDocumentCommand{\PoemTitle}{s o o m}{%
904 \IfValueTF{#2}%
905 {\poemtitle[#2]{#4}}%
906 {\poemtitle{#4}}%
907 }
908
909 \renewcommand*{\NumberPoemTitle}{}
910 \renewcommand*{\PlainPoemTitle}{}
911 \renewcommand*{\poemtitlepstyle}{}
912 \renewcommand*{\poemtitlestarmark}[1]{}
913 \renewcommand*{\poemtitlestarpstyle}{}
914 \renewcommand*{\PoemTitleheadstart}{}
915 \renewcommand*{\printPoemTitlenonum}{}
916 \renewcommand*{\printPoemTitlenum}{}
917 \renewcommand*{\afterPoemTitlenum}{}
918 \renewcommand*{\printPoemTitletitle}[1]{}
919 \renewcommand*{\afterPoemTitle}{}
920 \newlength{\midpoemtitleskip}
921 \renewcommand*{\PoemTitlenumfont}{}
922 \renewcommand*{\PoemTitlefont}{}
```

§ 521.15 Boxes, verbatims and files

```
923 \renewenvironment{qframe}{\framed}{\endframed} 924 \renewenvironment{qshade}{\shaded}{\endshaded}
```

Use the comment package:

```
925 \renewcommand*{\commentsoff}[1]{\includecomment{#1}}
926 \renewcommand*{\commentson}[1]{\excludecomment{#1}}
927 \LetLtxMacro\renewcomment\commentson
928
929 \renewcommand*{\setverbatimfont}[1]{}
930 \renewcommand*{\tabson}[1]{}
931 \renewcommand*{\tabsoff}{}
932 \renewcommand*{\wrappingon}{}
933 \renewcommand*{\wrappingoff}{}
934 \renewcommand*{\verbatimindent}{}
935 \renewcommand*{\verbatimbreakchar}[1]{}
```

936 \DefineVerbatimEnvironment{fboxverbatim}{Verbatim}{frame=single}

boxedverbatim is already defined by moreverb. boxedverbatim* does not appear to work at all, even in a minimal print memoir document.

```
937 \renewcommand*{\bvbox}{}
938 \renewcommand*{\bvtopandtail}{}
939 \renewcommand*{\bvsides}{}
940 \renewcommand*{\nobvbox}{}
941 % \newlength\bvboxsep
942 \renewcommand*{\bvtoprulehook}{}
943 \renewcommand*{\bvtopmidhook}{}
944 \renewcommand*{\bvendrulehook}{}
945 \renewcommand*{\bvleftsidehook}{}
946 \renewcommand*{\bvrightsidehook}{}
947 \renewcommand*{\bvperpagetrue}{}
948 \renewcommand*{\bvperpagefalse}{}
949 \renewcommand{\bvtopofpage}[1]{}
950 \renewcommand{\bvendofpage}[1]{}
951 \renewcommand*{\linenumberfrequency}[1]{}
952 \renewcommand*{\resetbvlinenumber}{}
953 \renewcommand*{\setbvlinenums}[2]{}
954 \renewcommand*{\linenumberfont}[1]{}
955 \renewcommand*{\bvnumbersinside}{}
956 \renewcommand*{\bvnumbersoutside}{}
```

§ 521.16 Cross referencing

```
957 \renewcommand*{\fref}[1]{\cref{#1}}
958 \renewcommand*{\tref}[1]{\cref{#1}}
959 \renewcommand*{\pref}[1]{\cpageref{#1}}
960 \renewcommand*{\Aref}[1]{\cref{#1}}
961 \renewcommand*{\Bref}[1]{\cref{#1}}
962 \renewcommand*{\Pref}[1]{\cref{#1}}
963 \renewcommand*{\Sref}[1]{\cref{#1}}
964 \renewcommand*{\figurerefname}{Figure}
965 \renewcommand*{\tablerefname}{Table}
966 \renewcommand*{\pagerefname}{page}
967 \renewcommand*{\bookrefname}{Book~}
968 \renewcommand*{\partrefname}{Part~}
969 \renewcommand*{\chapterrefname}{Chapter~}
970 \renewcommand*{\sectionrefname}{\S}
971 \renewcommand*{\appendixrefname}{Appendix~}
972 \LetLtxMacro\titleref\nameref
973 \renewcommand*{\headnameref}{}
974 \renewcommand*{\tocnameref}{}
976 \providecounter{LWR@currenttitle}
978 \renewcommand*{\currenttitle}{%
       \addtocounter{LWR@currenttitle}{1}%
979
       \label{currenttitle\arabic{LWR@currenttitle}}%
980
       \nameref{currenttitle\arabic{LWR@currenttitle}}%
981
982 }
983
```

```
984 \renewcommand*{\theTitleReference}[2]{}
985 \renewcommand*{\namerefon}{}
986 \renewcommand*{\namerefoff}{}
```

§ 521.17 Back matter

Redefined to write the LWR@autoindex counter instead of page. Note that memoir has two versions, depending on the use of hyperref.

