

The uri package

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2018/09/01 v2.0a

Abstract

This package allows to automatically hyperlink uris of type arXiv, ASIN, DOI, HDL, NBN, OCLC, OID, PubMed, TINY, TINY with preview, and WebCite in such a way that they are resolved to an address understood by web browsers without native support or add-ons for such types of uri and provides commands `\citeurl`, `\mailto`, `\ukoeln`, and `\uref`.

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Save per page about 200 ml water, 2 g CO₂ and 2 g wood: Therefore please print only if this is really necessary.

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1 Introduction

Diverse types of URIs exists. While every web browser should know how to handle an uri like <https://www.ctan.org/>, there are probably quite a few web browsers which cannot handle e.g. [arXiv:math/9201303](#) (just test it by clicking the hyperlink). There are four types of solution:

1. Change the programme code of the web browser to recognise the uri.
2. Use/write a plug-in for the browser to resolve the uri.
3. Use only the full, expanded uri. Then they can be reliably accessed by everybody, but those uris usually become quite long, which is not really nice (and line breaks have their own problems).
4. (a) Write the short uri ([arXiv:math/9201303](#)), but link to the long, expanded one. This combines reliability and aesthetics, but can be cumbersome to write, especially when a lot of those addresses are used.
(b) Do as described at (a), but automatically. This is the way this package can be used.

2 Usage

Just load the package placing

```
\usepackage[<options>]{uri}
```

in the preamble of your L^AT_EX 2_ε source file (preferably after calling the `url` and `hyperref` package). For the different types of uri and available options see the documented code below.

3 Alternatives

There are similar packages, which do (or do not) similar things. Here is a list of some possible alternatives:

`aur1`

- The `aur1` package “[e]xtends the `hyperref` package with a mechanism for hyper-linked URLs abbreviated with prefixes”, i.e. similar to this package here.

`doi`

- The `doi` package “contains a user-level command `\doi{}`, which takes a doi number, and creates a hyperlink from it. The format of the doi can be controlled by redefining the `\doitext` command” (from the `doi` package `ReadMe`). It does not handle other types of uris, naturally.

`doipubmed`

- The `doipubmed` package handles DOI as well as PubMed uris.

(You programmed or found another alternative, which is available at <https://www.CTAN.org>? OK, send an e-mail to me with the name, location at CTAN, and a short notice, and I will probably include it in the list above.)

About how to get those packages, please see subsection [6.1](#).

4 Example

```
1 <*example>
2 \documentclass[british]{article}[2014/09/29]% v1.4h
3 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
4 \PassOptionsToPackage{hyphens}{url}% url is loaded internally by hyperref
5 \usepackage{hyperref}[2011/02/07]% v6.82b
6 \hypersetup{%
7   extension=pdf,%
8   plainpages=false,%
9   pdfpagelabels=true,%
10  hyperindex=false,%
11  pdflang={en},%
12  pdftitle={uri package example},%
13  pdfauthor={Hans-Martin Muench},%
14  pdfsubject={Example for the uri package},%
15  pdfkeywords={LaTeX, uri, Hans-Martin Muench},%
16  pdfview=Fit,%
17  pdfstartview=Fit,%
18  pdfpagelayout=SinglePage,%
19  bookmarksopen=false%
20 }
21 \usepackage{uri}[2018/09/01]% v2.0a
22 \RequirePackage{amsmath}
23 \RequirePackage{relsize}
24 \gdef\doialternative{%
25   \hbox{\text{\fontfamily{lmss}\selectfont\smaller{%
26     DO\hspace{-0.025em}I\raisebox{0.24ex}{:}}\kern-0.01em}}\allowbreak%
27   }% used later for demonstration of \urisetup
28 \renewcommand*{\thesubsection}{\arabic{subsection}}
29 \listfiles
30 \begin{document}
```

```

31 \pagenumbering{arabic}
32
33 \section*{Example for uri}
34 This example demonstrates the use of package\newline
35 \textsf{uri}, v2.0a as of 2018/09/01 (HMM).\newline
36 No options were given, thereby the default options were used.\newline
37 For more details please see the documentation!
38
39 \subsection{Supported types of uri\label{uritypes}}
40 The \textsf{uri} package allows to hyperlink (with the
41 \textsf{hyperref} package of \textsc{Heiko Ober\~{d}iek}) uris of type
42 \begin{itemize}
43 \item[--] arXiv (\url{https://www.arXiv.org/}), e.\,g. \arxiv{math/9201303}.
44
45 \item[--] ASIN %
46   (\url{https://www.amazon.co.uk/gp/help/customer/display.html/277-3416785-8259466?ie=UTF8&nodeId=898182}), %
47   (that one is a good example for using a TINY url: \tinyuri{y7ju25ln}) %
48   e.\,g. \asin{0201134489}.
49
50 \item[--] DOI (\url{https://www.doi.org/index.html}), e.\,g. \doi{10.1000/182} or\linebreak%
51   \doi{10.1111/coin.12165}. For DOIs also \url{http://www.shortdoi.org/} %
52   should be mentioned, which provides \doi{10/b8xfbg} as synonym for that long doi %
53   given in \hyperref[relaxation]{\ref*{relaxation} Stress test} %
54   (and also synonyms for all other DOIs).
55
56 \item[--] HDL (\url{https://www.handle.net/index.html}), e.\,g. \hdl{2128/2486}.
57
58 \item[--] NBN (\url{http://nbn-resolving.de/urn:nbn:de:1111-200606309}),\newline%
59   e.\,g. \nbn{urn:nbn:de:bsz:mit1-opus-3145}.
60
61 \item[--] OCLC (the global library cooperative %
62   \href{https://www.oclc.org/en/about.html}{OCLC} maintains %

