

# The `bookmark` package

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2010/04/03 v1.10

## 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  $\text{\TeX}$  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  $\varepsilon$ - $\TeX$  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  $\varepsilon$ -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:	<code>dest</code>
GoTo:	<code>page + view</code>
GoToR:	<code>gotor + dest</code>
GoToR:	<code>gotor + page + view</code>
Named:	<code>named</code>
URI:	<code>uri</code>

### 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`.

`\bookmarkdefinestyle {<name>} {<key value list>}`

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.

`\bookmarkget {<option>}`

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`, `gotor`, `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`:

hyperref	bookmark
<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<sup>A</sup>T<sub>E</sub>X 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}[2010/04/03]
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}\text{O}\text{U}\text{a}\text{o}\text{u}\text{ss}}
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 \begingroup
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 \endgroup
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   gotor={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 \*package>
98 \NeedsTeXFormat{LaTeX2e}
99 \ProvidesPackage{bookmark}%
100 [2010/04/03 v1.10 PDF bookmarks (H0)]%

```

#### 3.1.1 Requirements

$\varepsilon$ -TEX.

```

101 \begingroup\expandafter\expandafter\expandafter\endgroup
102 \expandafter\ifx\csname numexpr\endcsname\relax
103   \def\BKM@CalcExpr#1#2#3#4{%
104     \begingroup
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 pdfTeX.

```

119 \RequirePackage{pdfescape}[2007/03/20]
120 \def\BKM@EscapeName#1{%
121   \ifx#1\@empty
122   \else
123     \EdefEscapeName#1#1%
124   \fi
125 }%
126 \def\BKM@EscapeString#1{%
127   \ifx#1\@empty
128   \else
129     \EdefEscapeString#1#1%
130   \fi
131 }%
132 \def\BKM@EscapeHex#1{%
133   \ifx#1\@empty
134   \else
135     \EdefEscapeHex#1#1%
136   \fi
137 }%
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}[2010/03/01]

```

#### 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   \begin{group}
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

```

255 \def\BKM@PatchHyperrefOption#1{%
256   \expandafter\BKM@@PatchHyperrefOption\csname KV@Hyp@#1\endcsname%
257 }
258 \def\BKM@@PatchHyperrefOption#1{%
259   \expandafter\BKM@@@PatchHyperrefOption#1{##1}\BKM@nil#1%
260 }

```

```

261 \def\BKM@@@PatchHyperrefOption#1\BKM@nil#2#3{%
262   \def#2##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 BKM@#1\endcsname{%
302     \expandafter\noexpand\csname bookmark@#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\@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}{atend}%
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.

```
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{dvi.pdfm}  
571 \BKM@DefineDriverKey{dvi.pdfmx}  
572 \BKM@DefineDriverKey{xetex}  
573 \BKM@DefineDriverKey{vtex}  
574 \define@key{BKM}{dvi.pdfmx-outline-open}[true]{%  
575 \expandafter\ifx\csname if#1\expandafter\endcsname  
576 \csname iftrue\endcsname  
577 \chardef\SpecialDvi.pdfmxOutlineOpen@ne  
578 \else  
579 \chardef\SpecialDvi.pdfmxOutlineOpen@z@  
580 \fi  
581 }  
582 \g@addto@macro\BKM@DisableOptions{%  
583 \DisableKeyvalOption{BKM}{dvi.pdfmx-outline-open}%  
584 }
```

`\bookmark@driver`

```
585 \def\bookmark@driver{\BKM@driver}  
  
586 \InputIfFileExists{bookmark.cfg}{-}{-}  
587 \providecommand*{\BookmarkDriverDefault}{dvips}  
588 \ifpdf  
589 \def\BKM@driver{pdftex}%  
590 \else  
591 \ifxetex  
592 \def\BKM@driver{dvi.pdfm}%  
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 \begingroup\expandafter\expandafter\expandafter\endgroup
605 \expandafter\ifx\csname SpecialDvipdfmxOutlineOpen\endcsname\relax
606 \else
607 \ifnum\SpecialDvipdfmxOutlineOpen>\z@
608 \BKM@DvipdfmxOutlineOpentrue
609 \fi
610 \fi