```
987 \AtBeginDocument{
989 \def\@@wrindexhyp#1||\\{%
       \addtocounter{LWR@autoindex}{1}%
990
       \LWR@new@label{LWRindex-\arabic{LWR@autoindex}}%
991
992 %
         \ifshowindexmark\@showidx{#1}\fi
993
       \protected@write\@auxout{}%
       {\string\@@wrindexm@m{\@idxfile}{#1}{\arabic{LWR@autoindex}}}%
994
995
       \endgroup
       \@esphack}%
996
```

\specialindex behaves like a regular \index, pointing to where \specialindex is used. If \specialindex is used inside a figure or table after the \caption, then the hyperlink will be given the name of that particular figure or table.

```
997 \def\@@wrspindexhyp#1||\\{%
      \addtocounter{LWR@autoindex}{1}%
998
      \LWR@new@label{LWRindex-\arabic{LWR@autoindex}}%
999
1000 %
        \ifshowindexmark\@showidx{#1}\fi
      \protected@write\@auxout{}%
1001
1002
      {%
1003 %
            \string\@@wrindexm@m{\@idxfile}{#1}{\@nameuse{the\@sptheidx}}%
1004
          }%
1005
1006
      \endgroup
1007
      \@esphack}%
1009 }% \AtBeginDocument
```

Patched to use _html filename and \BaseJobname:

```
1010 \catcode '\_=12%
1011 \renewcommand*{\makeindex}[1][\BaseJobname]{%
1012
     \if@filesw
       \def\gindex{\@bsphack%
1013
1014
          \@ifnextchar [{\@index}{\@index[\BaseJobname]}}
1015
       \def\specialindex{\@bsphack\@spindex}%
1016
       \makememindexhook
       \expandafter\newwrite\csname #1@idxfile\endcsname
1017
1018
      \expandafter\immediate\openout \csname #1@idxfile\endcsname #1_html.idx\relax
       \typeout{Writing index file #1_html.idx }%
1019
1020
     \fi}
1021 \catcode '\_=8%
```

Patched to use _html filename and \BaseJobname. This will later be patched by the lwarp core.

```
1022 \catcode'\_=12%
1023 \renewcommand{\printindex}[1][\BaseJobname]{\@input@{#1_html.ind}}
1024 \catcode'\_=8%

1025 \DeclareDocumentCommand{\newblock}{}{}
1026 %
1027 \renewcommand*{\showindexmarks}{}
1028 \renewcommand*{\hideindexmarks}{}
1029
1030 \renewcommand*{\xindyindex}{}
```

§ 521.18 Miscellaneous

```
1031 \renewcommand*{\changemarks}{}
1032 \renewcommand*{\nochangemarks}{}
1033 \renewcommand*{\added}[1]{}
1034 \renewcommand*{\deleted}[1]{}
1035 \renewcommand*{\changed}[1]{}
1037 \renewcommand*{\showtrimsoff}{}
1038 \renewcommand*{\showtrimson}{}
1039 \renewcommand*{\trimXmarks}{}
1040 \renewcommand*{\trimLmarks}{}
1041 \renewcommand*{\trimFrame}{}
1042 \renewcommand*{\trimNone}{}
1043 \renewcommand*\trimmarkscolor{}
1044 \renewcommand*{\trimmarks}{}
1045 \renewcommand*{\tmarktl}{}
1046 \renewcommand*{\tmarktr}{}
1047 \renewcommand*{\tmarkbr}{}
1048 \renewcommand*{\tmarkbl}{}
1049 \renewcommand*{\tmarktm}{}
1050 \renewcommand*{\tmarkmr}{}
1051 \renewcommand*{\tmarkbm}{}
1052 \renewcommand*{\tmarkml}{}
1053 \renewcommand*{\trimmark}{}
1054 \renewcommand*{\quarkmarks}{}
1055 \renewcommand*{\registrationColour}[1]{}
1057 \renewcommand*{\leavespergathering}[1]{}
1059 \renewcommand*{\noprelistbreak}{}
1061 \renewcommand*{\cleartorecto}{}
1062 \renewcommand*{\cleartoverso}{}
1064 \renewenvironment{vplace}[1][]{}{}
```

§ 521.19 ccaption emulation

