

The `bookmark` package

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Abstract

This package implements a new bookmark (outline) organization for package `hyperref`. Bookmark properties such as style and color can now be set. Other action types are available (URI, GoToR, Named). The bookmarks are generated in the first compile run. Package `hyperref` uses two runs.

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1 Documentation

1.1 Introduction

This package `bookmark` tries to provide a more modern management for bookmarks:

- The bookmarks are already generated in the first \TeX compile run.
- The font style and color of the bookmarks can be changed.
- More actions than simple GoTo actions are possible.

In the same way as `hyperref` the bookmarks are generated in the order of the bookmark generating macros (`\bookmark`). A level number is used to define the tree structure of the bookmarks. The restrictions are less strict:

- The level values may jump and omit values. A `\subsubsection` may follow a `\chapter`. This was an error in `hyperref`, that prints a warning and tries to fix this.

- Several bookmarks may point to the same destination. In `hyperref` this would mess up the bookmark tree completely, because the algorithm assumes that the destination names are keys (unique).

Note that this package is intended as experimentation platform for bookmark management. Feedback is welcome. Also the interfaces may change in future versions.

1.2 Options

Options can be given at three places:

1. `\usepackage[⟨options⟩]{bookmark}`
This is the only place for driver options and option `atend`.
2. `\bookmarksetup{⟨options⟩}`
This command is just for setting options.
3. `\bookmark[⟨options⟩]{⟨title⟩}`
This command sets the bookmark. The option settings remain limited to this bookmark.

1.2.1 Driver options

Supported drivers are `pdftex`, `dvips`, `dvipsone`, `textures`, `dvipdfm` (`xetex`), and `vtex`. The \TeX engines `pdf \TeX` , `Xe \TeX` , and `V \TeX` are automatically detected. The default for the DVI drivers is `dvips`. This can be changed in the configuration file `bookmark.cfg` by `\BookmarkDefaultDriver`, e.g.:

```
\def\BookmarkDefaultDriver{dvipdfm}
```

Open bookmarks with dvipdfmx. Since 2007-04-25 the cvs version of `dvipdfmx` contains a patch that extends the `\special` for bookmarks in order to specify the open status of an outline entry. Option `dvipdfmx-outline-open` notifies the package that the dvi driver program understands this kind of `\special`. Alternatively `\SpecialDvipdfmxOutlineOpen` can be defined as number one in the configuration file or before the package is loaded, e.g.:

```
\chardef\SpecialDvipdfmxOutlineOpen=1\relax
```

1.2.2 Layout options

Font options.

bold: The bookmark is shown with a bold font if the PDF viewer supports this (since PDF 1.4).

italic: An italic font is used (since PDF 1.4).

Both **bold** and **italic** can be used together. Using value **false** disables the font option.

These options are ignored with a warning if ε - \TeX is not detected.

Color option. Colored bookmarks are a feature of PDF 1.4, they are not supported by all PDF viewers.

color: Here the color can be given as color specification of packages `color` or `xcolor`. An empty value means that the color property is not set. Without package `xcolor` the recognized values are restricted to

- Empty value, no color is set,
example: `color={}`

- Explicit color specification of color model rgb, example for red: `color=[rgb]{1,0,0}`
- Explicit color specification of color model gray, example for dark gray: `color=[gray]{0.25}`

Note that this restriction also holds if package `color` is loaded. With `xcolor`, however, the full range of color specifications can be used.

1.2.3 Action options

dest: Destination name.

page: Page number, first page is 1.

view: View specification, examples:

`view={FitB}`, `view={FitH 842}`, `view={XYZ 0 100 null}` Some view specification parameters expect numbers as parameters with unit bp. They can be given either as plain numbers or as length expressions inside `\calc`. Expressions of package `calc` are supported if the package is loaded. Otherwise ϵ -TeX's `\dimexpr` is used. Example:

`view={FitH \calc{\paperheight-\topmargin-1in}}`

`view={XYZ 0 \calc{\paperheight} null}`

Note that `\calc` cannot be used for the third parameter of XYZ. This parameter is the zoom value, not a length.

named: Named action name:

`FirstPage`, `LastPage`, `NextPage`, `PrevPage`

gotor: Name of the external PDF file.

uri: URI specification.

rawaction: Raw action specification. Because these specification depends on the driver this option should not be used.

The appropriate action for the bookmark is selected by analyzing the specified options. The actions are distinguished by different sets of options:

Action	Options
GoTo:	dest
GoTo:	page + view
GoToR:	gotor + dest
GoToR:	gotor + page + view
Named:	named
URI:	uri

1.2.4 Level options

The order of the bookmark entries are defined by the appearance order of `\bookmark` commands. The tree structure is constructed by the property `level` of the bookmark nodes. The values of `level` are integers. If the level of a bookmark entry has a higher value than the previous node, then the entry becomes a child of the previous node. The absolute value of the difference does not matter.

Package `bookmark` remembers the level of the previous bookmark entry in a global property 'current level'.

The behaviour of the level system can be configured by following options:

level: Sets the level, see the description above. If option `level` is given without value, then the default behaviour is restored, that the 'current level' is used as level value.

rellevel: Sets the level relative to the previous level. A positive value means that the bookmark entry become a child of the previous one.

keeplevel: Use the level, set by `level` or `rellevel`, but do not change the global property ‘current level’. The option can be disabled by setting to `false`.

startatroot: At this time the bookmark tree starts at the top level again. The next bookmark entry is not sorted as child to a previous entry. Example scenario: A document uses `part`. However there are last chapters that should not be put below the last `part`:

```
\documentclass{book}
[...]
\begin{document}
  \part{First part}
    \chapter{First chapter in first part}
    [...]
  \part{Second part}
    \chapter{First chapter in second part}
    [...]
  \bookmarksetup{startatroot}
  \chapter{Index}% does not belong to second part
\end{document}
```

1.2.5 Style definitions

A style is a group of option settings. It can be defined by macro `\bookmarkdefinestyle` and is used by option `style`.

<code>\bookmarkdefinestyle {<name>} {<key value list>}</code>

The *<key value list>* of option settings is assigned the style *<name>*.

style: The value of option `style` is the name of a previously defined style. Its option settings are now executed. The options may include option `style`. Endless recursion by calling the same style recursively is prevented and throws an error.

1.2.6 Hook support

A hook is called right after the processing the optional options of macro `\bookmark`.

addtohook: Code, given as value to this option is added to the hook.

<code>\bookmarkget {<option>}</code>
--

Macro `\bookmarkget` extract the value of the latest option setting of option *<option>*. In case of boolean options number one is returned, if the boolean option is enabled, otherwise the result is zero. Macro `\bookmarkget` is expandable. In case of unsupported options an empty string is returned. Supported boolean options are

`bold`, `italic`, `open`

Other supported options:

`depth`, `dest`, `color`, `goto`, `level`, `named`, `openlevel`, `page`, `rawaction`, `uri`, `view`,

Additionally the following key is available:

`text`

It returns the text of the outline entry.

Option setting. Inside the hook an option can be set using `\bookmarksetup`.

1.3 Compatibility with hyperref

Package `bookmark` automatically disables `hyperref`'s bookmarks. However the package uses some of the code of `hyperref`. For example, the package redefines the hook `\Hy@writebookmark` that `hyperref` inserts in `\addcontentsline` and other commands. Therefore `hyperref`'s bookmarks should not be disabled.

Package `bookmark` uses `hyperref`'s `\pdfstringdef` and does not provide a replacement.

Some options of `hyperref` are also implemented in package `bookmark`:

<code>hyperref</code>	<code>bookmark</code>
<code>bookmarksdepth</code>	<code>depth</code>
<code>bookmarksopen</code>	<code>open</code>
<code>bookmarksopenlevel</code>	<code>openlevel</code>
<code>bookmarksnumbered</code>	<code>numbered</code>

The following commands are also available:

```
\pdfbookmark
\currentpdfbookmark
\subpdfbookmark
\belowpdfbookmark
```

1.4 Adding bookmarks at the end

Package option `atend` enables the following macro:

`\BookmarkAtEnd {<stuff>}`

Macro `\BookmarkAtEnd` puts *<stuff>* at the end of the document. *<stuff>* means bookmark commands. Example:

```
\usepackage[atend]{bookmark}
\BookmarkAtEnd{%
  \bookmarksetup{startatroot}%
  \bookmark[named=LastPage, level=0]{Last page}%
}
```

Remarks.

- `\BookmarkAtEnd` hides the fact that the method for adding bookmarks at the end of the document depends on the driver.

Some drivers (`pdftex`, `dvips`, `dvipsone`, `textures`) use package `atveryend`'s for this purpose. `\AtEndDocument` is too early, the last page might not been shipped out. Because the `..aux` file is needed, these drivers use `\AfterLastShipout`.

The implementation of the other drivers (`dvipdfm`, `xetex`, `vtex`) depends on `\special` that does not have an effect after the last page. In this case `\AtEndDvi` of package `atenddvi` helps. It puts its argument on last page of the document. Two L^AT_EX runs are necessary at least, because the last page is detected by a reference.

- The time of expansion of the argument of `\BookmarkAtEnd` is not specified. This can happen immediately or at the end of the document.

1.5 Limitations/ToDoS

- Support for missing actions (Launch, ...).
- Better design for hyperref's option bookmarkstype.