611 \def\BKM@temp{dvipdfmx}%
612 \ifx\BKM@temp\BKM@driver
613 \def\BKM@driver{dvipdfm}%
614 \fi
615 \def\BKM@temp{pdftex}%
616 \ifpdf
617 \ifx\BKM@temp\BKM@driver
618 \else
619 \PackageWarningNoLine{bookmark}{%
620 Wrong driver '\BKM@driver', using 'pdftex' instead%
621 }%
622 \let\BKM@driver\BKM@temp
623 \fi
624 \else
625 \ifx\BKM@temp\BKM@driver
626 \PackageError{bookmark}{%
627 Wrong driver, pdfTeX is not running in PDF mode.\MessageBreak
628 Package loading is aborted%
629 }\@ehc
630 \expandafter\expandafter\expandafter\endinput
631 \fi
632 \def\BKM@temp{dvipdfm}%
633 \ifxetex
634 \ifx\BKM@temp\BKM@driver
635 \else
636 \PackageWarningNoLine{bookmark}{%
637 Wrong driver '\BKM@driver',\MessageBreak
638 using 'dvipdfm' for XeTeX instead%
639 }%
640 \let\BKM@driver\BKM@temp
641 \fi
642 \else
643 \def\BKM@temp{vtex}%
644 \ifvtex
645 \ifx\BKM@temp\BKM@driver
646 \else
647 \PackageWarningNoLine{bookmark}{%
648 Wrong driver '\BKM@driver',\MessageBreak
649 using 'vtex' for VTeX instead%
650 }%

```

```

651         \let\BKM@driver\BKM@temp
652     \fi
653 \else
654     \ifx\BKM@temp\BKM@driver
655         \PackageError{bookmark}{%
656             Wrong driver, VTeX is not running in PDF mode.\MessageBreak
657             Package loading is aborted%
658         }\@ehc
659     \expandafter\expandafter\expandafter\endinput
660 \fi
661 \fi
662 \fi
663 \fi
664 \InputIfFileExists{bkm-\BKM@driver.def}{-}{%
665     \PackageError{bookmark}{%
666         Unsupported driver '\BKM@driver'.\MessageBreak
667         Package loading is aborted%
668     }\@ehc
669 \endinput
670 }

```

### 3.1.8 Compatibility for hyperref

```

671 \renewcommand*{\pdfbookmark}[3][0]{%
672     \bookmark[level=#1,dest={#3.#1}]{#2}%
673     \hyper@anchorstart{#3.#1}\hyper@anchorend
674 }
675 \renewcommand*{\currentpdfbookmark}{%
676     \pdfbookmark[\BKM@currentlevel]%
677 }
678 \renewcommand*{\subpdfbookmark}{%
679     \BKM@CalcExpr\BKM@CalcResult\BKM@currentlevel+1%
680     \expandafter\pdfbookmark\expandafter[\BKM@CalcResult]%
681 }
682 \renewcommand*{\belowpdfbookmark}[2]{%
683     \xdef\BKM@gtemp{\number\BKM@currentlevel}%
684     \subpdfbookmark{#1}{#2}%
685     \global\let\BKM@currentlevel\BKM@gtemp
686 }

```

section number, text, label, level, file

```

687 \renewcommand*{\Hy@writebookmark}[5]{%
688     \ifnum#4>\BKM@depth\relax
689     \else
690         \def\BKM@type{#5}%
691         \ifx\BKM@type\Hy@bookmarkstype
692             \begingroup
693                 \ifBKM@numbered
694                     \let\numberline\Hy@numberline
695                     \let\partnumberline\Hy@numberline
696                     \let\chapternumberline\Hy@numberline
697                 \else
698                     \let\numberline\@gobble
699                     \let\partnumberline\@gobble
700                     \let\chapternumberline\@gobble
701                 \fi
702                 \bookmark[level=#4,dest={#3}]{#2}%
703             \endgroup
704         \fi
705     \fi
706 }
707 \let\ReadBookmarks\relax
708 \</package>

```

### 3.2 Driver for dvipdfm

```

709 <*dvipdfm>
710 \NeedsTeXFormat{LaTeX2e}
711 \ProvidesFile{bkm-dvipdfm.def}%
712 [2010/04/03 v1.10 bookmark driver for dvipdfm (HO)]%

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

715 \def\BKM@O{000}

716 \newif\ifBKM@sw

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

```

```

769             /S/URI%
770             /URI(\BKM@uri)%
771             >>%
772         }%
773     \fi
774 \else
775     \edef\BKM@action{/A<<\BKM@rawaction>>}%
776     \fi
777 \else
778     \BKM@EscapeName\BKM@named
779     \edef\BKM@action{%
780         /A<</S/Named/N/\BKM@named>>%
781     }%
782     \fi
783 \else
784     \BKM@EscapeString\BKM@dest
785     \edef\BKM@action{%
786         /A<<%
787         /S/GoTo%
788         /D(\BKM@dest)%
789         >>%
790     }%
791     \fi
792 \else
793     \ifx\BKM@dest\@empty
794     \ifx\BKM@page\@empty
795         \def\BKM@page{0}%
796     \else
797         \BKM@CalcExpr\BKM@page\BKM@page-1%
798     \fi
799     \ifx\BKM@view\@empty
800         \def\BKM@view{Fit}%
801     \fi
802     \edef\BKM@action{/D[\BKM@page/\BKM@view]}%
803 \else
804     \BKM@EscapeString\BKM@dest
805     \edef\BKM@action{/D(\BKM@dest)}%
806     \fi
807     \BKM@EscapeString\BKM@gotor
808     \edef\BKM@action{%
809         /A<<%
810         /S/GoToR%
811         /F(\BKM@gotor)%
812         \BKM@action
813         >>%
814     }%
815     \fi
816 \special{pdf:%
817     out \ifBKM@DvipdfmxOutlineOpen
818         [%
819         \ifBKM@open
820             \ifnum\BKM@level<\BKM@openlevel
821             \else
822                 -%
823             \fi
824         \else
825             -%
826         \fi
827         ] %
828         \fi
829         \BKM@abslevel
830     <<%

```