```
1065 \renewcommand*{\captiondelim}[1]{\renewcommand*{\CaptionSeparator}{#1}}
1066 \renewcommand*{\captionnamefont}[1]{}
```

```
1067 \renewcommand*{\captiontitlefont}[1]{}
1068 \renewcommand*{\flushleftright}{}
1069 \renewcommand*{\centerlastline}{}
1070 \renewcommand*{\captionstyle}[2][]{}
1071 \DeclareDocumentCommand{\captionwidth}{m}{}
1072 \renewcommand*{\changecaptionwidth}{}
1073 \renewcommand*{\normalcaptionwidth}{}
1074 \renewcommand*{\hangcaption}{}
1075 \renewcommand*{\indentcaption}[1]{}
1076 \renewcommand*{\normalcaption}{}
1077 \renewcommand{\precaption}[1]{}
1078 \renewcommand{\postcaption}[1]{}
1079 \renewcommand{\midbicaption}[1]{}
1080 \renewcommand{\contcaption}[1]{%
1081 % \ContinuedFloat%
1082 % \caption{#1}%
1083 \begin{LWR@figcaption}% later becomes \caption*
1084 \LWR@isolate{\@nameuse{\@captype name}}~%
1085 \thechapter.\the\value{\@captype}\CaptionSeparator\LWR@isolate{#1}%
1086 \end{LWR@figcaption}
1087 }
1088 \newlength{\abovelegendskip}
1089 \setlength{\abovelegendskip}{0.5\baselineskip}
1090 \newlength{\belowlegendskip}
1091 \setlength{\belowlegendskip}{\abovelegendskip}
 The extra \\ here forces a <br> in HTML when \legend is used in a \marginpar.
1092 \renewcommand{\legend}[1]{\begin{center}#1\\\end{center}}
1094 \renewcommand{\namedlegend}[2][]{
1095 \begin{center}
1096 \@nameuse{fleg\@captype}\CaptionSeparator#2\\
1097 \end{center}
1098 \@nameuse{flegtoc\@captype}{#1}
1099 }
1100
1101 \renewcommand{\newfixedcaption}[3][\caption]{%
1102 \renewcommand{#2}{\def\@captype{#3}#1}}
1103 \renewcommand{\renewfixedcaption}[3][\caption]{%
    \renewcommand{#2}{\def\@captype{#3}#1}}
1105 \renewcommand{\providefixedcaption}[3][\caption]{%
     \providecommand{#2}{\def\@captype{#3}#1}}
1106
1107
1108 \renewcommand{\bitwonumcaption}[6][]{%
1109 \ifblank{#2}{\caption{#3}}{\caption[#2]{#3}}%
1110 \addtocounter{\@captype}{-1}%
1111 \begingroup%
1112 \csdef{\@captype name}{#4}%
1113 \ifblank{#5}{\caption{#6}}{\caption[#5]{#6}}%
1114 \endgroup%
1115 \ifblank{#1}{}{\label{#1}}%
1116 }
1117
1118 \LetLtxMacro\bionenumcaption\bitwonumcaption% todo
```

