

# **xbmks**: Cross-document bookmarks

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3 \RequirePackage{xkeyval}	
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## 1 Description

More than a couple decades ago (counting back from 2018), I wrote two mathematics tutorials: *eCalculus* and *Algebra Review in Ten Lessons*. The tutorials consisted of a number of lessons, each in a separate PDF. The bookmarks of each lessons contained the table of contents for the whole tutorial. A student, in theory, could then jump from one lesson to another by selecting an entry of interest from the bookmarks. In the intervening years I have not seen a L<sup>A</sup>T<sub>E</sub>X package for merging the table of contents of a set of PDFs and merge them in this each member of the set. This package attempts to do just that.

## 2 Drivers and options

We support the drivers dvips (and dvipsone), pdflatex, lualatex, and xelatex; these options are then named dvipsone, dvips, pdftex, luatex, and xetex.

```
6 \def\xbmk@driver{xbmks-pdfmark.def}
7 \DeclareOptionX{dvipsone}{\def\xbmk@driver{xbmks-pdfmark.def}}
8 \DeclareOptionX{dvips}{\def\xbmk@driver{xbmks-pdfmark.def}}
9 \DeclareOptionX{pdftex}{\def\xbmk@driver{xbmks-pdftex.def}}
10 \DeclareOptionX{lualatex}{\def\xbmk@driver{xbmks-pdftex.def}}
11 \DeclareOptionX{xetex}{\def\xbmk@driver{xbmks-xetex.def}}
```

## 3 Process the options

```
12 \ifpdf\ExecuteOptionsX{pdftex}\else
13 \ifxetex\ExecuteOptionsX{xetex}\else
14   \let\ExecuteOptions@SAVE\ExecuteOptions
15   \let\ExecuteOptions\ExecuteOptionsX
16   \InputIfFileExists{web.cfg}{}%
17   {\@ifundefined{l@tex@@@driver}{\ExecuteOptionsX{dvips}}%
18    {\ExecuteOptionsX{dvipsone}}}%
19   \let\ExecuteOptions\ExecuteOptions@SAVE
20 \fi\fi
21 \ProcessOptionsX
```

## 4 Requirements

The minimal requirement is `hyperref` and its built-in bookmark system. It is important to note that the `bookmark` package is not supported.

```
22 \RequirePackage{hyperref}
```

`\xbmksetup` Set the cross-document options:

```
\xbmksetup{
  docbundle={\langle doc_1\rangle,\langle doc_2\rangle,\dots,\langle doc_n\rangle},
  colors={int=\langle color\rangle,ext=\langle color\rangle},
  styles={intbf,extbf,intit,extit}
}
```

This command must appear in one and only one of the document bundle, perhaps one of the documents you are calling the ‘main file’. It writes the key-values to the file `xbmks.cfg` which is then read back in by the other members of the document bundle, as specified by the `docbundle` key. The base names of the document bundle must match the name given to it by `\jobname`, exact spelling, case sensitive.

**Key-values for \xbmksetup.** The keys belonging to the `xbmksetup` family: `docbundle`, `colors`, and `styles`.

```

docbundle 23 \define@key{xbmksetup}{docbundle}[] {\def\x@bmks@docs{\#1}}
colors    24 \let\x@bmks@docs\empty
styles   25 \define@key{xbmksetup}{colors}[] {\def\x@bmks@colors{\#1}}
          26 \let\x@bmks@colors\empty
          27 \define@key{xbmksetup}{styles}[] {\def\x@bmks@styles{\#1}}
          28 \let\x@bmks@styles\empty

```

**Values for the key colors.** The value recognized are

```
colors={int=<color>,ext=<color>}
```

If the value of `int` or `ext` is empty, then the PDF viewer's default colors are using (black).

```

29 \define@key{xbmk@colors}{int}[] {%
30   \HyColor@BookmarkColor{\#1}{\x@bmks@intC}{\x@bmks@int}%
31   \ifx\x@bmks@intC\empty\else
32     \edef\x@bmks@intC{/C[\x@bmks@intC]}\fi
33 }
34 \let\x@bmks@intC\empty
35 \define@key{xbmk@colors}{ext}[] {%
36   \HyColor@BookmarkColor{\#1}{\x@bmks@extC}{\x@bmks@ext}%
37   \ifx\x@bmks@extC\empty\else
38     \edef\x@bmks@extC{/C[\x@bmks@extC]}\fi
39 }
40 \let\x@bmks@extC\empty
41 \let\x@bmks@Yes=y \let\x@bmks@No=n