```

831         /Title(\BKM@title)%
832         \ifx\BKM@color\@empty
833         \else
834         /C[\BKM@color]%
835         \fi
836         \ifnum\BKM@FLAGS>\z@
837         /F \BKM@FLAGS
838         \fi
839         \BKM@action
840     >>%
841 }%
842 \endgroup
843 \fi
844 }

845 \def\BKM@getx#1#2#3{%
846   \def\BKM@x@parent{#1}%
847   \def\BKM@x@level{#2}%
848   \def\BKM@x@abslevel{#3}%
849 }

850 </dvipdfm>

```

### 3.3 Driver for VTeX

```

851 <*\vtx>
852 \NeedsTeXFormat{LaTeX2e}
853 \ProvidesFile{bkm-vtx.def}%
854   [2010/04/03 v1.10 bookmark driver for VTeX (HO)]%

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

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

863 \def\BKM@O{00}

864 \newif\ifBKM@sw

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

```

```

888         }%
889         \BKM@swfalse
890     \else
891         \let\BKM@prev\BKM@x@parent
892     \fi
893 \fi
894 }%
895 \pdfstringdef\BKM@title{\bookmark@text}%
896 \BKM@vtex@title
897 \edef\BKM@FLAGS{\BKM@PrintStyle}%
898 \let\BKM@action\@empty
899 \ifx\BKM@goto\@empty
900     \ifx\BKM@dest\@empty
901         \ifx\BKM@named\@empty
902             \ifx\BKM@rawaction\@empty
903                 \ifx\BKM@uri\@empty
904                     \ifx\BKM@page\@empty
905                         \PackageError{bookmark}{Missing action}\@ehc
906                         \def\BKM@action{!}%
907                     \else
908                         \edef\BKM@action{!\BKM@page}%
909                     \fi
910                 \else
911                     \BKM@EscapeString\BKM@uri
912                     \edef\BKM@action{%
913                         <u=%
914                         /S/URI%
915                         /URI(\BKM@uri)%
916                         >%
917                     }%
918                 \fi
919             \else
920                 \edef\BKM@action{<u=\BKM@rawaction>}%
921             \fi
922         \else
923             \BKM@EscapeName\BKM@named
924             \edef\BKM@action{%
925                 <u=%
926                 /S/Named%
927                 /N/\BKM@named
928                 >%
929             }%
930         \fi
931     \else
932         \BKM@EscapeString\BKM@dest
933         \edef\BKM@action{\BKM@dest}%
934     \fi
935 \else
936     \ifx\BKM@dest\@empty
937         \ifx\BKM@page\@empty
938             \def\BKM@page{1}%
939         \fi
940         \ifx\BKM@view\@empty
941             \def\BKM@view{Fit}%
942         \fi
943         \edef\BKM@action{/D[\BKM@page/\BKM@view]}%
944     \else
945         \BKM@EscapeString\BKM@dest
946         \edef\BKM@action{/D(\BKM@dest)}%
947     \fi
948     \BKM@EscapeString\BKM@goto
949     \edef\BKM@action{%

```



```

950         <u=%
951         /S/GoToR%
952         /F(\BKM@gotor)%
953         \BKM@action
954     >>%
955 }%
956 \fi
957 \ifx\BKM@color\@empty
958     \let\BKM@RGBcolor\@empty
959 \else
960     \expandafter\BKM@toRGB\BKM@color\@nil
961 \fi
962 \special{%
963     !outline \BKM@action;%
964     p=\BKM@parent,%
965     i=\number\BKM@id,%
966     s=%
967     \ifBKM@open
968         \ifnum\BKM@level<\BKM@openlevel
969             o%
970         \else
971             c%
972         \fi
973     \else
974         c%
975     \fi,%
976     \ifx\BKM@RGBcolor\@empty
977     \else
978         c=\BKM@RGBcolor,%
979     \fi
980     \ifnum\BKM@FLAGS>\z@
981         f=\BKM@FLAGS,%
982     \fi
983     t=\BKM@title
984 }%
985 \endgroup
986 \fi
987 }

988 \def\BKM@getx#1#2{%
989     \def\BKM@x@parent{#1}%
990     \def\BKM@x@level{#2}%
991 }

992 \def\BKM@toRGB#1 #2 #3\@nil{%
993     \let\BKM@RGBcolor\@empty
994     \BKM@toRGBComponent{#1}%
995     \BKM@toRGBComponent{#2}%
996     \BKM@toRGBComponent{#3}%
997 }