2 Example

```
1 <*example>
2 \documentclass{article}
3 \usepackage{xcolor}[2007/01/21]
4 \usepackage{hyperref}
5 \usepackage[
6   open,
7   openlevel=2,
8   atend
9 ]{bookmark}[2010/04/08]
10
11 \bookmarksetup{color=blue}
12
13 \BookmarkAtEnd{%
14   \bookmarksetup{startatroot}%
15   \bookmark[named=LastPage, level=0]{End/Last page}%
16   \bookmark[named=FirstPage, level=1]{First page}%
17 }
18
19 \begin{document}
20 \section{First section}
21 \subsection{Subsection A}
22 \begin{figure}
23   \hypertarget{fig}{}%
24   A figure.
25 \end{figure}
26 \bookmark[
27   rellevel=1,
28   keeplevel,
29   dest=fig
30 ]{A figure}
31 \subsection{Subsection B}
32 \subsubsection{Subsubsection C}
33 \subsection{Umlauts: \text{"A" "O" "U" "a" "o" "u" }}
34 \newpage
35 \bookmarksetup{
36   bold,
37   color=[rgb]{1,0,0}
38 }
39 \section{Very important section}
40 \bookmarksetup{
41   italic,
42   bold=false,
43   color=blue
44 }
45 \subsection{Italic section}
46 \bookmarksetup{
47   italic=false
48 }
49 \part{Misc}
50 \section{Diverse}
51 \subsubsection{Subsubsection, omitting subsection}
52 \bookmarksetup{
53   startatroot
54 }
```

```

55 \section{Last section outside part}
56 \subsection{Subsection}
57 \bookmarksetup{
58   color={}
59 }
60 \begin{group}
61   \bookmarksetup{level=0, color=green!80!black}
62   \bookmark[named=FirstPage]{First page}
63   \bookmark[named=LastPage]{Last page}
64   \bookmark[named=PrevPage]{Previous page}
65   \bookmark[named=NextPage]{Next page}
66 \end{group}
67 \bookmark[
68   page=2,
69   view=FitH 800
70 ]{Page 2, FitH 800}
71 \bookmark[
72   page=2,
73   view=FitBH \calc{\paperheight-\topmargin-1in-\headheight-\headsep}
74 ]{Page 2, FitBH top of text body}
75 \bookmark[
76   uri={http://www.dante.de/},
77   color=magenta
78 ]{Dante homepage}
79 \bookmark[
80   goto={t.pdf},
81   page=1,
82   view={XYZ 0 1000 null},
83   color=cyan!75!black
84 ]{File t.pdf}
85 \bookmark[named=FirstPage]{First page}
86 \bookmark[rellevel=1, named=LastPage]{Last page (rellevel=1)}
87 \bookmark[named=PrevPage]{Previous page}
88 \bookmark[level=0, named=FirstPage]{First page (level=0)}
89 \bookmark[
90   rellevel=1,
91   keeplevel,
92   named=LastPage
93 ]{Last page (rellevel=1, keeplevel)}
94 \bookmark[named=PrevPage]{Previous page}
95 \end{document}
96 \end{example}

```

3 Implementation

3.1 Package

```

97 \begin{package}
98 \NeedsTeXFormat{LaTeX2e}
99 \ProvidesPackage{bookmark}%
100 [2010/04/08 v1.12 PDF bookmarks (H0)]%

```

3.1.1 Requirements

ϵ -TeX.

`\BKM@CalcExpr`

```

101 \begin{group}\expandafter\expandafter\expandafter\end{group}
102 \expandafter\ifx\csname numexpr\endcsname\relax
103   \def\BKM@CalcExpr#1#2#3#4{%
104     \begin{group}
105       \count@=#2\relax
106       \advance\count@ by#3#4\relax

```

```

107      \edef\x{\endgroup
108      \def\noexpand#1{\the\count@}%
109      }%
110      \x
111      }%
112 \else
113   \def\BKM@CalcExpr#1#2#3#4{%
114     \edef#1{%
115       \the\numexpr#2#3#4\relax
116     }%
117   }%
118 \fi

```

Escape features of pdf \TeX .

```

119 \RequirePackage{pdfescape}[2007/03/20]

```

\BKM@EscapeName

```

120 \def\BKM@EscapeName#1{%
121   \ifx#1\@empty
122   \else
123     \EdefEscapeName#1#1%
124   \fi
125 }%

```

\BKM@EscapeString

```

126 \def\BKM@EscapeString#1{%
127   \ifx#1\@empty
128   \else
129     \EdefEscapeString#1#1%
130   \fi
131 }%

```

\BKM@EscapeHex

```

132 \def\BKM@EscapeHex#1{%
133   \ifx#1\@empty
134   \else
135     \EdefEscapeHex#1#1%
136   \fi
137 }%

```

\BKM@UnescapeHex

```

138 \def\BKM@UnescapeHex#1{%
139   \EdefUnescapeHex#1#1%
140 }%

```

Packages.

```

141 \RequirePackage{ifpdf}[2009/04/10]
142 \RequirePackage{ifxetex}
143 \RequirePackage{ifvtex}[2008/11/04]
144 \RequirePackage{hyperref}
145 \RequirePackage{auxhook}[2007/04/06]
146 \RequirePackage{kvoptions}[2009/08/13]
147 \RequirePackage{hycolor}[2008/09/08]
148 \RequirePackage{bitset}
149 \RequirePackage{ltxcmds}[2010/04/08]

```

3.1.2 Package options

```

150 \SetupKeyvalOptions{family=BKM,prefix=BKM@}
151 \DeclareLocalOptions{%
152   atend,%
153   bold,%
154   color,%
155   depth,%
156   dest,%
157   gotor,%
158   italic,%
159   keeplevel,%
160   level,%
161   named,%
162   numbered,%
163   open,%
164   openlevel,%
165   page,%
166   rawaction,%
167   rellevel,%
168   startatroot,%
169   uri,%
170   view,%
171 }

\bookmarksetup

172 \newcommand*{\bookmarksetup}{\setkeys{BKM}}

\BKM@setup

173 \def\BKM@setup#1{%
174   \bookmarksetup{#1}%
175   \BKM@hook
176   \ifBKM@keeplevel
177   \else
178     \xdef\BKM@currentlevel{\BKM@level}%
179   \fi
180 }

181 \DeclareBoolOption[\ifHy@bookmarksopen true\else false\fi]{open}

\bookmark@open

182 \def\bookmark@open{%
183   \ifBKM@open\ltx@one\else\ltx@zero\fi
184 }

185 \DeclareStringOption[\maxdimen]{openlevel}

\BKM@openlevel

186 \edef\BKM@openlevel{\number\@bookmarksopenlevel}

187 %\DeclareStringOption[\c@tocdepth]{depth}
188 \ltx@ifundefined{Hy@bookmarksdepth}{%
189   \def\BKM@depth{\c@tocdepth}%
190 }{%
191   \let\BKM@depth\Hy@bookmarksdepth
192 }
193 \define@key{BKM}{depth}[]{%
194   \edef\BKM@param{#1}%
195   \ifx\BKM@param\@empty
196     \def\BKM@depth{\c@tocdepth}%
197   \else
198     \ifundefined{toclevel@\BKM@param}{%
199       \@onelevel@sanitize\BKM@param

```

```

200     \edef\BKM@temp{\expandafter\@car\BKM@param\@nil}%
201     \ifcase 0\expandafter\ifx\BKM@temp-1\fi
202         \expandafter\ifnum\expandafter'\BKM@temp>47 %
203         \expandafter\ifnum\expandafter'\BKM@temp<58 %
204             1%
205         \fi
206     \fi
207     \relax
208     \PackageWarning{bookmark}{%
209         Unknown document division name (\BKM@param)%
210     }%
211 \else
212     \BKM@SetDepth\BKM@param
213 \fi
214 }{%
215     \BKM@SetDepth{\csname toclevel@\BKM@param\endcsname}%
216 }%
217 \fi
218 }

```

\bookmark@depth

```

219 \def\bookmark@depth{\BKM@depth}

```

\BKM@SetDepth

```

220 \def\BKM@SetDepth#1{%
221     \begingroup
222     \setbox\z@=\hbox{%
223         \count@=#1\relax
224         \expandafter
225     }%
226     \expandafter\endgroup
227     \expandafter\def\expandafter\BKM@depth\expandafter{\the\count@}%
228 }

229 \DeclareStringOption[\BKM@currentlevel]{level}[\BKM@currentlevel]
230 \DeclareBoolOption{keeplevel}
231 \DeclareBoolOption{startatroot}
232 \define@key{BKM}{rellevel}{%
233     \BKM@CalcExpr\BKM@level{#1}+\BKM@currentlevel
234 }

```

\bookmark@level

```

235 \def\bookmark@level{\BKM@level}

```

\BKM@currentlevel

```

236 \def\BKM@currentlevel{0}

```

Make bookmark's option numbered an alias for hyperref's bookmarksnumbered.

```

237 \DeclareBoolOption[%
238     \ifHy@bookmarksnumbered true\else false\fi
239 ]{numbered}
240 \g@addto@macro\BKM@numberedtrue{%
241     \let\ifHy@bookmarksnumbered\iftrue
242 }
243 \g@addto@macro\BKM@numberedfalse{%
244     \let\ifHy@bookmarksnumbered\iffalse
245 }
246 \g@addto@macro\Hy@bookmarksnumberedtrue{%
247     \let\ifBKM@numbered\iftrue
248 }
249 \g@addto@macro\Hy@bookmarksnumberedfalse{%
250     \let\ifBKM@numbered\iffalse
251 }

```

`\bookmark@numbered`

```
252 \def\bookmark@numbered{%
253   \ifBKM@numbered\ltx@one\else\ltx@zero\fi
254 }
```

Redefinitions `hyperref`'s options

`\BKM@PatchHyperrefOption`

```
255 \def\BKM@PatchHyperrefOption#1{%
256   \expandafter\BKM@@PatchHyperrefOption\csname KV@Hyp@#1\endcsname%
257 }
```

`\BKM@@PatchHyperrefOption`

```
258 \def\BKM@@PatchHyperrefOption#1{%
259   \expandafter\BKM@@@PatchHyperrefOption#1{##1}\BKM@nil#1%
260 }
```

`\BKM@@@PatchHyperrefOption`

```
261 \def\BKM@@@PatchHyperrefOption#1\BKM@nil#2#3{%
262   \def##1{%
263     #1%
264     \bookmarksetup{#3={##1}}%
265   }%
266 }

267 \BKM@PatchHyperrefOption{bookmarksopen}{open}
268 \BKM@PatchHyperrefOption{bookmarksopenlevel}{openlevel}
269 \BKM@PatchHyperrefOption{bookmarksdepth}{depth}
```