```

**Values for the key colors.** The value recognized are

```
styles={intbf,intit,extbf,extit}
```

These are valueless keys (Boolean keys, actually). `intbf` means the interior document bookmarks are set in bold while `intbf,intit` creates bold and italic font.

```

42 \define@boolkey{xbmk@styles}{intbf}[true]{}
43 \define@boolkey{xbmk@styles}{extbf}[true]{}
44 \define@boolkey{xbmk@styles}{intit}[true]{}
45 \define@boolkey{xbmk@styles}{extit}[true]{}

```

We evaluate the values of `\xbmksetup` by getting the values of the `xbmksetup` family.

```

46 \newcommand{\xbmksetup}[1]{\setkeys{xbmksetup}{#1}%
47   \ifx\x@bmks@docs\empty

```

If there is no `docbundle` is specified, we use `\jobname` as its value.

```

48   \PackageInfo{xbmks}{The docbundle key of \string\xbmksetup\space
49   is empty,\MessageBreak
50   I will give it a value of '\jobname',\MessageBreak

```

```

51     in hopes this is your intention}%
52     \gdef\xbmks@cnt{1}%
53     \def\xbmks@next{\write\xbmks@cfg{docbundle={\jobname},#1}\else
54     \def\xbmks@next{\write\xbmks@cfg{#1}}\fi\xbmks@next
55 }

```

We write the key-values of `\xbmksetup` to the hard drive in the file `xbmks.cfg`, this is `\xbmksetupi{\langle KVPairs \rangle}`. `\xbmksetupi` is defined below, it is the command that actually does the heavy lifting in processing the key-values.

```

56 \def\write@xbmks@cfg#1{%
57   \newwrite\xbmks@setup \immediate\openout \xbmks@setup xbmks.cfg
58   \set@display@protect
59   \immediate\write\xbmks@setup{\protect\xbmksetupi{#1}}%
60   \set@typeset@protect
61   \immediate\closeout\xbmks@setup
62 }

```

`\xbmksetupi` is an internal command that sets the key-values across all files in the `docbundle`.

```

63 \newcommand{\xbmksetupi}[1]{%
64   \setkeys\xbmksetup{#1}%
65   \edef\x{\noexpand\x@docbundle{\x@bmks@docs}}\x
66   \edef\x{\noexpand
67     \setkeys\xbmk@colors}{\x@bmks@colors}}\x
68   \edef\x{\noexpand
69     \setkeys\xbmk@styles}{\x@bmks@styles}}\x
70   \let\xbmk@intF\empty
71   \ifKV\xbmk@styles@intit
72     \ifKV\xbmk@styles@intbf
73       \def\xbmk@intF{/F 3}\else
74       \def\xbmk@intF{/F 1}\fi
75   \else
76     \ifKV\xbmk@styles@intbf
77       \def\xbmk@intF{/F 2}\fi
78   \fi
79   \let\xbmk@extF\empty
80   \ifKV\xbmk@styles@extit
81     \ifKV\xbmk@styles@extbf
82       \def\xbmk@extF{/F 3}\else
83       \def\xbmk@extF{/F 1}\fi
84   \else
85     \ifKV\xbmk@styles@extbf
86       \def\xbmk@extF{/F 2}\fi
87   \fi
88 }

```

`\x@docbundle` is a comma-delimited list of document base names:

$$\x@docbundle{\langle doc_1 \rangle, \langle doc_2 \rangle, \dots, \langle doc_n \rangle}$$

This command is called internally by `\xbmksetupi`.

```

89 \def\xbmksarg#1#2{\expandafter#1\csname#2\endcsname}
90 \xdef\xbmk@cnt{0}
91 \newcommand{\x@docbundle}[1]{\bgroup
92   \def>thisDoc{\jobname}\count\z@=0 %
93   \edef\@tmpexp{\noexpand\for\noexpand\@arg:=#1}%
94   \atmpexp\do{\advance\count\z@ by 1\relax
95     \edef\x{\noexpand\xbmk@recordDoc{\@arg}}\x
96     \edef\x{\noexpand\xbmk@docID{\@arg}}\x
97   }%
98   \xdef\xbmk@cnt{\the\count\z@}\egroup
99 }
100 \newcommand{\xbmk@recordDoc}[1]{%
101   \xbmksarg\xdef\xbmk@doc{\the\count\z@}{#1}}