998 \def\BKM@toRGBComponent#1{%
999     \dimen@=#1pt\relax
1000     \ifdim\dimen@>\z@
1001         \ifdim\dimen@<\p@
1002             \dimen@=255\dimen@
1003             \advance\dimen@ by 32768sp\relax
1004             \divide\dimen@ by 65536\relax
1005             \dimen@ii=\dimen@
1006             \divide\dimen@ii by 16\relax
1007             \edef\BKM@RGBcolor{%
1008                 \BKM@RGBcolor
1009                 \BKM@toHexDigit\dimen@ii
1010             }%
1011             \dimen@ii=16\dimen@ii

```

```

1012     \advance\dimen@-\dimen@ii
1013     \edef\BKM@RGBcolor{%
1014         \BKM@RGBcolor
1015         \BKM@toHexDigit\dimen@
1016     }%
1017     \else
1018     \edef\BKM@RGBcolor{\BKM@RGBcolor FF}%
1019     \fi
1020 \else
1021     \edef\BKM@RGBcolor{\BKM@RGBcolor00}%
1022     \fi
1023 }
1024 \def\BKM@toHexDigit#1{%
1025     \expandafter\ifcase\expandafter\@firstofone\expandafter{\number#1} %
1026     0\or 1\or 2\or 3\or 4\or 5\or 6\or 7\or
1027     8\or 9\or A\or B\or C\or D\or E\or F%
1028     \fi
1029 }
1030 \begingroup
1031 \catcode'\|=0 %
1032 \catcode'\|=12 %
1033 |gdef|BKM@vtex@title{%
1034     |@onelevel@sanitize|BKM@title
1035     |edef|BKM@title{|expandafter|BKM@vtex@leftparen|BKM@title\(|@nil}%
1036     |edef|BKM@title{|expandafter|BKM@vtex@rightparen|BKM@title\)|@nil}%
1037     |edef|BKM@title{|expandafter|BKM@vtex@zero|BKM@title\0|@nil}%
1038     |edef|BKM@title{|expandafter|BKM@vtex@one|BKM@title\1|@nil}%
1039     |edef|BKM@title{|expandafter|BKM@vtex@two|BKM@title\2|@nil}%
1040     |edef|BKM@title{|expandafter|BKM@vtex@three|BKM@title\3|@nil}%
1041 }%
1042 |gdef|BKM@vtex@leftparen#1\(#2|@nil{%
1043     #1%
1044     |ifx||#2| |%
1045     |else
1046     (%
1047     |@ReturnAfterFi{%
1048         |BKM@vtex@leftparen#2|@nil
1049     }%
1050     |fi
1051 }%
1052 |gdef|BKM@vtex@rightparen#1\)#2|@nil{%
1053     #1%
1054     |ifx||#2| |%
1055     |else
1056     )%
1057     |@ReturnAfterFi{%
1058         |BKM@vtex@rightparen#2|@nil
1059     }%
1060     |fi
1061 }%
1062 |gdef|BKM@vtex@zero#1\0#2|@nil{%
1063     #1%
1064     |ifx||#2| |%
1065     |else
1066     |noexpand|hv@pdf@char0%
1067     |@ReturnAfterFi{%
1068         |BKM@vtex@zero#2|@nil
1069     }%
1070     |fi
1071 }%
1072 |gdef|BKM@vtex@one#1\1#2|@nil{%
1073     #1%

```

```

1074 |ifx||#2||%
1075 |else
1076 |noexpand|hv@pdf@char1%
1077 |@ReturnAfterFi{%
1078 |BKM@vtex@one#2|@nil
1079 }%
1080 |fi
1081 }%
1082 |gdef|BKM@vtex@two#1\2#2|@nil{%
1083 #1%
1084 |ifx||#2||%
1085 |else
1086 |noexpand|hv@pdf@char2%
1087 |@ReturnAfterFi{%
1088 |BKM@vtex@two#2|@nil
1089 }%
1090 |fi
1091 }%
1092 |gdef|BKM@vtex@three#1\3#2|@nil{%
1093 #1%
1094 |ifx||#2||%
1095 |else
1096 |noexpand|hv@pdf@char3%
1097 |@ReturnAfterFi{%
1098 |BKM@vtex@three#2|@nil
1099 }%
1100 |fi
1101 }%
1102 |endgroup
1103 \long\def\@ReturnafterFi#1\fi{\fi#1}
1104 </vtex>

```

### 3.4 Driver for pdfTeX

