

The `hobsub` package

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Abstract

Package `hobsub` implements the idea of loading several packages in one big collection package.

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1 Documentation

In January 2011 the mailing list `lualatex-dev` discussed “quietening lualatex console output” [1]. Inspired from this, I implemented this package `hobsub` to load several packages in one file. The package is applied for two packages collections that are subsets of my package bundle `oberdiek`.

hobsub-generic is a collection of packages that can also be used with plain `TeX`.

hobsub-hyperref is a collection of packages that is used by package `hyperref`.

Package `hobsub` provides the macros that are used in the collection packages and might be used in other projects as well. But there are many caveats, some of them are discussed below.

The most serious problem is consistency. A package that is available as standalone package and is part of a collection might have different versions. Because my packages are organized in a bundle and should be installed and updated as bundle, the risk seems low to me. However, if a single package is updated manually, for example for testing, then it should be loaded before the collection that contains the package with an older version. In a collection, the package will not be loaded again if it is already loaded.

1.1 Usage

The collection packages `hobsub-generic` and `hobsub-hyperref` are loaded as usual:

```
\usepackage{hobsub-generic}    LATEX
\input hobsub-generic.sty      plain TeX
```

or

```
\usepackage{hobsub-hyperref}
```

Of course, both `\usepackage` or `\RequirePackage` can be used.

If you need requirements on the version date of a package inside a collection, then specify them afterwards, for example:

```
\usepackage{hobsub-generic}
\usepackage{ltxcmds}[2010/12/04]% \ltx@ifblank is needed
```

Also it is not guaranteed that a package will be always part of a collection. Therefore it does not harm, to make the requirements explicite *after* a collection is loaded, see the previous example. `LATEX` knows that a package is already loaded and does not load it again.

1.2 Supported features

No reloads: If a package is already loaded then it is not reloaded again if it is part of a collection package.

\listfiles: Each package that is loaded in a collection is also added to the output of `\listfiles`.

\currname, \@currentx are updated, they are used by `LATEX`'s `\ProvidesPackage`.

\AtEndOfPackage: `LATEX`'s hook mechanism that is used for `\AtEndOfPackage` is supported. However none of the packages in the collections are using `\AtEndOfPackage`, therefore this feature is completely untested.

1.3 Common limitations

\endinput: Often a package is using `\endinput`, either added by `docstrip`, or to stop package loading at an earlier time. Therefore `\endinput` must be caught during package loading to prevent that the collection package is closed too early before reading all packages it contains.

This redefinition of `\endinput` fails if the package loads other files that contain `\endinput`. To some degree it could be caught by redefining macros that load files. But this will not work for the primitive `\input`.

Options: L^AT_EX's package options are not supported. Therefore the packages that are put in a collection must not support options.

Hook packages: Some packages and classes provides hooks for packages, see packages `scrfile`, `filehook` or class `memoir`. These hooks are not supported for embedded packages inside a collection package. Because of the problem with `\endinput`, these hooks are not supported. The hooks might contain code that loads other files that execute `\endinput`.

1.4 Package hobsb-generic

Collection 'generic' contains some of the plain T_EX compatible packages of my bundle, see table 1. It adds the following restrictions to any package that is part of this collection:

Generic formats: The following formats must be supported: L^AT_EX, plain T_EX and even iniT_EX. This applies to the collection package `hobsb-generic` the same way.

Prefixed macros: Any package of this collection should only define macros with prefixed names to avoid name clashes. Resources like registers must not be allocated and other global states should not be changed except for added macro definitions.

Thus the package `hobsb-generic` can also preloaded in the format file with iniT_EX.