Font style options. Caution: Package `bitset` is zero-based, the PDF specifications starts with one.

```
270 \bitsetReset{BKM@FontStyle}%
271 \define@key{BKM}{italic}[true]{%
272   \expandafter\ifx\csname if#1\endcsname\iftrue
273     \bitsetSet{BKM@FontStyle}{0}%
274   \else
275     \bitsetClear{BKM@FontStyle}{0}%
276   \fi
277 }%
278 \define@key{BKM}{bold}[true]{%
279   \expandafter\ifx\csname if#1\endcsname\iftrue
280     \bitsetSet{BKM@FontStyle}{1}%
281   \else
282     \bitsetClear{BKM@FontStyle}{1}%
283   \fi
284 }%
```

`\bookmark@italic`

```
285 \def\bookmark@italic{%
286   \ifnum\bitsetGet{BKM@FontStyle}{0}=1 \ltx@one\else\ltx@zero\fi
287 }
```

`\bookmark@bold`

```
288 \def\bookmark@bold{%
289   \ifnum\bitsetGet{BKM@FontStyle}{1}=1 \ltx@one\else\ltx@zero\fi
290 }
```

`\BKM@PrintStyle`

```
291 \def\BKM@PrintStyle{%
292   \bitsetGetDec{BKM@FontStyle}%
293 }
```

Options for color.

```
294 \define@key{BKM}{color}{%
295   \HyColor@BookmarkColor{#1}\BKM@color{bookmark}{color}%
296 }
```

\BKM@color

```
297 \let\BKM@color\@empty
```

\bookmark@color

```
298 \def\bookmark@color{\BKM@color}
```

3.1.3 Action options

```
299 \def\BKM@temp#1{%
300   \DeclareStringOption{#1}%
301   \expandafter\edef\csname bookmark@#1\endcsname{%
302     \expandafter\noexpand\csname BKM@#1\endcsname
303   }%
304 }
```

\bookmark@dest

```
305 \BKM@temp{dest}
```

\bookmark@named

```
306 \BKM@temp{named}
```

\bookmark@uri

```
307 \BKM@temp{uri}
```

\bookmark@gotor

```
308 \BKM@temp{gotor}
```

\bookmark@rawaction

```
309 \BKM@temp{rawaction}
```

```
310 \define@key{BKM}{page}{%
311   \def\BKM@page{#1}%
312   \ifx\BKM@page\@empty
313     \else
314       \edef\BKM@page{\number\BKM@page}%
315       \ifnum\BKM@page>\z@
316         \else
317           \PackageError{bookmark}{Page must be positive}\@ehc
318         \def\BKM@page{1}%
319       \fi
320     \fi
321 }
```

\BKM@page

```
322 \let\BKM@page\@empty
```

\bookmark@page

```
323 \def\bookmark@page{\BKM@@page}
```

```
324 \define@key{BKM}{view}{%
325   \BKM@CheckView{#1}%
326 }
```

\BKM@view

```
327 \let\BKM@view\@empty
```

```

\bookmark@view
328 \def\bookmark@view{\BKM@view}

BKM@CheckView
329 \def\BKM@CheckView#1{%
330   \BKM@CheckViewType#1 \@nil
331 }

\BKM@CheckViewType
332 \def\BKM@CheckViewType#1 #2\@nil{%
333   \def\BKM@type{#1}%
334   \@onelevel@sanitize\BKM@type
335   \BKM@TestViewType{Fit}{}%
336   \BKM@TestViewType{FitB}{}%
337   \BKM@TestViewType{FitH}{%
338     \BKM@CheckParam#2 \@nil{top}%
339   }%
340   \BKM@TestViewType{FitBH}{%
341     \BKM@CheckParam#2 \@nil{top}%
342   }%
343   \BKM@TestViewType{FitV}{%
344     \BKM@CheckParam#2 \@nil{bottom}%
345   }%
346   \BKM@TestViewType{FitBV}{%
347     \BKM@CheckParam#2 \@nil{bottom}%
348   }%
349   \BKM@TestViewType{FitR}{%
350     \BKM@CheckRect{#2}{ }%
351   }%
352   \BKM@TestViewType{XYZ}{%
353     \BKM@CheckXYZ{#2}{ }%
354   }%
355   \@car{%
356     \PackageError{bookmark}{%
357       Unknown view type ‘\BKM@type’,\MessageBreak
358       using ‘FitH’ instead%
359     }\@ehc
360     \def\BKM@view{FitH}%
361   }%
362   \@nil
363 }

\BKM@TestViewType
364 \def\BKM@TestViewType#1{%
365   \def\BKM@temp{#1}%
366   \@onelevel@sanitize\BKM@temp
367   \ifx\BKM@type\BKM@temp
368     \let\BKM@view\BKM@temp
369     \expandafter\@car
370   \else
371     \expandafter\@gobble
372   \fi
373 }

BKM@CheckParam
374 \def\BKM@CheckParam#1 #2\@nil#3{%
375   \def\BKM@param{#1}%
376   \ifx\BKM@param\@empty
377     \PackageWarning{bookmark}{%
378       Missing parameter (#3) for ‘\BKM@type’,\MessageBreak
379       using 0%

```

```

380     }%
381     \def\BKM@param{0}%
382 \else
383     \BKM@CalcParam
384 \fi
385 \edef\BKM@view{\BKM@view\space\BKM@param}%
386 }

BKM@CheckRect

387 \def\BKM@CheckRect#1#2{%
388     \BKM@@CheckRect#1#2#2#2\@nil
389 }

\BKM@@CheckRect

390 \def\BKM@@CheckRect#1 #2 #3 #4 #5\@nil{%
391     \def\BKM@temp{0}%
392     \def\BKM@param{#1}%
393     \ifx\BKM@param\@empty
394         \def\BKM@param{0}%
395         \def\BKM@temp{1}%
396     \else
397         \BKM@CalcParam
398     \fi
399     \edef\BKM@view{\BKM@view\space\BKM@param}%
400     \def\BKM@param{#2}%
401     \ifx\BKM@param\@empty
402         \def\BKM@param{0}%
403         \def\BKM@temp{1}%
404     \else
405         \BKM@CalcParam
406     \fi
407     \edef\BKM@view{\BKM@view\space\BKM@param}%
408     \def\BKM@param{#3}%
409     \ifx\BKM@param\@empty
410         \def\BKM@param{0}%
411         \def\BKM@temp{1}%
412     \else
413         \BKM@CalcParam
414     \fi
415     \edef\BKM@view{\BKM@view\space\BKM@param}%
416     \def\BKM@param{#4}%
417     \ifx\BKM@param\@empty
418         \def\BKM@param{0}%
419         \def\BKM@temp{1}%
420     \else
421         \BKM@CalcParam
422     \fi
423     \edef\BKM@view{\BKM@view\space\BKM@param}%
424     \ifnum\BKM@temp>\z@
425         \PackageWarning{bookmark}{Missing parameters for ‘\BKM@type’}%
426     \fi
427 }

\BKM@CheckXYZ

428 \def\BKM@CheckXYZ#1#2{%
429     \BKM@@CheckXYZ#1#2#2#2\@nil
430 }

\BKM@@CheckXYZ

431 \def\BKM@@CheckXYZ#1 #2 #3 #4\@nil{%
432     \def\BKM@param{#1}%
433     \let\BKM@temp\BKM@param

```

```

434 \@onelevel@sanitize\BKM@temp
435 \ifx\BKM@param\@empty
436   \let\BKM@param\BKM@null
437 \else
438   \ifx\BKM@temp\BKM@null
439   \else
440     \BKM@CalcParam
441   \fi
442 \fi
443 \edef\BKM@view{\BKM@view\space\BKM@param}%
444 \def\BKM@param{#2}%
445 \let\BKM@temp\BKM@param
446 \@onelevel@sanitize\BKM@temp
447 \ifx\BKM@param\@empty
448   \let\BKM@param\BKM@null
449 \else
450   \ifx\BKM@temp\BKM@null
451   \else
452     \BKM@CalcParam
453   \fi
454 \fi
455 \edef\BKM@view{\BKM@view\space\BKM@param}%
456 \def\BKM@param{#3}%
457 \ifx\BKM@param\@empty
458   \let\BKM@param\BKM@null
459 \fi
460 \edef\BKM@view{\BKM@view\space\BKM@param}%
461 }

\BKM@null

462 \def\BKM@null{null}
463 \@onelevel@sanitize\BKM@null

\BKM@CalcParam

464 \def\BKM@CalcParam{%
465   \begingroup
466   \let\calc\@firstofone
467   \expandafter\BKM@@CalcParam\BKM@param\@empty\@empty\@nil
468 }

\BKM@@CalcParam

469 \def\BKM@@CalcParam#1#2#3\@nil{%
470   \ifx\calc#1%
471     \@ifundefined{calc@assign@dimen}{%
472       \setlength{\dimen@}{\dimexpr#2\relax}%
473     }{%
474       \setlength{\dimen@}{#2}%
475     }%
476     \dimen@.99626\dimen@
477     \edef\BKM@param{\strip@pt\dimen@}%
478     \expandafter\endgroup
479     \expandafter\def\expandafter\BKM@param\expandafter{\BKM@param}%
480   \else
481     \endgroup
482 \fi
483 }

```

3.1.4 Option atend

```

484 \DeclareBoolOption{atend}

\BKM@DisableOptions

```

```

485 \def\BKM@DisableOptions{%
486   \DisableKeyvalOption{BKM}{attend}%
487 }

```

3.1.5 Option style

\bookmarkdefinestyle

```

488 \newcommand*{\bookmarkdefinestyle}[2]{%
489   \@ifundefined{BKM@style@#1}{%
490     }{%
491       \PackageInfo{bookmark}{Redefining style ‘#1’}%
492     }%
493   \@namedef{BKM@style@#1}{#2}%
494 }

495 \define@key{BKM}{style}{%
496   \BKM@StyleCall{#1}%
497 }
498 \newif\ifBKM@ok

```

\BKM@StyleCall

```

499 \def\BKM@StyleCall#1{%
500   \@ifundefined{BKM@style@#1}{%
501     \PackageError{bookmark}{%
502       Undefined style ‘#1’%
503     }\@ehc
504   }{%