```

1105 <*pdfTeX>
1106 \NeedsTeXFormat{LaTeX2e}
1107 \ProvidesFile{bkm-pdfTeX.def}%
1108 [2010/04/03 v1.10 bookmark driver for pdfTeX (HO)]%
1109 \def\BKM@DO@entry#1#2{%
1110 \begingroup
1111 \setkeys{BKM@DO}{#1}%
1112 \def\BKM@DO@title{#2}%
1113 \BKM@UnescapeHex\BKM@DO@title
1114 \expandafter\expandafter\expandafter\BKM@getx
1115 \csname BKM@\BKM@DO@id\endcsname\@empty\@empty
1116 \let\BKM@attr\@empty
1117 \ifx\BKM@DO@flags\@empty
1118 \else
1119 \edef\BKM@attr{\BKM@attr/F \BKM@DO@flags}%
1120 \fi
1121 \ifx\BKM@DO@color\@empty
1122 \else
1123 \edef\BKM@attr{\BKM@attr/C[\BKM@DO@color]}%
1124 \fi
1125 \ifx\BKM@attr\@empty
1126 \else
1127 \edef\BKM@attr{attr{\BKM@attr}}%
1128 \fi
1129 \let\BKM@action\@empty
1130 \ifx\BKM@DO@goto\@empty
1131 \ifx\BKM@DO@dest\@empty
1132 \ifx\BKM@DO@named\@empty
1133 \ifx\BKM@DO@rawaction\@empty

```

```

1134         \ifx\BKM@D0@uri\@empty
1135         \ifx\BKM@D0@page\@empty
1136             \PackageError{bookmark}{Missing action}\@ehc
1137             \edef\BKM@action{goto page1{/Fit}}%
1138         \else
1139             \ifx\BKM@D0@view\@empty
1140                 \def\BKM@D0@view{Fit}%
1141             \fi
1142             \edef\BKM@action{goto page\BKM@D0@page{/BKM@D0@view}}%
1143         \fi
1144     \else
1145         \BKM@UnescapeHex\BKM@D0@uri
1146         \BKM@EscapeString\BKM@D0@uri
1147         \edef\BKM@action{user{<</S/URI/URI(\BKM@D0@uri)>>}}%
1148     \fi
1149 \else
1150     \BKM@UnescapeHex\BKM@D0@rawaction
1151     \edef\BKM@action{%
1152         user{%
1153             <<%
1154                 \BKM@D0@rawaction
1155             >>%
1156         }%
1157     }%
1158 \fi
1159 \else
1160     \BKM@EscapeName\BKM@D0@named
1161     \edef\BKM@action{%
1162         user{<</S/Named/N/\BKM@D0@named>>}}%
1163     }%
1164 \fi
1165 \else
1166     \BKM@UnescapeHex\BKM@D0@dest
1167     \BKM@DefGotoNameAction\BKM@action\BKM@D0@dest
1168 \fi
1169 \else
1170     \ifx\BKM@D0@dest\@empty
1171     \ifx\BKM@D0@page\@empty
1172         \def\BKM@D0@page{0}%
1173     \else
1174         \BKM@CalcExpr\BKM@D0@page\BKM@D0@page-1%
1175     \fi
1176     \ifx\BKM@D0@view\@empty
1177         \def\BKM@D0@view{Fit}%
1178     \fi
1179     \edef\BKM@action{/D[\BKM@D0@page/\BKM@D0@view]}%
1180 \else
1181     \BKM@UnescapeHex\BKM@D0@dest
1182     \BKM@EscapeString\BKM@D0@dest
1183     \edef\BKM@action{/D(\BKM@D0@dest)}%
1184 \fi
1185 \BKM@UnescapeHex\BKM@D0@gotor
1186 \BKM@EscapeString\BKM@D0@gotor
1187 \edef\BKM@action{%
1188     user{%
1189         <<%
1190             /S/GoToR%
1191             /F(\BKM@D0@gotor)%
1192             \BKM@action
1193         >>%
1194     }%
1195 }%

```

```

1196     \fi
1197     \pdfoutline\BKM@attr\BKM@action
1198             count\ifBKM@D0@open\else-\fi\BKM@x@childs
1199             {\BKM@D0@title}%
1200 \endgroup
1201 }

```

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

```

1202 \def\BKM@DefGotoNameAction#1#2{%
1203     \BKM@EscapeString\BKM@D0@dest
1204     \edef#1{goto name{#2}}%
1205 }

1206 </pdfTeX>

```

## 3.5 Drivers with pdfmark specials

### 3.5.1 Driver dvips

```

1207 <*dvips>
1208 \NeedsTeXFormat{LaTeX2e}
1209 \ProvidesFile{bkm-dvips.def}%
1210     [2010/04/03 v1.10 bookmark driver for dvips (H0)]%

1211 \def\BKM@PSHeaderFile#1{%
1212     \special{header=#1}%
1213 }
1214 </dvips>

```

### 3.5.2 Driver dvipsone

```

1215 <*dvipsone>
1216 \NeedsTeXFormat{LaTeX2e}
1217 \ProvidesFile{bkm-dvipsone.def}%
1218     [2010/04/03 v1.10 bookmark driver for dvipsone (H0)]%