Table 1: Overview `hobsb-generic`

| Package | Release | Dependencies |
|----------------------------|------------------|--|
| <code>infwarerr</code> | 2010/04/08 v1.3 | |
| <code>ltxcmds</code> | 2011/04/14 v1.19 | |
| <code>ifluatex</code> | 2010/03/01 v1.3 | |
| <code>ifvtex</code> | 2010/03/01 v1.5 | |
| <code>intcalc</code> | 2007/09/27 v1.1 | |
| <code>ifpdf</code> | 2011/01/30 v2.3 | <code>ifluatex</code> |
| <code>etexcmds</code> | 2011/02/16 v1.5 | |
| <code>kvsetkeys</code> | 2011/04/07 v1.13 | |
| <code>kvdefinekeys</code> | 2011/04/07 v1.3 | |
| <code>luatex-loader</code> | 2010/03/09 v0.4 | |
| <code>pdftexcmds</code> | 2011/04/16 v0.15 | <code>ifluatex</code> , <code>ifpdf</code> , <code>infwarerr</code> , <code>ltxcmds</code> , <code>luatex-loader</code> |
| <code>pdfescape</code> | 2011/04/04 v1.12 | <code>ltxcmds</code> , <code>pdftexcmds</code> |
| <code>bigintcalc</code> | 2011/01/30 v1.2 | <code>pdftexcmds</code> |
| <code>bitset</code> | 2011/01/30 v1.1 | <code>bigintcalc</code> , <code>infwarerr</code> , <code>intcalc</code> |
| <code>uniquecounter</code> | 2011/01/30 v1.2 | <code>bigintcalc</code> , <code>infwarerr</code> |

Table 2: Overview hobsup-hyperref

| Package | Release | Dependencies |
|--------------|------------------|---------------------------|
| letltxmacro | 2010/09/02 v1.4 | |
| hopatch | 2011/01/30 v1.0 | |
| xcolor-patch | 2011/01/30 v1.7 | |
| atveryend | 2011/04/15 v1.6 | |
| atbegshi | 2011/01/30 v1.15 | ifpdf, infwarerr, ltxcmds |
| refcount | 2010/12/01 v3.2 | infwarerr, ltxcmds |
| hycolor | 2011/01/30 v1.7 | xcolor-patch |

1.5 Package hobsup-hyperref

Collection ‘hyperref’ contains additional packages that are used by package `hyperref` and that does not fit in collection ‘generic’, see `tabletab:hyperref`. The latter collection package `hobsup-generic` is loaded via a conventional `\RequirePackage`.

Because most of the packages in the collection ‘hyperref’ needs L^AT_EX, the collection requires L^AT_EX.

1.6 Package hobsup

This section is for advanced users that might want to build a collection package. Then it can be done by using `hobsup`:

```
...
\RequirePackage{hobsup}[2011/01/30]
...
\hobsup@StartPackage{foo1}
... package code of foo1.sty ...
\endinput
<hobsup>
\hobsup@StopPackage
\hobsup@StartPackage{bar2}
... package code of bar2.sty ...
\endinput
<hobsup>
\hobsup@StopPackage ...
```

But be aware of the caveats and limitations, see above. Only quite a small portion of the packages can be embedded like this.

2 Implementation

2.1 Reload check and package identification

2.1.1 Package hobsu

```
1 (*package)
```

Reload check, especially if the package is not used with L^AT_EX.

```
2 \begingroup\catcode61\catcode48\catcode32=10\relax%
3 \catcode13=5 % ^~M
4 \endlinechar=13 %
5 \catcode35=6 % #
6 \catcode39=12 % '
7 \catcode44=12 % ,
8 \catcode45=12 % -
9 \catcode46=12 % .
10 \catcode58=12 % :
11 \catcode64=11 % @
12 \catcode123=1 % {
13 \catcode125=2 % }
14 \expandafter\let\expandafter\x\csname ver@hobsu.sty\endcsname
15 \ifx\x\relax % plain-TEX, first loading
16 \else
17 \def\empty{}%
18 \ifx\x\empty % LATEX, first loading,
19 % variable is initialized, but \ProvidesPackage not yet seen
20 \else
21 \expandafter\ifx\csname PackageInfo\endcsname\relax
22 \def\x#1#2{%
23 \immediate\write-1{Package #1 Info: #2.}%
24 }%
25 \else
26 \def\x#1#2{\PackageInfo{#1}{#2, stopped}}%
27 \fi
28 \x{hobsu}{The package is already loaded}%
29 \aftergroup\endinput
30 \fi
31 \fi
32 \endgroup%
```