```

Check style stack.

```

505     \BKM@oktrue
506     \edef\BKM@StyleCurrent{#1}%
507     \@onelevel@sanitize\BKM@StyleCurrent
508     \let\BKM@StyleEntry\BKM@StyleEntryCheck
509     \BKM@StyleStack
510     \ifBKM@ok
511       \expandafter\@firstofone
512     \else
513       \PackageError{bookmark}{%
514         Ignoring recursive call of style ‘\BKM@StyleCurrent’%
515       }\@ehc
516       \expandafter\@gobble
517     \fi
518     {%

```

Push current style on stack.

```

519       \let\BKM@StyleEntry\relax
520       \edef\BKM@StyleStack{%
521         \BKM@StyleEntry{\BKM@StyleCurrent}%
522         \BKM@StyleStack
523       }%

```

Call style.

```

524       \expandafter\expandafter\expandafter\bookmarksetup
525       \expandafter\expandafter\expandafter{%
526         \csname BKM@style@\BKM@StyleCurrent\endcsname
527       }%

```

Pop current style from stack.

```

528       \BKM@StyleStackPop
529     }%
530   }%
531 }

```

\BKM@StyleStackPop

```
532 \def\BKM@StyleStackPop{%
533   \let\BKM@StyleEntry\relax
534   \edef\BKM@StyleStack{%
535     \expandafter\@gobbletwo\BKM@StyleStack
536   }%
537 }
```

\BKM@StyleEntryCheck

```
538 \def\BKM@StyleEntryCheck#1{%
539   \def\BKM@temp{#1}%
540   \ifx\BKM@temp\BKM@StyleCurrent
541     \BKM@okfalse
542   \fi
543 }
```

\BKM@StyleStack

```
544 \def\BKM@StyleStack{}
```

3.1.6 Hook support

\BKM@hook

```
545 \def\BKM@hook{}
546 \define@key{BKM}{addtohook}{%
547   \ltx@LocalAppendToMacro\BKM@hook{#1}%
548 }
```

bookmarkget

```
549 \newcommand*{\bookmarkget}[1]{%
550   \romannumeral0%
551   \ltx@ifundefined{bookmark@#1}{%
552     \ltx@space
553   }{%
554     \expandafter\expandafter\expandafter\ltx@space
555     \csname bookmark@#1\endcsname
556   }%
557 }
```

3.1.7 Driver setup and loading

Driver detection.

\BKM@DefineDriverKey

```
558 \def\BKM@DefineDriverKey#1{%
559   \define@key{BKM}{#1}[]{%
560     \def\BKM@driver{#1}%
561   }%
562   \g@addto@macro\BKM@DisableOptions{%
563     \DisableKeyvalOption{BKM}{#1}%
564   }%
565 }

566 \BKM@DefineDriverKey{pdftex}
567 \BKM@DefineDriverKey{dvips}
568 \BKM@DefineDriverKey{dvipsone}
569 \BKM@DefineDriverKey{textures}
570 \BKM@DefineDriverKey{dvipdfm}
571 \BKM@DefineDriverKey{dvipdfmx}
572 \BKM@DefineDriverKey{xetex}
573 \BKM@DefineDriverKey{vtex}
```

```

574 \define@key{BKM}{dvipdfmx-outline-open}[true]{%
575   \expandafter\ifx\csname if#1\expandafter\endcsname
576     \csname iftrue\endcsname
577     \chardef\SpecialDvipdfmxOutlineOpen\@ne
578   \else
579     \chardef\SpecialDvipdfmxOutlineOpen\z@
580   \fi
581 }
582 \g@addto@macro\BKM@DisableOptions{%
583   \DisableKeyvalOption{BKM}{dvipdfmx-outline-open}%
584 }

```

\bookmark@driver

```

585 \def\bookmark@driver{\BKM@driver}

586 \InputIfFileExists{bookmark.cfg}{-}{-}

```

\BookmarkDriverDefault

```

587 \providecommand*\BookmarkDriverDefault}{dvips}

```

\BKM@driver

```

588 \ifpdf
589   \def\BKM@driver{pdftex}%
590 \else
591   \ifxetex
592     \def\BKM@driver{dvipdfm}%
593   \else
594     \ifvtex
595       \def\BKM@driver{vtex}%
596     \else
597       \edef\BKM@driver{\BookmarkDriverDefault}%
598     \fi
599   \fi
600 \fi

```

Process options.

```

601 \ProcessKeyvalOptions*
602 \BKM@DisableOptions

```

Driver validation and loading.

```

603 \newif\ifBKM@DvipdfmxOutlineOpen
604 \ltx@ifundefined{SpecialDvipdfmxOutlineOpen}{%
605 }{%
606   \ifnum\SpecialDvipdfmxOutlineOpen>\z@
607     \BKM@DvipdfmxOutlineOpentrue
608   \fi
609 }

610 \def\BKM@temp{dvipdfmx}%
611 \ifx\BKM@temp\BKM@driver
612   \def\BKM@driver{dvipdfm}%
613 \fi
614 \def\BKM@temp{pdftex}%
615 \ifpdf
616   \ifx\BKM@temp\BKM@driver
617   \else
618     \PackageWarningNoLine{bookmark}{%
619       Wrong driver ‘\BKM@driver’, using ‘pdftex’ instead%
620     }%
621     \let\BKM@driver\BKM@temp
622   \fi

```

```

623 \else
624   \ifx\BKM@temp\BKM@driver
625     \PackageError{bookmark}{%
626       Wrong driver, pdfTeX is not running in PDF mode.\MessageBreak
627       Package loading is aborted%
628     }\@ehc
629     \expandafter\expandafter\expandafter\endinput
630   \fi
631   \def\BKM@temp{dvipdfm}%
632   \ifxetex
633     \ifx\BKM@temp\BKM@driver
634       \else
635         \PackageWarningNoLine{bookmark}{%
636           Wrong driver ‘\BKM@driver’,\MessageBreak
637           using ‘dvipdfm’ for XeTeX instead%
638         }%
639         \let\BKM@driver\BKM@temp
640       \fi
641     \else
642       \def\BKM@temp{vtex}%
643       \ifvtex
644         \ifx\BKM@temp\BKM@driver
645           \else
646             \PackageWarningNoLine{bookmark}{%
647               Wrong driver ‘\BKM@driver’,\MessageBreak
648               using ‘vtex’ for VTeX instead%
649             }%
650             \let\BKM@driver\BKM@temp
651           \fi
652         \else
653           \ifx\BKM@temp\BKM@driver
654             \PackageError{bookmark}{%
655               Wrong driver, VTeX is not running in PDF mode.\MessageBreak
656               Package loading is aborted%
657             }\@ehc
658             \expandafter\expandafter\expandafter\endinput
659           \fi
660         \fi
661       \fi
662     \fi
663   \InputIfFileExists{bkm-\BKM@driver.def}{-}{-}%
664   \PackageError{bookmark}{%
665     Unsupported driver ‘\BKM@driver’.\MessageBreak
666     Package loading is aborted%
667   }\@ehc
668   \endinput
669 }

```

3.1.8 Compatibility for hyperref

`\pdfbookmark`

```

670 \renewcommand*{\pdfbookmark}[3][0]{%
671   \bookmark[level=#1,dest={#3.#1}]{#2}%
672   \hyper@anchorstart{#3.#1}\hyper@anchorend
673 }

```

`\currentpdfbookmark`

```

674 \renewcommand*{\currentpdfbookmark}{%
675   \pdfbookmark[\BKM@currentlevel]%
676 }

```

`\subpdfbookmark`

```

677 \renewcommand*{\subpdfbookmark}{%
678   \BKM@CalcExpr\BKM@CalcResult\BKM@currentlevel+1%
679   \expandafter\pdfbookmark\expandafter[\BKM@CalcResult]%
680 }

```

\belowpdfbookmark

```

681 \renewcommand*{\belowpdfbookmark}[2]{%
682   \xdef\BKM@gtemp{\number\BKM@currentlevel}%
683   \subpdfbookmark{#1}{#2}%
684   \global\let\BKM@currentlevel\BKM@gtemp
685 }

```

Section number, text, label, level, file

\Hy@writebookmark

```

686 \renewcommand*{\Hy@writebookmark}[5]{%
687   \ifnum#4>\BKM@depth\relax
688   \else
689     \def\BKM@type{#5}%
690     \ifx\BKM@type\Hy@bookmarkstype
691       \begingroup
692         \ifBKM@numbered
693           \let\numberline\Hy@numberline
694           \let\partnumberline\Hy@numberline
695           \let\chapternumberline\Hy@numberline
696         \else
697           \let\numberline\@gobble
698           \let\partnumberline\@gobble
699           \let\chapternumberline\@gobble
700         \fi
701         \bookmark[level=#4,dest={#3}]{#2}%
702       \endgroup
703     \fi
704   \fi
705 }

```

\ReadBookmarks

```

706 \let\ReadBookmarks\relax
707 \</package>

```

3.2 Driver for dvipdfm

```

708 <*dvipdfm>
709 \NeedsTeXFormat{LaTeX2e}
710 \ProvidesFile{bkm-dvipdfm.def}%
711   [2010/04/08 v1.12 bookmark driver for dvipdfm (HO)]%

```

\BKM@id

```

712 \newcount\BKM@id
713 \BKM@id=\z@

```

\BKM@O

```

714 \@namedef{BKM@O}{000}

```

\ifBKM@sw

```

715 \newif\ifBKM@sw

```

\bookmark

```

716 \newcommand*{\bookmark}[2][]{%
717   \if@filesw
718     \begingroup