1219 \def\BKM@PSHeaderFile#1{%
1220     \special{header=#1}%
1221 }
1222 </dvipsone>

```

### 3.5.3 Driver textures

```

1223 <*textures>
1224 \NeedsTeXFormat{LaTeX2e}
1225 \ProvidesFile{bkm-textures.def}%
1226     [2010/04/03 v1.10 bookmark driver for textures (H0)]%

1227 \def\BKM@PSHeaderFile#1{%
1228     \special{prePostScriptfile #1}%
1229 }
1230 </textures>

```

### 3.5.4 Common part

```

1231 <*pdfmark>
1232 \def\BKM@filename{\jobname.out.ps}
1233 \BKM@PSHeaderFile\BKM@filename

1234 \RequirePackage{atveryend}[2009/12/07]
1235 \AfterLastShipout{\BKM@pdfmark@out}

```

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

```

1236 \def\BKM@pdfmark@out{%
1237     \if@files
1238         \newwrite\BKM@file
1239         \immediate\openout\BKM@file=\BKM@filename\relax

```

```

1240 \BKM@write{\@percentchar!}%
1241 \BKM@write{/pdfmark where{pop}}}%
1242 \BKM@write{%
1243   {%
1244     /globaldict where{pop globaldict}{userdict}ifelse%
1245     /pdfmark/cleartomark load put%
1246   }%
1247 }%
1248 \BKM@write{ifelse}%
1249 \else
1250 \let\BKM@write\@gobble
1251 \let\BKM@D0@entry\@gobbletwo
1252 \fi
1253 }
1254 \def\BKM@write#{%
1255 \immediate\write\BKM@file
1256 }

```

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.

```

1257 \def\BKM@D0@entry#1#2{%
1258 \begingroup
1259 \setkeys{BKM@D0}{#1}%
1260 \def\BKM@D0@title{#2}%
1261 \BKM@UnescapeHex\BKM@D0@title
1262 \expandafter\expandafter\expandafter\BKM@getx
1263 \csname BKM@\BKM@D0@id\endcsname\@empty\@empty
1264 \let\BKM@attr\@empty
1265 \ifx\BKM@D0@flags\@empty
1266 \else
1267 \edef\BKM@attr{\BKM@attr/F \BKM@D0@flags}%
1268 \fi
1269 \ifx\BKM@D0@color\@empty
1270 \else
1271 \edef\BKM@attr{\BKM@attr/C[\BKM@D0@color]}%
1272 \fi
1273 \let\BKM@action\@empty
1274 \ifx\BKM@D0@goto\@empty
1275 \ifx\BKM@D0@dest\@empty
1276 \ifx\BKM@D0@named\@empty
1277 \ifx\BKM@D0@rawaction\@empty
1278 \ifx\BKM@D0@uri\@empty
1279 \ifx\BKM@D0@page\@empty
1280 \PackageError{bookmark}{Missing action}\@ehc
1281 \edef\BKM@action{%
1282   /Action/GoTo%
1283   /Page 1%
1284   /View[/Fit]%
1285 }%
1286 \else
1287 \ifx\BKM@D0@view\@empty
1288 \def\BKM@D0@view{Fit}%
1289 \fi
1290 \edef\BKM@action{%
1291   /Action/GoTo%
1292   /Page \BKM@D0@page
1293   /View[/\BKM@D0@view]%
1294 }%
1295 \fi
1296 \else
1297 \BKM@UnescapeHex\BKM@D0@uri
1298 \BKM@EscapeString\BKM@D0@uri

```

```

1299         \edef\BKM@action{%
1300             /Action<<%
1301             /Subtype/URI%
1302             /URI(\BKM@DO@uri)%
1303             >>%
1304         }%
1305     \fi
1306 \else
1307     \BKM@UnescapeHex\BKM@DO@rawaction
1308     \edef\BKM@action{%
1309         /Action<<%
1310         \BKM@DO@rawaction
1311         >>%
1312     }%
1313 \fi
1314 \else
1315     \BKM@EscapeName\BKM@DO@named
1316     \edef\BKM@action{%
1317         /Action<<%
1318         /Subtype/Named%
1319         /N/\BKM@DO@named
1320         >>%
1321     }%
1322 \fi
1323 \else
1324     \BKM@UnescapeHex\BKM@DO@dest
1325     \BKM@EscapeString\BKM@DO@dest
1326     \edef\BKM@action{%
1327         /Action/GoTo%
1328         /Dest(\BKM@DO@dest)cvn%
1329     }%
1330 \fi
1331 \else
1332     \ifx\BKM@DO@dest\@empty
1333         \ifx\BKM@DO@page\@empty
1334             \def\BKM@DO@page{1}%
1335         \fi
1336         \ifx\BKM@DO@view\@empty
1337             \def\BKM@DO@view{Fit}%
1338         \fi
1339         \edef\BKM@action{%
1340             /Page \BKM@DO@page
1341             /View[/\BKM@DO@view]%
1342         }%
1343     \else
1344         \BKM@UnescapeHex\BKM@DO@dest
1345         \BKM@EscapeString\BKM@DO@dest
1346         \edef\BKM@action{%
1347             /Dest(\BKM@DO@dest)cvn%
1348         }%
1349     \fi
1350     \BKM@UnescapeHex\BKM@DO@gotor
1351     \BKM@EscapeString\BKM@DO@gotor
1352     \edef\BKM@action{%
1353         /Action/GoToR%
1354         /File(\BKM@DO@gotor)%
1355         \BKM@action
1356     }%
1357 \fi
1358 \BKM@write{[]}%
1359 \BKM@write{/Title(\BKM@DO@title)}%
1360 \ifnum\BKM@x@chlds>\z@

```