```

Because we are bringing in multiple outline files, there may be duplicate anchor names. We assign each file in the document bundle a unique ID ‘`x1⟨anchor⟩`’, ‘`x2⟨anchor⟩`’, etc. The IDs are ultimately assigned through `\pdfbookmarkx`.

```

102 \newcommand{\xbmk@docID}[1]{%
103   \xbmksarg\xdef{x#1}{x\the\count\z@}}
104 \xbmksarg\xdef{x\jobname}{x0}

```

## 5 Extending bookmarks to arbitrary actions

It is possible to create bookmarks with arbitrary actions, just as the `bookmark` package, does. Here we try to use `hyperref`'s native bookmark support. The `hyperref` commands `\pdfbookmark`, `\currentbookmark`, `\subpdfbookmark`, and `\belowpdfbookmark` are modified.

`\pdfbookmarkx [⟨level⟩] {⟨text⟩} [⟨xbmkskeys-kvp⟩] {⟨name⟩}`

Defines a bookmark at `⟨level⟩`. If `⟨level⟩` is not provided, the level 1 is assumed. We write to the outline file the action desired for this bookmark. `\currentAction` is defined below. We do not set an anchor; if the document author wants an anchor, he should use `\pdfbookmark`. As with `\pdfbookmark`, the `\pdfbookmarkx` should not normally be directly used.

`action` **Key-values for the ‘`\...bookmarkx`’ commands.** Recognized keys are `action`, `color`, and `style`. Note that these keys are singular, as opposed to `colors` and `styles` defined in the `xbmksfamily` family. This is the `xbmkskeys` family.

```

105 \define@key{xbmkskeys}{action}{\def\x@bmks@action{#1}}
106 \let\x@bmks@action\empty
107 \define@key{xbmkskeys}{color}{}{%
108   \HyColor@BookmarkColor{#1}{\x@bmks@C}{xbmks}{color}%
109   \ifx\x@bmks@C\empty\else
110     \edef\x@bmks@C{/C[\x@bmks@C]}\fi
111 }
112 \let\x@bmks@C\empty
113 \define@key{xbmkskeys}{style}{}{%
114   \edef\x{\noexpand\setkeys{xbmks@style}{#1}}\x

```

```

115  \let\x@bmks@F\@empty
116  \ifKV@xbmks@style@it
117    \ifKV@xbmks@style@bf
118      \def\x@bmks@F{/F 3}\else
119      \def\x@bmks@F{/F 1}\fi
120  \else
121    \ifKV@xbmks@style@bf
122      \def\x@bmks@F{/F 2}\fi
123  \fi
124 }
125 \let\x@bmks@F\@empty

```

The `style` key takes zero, one, or two values, these are `bf` and `it`.

```

126 \define@boolkey{xbmks@style}{bf}[true]{}
127 \define@boolkey{xbmks@style}{it}[true]{}
128 \def\x@rollCFIntoActionBmrk#1{%
129   \xbmkcsarg\ifx{X_{#1}}\relax
130     \let\x@bmks@C\@empty\let\x@bmks@F\@empty\fi
131   \ifx\xbmk@J\xbmk@filename
132     \ifx\x@bmks@C\@empty\let>thisCol\xbmks@intC\else
133       \let>thisCol\x@bmks@C\fi
134     \ifx\x@bmks@F\@empty\let>thisF\xbmk@intF\else
135       \let>thisF\x@bmks@F\fi
136   \else
137     \ifx\x@bmks@C\@empty\let>thisCol\xbmks@extC\else
138       \let>thisCol\x@bmks@C\fi
139     \ifx\x@bmks@F\@empty\let>thisF\xbmk@extF\else
140       \let>thisF\x@bmks@F\fi
141   \fi
142   \global\let\x@bmks@C\@empty\global\let\x@bmks@F\@empty
143 }