```

```

719 \def\bookmark@text{#2}%
720 \BKM@setup{#1}%
721 \edef\BKM@prev{\the\BKM@id}%
722 \global\advance\BKM@id\@ne
723 \BKM@swtrue
724 \@whiles\ifBKM@sw\fi{%
725   \def\BKM@abslevel{1}%
726   \ifnum\ifBKM@startatroot\z@\else\BKM@prev\fi=\z@
727     \global\BKM@startatrootfalse
728     \expandafter\xdef\csname BKM@\the\BKM@id\endcsname{%
729       0{\BKM@level}\BKM@abslevel
730     }%
731     \BKM@swfalse
732   \else
733     \expandafter\expandafter\expandafter\BKM@getx
734       \csname BKM@\BKM@prev\endcsname
735     \ifnum\BKM@level>\BKM@x@level\relax
736       \BKM@CalcExpr\BKM@abslevel\BKM@x@abslevel+1%
737       \expandafter\xdef\csname BKM@\the\BKM@id\endcsname{%
738         {\BKM@prev}{\BKM@level}\BKM@abslevel
739       }%
740       \BKM@swfalse
741     \else
742       \let\BKM@prev\BKM@x@parent
743     \fi
744   \fi
745 }%
746 \csname HyPsd@XeTeXBigCharstrue\endcsname
747 \pdfstringdef\BKM@title{\bookmark@text}%
748 \edef\BKM@FLAGS{\BKM@PrintStyle}%
749 \let\BKM@action\@empty
750 \ifx\BKM@goto\@empty
751   \ifx\BKM@dest\@empty
752     \ifx\BKM@named\@empty
753       \ifx\BKM@rawaction\@empty
754         \ifx\BKM@uri\@empty
755           \ifx\BKM@page\@empty
756             \PackageError{bookmark}{Missing action}\@ehc
757             \edef\BKM@action{/Dest[@page1/Fit]}%
758           \else
759             \ifx\BKM@view\@empty
760               \def\BKM@view{Fit}%
761             \fi
762             \edef\BKM@action{/Dest[@page\BKM@page/\BKM@view]}%
763           \fi
764         \else
765           \BKM@EscapeString\BKM@uri
766           \edef\BKM@action{%
767             /A<<%
768             /S/URI%
769             /URI(\BKM@uri)%
770             >>%
771           }%
772         \fi
773       \else
774         \edef\BKM@action{/A<<\BKM@rawaction>>%
775       \fi
776     \else
777       \BKM@EscapeName\BKM@named
778       \edef\BKM@action{%
779         /A<</S/Named/N/\BKM@named>>%
780     }%

```

```

781     \fi
782   \else
783     \BKM@EscapeString\BKM@dest
784     \edef\BKM@action{%
785       /A<<%
786       /S/GoTo%
787       /D(\BKM@dest)%
788       >>%
789     }%
790   \fi
791 \else
792   \ifx\BKM@dest\@empty
793     \ifx\BKM@page\@empty
794       \def\BKM@page{0}%
795     \else
796       \BKM@CalcExpr\BKM@page\BKM@page-1%
797     \fi
798     \ifx\BKM@view\@empty
799       \def\BKM@view{Fit}%
800     \fi
801     \edef\BKM@action{/D[\BKM@page/\BKM@view]}%
802   \else
803     \BKM@EscapeString\BKM@dest
804     \edef\BKM@action{/D(\BKM@dest)}%
805   \fi
806   \BKM@EscapeString\BKM@gotor
807   \edef\BKM@action{%
808     /A<<%
809     /S/GoToR%
810     /F(\BKM@gotor)%
811     \BKM@action
812     >>%
813   }%
814 \fi
815 \special{pdf:%
816   out \ifBKM@DvipdfmxOutlineOpen
817     [%
818       \ifBKM@open
819         \ifnum\BKM@level<\BKM@openlevel
820         \else
821           -%
822         \fi
823       \else
824         -%
825       \fi
826     ] %
827   \fi
828   \BKM@abslevel
829   <<%
830   /Title(\BKM@title)%
831   \ifx\BKM@color\@empty
832   \else
833     /C[\BKM@color]%
834   \fi
835   \ifnum\BKM@FLAGS>\z@
836     /F \BKM@FLAGS
837   \fi
838   \BKM@action
839   >>%
840 }%
841 \endgroup
842 \fi

```

```

843 }

\BKM@getx
844 \def\BKM@getx#1#2#3{%
845   \def\BKM@x@parent{#1}%
846   \def\BKM@x@level{#2}%
847   \def\BKM@x@abslevel{#3}%
848 }

849 </dvipdfm>

```

3.3 Driver for VTeX

```

850 <*vtex>
851 \NeedsTeXFormat{LaTeX2e}
852 \ProvidesFile{bkm-vtex.def}%
853   [2010/04/08 v1.12 bookmark driver for VTeX (HO)]%

854 \ifvtexpdf
855 \else
856   \PackageWarningNoLine{bookmark}{%
857     The VTeX driver only supports PDF mode%
858   }%
859 \fi

\BKM@id
860 \newcount\BKM@id
861 \BKM@id=\z@

\BKM@O
862 \@namedef{BKM@O}{00}

\ifBKM@sw
863 \newif\ifBKM@sw

\bookmark
864 \newcommand*{\bookmark}[2][1]{%
865   \if@filesw
866     \begingroup
867       \def\bookmark@text{#2}%
868       \BKM@setup{#1}%
869       \edef\BKM@prev{\the\BKM@id}%
870       \global\advance\BKM@id\@ne
871       \BKM@swtrue
872       \@whilesw\ifBKM@sw\fi{%
873         \ifnum\ifBKM@startatroot\z@\else\BKM@prev\fi=\z@
874           \global\BKM@startatrootfalse
875           \def\BKM@parent{0}%
876           \expandafter\xdef\csname BKM@\the\BKM@id\endcsname{%
877             0{\BKM@level}%
878           }%
879           \BKM@swfalse
880         \else
881           \expandafter\expandafter\expandafter\BKM@getx
882             \csname BKM@\BKM@prev\endcsname
883           \ifnum\BKM@level>\BKM@x@level\relax
884             \let\BKM@parent\BKM@prev
885             \expandafter\xdef\csname BKM@\the\BKM@id\endcsname{%
886               {\BKM@prev}{\BKM@level}%
887             }%
888             \BKM@swfalse
889           \else

```

```

890         \let\BKM@prev\BKM@x@parent
891     \fi
892 \fi
893 }%
894 \pdfstringdef\BKM@title{\bookmark@text}%
895 \BKM@vtex@title
896 \edef\BKM@FLAGS{\BKM@PrintStyle}%
897 \let\BKM@action\@empty
898 \ifx\BKM@goto\@empty
899     \ifx\BKM@dest\@empty
900         \ifx\BKM@named\@empty
901             \ifx\BKM@rawaction\@empty
902                 \ifx\BKM@uri\@empty
903                     \ifx\BKM@page\@empty
904                         \PackageError{bookmark}{Missing action}\@ehc
905                         \def\BKM@action{!}%
906                     \else
907                         \edef\BKM@action{!\BKM@page}%
908                     \fi
909                 \else
910                     \BKM@EscapeString\BKM@uri
911                     \edef\BKM@action{%
912                         <u=%
913                         /S/URI%
914                         /URI(\BKM@uri)%
915                         >%
916                     }%
917                 \fi
918             \else
919                 \edef\BKM@action{<u=\BKM@rawaction>}%
920             \fi
921         \else
922             \BKM@EscapeName\BKM@named
923             \edef\BKM@action{%
924                 <u=%
925                 /S/Named%
926                 /N/\BKM@named
927                 >%
928             }%
929         \fi
930     \else
931         \BKM@EscapeString\BKM@dest
932         \edef\BKM@action{\BKM@dest}%
933     \fi
934 \else
935     \ifx\BKM@dest\@empty
936         \ifx\BKM@page\@empty
937             \def\BKM@page{1}%
938         \fi
939         \ifx\BKM@view\@empty
940             \def\BKM@view{Fit}%
941         \fi
942         \edef\BKM@action{/D[\BKM@page/\BKM@view]}%
943     \else
944         \BKM@EscapeString\BKM@dest
945         \edef\BKM@action{/D(\BKM@dest)}%
946     \fi
947     \BKM@EscapeString\BKM@goto
948     \edef\BKM@action{%
949         <u=%
950         /S/GoToR%
951         /F(\BKM@goto)%

```

```

952         \BKM@action
953     >>%
954 }%
955 \fi
956 \ifx\BKM@color\@empty
957     \let\BKM@RGBcolor\@empty
958 \else
959     \expandafter\BKM@toRGB\BKM@color\@nil
960 \fi
961 \special{%
962     !outline \BKM@action;%
963     p=\BKM@parent,%
964     i=\number\BKM@id,%
965     s=%
966     \ifBKM@open
967         \ifnum\BKM@level<\BKM@openlevel
968             o%
969         \else
970             c%
971         \fi
972     \else
973         c%
974     \fi,%
975     \ifx\BKM@RGBcolor\@empty
976     \else
977         c=\BKM@RGBcolor,%
978     \fi
979     \ifnum\BKM@FLAGS>\z@
980         f=\BKM@FLAGS,%
981     \fi
982     t=\BKM@title
983 }%
984 \endgroup
985 \fi
986 }

```

\BKM@getx

```

987 \def\BKM@getx#1#2{%
988     \def\BKM@x@parent{#1}%
989     \def\BKM@x@level{#2}%
990 }

```

\BKM@toRGB

```

991 \def\BKM@toRGB#1 #2 #3\@nil{%
992     \let\BKM@RGBcolor\@empty
993     \BKM@toRGBComponent{#1}%
994     \BKM@toRGBComponent{#2}%
995     \BKM@toRGBComponent{#3}%
996 }

```

\BKM@toRGBComponent

```

997 \def\BKM@toRGBComponent#1{%
998     \dimen@=#1pt\relax
999     \ifdim\dimen@>\z@
1000     \ifdim\dimen@<\p@
1001         \dimen@=255\dimen@
1002         \advance\dimen@ by 32768sp\relax
1003         \divide\dimen@ by 65536\relax
1004         \dimen@ii=\dimen@
1005         \divide\dimen@ii by 16\relax
1006         \edef\BKM@RGBcolor{%
1007             \BKM@RGBcolor