```

1361     \BKM@write{/Count \ifBKM@DO@open\else-\fi\BKM@x@childs}%
1362   \fi
1363   \ifx\BKM@attr\@empty
1364   \else
1365     \BKM@write{\BKM@attr}%
1366   \fi
1367   \BKM@write{\BKM@action}%
1368   \BKM@write{/OUT pdfmark}%
1369 \endgroup
1370 }
1371 </pdfmark>

```

### 3.6 Common part for pdftex and pdfmark

```
1372 <*pdftex | pdfmark>
```

#### 3.6.1 Write auxiliary file

```

1373 \RequirePackage{auxhook}
1374 \AddLineBeginMainAux{%
1375   \string\providecommand\string\BKM@entry[2]{}%
1376 }

1377 \newcount\BKM@id
1378 \BKM@id=\z@

1379 \def\BKM@O{000}

1380 \newif\ifBKM@sw

1381 \newcommand*{\bookmark}[2][{}]{%
1382   \if@filesw
1383     \begingroup
1384       \def\bookmark@text{#2}%
1385       \BKM@setup{#1}%
1386       \edef\BKM@prev{\the\BKM@id}%
1387       \global\advance\BKM@id\@ne
1388       \BKM@swtrue
1389       \@whilesw\ifBKM@sw\fi{%
1390         \ifnum\ifBKM@startatroot\z@\else\BKM@prev\fi=\z@
1391           \global\BKM@startatrootfalse
1392           \expandafter\xdef\csname BKM@\the\BKM@id\endcsname{%
1393             0{\BKM@level}0%
1394           }%
1395           \BKM@swfalse
1396         \else
1397           \expandafter\expandafter\expandafter\BKM@getx
1398             \csname BKM@\BKM@prev\endcsname
1399           \ifnum\BKM@level>\BKM@x@level\relax
1400             \expandafter\xdef\csname BKM@\the\BKM@id\endcsname{%
1401               {\BKM@prev}{\BKM@level}0%
1402             }%
1403             \ifnum\BKM@prev>\z@
1404               \BKM@CalcExpr\BKM@CalcResult\BKM@x@childs+1%
1405               \expandafter\xdef\csname BKM@\BKM@prev\endcsname{%
1406                 {\BKM@x@parent}{\BKM@x@level}{\BKM@CalcResult}%
1407               }%
1408             \fi
1409             \BKM@swfalse
1410           \else
1411             \let\BKM@prev\BKM@x@parent
1412           \fi
1413         \fi
1414       }%
1415       \pdfstringdef\BKM@title{\bookmark@text}%
1416       \edef\BKM@FLAGS{\BKM@PrintStyle}%

```



```

1417 \csname BKM@HypDestOptHook\endcsname
1418 \BKM@EscapeHex\BKM@dest
1419 \BKM@EscapeHex\BKM@uri
1420 \BKM@EscapeHex\BKM@goto
1421 \BKM@EscapeHex\BKM@rawaction
1422 \BKM@EscapeHex\BKM@title
1423 \immediate\write\@mainaux{%
1424 \string\BKM@entry{%
1425 id=\number\BKM@id
1426 \ifBKM@open
1427 \ifnum\BKM@level<\BKM@openlevel
1428 ,open%
1429 \fi
1430 \fi
1431 \BKM@auxentry{dest}%
1432 \BKM@auxentry{named}%
1433 \BKM@auxentry{uri}%
1434 \BKM@auxentry{goto}%
1435 \BKM@auxentry{page}%
1436 \BKM@auxentry{view}%
1437 \BKM@auxentry{rawaction}%
1438 \BKM@auxentry{color}%
1439 \ifnum\BKM@FLAGS>\z@
1440 ,flags=\BKM@FLAGS
1441 \fi
1442 }{\BKM@title}%
1443 }%
1444 \endgroup
1445 \fi
1446 }

1447 \def\BKM@getx#1#2#3{%
1448 \def\BKM@x@parent{#1}%
1449 \def\BKM@x@level{#2}%
1450 \def\BKM@x@childs{#3}%
1451 }