```

63 \href{https://www.worldcat.org/whatis/default.jsp}{WorldCat}), %
64 e.\,g. \oclc{935889548}.
65
66 \item[--] OID (\url{http://www.oid-info.com/#oid}), e.\,g. \oid{2.16.840}.
67
68 \item[--] PubMed (\url{https://www.ncbi.nlm.nih.gov/pubmed/}),\newline%
69 e.\,g. \pubmed{24925405}.
70
71 \item[--] TINY (\url{https://tinyurl.com/}), e.\,g. \tinyuri{MST19-105603}\newline%
72 (uses \verb|\tinyuri| instead of \verb|\tiny|, because that command already existed).
73
74 \item[--] TINY with preview (\url{https://preview.tinyurl.com/}), %
75 e.\,g. \tinypuri{MST19-105603}.
76
77 \item[--] WebCite (\url{https://www.webcitation.org/}), e.\,g. \wc{71dxjl73I},
78 which is short for \wc{query?url=http%3A%2F%2Fctan.org&date=2018-08-13}{%
79 }.
80
81 \item[--] XMPP (\url{https://xmpp.org/about/}) changed, for example
82 \verb|URN:XMPP:time| was moved from \url{https://xmpp.org/protocols/urn:xmpp:time/}
83 to\linebreak \url{https://xmpp.org/extensions/xep-0202.html}. Therefore
84 \verb|\xmpp| is no longer provided by this package. For backward compatibility
85 \verb|\xmpp{...}| gives an error message and links to
86 \url{https://xmpp.org/extensions/}.
87 \end{itemize}
88
89 \subsection{Pre/post text, \texttt{\textbackslash urisetaup}}
90 \noindent Text before (e.\,g. \textsf{DOI:}) and after (well, no example)
91 the uri to be displayed can be adapted by the package options.
92 After loading the package it is possible (even somewhere within the document's body)
93 to change these \hbox{\ldots \verb|pre|} (and \hbox{\ldots \verb|post|}) texts
94 by \verb|\urisetaup|, e.\,g.\newline

```

95 \verb|\urisetup{arxivpre={\textsf{\scshape arXiv:}\hspace{.2em}}}|.\newline
96 This command can also be used in the preamble to define pre/post texts
97 which otherwise are not understood by \LaTeX. -- Compare
98 \arxiv{0905.0105v2} to
99 \urisetup{arxivpre={\textsf{\scshape arXiv:}\hspace{.2em}}}
100 \arxiv{0905.0105v2} or
101 \doi{10.1000/182} to
102 \urisetup{doipre={\doialternative}}% \doialternative was defined in the example's preamble.
103 \doi{10.1000/182}.
104
105 \subsection{\texttt{\textbackslash citeurl}, \texttt{\textbackslash mailto}, %
106             \texttt{\textbackslash ukoeln}, and \texttt{\textbackslash uref}}
107 Additionally some commands are provided by the uri package:
108 \begin{itemize}
109 \item[--] \verb|\citeurl| similar to the command of the \textsf{doipubmed} package,\newline%
110   \citeurl{https://ctan.org/pkg/doipubmed}.
111
112 \item[--] \verb|\mailto| for e-mail addresses (optionally with e-mail subject), e.\,g.\newline%
113   \mailto{spam@example.org} or with subject %
114   \mailto[Some subject of the e-mail]{spam@example.org}.
115
116 \item[--] \verb|\ukoeln| for short University of Cologne (Universit\~{a}t zu K\~{o}ln, %
117   U~Koeln; Germany; \url{https://www.portal.uni-koeln.de/8911.html?&L=1})
118   ad-\linebreak dresses, e.\,g. \ukoeln{PDGKL}.
119
120 \item[--] \verb|\uref| takes two arguments, the first gives the target of the hyperlink, %
121   the second gives the text to be displayed for it, e.\,g. information about the %
122   \uref{https://ctan.org/pkg/uri}{uri package}, similar to \verb|\href|. %
123   When \textsf{hyperref} was not loaded, \newline%
124   \verb|\uref{first argument}{second argument}| %
125   defaults to\newline
126   \verb|\url{second argument}|.