```

```

1008      \BKM@toHexDigit\dimen@ii
1009    }%
1010    \dimen@ii=16\dimen@ii
1011    \advance\dimen@-\dimen@ii
1012    \edef\BKM@RGBcolor{%
1013      \BKM@RGBcolor
1014      \BKM@toHexDigit\dimen@
1015    }%
1016    \else
1017      \edef\BKM@RGBcolor{\BKM@RGBcolor FF}%
1018      \fi
1019    \else
1020      \edef\BKM@RGBcolor{\BKM@RGBcolor00}%
1021      \fi
1022  }

```

\BKM@toHexDigit

```

1023 \def\BKM@toHexDigit#1{%
1024   \expandafter\ifcase\expandafter\@firstofone\expandafter{\number#1} %
1025     0\or 1\or 2\or 3\or 4\or 5\or 6\or 7\or
1026     8\or 9\or A\or B\or C\or D\or E\or F%
1027   \fi
1028 }

1029 \begingroup
1030   \catcode'\|=0 %
1031   \catcode'\|=12 %

```

\BKM@vtex@title

```

1032 |gdef|BKM@vtex@title{%
1033   |@onelevel@sanitize|BKM@title
1034   |edef|BKM@title{|expandafter|BKM@vtex@leftparen|BKM@title\(|@nil}%
1035   |edef|BKM@title{|expandafter|BKM@vtex@rightparen|BKM@title\)|@nil}%
1036   |edef|BKM@title{|expandafter|BKM@vtex@zero|BKM@title\0|@nil}%
1037   |edef|BKM@title{|expandafter|BKM@vtex@one|BKM@title\1|@nil}%
1038   |edef|BKM@title{|expandafter|BKM@vtex@two|BKM@title\2|@nil}%
1039   |edef|BKM@title{|expandafter|BKM@vtex@three|BKM@title\3|@nil}%
1040 }%

```

\BKM@vtex@leftparen

```

1041 |gdef|BKM@vtex@leftparen#1\(#2|@nil{%
1042   #1%
1043   |ifx||#2||%
1044   |else
1045     (%
1046     |ltx@ReturnAfterFi{%
1047       |BKM@vtex@leftparen#2|@nil
1048     }%
1049   |fi
1050 }%

```

\BKM@vtex@rightparen

```

1051 |gdef|BKM@vtex@rightparen#1\)#2|@nil{%
1052   #1%
1053   |ifx||#2||%
1054   |else
1055     )%
1056     |ltx@ReturnAfterFi{%
1057       |BKM@vtex@rightparen#2|@nil
1058     }%
1059   |fi
1060 }%

```

```

\BKM@vtex@zero
1061 |gdef|BKM@vtex@zero#1\0#2|@nil{%
1062   #1%
1063   |ifx||#2| |%
1064   |else
1065     |noexpand|hv@pdf@char0%
1066     |ltx@ReturnAfterFi{%
1067       |BKM@vtex@zero#2|@nil
1068     }%
1069   |fi
1070 }%

```

```

\BKM@vtex@one
1071 |gdef|BKM@vtex@one#1\1#2|@nil{%
1072   #1%
1073   |ifx||#2| |%
1074   |else
1075     |noexpand|hv@pdf@char1%
1076     |ltx@ReturnAfterFi{%
1077       |BKM@vtex@one#2|@nil
1078     }%
1079   |fi
1080 }%

```

```

\BKM@vtex@two
1081 |gdef|BKM@vtex@two#1\2#2|@nil{%
1082   #1%
1083   |ifx||#2| |%
1084   |else
1085     |noexpand|hv@pdf@char2%
1086     |ltx@ReturnAfterFi{%
1087       |BKM@vtex@two#2|@nil
1088     }%
1089   |fi
1090 }%

```

```

\BKM@vtex@three
1091 |gdef|BKM@vtex@three#1\3#2|@nil{%
1092   #1%
1093   |ifx||#2| |%
1094   |else
1095     |noexpand|hv@pdf@char3%
1096     |ltx@ReturnAfterFi{%
1097       |BKM@vtex@three#2|@nil
1098     }%
1099   |fi
1100 }%

1101 |endgroup
1102 </vtex>

```

3.4 Driver for pdfTeX

```

1103 <*pdfTeX>
1104 \NeedsTeXFormat{LaTeX2e}
1105 \ProvidesFile{bkm-pdfTeX.def}%
1106 [2010/04/08 v1.12 bookmark driver for pdfTeX (H0)]%

\BKM@D0@entry
1107 \def\BKM@D0@entry#1#2{%
1108   \begingroup

```

```

1109 \setkeys{BKM@D0}{#1}%
1110 \def\BKM@D0@title{#2}%
1111 \BKM@UnescapeHex\BKM@D0@title
1112 \expandafter\expandafter\expandafter\BKM@getx
1113 \csname BKM@\BKM@D0@id\endcsname\@empty\@empty
1114 \let\BKM@attr\@empty
1115 \ifx\BKM@D0@flags\@empty
1116 \else
1117 \edef\BKM@attr{\BKM@attr/F \BKM@D0@flags}%
1118 \fi
1119 \ifx\BKM@D0@color\@empty
1120 \else
1121 \edef\BKM@attr{\BKM@attr/C[\BKM@D0@color]}%
1122 \fi
1123 \ifx\BKM@attr\@empty
1124 \else
1125 \edef\BKM@attr{attr{\BKM@attr}}%
1126 \fi
1127 \let\BKM@action\@empty
1128 \ifx\BKM@D0@goto\@empty
1129 \ifx\BKM@D0@dest\@empty
1130 \ifx\BKM@D0@named\@empty
1131 \ifx\BKM@D0@rawaction\@empty
1132 \ifx\BKM@D0@uri\@empty
1133 \ifx\BKM@D0@page\@empty
1134 \PackageError{bookmark}{Missing action}\@ehc
1135 \edef\BKM@action{goto page1{/Fit}}%
1136 \else
1137 \ifx\BKM@D0@view\@empty
1138 \def\BKM@D0@view{Fit}%
1139 \fi
1140 \edef\BKM@action{goto page\BKM@D0@page{/ \BKM@D0@view}}%
1141 \fi
1142 \else
1143 \BKM@UnescapeHex\BKM@D0@uri
1144 \BKM@EscapeString\BKM@D0@uri
1145 \edef\BKM@action{user{<</S/URI/URI(\BKM@D0@uri)>>}}%
1146 \fi
1147 \else
1148 \BKM@UnescapeHex\BKM@D0@rawaction
1149 \edef\BKM@action{%
1150 user{%
1151 <<%
1152 \BKM@D0@rawaction
1153 >>%
1154 }%
1155 }%
1156 \fi
1157 \else
1158 \BKM@EscapeName\BKM@D0@named
1159 \edef\BKM@action{%
1160 user{<</S/Named/N/\BKM@D0@named>>}}%
1161 }%
1162 \fi
1163 \else
1164 \BKM@UnescapeHex\BKM@D0@dest
1165 \BKM@DefGotoNameAction\BKM@action\BKM@D0@dest
1166 \fi
1167 \else
1168 \ifx\BKM@D0@dest\@empty
1169 \ifx\BKM@D0@page\@empty
1170 \def\BKM@D0@page{0}%

```

```

1171         \else
1172         \BKM@CalcExpr\BKM@D0@page\BKM@D0@page-1%
1173         \fi
1174         \ifx\BKM@D0@view\@empty
1175         \def\BKM@D0@view{Fit}%
1176         \fi
1177         \edef\BKM@action{/D[\BKM@D0@page/\BKM@D0@view]}%
1178     \else
1179     \BKM@UnescapeHex\BKM@D0@dest
1180     \BKM@EscapeString\BKM@D0@dest
1181     \edef\BKM@action{/D(\BKM@D0@dest)}%
1182     \fi
1183     \BKM@UnescapeHex\BKM@D0@goto
1184     \BKM@EscapeString\BKM@D0@goto
1185     \edef\BKM@action{%
1186     user{%
1187     <<%
1188     /S/GoToR%
1189     /F(\BKM@D0@goto)%
1190     \BKM@action
1191     >>%
1192     }%
1193     }%
1194     \fi
1195     \pdfoutline\BKM@attr\BKM@action
1196     count\ifBKM@D0@open\else-\fi\BKM@x@childs
1197     {\BKM@D0@title}%
1198 \endgroup
1199 }

```

`\BKM@DefGotoNameAction` Macro `\BKM@DefGotoNameAction` is a hook for package `hypdestopt`.

```

1200 \def\BKM@DefGotoNameAction#1#2{%
1201   \BKM@EscapeString\BKM@D0@dest
1202   \edef#1{goto name{#2}}%
1203 }
1204 </pdfTeX>

```

3.5 Drivers with pdfmark specials

3.5.1 Driver dvips

```

1205 <*dvips>
1206 \NeedsTeXFormat{LaTeX2e}
1207 \ProvidesFile{bkm-dvips.def}%
1208 [2010/04/08 v1.12 bookmark driver for dvips (H0)]%

```

`\BKM@PSHeaderFile`

```

1209 \def\BKM@PSHeaderFile#1{%
1210   \special{header=#1}%
1211 }
1212 </dvips>

```

3.5.2 Driver dvipsone

```

1213 <*dvipsone>
1214 \NeedsTeXFormat{LaTeX2e}
1215 \ProvidesFile{bkm-dvipsone.def}%
1216 [2010/04/08 v1.12 bookmark driver for dvipsone (H0)]%

```

`\BKM@PSHeaderFile`

```

1217 \def\BKM@PSHeaderFile#1{%

```

```

1218 \special{header=#1}%
1219 }

1220 </dvipsone>

```

3.5.3 Driver textures

```

1221 <*textures>
1222 \NeedsTeXFormat{LaTeX2e}
1223 \ProvidesFile{bkm-textures.def}%
1224 [2010/04/08 v1.12 bookmark driver for textures (H0)]%

```

\BKM@PSHeaderFile

```

1225 \def\BKM@PSHeaderFile#1{%
1226 \special{prePostScriptfile #1}%
1227 }

1228 </textures>

