

# xbmks: Cross-document bookmarks

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```
1 % Begin package
2 <*package>
3 \RequirePackage{xkeyval}
4 \RequirePackage{ifpdf}[2006/02/20]
5 \RequirePackage{ifxetex}[2006/08/21]
```

## 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, luatex, 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{luatex}{\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 doc1\rangle,\langle doc2\rangle,\dots,\langle docn\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 \xmksetup.** The keys belonging to the `xmksetup` family:

```
docbundle docbundle, colors, and styles.
colors    23 \define@key{xmksetup}{docbundle}[]{\def\x@bmkdocs{#1}}
styles    24 \let\x@bmkdocs\@empty
          25 \define@key{xmksetup}{colors}[]{\def\x@bmkcolors{#1}}
          26 \let\x@bmkcolors\@empty
          27 \define@key{xmksetup}{styles}[]{\def\x@bmkstyles{#1}}
          28 \let\x@bmkstyles\@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{xmk@colors}{int}[]{%
30   \HyColor@BookmarkColor{#1}{\x@bmkintC}{x@bmk}{int}%
31   \ifx\x@bmkintC\@empty\else
32   \edef\x@bmkintC{/C[\x@bmkintC]}\fi
33 }
34 \let\x@bmkintC\@empty
35 \define@key{xmk@colors}{ext}[]{%
36   \HyColor@BookmarkColor{#1}{\x@bmkextC}{x@bmk}{ext}%
37   \ifx\x@bmkextC\@empty\else
38   \edef\x@bmkextC{/C[\x@bmkextC]}\fi
39 }
40 \let\x@bmkextC\@empty
41 \let\x@bmkYes=y \let\x@bmkNo=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{xmk@styles}{intbf}[true]{}
43 \define@boolkey{xmk@styles}{extbf}[true]{}
44 \define@boolkey{xmk@styles}{intit}[true]{}
45 \define@boolkey{xmk@styles}{extit}[true]{}

```

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

```
46 \newcommand{\xmksetup}[1]{\setkeys{xmksetup}{docbundle,#1}%
47   \ifx\x@bmkdocs\@empty
```

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

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

```

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

```

We write the key-values of `\xbmksetup` to the hard drive in the file `xbmks.cfg`, this is `\xbmksetupi{<KVPairs>}`. `\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\xbmk@setup \immediate\openout \xbmk@setup xbmks.cfg
58   \set@display@protect
59   \immediate\write\xbmk@setup{\protect\xbmksetupi{#1}}%
60   \set@typeset@protect
61   \immediate\closeout\xbmk@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   \@tmpexp\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   \xbmkcsarg\xdef{x#1}{x\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   \xbmkcsarg\xdef{x#1}{x\the\count\z@}}
104 \xbmkcsarg\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** `color`, and `style`. Note that these keys are singular, as opposed to `colors` and  
**style** `styles` defined in the `xbmksetup` 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   \xmkcsarg\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{% level, title, action, name
149   \def\x@rgiii{#3}\ifx\x@rgiii\@empty
150     if there is no action, treat as a destination
151     \Hy@writebookmark{#2}{#4.#1}{#1}{toc}%
152     \hyper@anchorstart{#4.#1}\hyper@anchorend
153   \else
154   \protected@write\@outlinefile{-%
155     \string\nextAction% assign doc ID
156     {\@nameuse{x\jobname}#4.#1}{#3}}%
157   \Hy@writebookmark{#2}{\@nameuse{x\jobname}#4.#1}{#1}{toc}%
158 \fi

```

`\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#1#2{\ifundefined{X_#1}{%
```

```

186 \setkeys{xbmkskeys}{#2}%
187 \xmkcsarg\xdef{X_#1}{\x@bmks@action}%
188 }{\global\xmkcsarg\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 @@@@MessageBreak
195 @@ Outline files were not input, compile again @@\MessageBreak
196 @@@@}}%

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\{\@backslashchar\@backslashchar}% dps
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@activestrue
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         \@onelevel@sanitize\xbmk@filename
232         \bgroup
233         \def\@BOOKMARK[##1][##2]##3##4##5{%
234             \calc@bm@number{##5}%
235         }%
236         \let\nextAction\@gobbletwo
237         \InputIfFileExists{\xbmk@filename.out}{\x@outWarningMsg}%
238         \def\@BOOKMARK[##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\{\@backslashchar\@backslashchar}% dps
293         \def\calc@bm@number##1{%
294             \@tempcnta=\check@bm@number{##1}\relax
295             \advance\@tempcnta by 1 %
296             \expandafter\edef\csname B_##1\endcsname{\the\@tempcnta}%
297         }%
298         \def\Hy@OutlineName##1##2##3##4{\def\@rgi{##1}%
299             \expandafter\pdfoutline\ifx\@rgi\@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@activestrue

```

```

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 \@whilenum \count\z@<\xbmk@cnt\relax\do{%
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]###4##5{%
330 \calc@bm@number{##5}%
331 }%
332 \let\nextAction@gobbletwo
333 \InputIfFileExists{\xbmk@filename.out}{\x@outWarningMsg}%
334 \gdef\@BOOKMARK[##1][##2]###4##5{%
335 \def\Hy@temp{##4}%
336 \Hy@pstringdef\Hy@pstringName{\HyperDestNameFilter{##3}}%
337 \xbmkcsarg\ifx{X_##3}\relax

```

Ordinary bookmark

```

338 \ifx\bmk@J\bmk@filename
339 \Hy@OutlineName{\xbmks@intC\bmk@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\bmk@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\{\@backslashchar\@backslashchar}% dps
386     \def\calc@bm@number##1{%
387       \@tempcnta=\check@bm@number{##1}\relax
388       \advance\@tempcnta by 1 %
389       \expandafter\edef\csname B_##1\endcsname{\the\@tempcnta}%
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@activestrue
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{xbmks.cfg}{-}{-}
472 \@ifpackageloaded{bookmark}{\PackageWarningNoLine{xbmks}{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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## 8 Change History

v1.1 (2018/06/13)	v2.0.1 (2018/06/25)
General: Fixed misspelling of drive command for pdfmark case . . . . .	<code>\pdfbookmarkx</code> : Added key-values for action, color, and style for custom ‘ <code>\dotsbookmarkx</code> commands . . . . .
<code>\xbmksetup</code> : Allow an empty value of docbundle, its value is set to <code>\jobname</code> . . . . .	5
v2.0 (2018/06/21)	v2.0.2 (2018/07/04)
<code>\pdfbookmarkx</code> : Added ‘ <code>\dotsbookmarkx</code> commands . . . . .	<code>\xbmksetup</code> : Added an empty docbundle argument. This solves a problem that the bookmarks not appearing after an even number of compiles. . . . .
5	3