```

127 \end{itemize}

128

129

130 \subsection{Stress test\label{relaxation}}

131 Even \verb|\doi{1.2/3-.(5):<>;%A\8!\$~&{}#X}|

132 would work (if that DOI would exist; same for the other types of uri):

133 \doi{1.2/3-.(5):<>;%A\8!\$~&{}#X}{%

134 } (In the error message at doi.org the \verb|#X| is not included,

135 because it is interpreted as \textquotedblleft anchor X\textquotedblright{} at

136 page \verb|1.2/3-.(5):<>;%A\8!\$~&{}|, which already is not found.)\newline

137 Adding \verb|opening bracket percent-sign line break closing bracket|\newline

138 (please see the source code of the example)

139 makes programs happy, which check for bracket pairs and take the

140 first percent sign as the start of a comment and therefore miss

141 the closing bracket (but therefore also the following opening one).

142 And this real DOI works:\newline

143 \doi{10.1002/1097-4636(200108)56:2<282::AID-JBM1096>3.0.CO;2-5}\newline

144 (short: \doi{10/b8xfbg}, see DOI in %

145 \hyperref[uritypes]{\ref*{uritypes} Supported types of uri}).

146 \pagebreak

147

148 \subsection{Name-to-Thing resolver}

149 It is also possible to resolve a lot of identifiers by

150 the Name-to-Thing resolver by just appending the identifier to

151 \url{https://n2t.net/}, e.\,g. \newline%

152 \url{https://n2t.net/arXiv:math/9201303}, \newline%

153 \url{https://n2t.net/ASIN:0201134489}, \newline%

154 \url{https://n2t.net/DOI:10.1111/coin.12165}, \newline%

155 \url{https://n2t.net/HDL:2128/2486}, \newline%

156 \url{https://n2t.net/urn:nbn:de:bsz:mit1-opus-3145}, \newline%

157 \url{https://n2t.net/OCLC:935889548}, \newline%

158 \url{https://n2t.net/OID:2.16.840} (which at the time of writing did not work, %

159 \url{https://identifiers.org/OID:2.16.840} did), \newline%
 160 \url{https://n2t.net/PubMed:24925405}, and also \newline%
 161 \url{https://n2t.net/ISBN:9783638922005} and \newline%
 162 \url{https://n2t.net/ARK:12148/bpt6k15385d}.\newline%
 163 Disadvantages: It is longer and requires \url{n2t.net} to work.\newline%
 164 Advantage: Anybody reading the printed document can just enter %
 165 the url as given into their browser without thinking about how to resolve %
 166 that type of uri.
 167
 168
 169 \subsection{Disclaimer for web links}
 170 The author is not responsible for any contents referred
 171 to in this work unless if having full knowledge of illegal contents. If any damage
 172 occurs by the use of information presented there, only the author of the respective
 173 pages might be liable, not the one who has referred to these pages.
 174 \end{document}
 175 \example

5 The implementation

We start off by checking that we are loading into L^AT_EX 2_ε and announcing the name and version of this package.

```
176 <*package>
177 \NeedsTeXFormat{LaTeX2e}[2015/01/01]
178 \ProvidesPackage{uri}[2018/09/01 v2.0a
179   Hyperlinks URIs like DOI,HDL,NBN,PubMed (HMM)]
180
```

A short description of the uri package:

```
181 %% Allows to automatically hyperlink uris of types
182 %% arXiv, ASIN, DOI, HDL, NBN, OCLC, OID, PubMed, TINY, TINY with preview,
183 %% and WebCite
184 %% in such a way that they are resolved to an address understood by browsers
185 %% independent of native support or add-ons for such types of uri
186 %% and provides commands \citeurl, \mailto, \ukoeln, and \uref.
```

For the handling of the options we need the kvoptions package of HEIKO OBERDIEK (see subsection 6.1):

```
187 \RequirePackage{kvoptions}[2011/06/30]% v3.11
```

We need the url package of DONALD ARSENEAU and ROBIN FAIRBAIRNS (see subsection 6.1):

```
188 \RequirePackage{url}[2013/09/16]% v3.4
189
```

When spaces shall be kept, `\usepackage[obeyspaces]{url}` should be used in the document (and `\` in the options), and for using special characters even `\usepackage[obeyspaces,T1]{url}` could be a good idea. - When the `hyperref` package has been loaded, we hyperlink the uris, otherwise we do not do this.

So, if you want hyperlinks, load uri after hyperref, otherwise before (or no hyperref at all, of course).

For each supported uri type there are two options, `...pre` and `...post`, e.g. `doipre` and `doipost`. For example the option `doipre={DOI:\ }` results in “DOI: ” (without the quotation marks, of course) to be written before the DOIs.