```

3.5.4 Common part

```

1229 <*pdfmark>

```

\BKM@filename

```

1230 \def\BKM@filename{\jobname.out.ps}

1231 \BKM@PSHeaderFile\BKM@filename

1232 \RequirePackage{atveryend}[2009/12/07]
1233 \AfterLastShipout{\BKM@pdfmark@out}

```

\BKM@pdfmark@out Do not use package rerunfilecheck here, because the file \BKM@filename is not read during the \TeX run.

```

1234 \def\BKM@pdfmark@out{%
1235 \if@files
1236 \newwrite\BKM@file
1237 \immediate\openout\BKM@file=\BKM@filename\relax
1238 \BKM@write{\@percentchar!}%
1239 \BKM@write{/pdfmark where{pop}}%
1240 \BKM@write{%
1241 {
1242 /globaldict where{pop globaldict}{userdict}ifelse%
1243 /pdfmark/cleartomark load put%
1244 }%
1245 }%
1246 \BKM@write{ifelse}%
1247 \else
1248 \let\BKM@write\@gobble
1249 \let\BKM@DO@entry\@gobbletwo
1250 \fi
1251 }

```

\BKM@write

```

1252 \def\BKM@write#1{%
1253 \immediate\write\BKM@file
1254 }

```

\BKM@DO@entry The specification for pdfmark says that /Color is the name of the key for color, however ghostscript only passes the key into the PDF file, thus the key name must be /C.

```

1255 \def\BKM@DO@entry#1#2{%
1256 \begingroup
1257 \setkeys{BKM@DO}{#1}%

```

```

1258 \def\BKM@D0@title{#2}%
1259 \BKM@UnescapeHex\BKM@D0@title
1260 \expandafter\expandafter\expandafter\BKM@getx
1261 \csname BKM@\BKM@D0@id\endcsname\@empty\@empty
1262 \let\BKM@attr\@empty
1263 \ifx\BKM@D0@flags\@empty
1264 \else
1265 \edef\BKM@attr{\BKM@attr/F \BKM@D0@flags}%
1266 \fi
1267 \ifx\BKM@D0@color\@empty
1268 \else
1269 \edef\BKM@attr{\BKM@attr/C[\BKM@D0@color]}%
1270 \fi
1271 \let\BKM@action\@empty
1272 \ifx\BKM@D0@goto\@empty
1273 \ifx\BKM@D0@dest\@empty
1274 \ifx\BKM@D0@named\@empty
1275 \ifx\BKM@D0@rawaction\@empty
1276 \ifx\BKM@D0@uri\@empty
1277 \ifx\BKM@D0@page\@empty
1278 \PackageError{bookmark}{Missing action}\@ehc
1279 \edef\BKM@action{%
1280 /Action/GoTo%
1281 /Page 1%
1282 /View[/Fit]%
1283 }%
1284 \else
1285 \ifx\BKM@D0@view\@empty
1286 \def\BKM@D0@view{Fit}%
1287 \fi
1288 \edef\BKM@action{%
1289 /Action/GoTo%
1290 /Page \BKM@D0@page
1291 /View[/\BKM@D0@view]%
1292 }%
1293 \fi
1294 \else
1295 \BKM@UnescapeHex\BKM@D0@uri
1296 \BKM@EscapeString\BKM@D0@uri
1297 \edef\BKM@action{%
1298 /Action<<%
1299 /Subtype/URI%
1300 /URI(\BKM@D0@uri)%
1301 >>%
1302 }%
1303 \fi
1304 \else
1305 \BKM@UnescapeHex\BKM@D0@rawaction
1306 \edef\BKM@action{%
1307 /Action<<%
1308 \BKM@D0@rawaction
1309 >>%
1310 }%
1311 \fi
1312 \else
1313 \BKM@EscapeName\BKM@D0@named
1314 \edef\BKM@action{%
1315 /Action<<%
1316 /Subtype/Named%
1317 /N/\BKM@D0@named
1318 >>%
1319 }%

```

```

1320     \fi
1321   \else
1322     \BKM@UnescapeHex\BKM@DO@dest
1323     \BKM@EscapeString\BKM@DO@dest
1324     \edef\BKM@action{%
1325       /Action/GoTo%
1326       /Dest(\BKM@DO@dest) cvn%
1327     }%
1328   \fi
1329 \else
1330   \ifx\BKM@DO@dest\@empty
1331     \ifx\BKM@DO@page\@empty
1332       \def\BKM@DO@page{1}%
1333     \fi
1334     \ifx\BKM@DO@view\@empty
1335       \def\BKM@DO@view{Fit}%
1336     \fi
1337     \edef\BKM@action{%
1338       /Page \BKM@DO@page
1339       /View[/\BKM@DO@view]%
1340     }%
1341   \else
1342     \BKM@UnescapeHex\BKM@DO@dest
1343     \BKM@EscapeString\BKM@DO@dest
1344     \edef\BKM@action{%
1345       /Dest(\BKM@DO@dest) cvn%
1346     }%
1347   \fi
1348   \BKM@UnescapeHex\BKM@DO@gotor
1349   \BKM@EscapeString\BKM@DO@gotor
1350   \edef\BKM@action{%
1351     /Action/GoToR%
1352     /File(\BKM@DO@gotor)%
1353     \BKM@action
1354   }%
1355 \fi
1356 \BKM@write{[]}%
1357 \BKM@write{/Title(\BKM@DO@title)}%
1358 \ifnum\BKM@x@chlds>\z@
1359   \BKM@write{/Count \ifBKM@DO@open\else-\fi\BKM@x@chlds}%
1360 \fi
1361 \ifx\BKM@attr\@empty
1362 \else
1363   \BKM@write{\BKM@attr}%
1364 \fi
1365 \BKM@write{\BKM@action}%
1366 \BKM@write{/OUT pdfmark}%
1367 \endgroup
1368 }
1369 </pdfmark>

```

3.6 Common part for pdftex and pdfmark

1370 <*pdftex | pdfmark>

3.6.1 Write auxiliary file

```

1371 \RequirePackage{auxhook}
1372 \AddLineBeginMainAux{%
1373   \string\providecommand\string\BKM@entry[2]{}%
1374 }

```

\BKM@id

```

1375 \newcount\BKM@id
1376 \BKM@id=\z@

\BKM@O
1377 \@namedef{BKM@O}{000}

\ifBKM@sw
1378 \newif\ifBKM@sw

\bookmark
1379 \newcommand*{\bookmark}[2][1]{%
1380   \if@filesw
1381     \begingroup
1382     \def\bookmark@text{#2}%
1383     \BKM@setup{#1}%
1384     \edef\BKM@prev{\the\BKM@id}%
1385     \global\advance\BKM@id\@ne
1386     \BKM@swtrue
1387     \@whilesw\ifBKM@sw\fi{%
1388       \ifnum\ifBKM@startatroot\z@\else\BKM@prev\fi=\z@
1389         \global\BKM@startatrootfalse
1390         \expandafter\xdef\csname BKM@\the\BKM@id\endcsname{%
1391           0{\BKM@level}0%
1392         }%
1393         \BKM@swfalse
1394       \else
1395         \expandafter\expandafter\expandafter\BKM@getx
1396         \csname BKM@\BKM@prev\endcsname
1397         \ifnum\BKM@level>\BKM@x@level\relax
1398           \expandafter\xdef\csname BKM@\the\BKM@id\endcsname{%
1399             {\BKM@prev}{\BKM@level}0%
1400           }%
1401           \ifnum\BKM@prev>\z@
1402             \BKM@CalcExpr\BKM@CalcResult\BKM@x@childs+1%
1403             \expandafter\xdef\csname BKM@\BKM@prev\endcsname{%
1404               {\BKM@x@parent}{\BKM@x@level}{\BKM@CalcResult}%
1405             }%
1406           \fi
1407           \BKM@swfalse
1408         \else
1409           \let\BKM@prev\BKM@x@parent
1410         \fi
1411       \fi
1412     }%
1413     \pdfstringdef\BKM@title{\bookmark@text}%
1414     \edef\BKM@FLAGS{\BKM@PrintStyle}%
1415     \csname BKM@HypDestOptHook\endcsname
1416     \BKM@EscapeHex\BKM@dest
1417     \BKM@EscapeHex\BKM@uri
1418     \BKM@EscapeHex\BKM@gotor
1419     \BKM@EscapeHex\BKM@rawaction
1420     \BKM@EscapeHex\BKM@title
1421     \immediate\write\@mainaux{%
1422       \string\BKM@entry{%
1423         id=\number\BKM@id
1424         \ifBKM@open
1425           \ifnum\BKM@level<\BKM@openlevel
1426             ,open%
1427           \fi
1428         \fi
1429         \BKM@auxentry{dest}%
1430         \BKM@auxentry{named}%

```

```

1431         \BKM@auxentry{uri}%
1432         \BKM@auxentry{goto}%
1433         \BKM@auxentry{page}%
1434         \BKM@auxentry{view}%
1435         \BKM@auxentry{rawaction}%
1436         \BKM@auxentry{color}%
1437         \ifnum\BKM@FLAGS>\z@
1438             ,flags=\BKM@FLAGS
1439         \fi
1440     }\BKM@title}%
1441 }%
1442 \endgroup
1443 \fi
1444 }

\BKM@getx

1445 \def\BKM@getx#1#2#3{%
1446     \def\BKM@x@parent{#1}%
1447     \def\BKM@x@level{#2}%
1448     \def\BKM@x@childs{#3}%
1449 }

\BKM@auxentry

1450 \def\BKM@auxentry#1{%
1451     \expandafter\ifx\csname BKM@#1\endcsname\@empty
1452     \else
1453         ,#1={\csname BKM@#1\endcsname}%
1454     \fi
1455 }

3.6.2 Read auxiliary data

1456 \SetupKeyvalOptions{family=BKM@DO,prefix=BKM@DO@}
1457 \DeclareStringOption[0]{id}
1458 \DeclareBoolOption{open}
1459 \DeclareStringOption{flags}
1460 \DeclareStringOption{color}
1461 \DeclareStringOption{dest}
1462 \DeclareStringOption{named}
1463 \DeclareStringOption{uri}
1464 \DeclareStringOption{goto}
1465 \DeclareStringOption{page}
1466 \DeclareStringOption{view}
1467 \DeclareStringOption{rawaction}

1468 \AtBeginDocument{%
1469     \let\BKM@entry\BKM@DO@entry
1470 }

1471 </pdftex | pdfmark>

3.7 Option atend

3.7.1 Hook

1472 <*package>

1473 \ifBKM@atend
1474 \else

\BookmarkAtEnd This is a dummy definition that generates a warning if option atend has not been
given.

1475 \newcommand{\BookmarkAtEnd}[1]{%
1476     \PackageWarning{bookmark}{%
1477         Ignored, because option ‘atend’ is missing%

```

```

1478     }%
1479 }%

1480 \expandafter\endinput
1481 \fi

\BookmarkAtEnd

1482 \newcommand*{\BookmarkAtEnd}{%
1483   \g@addto@macro\BKM@EndHook
1484 }

1485 \let\BKM@EndHook\@empty
1486 \</package>

```

3.7.2 Drivers using hooks at end of document

The following drivers use package `atveryend`'s `\AfterLastShipout`, because they still need the `..aux` file.