```

We finally arrive at `\pdfbookmarkx` command.

```

144 \newcommand\pdfbookmarkx[2][0]{%
145   \@ifnextchar[%]
146   { \pdfbookmarkx@i{#1}{#2} }
147   { \pdfbookmarkx@i{#1}{#2}[] }
148 \def\pdfbookmarkx@i#1#2[#3]#4{%
149   \def\x@rgiii{#3}\ifx\x@rgiii\@empty
     if there is no action, treat as a destination
150   \Hy@writebookmark{}{#2}{#4.#1}{#1}{toc}%
151   \hyper@anchorstart{#4.#1}\hyper@anchorend
152 \else
153   \protected@write\@outlinefile{}{%
154     \string\nextAction% assign doc ID
155     {\@nameuse{x\jobname}{#4.#1}{#3}}%
156   \Hy@writebookmark{}{#2}{\@nameuse{x\jobname}{#4.#1}{#1}{toc}}%
157   \fi
158 }

```

```
\currentpdfbookmarkx{\text}{\xbmkskeys-kvp}{\name}
```

The `action=`*action* is raw PDF code, for example,

```
\currentpdfbookmarkx[/S/URI/URI(http://www.acrotex.net)]  
{http://www.acrotex.net}{home}
```

The command creates a bookmark at the current bookmark level in the outline tree and associates the specified `action`. The argument `\text` appears in the bookmark panel. The `\name` is used for identification purposes.

```
159 \newcommand{\currentpdfbookmarkx}[1]{%  
160   \@ifnextchar[%]  
161     {\currentpdfbookmarkx@i{\#1}}  
162     {\currentpdfbookmarkx@i{\#1}[]}}  
163 \def\currentpdfbookmarkx@i#1[#2]#3{  
164   \pdfbookmarkx[\Hy@currentbookmarklevel]{#1}[{#2}]{#3}}
```

```
\subpdfbookmarkx{\text}{\xbmkskeys-kvp}{\name}
```

Reduces the current bookmark level by one, then creates the bookmark at that level. The reduced level is the new current bookmark level.

```
165 \newcommand{\subpdfbookmarkx}[1]{%  
166   \@ifnextchar[%]  
167     {\subpdfbookmarkx@i{\#1}}  
168     {\subpdfbookmarkx@i{\#1}[]}}  
169 \def\subpdfbookmarkx@i#1[#2]#3{  
170   \@tempcnta\Hy@currentbookmarklevel  
171   \Hy@StepCount\@tempcnta  
172   \expandafter  
173   \pdfbookmarkx\expandafter[\the\@tempcnta]{#1}[{#2}]{#3}}
```

```
\belowpdfbookmarkx{\text}{\xbmkskeys-kvp}{\name}
```

Creates a bookmark at one level below the current bookmark level without changing the value of the current bookmark level.

```
174 \newcommand{\belowpdfbookmarkx}[1]{%  
175   \@ifnextchar[%]  
176     {\belowpdfbookmarkx@i{\#1}}  
177     {\belowpdfbookmarkx@i{\#1}[]}}  
178 \def\belowpdfbookmarkx@i#1[#2]#3{  
179   \@tempcnta\Hy@currentbookmarklevel  
180   \Hy@StepCount\@tempcnta  
181   \expandafter  
182   \pdfbookmarkx\expandafter[\the\@tempcnta]{#1}[{#2}]{#3}%  
183   \advance\@tempcnta by -1 %  
184   \xdef\Hy@currentbookmarklevel{\the\@tempcnta}}
```

```
\nextAction@i{\anchor.level}{\xbmkskeys-kvp}
```

This command is used internally, the document author need not do anything. The command `\nextAction` is `\let` to `\nextAction@i` just prior to when the outline file is input; and is `\let` to `\gobbletwo`, otherwise.

```
185 \def\nextAction@i#2{\@ifundefined{X_\#1}{%
```

```

186      \setkeys{xbmkskeys}{#2}%
187      \xbmksarg\xdef{X_#1}{\x@bmks@action}%
188      }{\global\xbmksarg\let{X_#1}\relax
189      \PackageWarning{xbmks}
190      {The anchor name '#1' is already defined,\MessageBreak
191      change this name, the bookmark will be created\MessageBreak
192      but it will have no associated action}}}

193 \def\x@outWarningMsg{\PackageWarningNoLine{xbmks}{%
194 @@@@@@@@@@@@CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC@MessageBreak
195 @@ Outline files were not input, compile again @@\MessageBreak
196 @@@@@@@@@@@@CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC@MessageBreak}%

```

These commands are implemented in the driver dependent sections.

```

197 % End package
198 </package>
199 <*pdfmark>