(There are more brackets and braces than necessary here, but better save than sorry, i.e. make it robust.)

```

190 \SetupKeyvalOptions{family = uri, prefix = uri@}
191
192 \DeclareStringOption[arXiv:]{arxivpre}[arXiv:]
193 \DeclareStringOption[] {arxivpost}[]
194
195 \DeclareStringOption[ASIN:]{asinpre}[ASIN:]
196 \DeclareStringOption[] {asinpost}[]
197
198 \DeclareStringOption[DOI:]{doipre}[DOI:]
199 \DeclareStringOption[] {doipost}[]
200
201 \DeclareStringOption[HDL:]{hdlpre}[HDL:]
202 \DeclareStringOption[] {hdlpost}[]
203
204 \DeclareStringOption[] {nbnpre}[]
205 \DeclareStringOption[] {nbnpost}[]
206
207 \DeclareStringOption[OCLC:]{oclcpre}[OCLC:]
208 \DeclareStringOption[] {oclcpost}[]
209
210 \DeclareStringOption[URN:OID:]{oidpre}[URN:OID:]
211 \DeclareStringOption[] {oidpost}[]
212
213 \DeclareStringOption[PubMed:]{pubmedpre}[PubMed:]
214 \DeclareStringOption[] {pubmedpost}[]
215

```

The commands are `tinyuri` and `tinypuri`, thus the according options are `tinyuripre`, `tinyuripre`, `tinyuripost`, `tinypuripost`, and `tinypuripre`. In older versions they were `tinypre`, `tinypre`, `tinypost`, `tinypost`, and `tinypre`. For backward compatibility we need to define and handle them:

```

216 \def\uri@tiny@pre@default{TINY:}
217 \def\uri@tiny@post@default{}
218

```

```

219 \def\uri@tiny@pre@default{TINY:P:}
220 \def\uri@tiny@post@default{}
221
222 \DeclareStringOption[\uri@tiny@pre@default]{tinypre}[\uri@tiny@pre@default]
223 \DeclareStringOption[\uri@tiny@post@default]{tinypost}[\uri@tiny@post@default]
224
225 \DeclareStringOption[\uri@tiny@pre@default]{tinyppre}[\uri@tiny@pre@default]
226 \DeclareStringOption[\uri@tiny@post@default]{tinyppost}[\uri@tiny@post@default]
227
228 \DeclareStringOption[\uri@tiny@pre@default]{tinyuripre}[\uri@tiny@pre@default]
229 \DeclareStringOption[\uri@tiny@post@default]{tinyuripost}[\uri@tiny@post@default]
230
231 \DeclareStringOption[\uri@tiny@pre@default]{tinypuripre}[\uri@tiny@pre@default]
232 \DeclareStringOption[\uri@tiny@post@default]{tinypuripost}[\uri@tiny@post@default]
233
234 \DeclareStringOption[WC:]{wcpres}[WC:]
235 \DeclareStringOption[] {wcpost}[]
236
237 \DeclareStringOption[URN:XMPP:]{xmpppre}[]
238 \DeclareStringOption[] {xmpppost}[]
239
240 \DeclareStringOption[<]{citeurlpre}[<]
241 \DeclareStringOption[>]{citeurlpost}[>]
242
243 \DeclareStringOption[mailto:]{mailto:pre}[mailto:]
244 \DeclareStringOption[] {mailto:post}[]
245
246 \DeclareStringOption[http://UKoeln.de/]{ukoelnpre}[http://UKoeln.de/]
247 \DeclareStringOption[] {ukoelnpost}[]
248
249 \ProcessKeyvalOptions*
250

```

To set options with more complicated/problematic content, `\urisetup` is needed. With this the user can set the according option(s) after loading this package (please see the example file).

```
251 \gdef\urisetup{\kvsetkeys{uri}}
```

```
252
```