- Driver `pdftex` uses `\pdfoutline` that can be used after the last page.
- PostScript drivers such as `dvips` use an external PostScript header file for the bookmarks. File writing can be done after the last shipout page, but before the `..aux` file is closed.

```

1487 \<*pdftex | pdfmark>
1488 \ifBKM@atend
1489   \AfterLastShipout{%
1490     \BKM@EndHook
1491   }%
1492 \fi
1493 \</pdftex | pdfmark>

```

3.7.3 Drivers using \AtEndDvi

The other drivers implement `\bookmark` using `\special` commands. Thus the last bookmarks must be put on the last page, not afterwards. `\AtEndDocument` cannot be used, because it is too late, the last page can already be output. Therefore we use package `atenddvi` that uses the help of packages `atbegshi` and `zref`. The argument of `\AtEndDvi` is put at the end of the last page. At least two \LaTeX runs are necessary.

```

1494 \<*dvi*pdfm | vtex>
1495 \ifBKM@atend
1496   \RequirePackage{atenddvi}%
1497   \AtEndDvi{\BKM@EndHook}%
1498 \fi
1499 \</dvi*pdfm | vtex>

```

4 Installation

4.1 Download

Package. This package is available on CTAN¹:

[CTAN:macros/latex/contrib/oberdiek/bookmark.dtx](http://ctan.org/macros/latex/contrib/oberdiek/bookmark.dtx) The source file.

[CTAN:macros/latex/contrib/oberdiek/bookmark.pdf](http://ctan.org/macros/latex/contrib/oberdiek/bookmark.pdf) Documentation.

¹ftp://ftp.ctan.org/tex-archive/

Bundle. All the packages of the bundle ‘oberdiek’ are also available in a TDS compliant ZIP archive. There the packages are already unpacked and the documentation files are generated. The files and directories obey the TDS standard.

[CTAN:install/macros/latex/contrib/oberdiek.tds.zip](#)

TDS refers to the standard “A Directory Structure for \TeX Files” ([CTAN:tds/tds.pdf](#)). Directories with `texmf` in their name are usually organized this way.

4.2 Bundle installation

Unpacking. Unpack the `oberdiek.tds.zip` in the TDS tree (also known as `texmf` tree) of your choice. Example (linux):

```
unzip oberdiek.tds.zip -d ~/texmf
```

Script installation. Check the directory `TDS:scripts/oberdiek/` for scripts that need further installation steps. Package `attachfile2` comes with the Perl script `pdfatfi.pl` that should be installed in such a way that it can be called as `pdfatfi`. Example (linux):

```
chmod +x scripts/oberdiek/pdfatfi.pl
cp scripts/oberdiek/pdfatfi.pl /usr/local/bin/
```

4.3 Package installation

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

```
tex bookmark.dtx
```

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

<code>bookmark.sty</code>	→ <code>tex/latex/oberdiek/bookmark.sty</code>
<code>bkm-dvipdfm.def</code>	→ <code>tex/latex/oberdiek/bkm-dvipdfm.def</code>
<code>bkm-dvips.def</code>	→ <code>tex/latex/oberdiek/bkm-dvips.def</code>
<code>bkm-dvipsones.def</code>	→ <code>tex/latex/oberdiek/bkm-dvipsones.def</code>
<code>bkm-textures.def</code>	→ <code>tex/latex/oberdiek/bkm-textures.def</code>
<code>bkm-pdftex.def</code>	→ <code>tex/latex/oberdiek/bkm-pdftex.def</code>
<code>bkm-vtex.def</code>	→ <code>tex/latex/oberdiek/bkm-vtex.def</code>
<code>bookmark.pdf</code>	→ <code>doc/latex/oberdiek/bookmark.pdf</code>
<code>bookmark-example.tex</code>	→ <code>doc/latex/oberdiek/bookmark-example.tex</code>
<code>bookmark.dtx</code>	→ <code>source/latex/oberdiek/bookmark.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`.

4.4 Refresh file name databases

If your \TeX distribution (`te \TeX` , `mik \TeX` , ...) relies on file name databases, you must refresh these. For example, `te \TeX` users run `texhash` or `mktextlsr`.

4.5 Some details for the interested

Attached source. The PDF documentation on CTAN also includes the `.dtx` source file. It can be extracted by AcrobatReader 6 or higher. Another option is `pdftk`, e.g. unpack the file into the current directory:

```
pdftk bookmark.pdf unpack_files output .
```

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{bookmark.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 the configuration file ltxdoc.cfg. For instance, put this 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 bookmark.dtx
makeindex -s gind.ist bookmark.idx
pdflatex bookmark.dtx
makeindex -s gind.ist bookmark.idx
pdflatex bookmark.dtx
```

5 History

[2007/02/19 v0.1]

- First experimental version.

[2007/02/20 v0.2]

- Option startatroot added.
- Dummies for \pdf(un)escape... commands added to get the package basically work for non-pdfTeX users.

[2007/02/21 v0.3]

- Dependency from pdfTeX 1.30 removed by using package pdfescape.

[2007/02/22 v0.4]

- hyperref's bookmarkstype respected.

[2007/03/02 v0.5]

- Driver options vtex (PDF mode), dvipsone, and textures added.
- Implementation of option depth completed. Division names are supported, see hyperref's option bookmarksdepth.
- hyperref's options bookmarksopen, bookmarksopenlevel, and bookmarksdepth respected.

[2007/03/03 v0.6]

- Option numbered as alias for hyperref's bookmarksnumbered.

[2007/03/07 v0.7]

- Dependency from ε -TeX removed.

[2007/04/09 v0.8]

- Option `atend` added.
- Option `rgbcolor` removed. `rgbcolor=<r> <g> ` can be replaced by `color=[rgb]{<r>,<g>,}`.
- Support of recent cvs version (2007-03-29) of `dvipdfmx` that extends the `\special` for bookmarks to specify open outline entries. Option `dvipdfmx-outline-open` or `\SpecialDvipdfmxOutlineOpen` notify the package.

[2007/04/25 v0.9]

- The syntax of `\special` of `dvipdfmx`, if feature `dvipdfmx-outline-open` is enabled, has changed. Now cvs version 2007-04-25 is needed.

[2007/05/29 v1.0]

- Bug fix in code for second parameter of XYZ.

[2007/07/13 v1.1]

- Fix for `pdfmark` with `GoToR` action.

[2007/09/25 v1.2]

- `pdfmark` driver respects `\nofiles`.

[2008/08/08 v1.3]

- Package `flags` replaced by package `bitset`. Now flags are also supported without ε -TeX.
- Hook for package `hypdestopt` added.

[2008/09/13 v1.4]

- Fix for bug introduced in v1.3, package `flags` is one-based, but package `bitset` is zero-based. Thus options `bold` and `italic` are wrong in v1.3. (Daniel Müllner)

[2009/08/13 v1.5]

- Except for driver options the other options are now local options. This resolves a problem with KOMA-Script v3.00 and its option `open`.

[2009/12/06 v1.6]

- Use of package `atveryend` for drivers `pdftex` and `pdfmark`.

[2009/12/07 v1.7]

- Use of package `atveryend` fixed.

[2009/12/17 v1.8]

- Support of `hyperref` 2009/12/17 v6.79v for XeTeX.

[2010/03/30 v1.9]

- Package name in an error message fixed.

[2010/04/03 v1.10]

- Option `style` and macro `\bookmarkdefinestyle` added.
- Hook support with option `addtohook` added.
- `\bookmarkget` added.

[2010/04/04 v1.11]

- Bug fix (introduced in v1.10).

[2010/04/08 v1.12]

- Requires `ltxcmds` 2010/04/08.

6 Index

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\ifx	102, 121, 127, 133, 195, 201, 272, 279, 312, 367, 376, 393, 401, 409, 417, 435, 438, 447, 450, 457, 470, 540, 575, 611, 616, 624, 633, 644, 653, 690, 750, 751, 752, 753, 754, 755, 759, 792, 793, 798, 831, 898, 899, 900, 901, 902, 903, 935, 936, 939, 956, 975, 1115, 1119, 1123, 1128, 1129, 1130, 1131, 1132, 1133, 1137, 1168, 1169, 1174, 1263, 1267, 1272, 1273, 1274, 1275, 1276, 1277, 1285, 1330, 1331, 1334, 1361, 1451	\ProvidesPackage	99
\ifxetex	591, 632	R	
\immediate	1237, 1253, 1421	\ReadBookmarks	706
\InputIfFileExists	586, 663	\renewcommand	670, 674, 677, 681, 686
J		\RequirePackage	119, 141, 142, 143, 144, 145, 146, 147, 148, 149, 1232, 1371, 1496
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		\section	20, 39, 50, 55
		\setbox	222
		\setkeys	172, 1109, 1257
		\setlength	472, 474
		\SetupKeyvalOptions	150, 1456
		\space	385, 399, 407, 415, 423, 443, 455, 460

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<code>\subpdfbookmark</code>	677, 683	<code>\x</code>	107, 110
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