```

## 6 Driver dependent code

### 6.1 The pdfmark driver

We redefine/modify the \ReadBookmarks command of hyperref, this definition is driver dependent.

```

200 \def\ReadBookmarks{%
201   \pdf@ifdraftmode{}{%
202     \begingroup\def\\{\backslash@backslashchar}\backslash@backslashchar}%
203     \def\calc@bm@number##1{%
204       \tempcnta=\check@bm@number##1\relax
205       \advance\tempcnta by 1 %
206       \expandafter\edef\csname B_##1\endcsname{\the\tempcnta}%
207     }%
208     \def\do##1{%
209       \ifnum\catcode`##1=\active
210         \makeother##1%
211       \else
212         \ifnum\catcode`##1=6 %
213           \makeother##1%
214         \fi
215       \fi
216     }%
217     \dospecials
218     \Hy@safe@activestore
219     \escapechar='\\%
220     \ifx\WriteBookmarks\relax
221       \global\let\WriteBookmarks\relax
222     \fi
223     \begingroup
224       \def\WriteBookmarks{0}%

```

```

225      \count\z@=0\relax
226      \edef\xbmk@J{\jobname}%
227      \@whilenum \count\z@<\xbmk@cnt\relax\do{%
228          \advance\count\z@ by 1 %
229          \edef\xbmk@thisdoc{\xbmk@doc\the\count\z@}%
230          \edef\xbmk@filename{\@nameuse{\xbmk@thisdoc}}%
231          \@onelvel@sanitize\xbmk@filename
232          \bgroup
233          \def\@B00KMARK[##1] [##2] ##3##4##5{%
234              \calc@bm@number{##5}%
235          }%
236          \let\nextAction\gobbletwo
237          \InputIfFileExists{\xbmk@filename.out}{}{\x@outWarningMsg}%
238          \def\@B00KMARK[##1] [##2] ##3##4##5{%
239              \def\Hy@temp{##4}%

```

If ‘X\\_##3’ is undefined (`\relax`), it is a normal bookmark.

```

240          \xbmkcsarg\ifx{X_##3}\relax
241              \ifx\xbmk@J\xbmk@filename
242                  \pdfmark{%
243                      pdfmark=/OUT,%
244                      Count={##2\check@bm@number{##3}},%
245                      Raw={\xbmks@intC\xbmk@intF},%
246                      Dest={##3},%
247                      Title=\expandafter\strip@prefix\meaning\Hy@temp
248                  }%
249              \else
250                  \pdfmark{%
251                      pdfmark=/OUT,%
252                      Count={##2\check@bm@number{##3}},%
253                      Raw={\xbmks@extC\xbmk@extF},%
254                      Action=/GoToR,%
255                      File={\xbmk@filename.pdf},%
256                      Dest={##3},%
257                      Title=\expandafter\strip@prefix\meaning\Hy@temp
258                  }%
259              \fi
260          \else

```

The anchor has an ‘X\\_’ definition, it is a bookmark created from one of the ‘bookmarkx’ commands. We treat this as a separate case.

```

261          \x@rollCFIntoActionBmrk{##3}%
262          \pdfmark{%
263              pdfmark=/OUT,%
264              Count={##2\check@bm@number{##3}},%
265              Raw={/Action<<\@nameuse{X_##3}>>\thisCol\thisF},%
266              Title=\expandafter\strip@prefix\meaning\Hy@temp
267          }%
268          \fi
269      }% bookmark
270      \let\nextAction\nextAction@i

```

```

271      \InputIfFileExists{\xbmk@filename.out}{}{%
272          \egroup
273      }% \@whilenum
274      \endgroup
275  \endgroup
276 }%
277 \ifx\WriteBookmarks\relax\else
278     \if@filesw
279         \newwrite\@outlinefile
280         \Hy@OutlineRerunCheck
281         \immediate\openout\@outlinefile=\jobname.out\relax
282         \ifHy@typexml
283             \immediate\write\@outlinefile{<relaxxml>\relax}%
284         \fi
285     \fi
286 \fi
287 }
288 </pdfmark>