Handling of deprecated options `tinypre`, `tinypre`, `tinypost`, `tinypost`, and `tinypre`:

```
253 \def\uri@wrapper{\uri@tiny@pre@default}
```

```
254 \ifx\uri@tinypre\uri@wrapper%
```

```
255 \else%
```

```
256   \ifx\uri@tinyuripre\uri@wrapper%
```

```
257     \PackageWarning{uri}{Option tinypre deprecated.\MessageBreak%
```

```
258       Please use tinyuripre instead!\MessageBreak%
```

```
259       Transferring content of option tinypre to tinyuripre now;\MessageBreak%
```

```
260     }%
```

```
261     \let\uri@tinyuripre\uri@tinypre%
```

```
262 \else%
```

```
263   \PackageError{uri}{Conflicting options tinypre and tinyuripre used}{%
```

```
264     Option tinypre deprecated.\MessageBreak%
```

```
265     Please use ONLY option tinyuripre instead!\MessageBreak%
```

```
266     Ignoring option tinypre now.\MessageBreak%
```

```
267   }%
```

```
268 \fi%
```

```
269 \fi%
```

```
270
```

```
271 \def\uri@wrapper{\uri@tiny@post@default}
```

```
272 \ifx\uri@tinypost\uri@wrapper%
```

```
273 \else%
```

```
274   \ifx\uri@tinyuripost\uri@wrapper%
```

```
275     \PackageWarning{uri}{Option tinypost deprecated.\MessageBreak%
```

```
276       Please use tinyuripost instead!\MessageBreak%
```

```
277       Transferring content of option tinypost to tinyuripost now;\MessageBreak%
```

```
278     }%
```

```

279 \let\uri@tinyuripost\uri@tinypost%
280 \else%
281 \PackageError{uri}{Conflicting options tinypost and tinyuripost used}{%
282 Option tinypost deprecated.\MessageBreak%
283 Please use ONLY option tinyuripost instead!\MessageBreak%
284 Ignoring option tinypost now.\MessageBreak%
285 }%
286 \fi%
287 \fi%
288
289 \def\uri@wrapper{\uri@tinyp@pre@default}
290 \ifx\uri@tinyp@pre\uri@wrapper%
291 \else%
292 \ifx\uri@tinypuripre\uri@wrapper%
293 \PackageWarning{uri}{Option tinyp@pre deprecated.\MessageBreak%
294 Please use tinypuripre instead!\MessageBreak%
295 Transferring content of option tinyp@pre to tinypuripre now;\MessageBreak%
296 }%
297 \let\uri@tinypuripre\uri@tinyp@pre%
298 \else%
299 \PackageError{uri}{Conflicting options tinyp@pre and tinypuripre used}{%
300 Option tinyp@pre deprecated.\MessageBreak%
301 Please use ONLY option tinypuripre instead!\MessageBreak%
302 Ignoring option tinyp@pre now.\MessageBreak%
303 }%
304 \fi%
305 \fi%
306
307 \def\uri@wrapper{\uri@tinyp@post@default}
308 \ifx\uri@tinyp@post\uri@wrapper%
309 \else%
310 \ifx\uri@tinypuripost\uri@wrapper%

```

```

311 \PackageWarning{uri}{Option tinyppost deprecated.\MessageBreak%
312 Please use tinypuripost instead!\MessageBreak%
313 Transferring content of option tinyppost to tinypuripost now;\MessageBreak%
314 }%
315 \let\uri@tinypuripost\uri@tinyppost%
316 \else%
317 \PackageError{uri}{Conflicting options tinyppost and tinypuripost used}{%
318 Option tinyppost deprecated.\MessageBreak%
319 Please use ONLY option tinypuripost instead!\MessageBreak%
320 Ignoring option tinyppost now.\MessageBreak%
321 }%
322 \fi%
323 \fi%
324

```

We disable the deprecated options. If not disabled, it would be possible to use `\urisetup` with them without error message, but this would not have any effect, because only the newer options `tinyuripre`, `tinyuripre`, `tinyuripost`, `tinypuripost`, and `tinypuripre` are regarded.

```

325 \DisableKeyvalOption[action={error},package=uri]{uri}{tinypre}
326 \DisableKeyvalOption[action={error},package=uri]{uri}{tinypost}
327 \DisableKeyvalOption[action={error},package=uri]{uri}{tinyppre}
328 \DisableKeyvalOption[action={error},package=uri]{uri}{tinyppost}
329

```

Now we define the commands, using `\tinyuri` instead of `\tiny`, because that command already existed before (and accordingly `\tinypuri`, even if `\tinyp` did not exist).

```

330 \@ifpackageloaded{hyperref}{%
331 \DeclareRobustCommand{\uref}[2]{\protect\href{#1}{\protect\nolinkurl{#2}}}%
332 %% arXiv
333 \DeclareUrlCommand\arxiv{\def\UrlLeft##1\UrlRight{\href{https://arxiv.org/abs/##1}{\uri@arxivpre##1\uri@arxivpost}}}%
334 %% ASIN
335 \DeclareUrlCommand\asin{\def\UrlLeft##1\UrlRight{\href{https://amzn.com/##1}{\uri@asinpre##1\uri@asinpost}}}%
336 %% DOI