```
1119
1120 \renewcommand{\bicaption}[5][]{%
1121 \ifblank{#2}{\caption{#3}}{\caption[#2]{#3}}%
1122 \begin{LWR@figcaption}% later becomes \caption*
1124 \end{LWR@figcaption}
1125 \ifblank{#1}{}{\label{#1}}%
1126 }
1128 \renewcommand{\bicontcaption}[3]{%
1129 \contcaption{#1}%
1130 \begingroup%
1131 \csdef{\@captype name}{#2}%
1132 \contcaption{#3}%
1133 \endgroup%
1134 }
1135 % only in ccaption, not in memoir:
1136 % \LetLtxMacro\longbitwonumcaption\bitwonumcaption%
1137 % \LetLtxMacro\longbionenumcaption\bitwonumcaption%
1138 % \LetLtxMacro\longbicaption\bicaption%
1139
1140 \RenewDocumentCommand{\subtop}{0{} 0{} m}{%
1141 \subfloat[#1][#2]{#3}%
1142 }
1143
1144 \RenewDocumentCommand{\subbottom}{O{} O{} m}{%
1145 \subfloat[#1][#2]{#3}%
1146 }
1147
1148 \renewcommand{\contsubtop}{%
1149 \ContinuedFloat\addtocounter{\@captype}{1}%
1150 \subtop}
1152 \renewcommand{\contsubbottom}{%
1153 \ContinuedFloat\addtocounter{\@captype}{1}%
1154 \subbottom}
1155
1156 \renewcommand{\subconcluded}{}
1158 \let\subfigure\subbottom
1159 \let\subtable\subtop
1161 \let\contsubtable\contsubtop
1162 \let\contsubfigure\contsubbottom
1163 \newcommand{\newfloatentry}[4][\@empty]{TODO: newfloatentry}
1164 \newcommand{\newfloatlist}[5][\@empty]{TODO: newfloatlist}
1165 \newcommand{\newfloatenv}[4][\@empty]{TODO: newfloatenv}
1166 \DeclareRobustCommand{\newfloatpagesoff}[1]{}
1167 \DeclareRobustCommand{\newfloatpageson}[1]{}
1168 \newcommand{\setnewfloatindents}[3]{}
```

§ 521.20 Final patchwork

```
1170 \newlistof{listoffigures}{lof}{\listfigurename}
1171 \newlistof{listoftables}{lot}{\listtablename}
```

File 424 lwarp-common-multimedia.sty

§ 522 Package

common-multimedia

g lwarp-common-multimedia

Common code for multimedia, movie15, and media9.

The packages multimedia, movie15, and media9 are supported.

HTML5 <audio> and <video> objects are created for .mp3 and .mp4 files.

HTML5 <embed> objects are created for http and ftp links.

\href links are created for other media types. (Unfortunately, there is not much overlap between the file types supported for print output and the file types supported by HTML5.)

For media9, a multimedia object is inserted for each addresource=, as well as each flashvars source= and src=. This may result in duplicate objects.

Undesired objects may be nullified by placing them inside \warpprintonly or the warpprint environment.

Each HTML multimedia object includes the poster text, except for <embed> objects. For movie15, the text option is supported to specify the poster text.

The width, height, and totalheight options are supported. The HTML object is scaled according to the display width, correctly compensating for either tall or wide viewports.

Other options are ignored.

media9 \addmediapath is supported. It is assumed that the same path structure will exist for the HTML document.

HTML5 media controls are always specified for each <audio> and <video> object.

media9 slideshows are not supported.

\hyperlinkmovie, \movieref, and \mediabutton are not supported.

3D objects are not supported.

If using a YouTube $^{\text{TM}}$ video, use an "embedded" url with .../embed/... instead of .../v/...

for HTML output:

```
1 \ProvidesPackage{lwarp-common-multimedia}[2019/04/22]
```

```
2 \RequirePackage{xkeyval}
```

3

```
5 \define@key{LWR@multimedia}{height}{\setlength{\LWR@multimedia@height}{#1}}
6 \define@key{LWR@multimedia}{totalheight}{\setlength{\LWR@multimedia@height}{#1}}
7 \newlength{\LWR@multimedia@width}
8 \newlength{\LWR@multimedia@height}
9 \newlength{\LWR@multimedia@maxdimension}
```

\LWR@multimedia@printsize

Proportional to \linewidth and the viewport's smaller dimension. This scales each object such that it will always fit on the screen, even if a tall or wide object inside a tall or wide viewport.

```
10 \newcommand*{\LWR@multimedia@printsize}{%
       \setlength{\LWR@multimedia@maxdimension}{%
11
           \maxof%
12
13
                {\linewidth}%
                {\maxof{\LWR@multimedia@width}{\LWR@multimedia@height}}%
14
15
16
       \setlength{\LWR@multimedia@maxdimension}{1.1\LWR@multimedia@maxdimension}%
       \ifdimgreater{\LWR@multimedia@width}{0pt}{%
17
18
           width:%
19
                \LWR@printpercentlength%
20
                    {\LWR@multimedia@width}%
21
                    {\LWR@multimedia@maxdimension}vmin ; % space
22
      }{}%
       \ifdimgreater{\LWR@multimedia@height}{0pt}{%
23
           height:%
24
                \LWR@printpercentlength%
25
                    {\LWR@multimedia@height}%
26
                    {\LWR@multimedia@maxdimension}vmin ; % space
27
28
      }{}%
29 }
 \{\langle poster\ text \rangle\} \{\langle filename \rangle\} \{\langle audio/video \rangle\} \{\langle mimetype \rangle\}
```

\LWR@multimedia@fileAV

Creates a video or audio from a file.