```

## 6.2 Code for pdftex/luatex driver

We redefine/modify the \ReadBookmarks command of hyperref, this definition is driver dependent.

```

289 <*pdftex>
290 \def\ReadBookmarks{%
291     \pdf@ifdraftmode{}{%
292         \begingroup\def\\{\backslash\@backslashchar\@backslashchar}\% dps
293         \def\calc@bm@number##1{%
294             \tempcpta=\check@bm@number{##1}\relax
295             \advance\tempcpta by 1 %
296             \expandafter\edef\csname B_##1\endcsname{\the\tempcpta}\%
297         }%
298         \def\Hy@OutlineName##1##2##3##4{%
299             \expandafter\pdfoutline\ifx\orgi\empty\else
300                 attr {##1} \fi
301                 user {##2} count##3{##4}\%
302             \ goto name{##2} count#3{##4}\%
303         }%
304         \def\do##1{%
305             \ifnum\catcode`##1=\active
306                 \makeother##1%
307             \else
308                 \ifnum\catcode`##1=6 %
309                     \makeother##1%
310                 \fi
311             \fi
312         }%
313         \dospecials
314         \Hy@safe@activestru

```

```

315      \escapechar='\\%
316      \ifx\WriteBookmarks\relax
317          \global\let\WriteBookmarks\relax
318      \fi
319      \begingroup
320      \def\WriteBookmarks{0}%
321      \count\z@=0\relax
322      \edef\xbmk@J{\jobname}%
323      \ifevenum \count\z@<\xbmk@cnt\relax\def%
324          \advance\count\z@ by 1 %
325          \edef\xbmk@thisdoc{\xbmk@doc\the\count\z@}%
326          \edef\xbmk@filename{\@nameuse{\xbmk@thisdoc}}%
327          \onelevel@sanitize\xbmk@filename
328          \bgroup
329          \gdef\@@BOOKMARK[##1] [##2]##3##4##5{%
330              \calc@bm@number{##5}%
331          }%
332          \let\nextAction@gobbletwo
333          \InputIfFileExists{\xbmk@filename.out}{}{\x@outWarningMsg}%
334          \gdef\@@BOOKMARK[##1] [##2]##3##4##5{%
335              \def\Hy@temp{##4}%
336              \Hy@pstringdef\Hy@pstringName{\HyperDestNameFilter{##3}}%
337              \xbmkcsarg\ifx{X_{##3}}\relax

```

Ordinary bookmark

```

338          \ifx\xbmk@J\xbmk@filename
339              \Hy@OutlineName{\xbmks@intC\xbmk@intF}{<</S/GoTo%
340                  /D(\Hy@pstringName)>>}{%
341                      ##2\check@bm@number{\Hy@pstringName}%
342                  }{%
343                      \expandafter\strip@prefix\meaning\Hy@temp
344                  }%
345          \else
346              \Hy@OutlineName{\xbmks@extC\xbmk@extF}{<</S/GoToR%
347                  /F(\xbmk@filename.pdf)/D(\Hy@pstringName)>>}{%
348                      ##2\check@bm@number{##3}%
349                  }{%
350                      \expandafter\strip@prefix\meaning\Hy@temp
351                  }%
352          \fi
353      \else

```

Bookmark created by one of the ‘...bookmarkx commands

```

354          \x@rollCFIntoActionBmrk{##3}%
355          \Hy@OutlineName{\thisCol\thisF}
356          {<<\@nameuse{X_{##3}}>>}{%
357              ##2\check@bm@number{\Hy@pstringName}%
358          }{%
359              \expandafter\strip@prefix\meaning\Hy@temp
360          }%
361      \fi

```

```

362      }% bookmark
363      \let\nextAction\nextAction@i
364      \InputIfFileExists{\xbmk@filename.out}{}{}}%
365      \egroup
366      } % \@whilenum
367      \endgroup
368  }%
369 \ifx\WriteBookmarks\relax
370 \else
371   \if@filesw
372     \newwrite\@outlinefile
373     \Hy@OutlineRerunCheck
374     \immediate\openout\@outlinefile=\jobname.out\relax
375     \ifHy@typexml
376       \immediate\write\@outlinefile{<relaxxml>\relax}%
377     \fi
378   \fi
379 \fi
380 }
381 </pdftex>
382 <*xetex>