```

```

337 \DeclareUrlCommand\doi{\def\UrlLeft##1\UrlRight{\href{https://dx.doi.org/##1}{\uri@doipre##1\uri@doipost}}}%
338 %% HDL
339 \DeclareUrlCommand\hdl{\def\UrlLeft##1\UrlRight{\href{https://hdl.handle.net/##1}{\uri@hdlpre##1\uri@hdlpost}}}%
340 %% NBN
341 \DeclareUrlCommand\nbn{\def\UrlLeft##1\UrlRight{\href{https://nbn-resolving.org/urn/resolver.pl?urn=##1}{\uri@nbnpre##1\uri@nbnpost}}}%
342 %% OCLC
343 \DeclareUrlCommand\oclc{\def\UrlLeft##1\UrlRight{\href{https://www.worldcat.org/oclc/##1}{\uri@oclcpre##1\uri@oclcpost}}}%
344 %% OID
345 \DeclareUrlCommand\oid{\def\UrlLeft##1\UrlRight{\href{http://www.oid-info.com/cgi-bin/display?oid=##1&submit=Display&action=display}{%
346 \uri@oidpre##1\uri@oidpost}}}%
347 %% PubMed
348 \DeclareUrlCommand\pubmed{\def\UrlLeft##1\UrlRight{%
349 \href{https://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=##1&dopt=Abstract}{\uri@pubmedpre##1\uri@pubmedpost}}}%
350 %% TINY
351 \DeclareUrlCommand\tinyuri{\def\UrlLeft##1\UrlRight{\href{https://tinyurl.com/##1}{\uri@tinyuripre##1\uri@tinyuripost}}}%
352 %% TINYP (tiny with preview)
353 \DeclareUrlCommand\tinypuri{\def\UrlLeft##1\UrlRight{\href{https://preview.tinyurl.com/##1}{\uri@tinypuripre##1\uri@tinypuripost}}}%
354 %% WebCite
355 \DeclareUrlCommand\wc{\def\UrlLeft##1\UrlRight{\href{https://www.webcitation.org/##1}{\uri@wcpre##1\uri@wcpost}}}%
356 %% XMPP
357 \DeclareUrlCommand\xmpp{%
358 \PackageError{uri}{Command \string\xmpp\space deprecated}{%
359 XMPP (https://xmpp.org/about/) changed, for example URN:XMPP:time\MessageBreak%
360 was moved from https://xmpp.org/protocols/urn:xmpp:time/\MessageBreak%
361 to https://xmpp.org/extensions/xep-0202.html. Therefore\MessageBreak%
362 \string\xmpp\space is no longer provided by this package.\MessageBreak%
363 For backward compatibility \string\xmpp\space links to\MessageBreak%
364 https://xmpp.org/extensions/.\MessageBreak%
365 Please replace \string\xmpp\space in your document by the appropriate url.\MessageBreak%
366 }%
367 \def\UrlLeft##1\UrlRight{\href{https://xmpp.org/extensions/}{\uri@xmpppre##1\uri@xmpppost}}}%
368 }%

```

```

369 %% citeurl
370 \DeclareUrlCommand\citeurl{\def\UrlLeft##1\UrlRight{\href{##1}{\uri@citeurlpre##1\uri@citeurlpost}}}%
371 %% mailto
372 \DeclareUrlCommand\mailto@{\def\UrlLeft##1\UrlRight{\href{mailto:##1\mailto@subject}{\uri@mailtopre##1\uri@mailtopost}}}%
373 \DeclareRobustCommand\mailto[1][\def\mailto@subject{?subject=##1}\mailto@}%

    \mailto code provided by FRANK MITTELBACH (thanks!), making possible \mailto{person@example.org} as well as
    \mailto[Some subject of the e-mail]{person@example.org}, i.e. mailto:person@example.org?subject=Some subject of the e-mail.

374 %% ukoeln
375 \DeclareUrlCommand\ukoeln{\def\UrlLeft##1\UrlRight{\href{https://UKoeln.de/##1}{\uri@ukoelnpre##1\uri@ukoelnpost}}}%
376 }-% otherwise, i.e. if hyperref has not been loaded:
377 \DeclareRobustCommand{\uref}[1]{\url}%
378 %% arXiv
379 \DeclareUrlCommand\arxiv{\def\UrlLeft##1\UrlRight{\uri@arxivpre##1\uri@arxivpost}}%
380 %% ASIN
381 \DeclareUrlCommand\asin{\def\UrlLeft##1\UrlRight{\uri@asinpre##1\uri@asinpost}}%
382 %% DOI
383 \DeclareUrlCommand\doi{\def\UrlLeft##1\UrlRight{\uri@doipre##1\uri@doipost}}%
384 %% HDL
385 \DeclareUrlCommand\hdl{\def\UrlLeft##1\UrlRight{\uri@hdlpre##1\uri@hdlpost}}%
386 %% NBN
387 \DeclareUrlCommand\nbn{\def\UrlLeft##1\UrlRight{\uri@nbnpre##1\uri@nbnpost}}%
388 %% OCLC
389 \DeclareUrlCommand\oclc{\def\UrlLeft##1\UrlRight{\uri@oclcpre##1\uri@oclcpost}}%
390 %% OID
391 \DeclareUrlCommand\oid{\def\UrlLeft##1\UrlRight{\uri@oidpre##1\uri@oidpost}}%
392 %% PubMed
393 \DeclareUrlCommand\pubmed{\def\UrlLeft##1\UrlRight{\uri@pubmedpre##1\uri@pubmedpost}}%
394 %% TINY
395 \DeclareUrlCommand\tinyuri{\def\UrlLeft##1\UrlRight{\uri@tinyuripre##1\uri@tinyuripost}}%
396 %% TINYP (tiny with preview)
397 \DeclareUrlCommand\tinypuri{\def\UrlLeft##1\UrlRight{\uri@tinypuripre##1\uri@tinypuripost}}%