```
30 \newcommand*{\LWR@multimedia@fileAV}[4]{%
31 \filename@parse{#2}%
32 \IfFileExists{#2}{%
```

The container <div> is sized as desired.

```
33 \begin{BlockClass}[\LWR@multimedia@printsize\ margin:auto]{AVviewport}
```

Paragraph tags are unnecessary for the A/v tags.

```
34 \LWR@stoppars
```

The A/v element is 100% of the container.

The file source and type:

```
41
      \LWR@htmltag{%
42
          source % space
          src=\textquotedbl%
43
          \@filef@und\unskip\textquotedbl\ % space
44
          type=\textquotedbl{}#4\textquotedbl}
45
The poster text inside paragraph tags, along with a reference to the file.
      \LWR@startpars
46
47
      \href{\@filef@und}{#1}
      \LWR@stoppars
Finish.
      \LWR@htmltag{/#3}\LWR@orignewline
49
      \end{BlockClass}
50
51 }{%
52
      \PackageError{lwarp-common-multimedia}
53
      {File '#2' not found}
54
      {Perhaps an incorrect path?}
55 }%
56 }
 \{\langle poster\ text \rangle\} \{\langle filename \rangle\} \{\langle audio/video \rangle\} \{\langle mimetype \rangle\}
Creates a video or audio from a URL link.
57 \newcommand*{\LWR@multimedia@httpAV}[4]{%
The container <div> is sized as desired.
      \begin{BlockClass}[\LWR@multimedia@printsize\ margin:auto]{AVviewport}
Paragraph tags are unnecessary for the A/V tags.
      \LWR@stoppars
The A/v element is 100% of the container.
      \LWR@htmltag{%
          #3\ % space
61
          width=\textquotedbl{}100\%\textquotedbl\ % space
62
          The file source and type:
      \LWR@htmltag{%
65
          source % space
          src=\textquotedbl#2\textquotedbl\ % space
66
          type=\textquotedbl#4\textquotedbl}
The poster text inside paragraph tags, along with a reference to the URL.
      \LWR@startpars
68
      \href{#2}{#1}
69
70
      \LWR@stoppars
Finish.
      \LWR@htmltag{/#3}\LWR@orignewline
      \end{BlockClass}
72
73 }
```

\LWR@multimedia@httpAV

\LWR@multimedia@AV

```
\{\langle poster\ text \rangle\} \{\langle filename \rangle\} \{\langle audio/video \rangle\} \{\langle mimetype \rangle\}
```

Creates an audio or video from a file or a URL.

```
74 \newcommand*{\LWR@multimedia@AV}[4]{%
      \IfBeginWith{#2}{http}%
75
          {\LWR@multimedia@httpAV{#1}{#2}{#3}{#4}}%
76
          {%
77
              \IfBeginWith{#2}{HTTP}%
78
                   {\LWR@multimedia@httpAV{#1}{#2}{#3}{#4}}%
79
                   {\LWR@multimedia@fileAV{#1}{#2}{#3}{#4}}%
80
          }%
81
82 }
```

\LWR@multimedia@embed

```
\{\langle poster\ text \rangle\}\ \{\langle URL\ or\ filename \rangle\}\ \{\langle mime\ type \rangle\}
```

Embeds multimedia of an arbitrary type. The poster text is not used, as it would appear along with the video if the <embed> element is supported.

```
83 \newcommand*{\LWR@multimedia@embed}[3]{%
      \begin{BlockClass}[width:100\%]{AVviewport}%
84
      \LWR@stoppars
85
          \LWR@htmltag{%
86
              embed % space
87
              \ifblank{#3}{}{type=\textquotedbl#3\textquotedbl\ }%
88
          style=\textquotedbl\LWR@multimedia@printsize\ margin:auto\textquotedbl\ % space
89
              src=\textquotedbl#2\textquotedbl\ % space
90
91
          }%
      \LWR@startpars
92
      \end{BlockClass}
93
94 }
```

Error message if the comment character is used among the arguments of \LWR@multimediab.

\LWR@multimedia@percenterror

\LWR@multimediab

```
[\langle options \rangle] \{\langle poster\ text \rangle\} \{\langle filename \rangle\}
```

Creates multimedia. Examines the file extension to determine the type. If not a supported type, creates an embedded object if it has a URL. If neither, create a link to the unsupported object.