1452 \def\BKM@auxentry#1{%
1453 \expandafter\ifx\csname BKM@#1\endcsname\@empty
1454 \else
1455 ,#1={\csname BKM@#1\endcsname}%
1456 \fi
1457 }

```

### 3.6.2 Read auxiliary data

```

1458 \SetupKeyvalOptions{family=BKM@DO,prefix=BKM@DO@}
1459 \DeclareStringOption[0]{id}
1460 \DeclareBoolOption{open}
1461 \DeclareStringOption{flags}
1462 \DeclareStringOption{color}
1463 \DeclareStringOption{dest}
1464 \DeclareStringOption{named}
1465 \DeclareStringOption{uri}
1466 \DeclareStringOption{goto}
1467 \DeclareStringOption{page}
1468 \DeclareStringOption{view}
1469 \DeclareStringOption{rawaction}

1470 \AtBeginDocument{%
1471 \let\BKM@entry\BKM@DO@entry
1472 }

1473 </pdfTeX | pdfmark>

```

## 3.7 Option `atend`

### 3.7.1 Hook

```
1474 <*package>
1475 \ifBKM@atend
1476 \else
\BookmarkAtEnd This is a dummy definition that generates a warning if option atend has not been
given.
1477 \newcommand{\BookmarkAtEnd}[1]{%
1478 \PackageWarning{bookmark}{%
1479 Ignored, because option ‘atend’ is missing%
1480 }%
1481 }%

1482 \expandafter\endinput
1483 \fi

\BookmarkAtEnd

1484 \newcommand*{\BookmarkAtEnd}{%
1485 \g@addto@macro\BKM@EndHook
1486 }

1487 \let\BKM@EndHook\@empty
1488 </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.

```
1489 <*pdftex | pdfmark>
1490 \ifBKM@atend
1491 \AfterLastShipout{%
1492 \BKM@EndHook
1493 }%
1494 \fi
1495 </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 L<sup>A</sup>T<sub>E</sub>X runs are necessary.

```
1496 <*dvi pdfm | vtex>
1497 \ifBKM@atend
1498 \RequirePackage{atenddvi}%
1499 \AtEndDvi{\BKM@EndHook}%
1500 \fi
1501 </dvi pdfm | vtex>
```

## 4 Installation

### 4.1 Download

**Package.** This package is available on CTAN<sup>1</sup>:

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

[CTAN:macros/latex/contrib/oberdiek/bookmark.pdf](#) Documentation.

**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  $\text{\TeX}$  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- $\text{\TeX}$ :

```
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>	$\rightarrow$ <code>tex/latex/oberdiek/bookmark.sty</code>
<code>bkm-dvipdfm.def</code>	$\rightarrow$ <code>tex/latex/oberdiek/bkm-dvipdfm.def</code>
<code>bkm-dvips.def</code>	$\rightarrow$ <code>tex/latex/oberdiek/bkm-dvips.def</code>
<code>bkm-dvipsonsone.def</code>	$\rightarrow$ <code>tex/latex/oberdiek/bkm-dvipsonsone.def</code>
<code>bkm-textures.def</code>	$\rightarrow$ <code>tex/latex/oberdiek/bkm-textures.def</code>
<code>bkm-pdftex.def</code>	$\rightarrow$ <code>tex/latex/oberdiek/bkm-pdftex.def</code>
<code>bkm-vtex.def</code>	$\rightarrow$ <code>tex/latex/oberdiek/bkm-vtex.def</code>
<code>bookmark.pdf</code>	$\rightarrow$ <code>doc/latex/oberdiek/bookmark.pdf</code>
<code>bookmark-example.tex</code>	$\rightarrow$ <code>doc/latex/oberdiek/bookmark-example.tex</code>
<code>bookmark.dtx</code>	$\rightarrow$ <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`.

---

<sup>1</sup><http://ftp.ctan.org/tex-archive/>

## 4.4 Refresh file name databases

If your  $\text{\TeX}$  distribution ( $\text{te\TeX}$ ,  $\text{mik\TeX}$ , ...) relies on file name databases, you must refresh these. For example,  $\text{te\TeX}$  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  $\text{\LaTeX}$ .** The `.dtx` chooses its action depending on the format:

**plain- $\text{\TeX}$ :** Run `docstrip` and extract the files.

**$\text{\LaTeX}$ :** Generate the documentation.

If you insist on using  $\text{\LaTeX}$  for `docstrip` (really, `docstrip` does not need  $\text{\LaTeX}$ ), 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  $\text{pdf\LaTeX}$ :

```
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- $\text{pdf\TeX}$  users.

[2007/02/21 v0.3]

- Dependency from  $\text{pdf\TeX}$  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  $\epsilon$ -TeX removed.

[2007/04/09 v0.8]

- Option atend added.
- Option rgbcolor removed. `rgbcolor=<r> <g> <b>` can be replaced by `color=[rgb]{<r>,<g>,<b>}`.
- 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  $\epsilon$ -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.

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