```

```

398 %% WebCite
399 \DeclareUrlCommand\wc{\def\UrlLeft##1\UrlRight{\uri@wcpre##1\uri@wcpost}}%
400 %% XMPP
401 \DeclareUrlCommand\xmpp{\def\UrlLeft##1\UrlRight{\uri@xmpppre##1\uri@xmpppost}}%
402 %% citeurl
403 \DeclareUrlCommand\citeurl{\def\UrlLeft##1\UrlRight{\uri@citeurlpre##1\uri@citeurlpost}}%
404 %% mailto
405 \DeclareUrlCommand\mailto@{\def\UrlLeft##1\UrlRight{\uri@mailtopre##1\uri@mailtopost}}%
406 \DeclareRobustCommand\mailto[1] []{\mailto@}%
407 %% ukoeln
408 \DeclareUrlCommand\ukoeln{\def\UrlLeft##1\UrlRight{\uri@ukoelnpre##1\uri@ukoelnpost}}%
409 }
410

```

Note that you cannot create those addresses by this way, only link to existing ones.

That was already everything which was necessary.

(Ones you get the syntax for the `\DeclareUrlCommand` right, it is straight forward. Emphasis is at “Ones”...)

\AtBeginDocument \AtBeginDocument it is checked whether any of the aurl, doi, or doipubmed packages are loaded.

```

411 \AtBeginDocument{%
412   \@ifpackageloaded{aurl}%
413     {\PackageWarning{uri}{Packages uri AND aurl detected.\MessageBreak%
414       Results might depend on order of loading;\MessageBreak}%
415     }\relax}%
416   \@ifpackageloaded{doi}%
417     {\PackageWarning{uri}{Packages uri AND doi detected.\MessageBreak%
418       Results will depend on order of loading!\MessageBreak%
419       Consider using only one package.\MessageBreak%
420       The uri package alone should be sufficient;\MessageBreak}%
421     }\relax}%
422   \@ifpackageloaded{doipubmed}%
423     {\PackageWarning{uri}{Packages uri AND doipubmed detected.\MessageBreak%
424       Results will depend on order of loading!\MessageBreak%
425       Consider using only one package.\MessageBreak%
426       The uri package alone should be sufficient;\MessageBreak}%
427     }\relax}%
428  }%
429 \end{package}

```

6 Installation

6.1 Downloads

Everything is available on CTAN: <https://www.ctan.org/pkg/> but may need additional packages themselves.

`uri.dtx` For unpacking the `uri.dtx` file and constructing the documentation it is required (newer versions should be OK):

- T_EX Format L^AT_EX 2_ε, 2016/03/31, v2_ε: <https://www.CTAN.org>
- document class ltxdoc, 2015/03/26, v2.0w, <https://www.ctan.org/pkg/ltxdoc>
- package pdfscape, 2008/08/11, v0.10, <https://www.ctan.org/pkg/pdfscape>
- package holtxdoc, 2012/03/21, v0.24, <https://www.ctan.org/pkg/holtxdoc>
- package hypdoc, 2011/08/19, v1.11, <https://www.ctan.org/pkg/hypdoc>

`uri.sty` The `uri.sty` for L^AT_EX 2_ε (i. e. all documents using the `uri` package) requires:

- T_EX Format L^AT_EX 2_ε, 2016/03/31, v2_ε: <https://www.CTAN.org>
- package kvoptions, 2011/06/30, v3.11, <https://www.ctan.org/pkg/kvoptions>
- package url, 2013/09/16, v3.4, <https://www.ctan.org/pkg/url>

`uri-example.tex` The `uri-example.tex` requires the same files as all documents using the `uri` package, especially:

- package hyperref, 2012/11/06, v6.83m, <https://www.ctan.org/pkg/hyperref>
(not generally necessary but probably used most often)
- package uri, 2018/09/01, v2.0a, <https://www.ctan.org/pkg/uri>
(Well, it is the example file for this package, and because you are reading the documentation for the `uri` package, it can be assumed that you already have some version of it – is it the current one?)

and additionally (for demonstration purposes)

- package amsmath, 2016/03/10, v2.15b, <https://www.ctan.org/pkg/amsmath>
- package relsize, 2013/03/29, v4.1, <https://www.ctan.org/pkg/relsize>

`aur1` As possible alternatives to `uri` in section 3 there are listed

- `doi`
- `doipubmed`
- package `aur1`, 2016/08/12, v??.?, <https://www.ctan.org/pkg/aur1>
 - package `doi`, 2007/07/24, v??.?, <https://www.ctan.org/pkg/doi>
 - package `doipubmed`, 2007/08/20, v1.01, <https://www.ctan.org/pkg/doipubmed>

`Oberdiek` All packages of HEIKO OBERDIEK's bundle 'oberdiek' (especially `holtxdoc` and `kvoptions`) are also available in a TDS compliant ZIP archive:
`holtxdoc` <http://mirror.ctan.org/install/macros/latex/contrib/oberdiek.tds.zip>.
`kvoptions` It is probably best to download and use this, because the packages in there should be both recent and compatible.

`Münch` A list of my packages can be found at <https://www.ctan.org/author/muench-hm>.