```
104 \newcommand*{\LWR@multimediab}[3][]{%
```

Error if the percent character appears among the arguments. This could happen since the comment character has been temporarily disabled, for use in a URL.

```
\label{local_local_local_local_local_local_local_local_local} $$ \inf 105 \quad \inf 105 \quad \text{$$ \inf 1\leq e^2$ in $\mathbb{Z}^2$ on $
```

lwarp 1009

```
106
                               \label{lem:lwremultimedia@percenterror} \label{lem:lwremultimedia@percenterror} i\%
                               \if#3\@percentchar\LWR@multimedia@percenterror\fi%
 107
 Record the desired size.
                               \setlength{\LWR@multimedia@width}{0pt}%
                               \setlength{\LWR@multimedia@height}{0pt}%
109
                               \setkeys*{LWR@multimedia}{#1}%
110
 If a known A/V type, create an HTML5 <video> or <audio>.
                               \label{lem:limedia@AV} $$ \left( mp4 \right)_{\norm{limedia@AV}{#2}{#3}} \left( ideo \right)_{\norm{limedia@AV}{\#2}} $$
111
                              \final {MP4}{\LWR@multimedia@AV{#2}{#3}{\video}{\video/mp4}}{\%}
113
                               \label{lem:limedia@AV} $$ \left( mp3 \right)_{\wedge multimedia@AV{#2}{#3}} \ audio} \ audio/mpeg} \ %
                               \label{lem:limedia@AV} $$ \left( MP3 \right)_{LWR@multimedia@AV{#2}{#3}} \ audio_{mpeg} % $$ (AP3)_{LWR@multimedia@AV{#2}{#3}} $$ (AP3)_{LWR@multimedia@AV{*2}{*3}} $$ (AP3)_{LWR@multimedia@AV{*2}} $$ (AP3)_{LWR@multimedia@AV{*2}} $$ (AP3)_{LWR@multimedia@AV{*2}} $$ (AP3)_{LWR@multimedia@AV{*2}} $$ (AP3)_{LWR@multimedia@AV{*2}} $$ (AP3)_{LWR@multimedia@AV{*2}} $$ (AP3)_{LWR@multimedia@A
114
 If an arbitrary URL, embed it.
                               115
116
                               117
                               \footnote{MRM:linedia@embed{#2}{#3}{}}{%}
118
                               \label{lem:limedia@embed} $$ \FTP_{\LWR@multimedia@embed_{\#3}_{\#3}_{}}(% $$ \LWR@multimedia@embed_{\#2}_{\#3}_{}) $$
 If unknown, create a link to it.
119
                                                 \href{#3}{#2}% unknown format
120
                              }}}}}}
                               \endgroup%
121
122 }
 Catcodes which may apper in a URL.
123 \newrobustcmd*{\LWR@multimedia}{%
124
                              \begingroup%
125
                               \catcode'\#=12%
                               \catcode '\%=12%
127
                               \color=12\%
128
                               \colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{`}\colored{
                               \color=12\%
129
                               \LWR@multimediab%
130
131 }
```

Change History

§ 523 Chg Hist

For the most recent changes, see page 1036.

v0.10	Test Suite: Assigned cleveref name
General: 2016/03/08 Initial version 1	for Test Float 1
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operating system 105	when passed as an argument 397
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Fix dollar-redefined bug for newer	Added XeLaTeX, LuaLaTeX
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\HomeHTMLFilename: Docs: Escape	\InlineClass: Renamed from
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eso-pic: Added 678	verbatim: Added 381
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float: Improved float caption type	span
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column 406	amsthm: Added 585
\LWR@parsebangcolumn: Added	ellipsis: Added 668
tabular! column 402	emptypage: Added 669
\LWR@parsetablecols: Unknown	framed: Added 713
table column types become 1.	lips: Added 768
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\LWR@parsetablecols: Fix for vert bar	footnote: Added 710
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\LWR@printmccoldata: Fix for vert bar	marginnote: Added
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General Index

This is an index of instructions and concepts. Look here when wondering how to do something, and check the Troubleshooting Index when something goes wrong.

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Troubleshooting Index

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