```

### 6.3 Code for xetex driver

We redefine/modify the \ReadBookmarks command of hyperref, this definition is driver dependent.

```

383 \def\ReadBookmarks{%
384   \pdf@ifdraftmode{}{%
385     \begingroup\def\\{\backslash\backslash}% dps
386     \def\calc@bm@number##1{%
387       \tempcpta=\check@bm@number{##1}\relax
388       \advance\tempcpta by 1 %
389       \expandafter\edef\csname B_##1\endcsname{\the\tempcpta}%
390     }%
391     \def\do##1{%
392       \ifnum\catcode`##1=\active
393         \makeother##1%
394       \else
395         \ifnum\catcode`##1=6 %
396           \makeother##1%
397         \fi
398       \fi
399     }%
400     \dospecials
401     \Hy@safe@activestore
402     \escapechar='\\%
403     \ifx\WriteBookmarks\relax
404       \global\let\WriteBookmarks\relax
405     \fi

```

```

406      \begingroup
407          \def\WriteBookmarks{0}%
408          \count\z@=0\relax
409          \edef\xbmk@J{\jobname}%
410          \whilenum \count\z@<\xbmk@cnt\relax\do{%
411              \advance\count\z@ by 1 %
412              \edef\xbmk@thisdoc{\xbmk@doc\the\count\z@}%
413              \edef\xbmk@filename{\@nameuse{\xbmk@thisdoc}}%
414              \onelevel@sanitize\xbmk@filename
415              \bgroup
416                  \def\@@BOOKMARK[##1] [##2]##3##4##5{%
417                      \calc@bm@number{##5}%
418                  }%
419                  \let\nextAction\gobbletwo
420                  \InputIfFileExists{\xbmk@filename.out}{}{\x@outWarningMsg}%
421                  \def\@@BOOKMARK[##1] [##2]##3##4##5{%
422                      \def\Hy@temp{##4}%
423                      \Hy@pstringdef\Hy@pstringName{\HyperDestNameFilter{##3}}%
424                      \x@rollCFIntoActionBmrk{##3}%
425                      \pdfm@mark{%
426                          outline \ifHy@DvipdfmxOutlineOpen
427                              [\ifnum##21>\z@\else-\fi] \fi
428                          ##1<<%
429                          /Title(\expandafter\strip@prefix\meaning\Hy@temp)%
430                          \xbmkcsarg\ifx{X_{##3}}\relax

```

Ordinary bookmark

```

431                  \ifx\xbmk@J\xbmk@filename
432                      /A<<%
433                      /S/GoTo%
434                      /D(\Hy@pstringName)%
435                      >>%
436                  \else
437                      /A<<%
438                      /S/GoToR/F(\xbmk@filename.pdf)%
439                      /D(\Hy@pstringName)%
440                      >>%
441                  \fi
442              \else

```

Bookmark created by one of the \...bookmarkx commands

```

443                  /A<<\@nameuse{X_{##3}}>>
444                  \fi
445                  \thisCol\thisF
446                  >>%
447                  }% \pdfm@mark
448                  \let\thisC\empty\let\thisF\empty
449              }% bookmark
450              \let\nextAction\nextAction@i
451              \InputIfFileExists{\xbmk@filename.out}{}{%
452                  \egroup

```

```

453      }% \@whilenum
454      \endgroup
455      \endgroup
456  }%
457 \ifx\WriteBookmarks\relax
458 \else
459   \if@filesw
460     \newwrite\@outlinefile
461     \Hy@OutlineRerunCheck
462     \immediate\openout\@outlinefile=\jobname.out\relax
463     \ifHy@typexml
464       \immediate\write\@outlinefile{<relaxxml>\relax}%
465     \fi
466   \fi
467 \fi
468 }
469 </xetex>
470 <*package>
471 \InputIfFileExists{xmks.cfg}{}{%
472 \@ifpackagelocked{bookmark}{\PackageWarningNoLine{xmks}{The
473 bookmark package is not supported; \MessageBreak
474 this package does nothing, as a result}}%
475 \InputIfFileExists{\xbmk@driver}{}{}}
476 </package>

```

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Numbers written in italic refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

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## 8 Change History

v1.1 (2018/06/13)

General: Fixed misspelling of drive command for pdfmark case	2
\xbmksetup: Allow an empty value of docbundle, its value is set to \jobname	2
v2.0 (2018/06/21)	
\pdfbookmarkx: Added '\...bookmarkx commands	5

v2.0.1 (2018/06/25)

\pdfbookmarkx: Added key-values for action, color, and style for custom '\...bookmarkx commands	5
v2.0.2 (2018/07/04)	
\xbmksetup: Added an empty docbundle argument. This solves a problem that the bookmarks not appearing after an even number of compiles.	3