6.2 Package, unpacking TDS

Package. This package is available on <https://www.CTAN.org>.

<http://mirror.ctan.org/macros/latex/contrib/uri/uri.dtx> The source file.

<http://mirror.ctan.org/macros/latex/contrib/uri/uri.pdf> The documentation.

<http://mirror.ctan.org/macros/latex/contrib/uri/uri-example.pdf> The compiled example file, as it should look like.

<http://mirror.ctan.org/macros/latex/contrib/uri/README> The README file.

There is also a `uri.tds.zip` available:

<http://mirror.ctan.org/install/macros/latex/contrib/uri.tds.zip>
Everything in TDS compliant, compiled format.

which additionally contains

<code>uri.ins</code>	The installation file.
<code>uri.drv</code>	The driver to generate the documentation.
<code>uri.sty</code>	The <code>.sty</code> file.
<code>uri-example.tex</code>	The example file.

For required other packages, see the preceding subsection.

Unpacking. The `.dtx` file is a self-extracting `docstrip` archive. The files are extracted by running the `.dtx` through plain `TEX`:

```
tex uri.dtx
```

About generating the documentation see paragraph 6.4 below.

TDS. Now the different files must be moved into the different directories in your installation TDS tree (also known as `texmf` tree):

<code>uri.sty</code>	→ <code>tex/latex/uri.sty</code>
<code>uri.pdf</code>	→ <code>doc/latex/uri.pdf</code>
<code>uri-example.tex</code>	→ <code>doc/latex/uri-example.tex</code>
<code>uri-example.pdf</code>	→ <code>doc/latex/uri-example.pdf</code>
<code>uri.dtx</code>	→ <code>source/latex/uri.dtx</code>

If you have a `docstrip.cfg` that configures and enables `docstrip`'s TDS installing feature, then some files can already be in the right place, see the documentation of `docstrip`.

6.3 Refresh file name databases

If your `TEX` distribution (`TEX Live`, `mikTEX`, `teTEX`, ...) relies on file name databases, you must refresh these. For example, `teTEX` users run `texhash` or `mktexlsr`.

6.4 Some details for the interested

Unpacking with L^AT_EX. The `.dtx` chooses its action depending on the format:

plain T_EX: Run `docstrip` and extract the files.

L^AT_EX: Generate the documentation.

If you insist on using L^AT_EX for `docstrip` (really, `docstrip` does not need L^AT_EX), then inform the autodetect routine about your intention:

```
latex \let\install=y\input{uri.dtx}
```

Do not forget to quote the argument according to the demands of your shell.

Generating the documentation. You can use both the `.dtx` or the `.drv` to generate the documentation. The process can be configured by a configuration file `ltxdoc.cfg`. For instance, put the following line into this file, if you want to have A4 as paper format:

```
\PassOptionsToClass{a4paper}{article}
```

An example follows how to generate the documentation with pdfL^AT_EX:

```
pdflatex uri.drv
makeindex -s gind.ist uri.idx
pdflatex uri.drv
makeindex -s gind.ist uri.idx
pdflatex uri.drv
```

6.5 Compiling the example

The example file, `uri-example.tex`, can be compiled via

```
(pdf)latex uri-example.tex
```

but will need probably three compiler runs to get everything right.

7 Acknowledgements

I (H.-Martin Münch) would like to thank HEIKO OBERDIEK for providing a lot (!) of useful packages (from which I also got everything I know about creating a file in `dtx` format, ok, say it: copying), FRANK MITTELBAACH for several bug reports and for code for improving the package, everybody of the CTAN team for managing CTAN, and the [news:comp.text.tex](#) and [news:de.comp.text.tex](#) newsgroups and everybody at <https://tex.stackexchange.com/> for their help in all things T_EX.

8 History

[2011/03/04 v1.0a]

- First version of this package.

[2011 – 2018 v1.0...]

- Several versions, which were not officially published.

[2018/09/01 v2.0a]

- Now using the `pdfscape` package instead of `lscape` package.
- The `holtxdoc` package was fixed (recent: 2011/02/04, v0.21), therefore the warning in `drv` could be removed.– Adapted the style of this documentation to new OBERDIEK `dtx` style.
- Made `\newcommands` robust.
- OCLC and WebCite added; alternative package `aur` added, URLs and documentation updated.
- Name-to-Thing resolver added to the example.
- XMPP removed due to changes at XMPP.
- New `\urisetup` to be able to use complicated pre/post text (and change it mid-document!).
- Added an optional argument to `\mailto` for providing the e-mail’s subject.
- Options `tinypr`, `tinypr`, `tinypost`, `tinypost`, and `tinypre` replaced by `tinyuripre`, `tinyuripre`, `tinyuripost`, `tinypuripost`, and `tinypuripre`, because the commands are `tinyuri` and `tinypuri`.
- Bugs fixed.

When you find a mistake or have a suggestion for an improvement of this package, please send an e-mail to the maintainer, thanks! (Please see BUG REPORTS in the README.)

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