Package identification:

```
33 \begingroup\catcode61\catcode48\catcode32=10\relax%
34 \catcode13=5 % ^~M
35 \endlinechar=13 %
36 \catcode35=6 % #
37 \catcode39=12 % '
38 \catcode40=12 % (
39 \catcode41=12 % )
40 \catcode44=12 % ,
41 \catcode45=12 % -
42 \catcode46=12 % .
43 \catcode47=12 % /
44 \catcode58=12 % :
45 \catcode64=11 % @
46 \catcode91=12 % [
47 \catcode93=12 % ]
48 \catcode123=1 % {
49 \catcode125=2 % }
50 \expandafter\ifx\csname ProvidesPackage\endcsname\relax
51 \def\x#1#2#3[#4]{\endgroup
52 \immediate\write-1{Package: #3 #4}%
53 \xdef#1{#4}%
54 }%
```

```

55 \else
56   \def\x#1#2[#3]{\endgroup
57     #2[#3]}%
58   \ifx#1\undefined
59     \xdef#1{#3}%
60   \fi
61   \ifx#1\relax
62     \xdef#1{#3}%
63   \fi
64 }%
65 \fi
66 \expandafter\x\csname ver@hobsub.sty\endcsname
67 \ProvidesPackage{hobsub}%
68 [2011/01/30 v1.0 Subsetting bundle oberdiek (H0)]%
69 \endpackage

```

2.1.2 Package hobsub-generic

```

70 (*generic)

```

Reload check, especially if the package is not used with L^AT_EX.

```

71 \begingroup\catcode61\catcode48\catcode32=10\relax%
72 \catcode13=5 % ^^M
73 \endlinechar=13 %
74 \catcode35=6 % #
75 \catcode39=12 % '
76 \catcode44=12 % ,
77 \catcode45=12 % -
78 \catcode46=12 % .
79 \catcode58=12 % :
80 \catcode64=11 % @
81 \catcode123=1 % {
82 \catcode125=2 % }
83 \expandafter\let\expandafter\x\csname ver@hobsub-generic.sty\endcsname
84 \ifx\x\relax % plain-TeX, first loading
85 \else
86   \def\empty{}%
87   \ifx\x\empty % LaTeX, first loading,
88     % variable is initialized, but \ProvidesPackage not yet seen
89   \else
90     \expandafter\ifx\csname PackageInfo\endcsname\relax
91       \def\x#1#2{%
92         \immediate\write-1{Package #1 Info: #2.}%
93       }%
94     \else
95       \def\x#1#2{\PackageInfo{#1}{#2, stopped}}%
96     \fi
97     \x{hobsub-generic}{The package is already loaded}%
98     \aftergroup\endinput
99   \fi
100 \fi
101 \endgroup%

```

Package identification:

```

102 \begingroup\catcode61\catcode48\catcode32=10\relax%
103 \catcode13=5 % ^^M
104 \endlinechar=13 %
105 \catcode35=6 % #
106 \catcode39=12 % '
107 \catcode40=12 % (
108 \catcode41=12 % )
109 \catcode44=12 % ,
110 \catcode45=12 % -
111 \catcode46=12 % .
112 \catcode47=12 % /

```

```

113 \catcode58=12 % :
114 \catcode64=11 % @
115 \catcode91=12 % [
116 \catcode93=12 % ]
117 \catcode123=1 % {
118 \catcode125=2 % }
119 \expandafter\ifx\csname ProvidesPackage\endcsname\relax
120   \def\x#1#2#3[#4]{\endgroup
121     \immediate\write-1{Package: #3 #4}%
122     \xdef#1{#4}%
123   }%
124 \else
125   \def\x#1#2[#3]{\endgroup
126     #2[#{#3}]%
127     \ifx#1\@undefined
128       \xdef#1{#3}%
129     \fi
130     \ifx#1\relax
131       \xdef#1{#3}%
132     \fi
133   }%
134 \fi
135 \expandafter\x\csname ver@hobsub-generic.sty\endcsname
136 \ProvidesPackage{hobsub-generic}%
137 [2011/01/30 v1.0 Bundle oberdiek, subset generic (HO)]%
138 </generic>

```

2.1.3 Package hobsub-hyperref

139 <*hyperref>

Reload check, especially if the package is not used with L^AT_EX.

```

140 \begingroup\catcode61\catcode48\catcode32=10\relax%
141 \catcode13=5 % ^^M
142 \endlinechar=13 %
143 \catcode35=6 % #
144 \catcode39=12 % '
145 \catcode44=12 % ,
146 \catcode45=12 % -
147 \catcode46=12 % .
148 \catcode58=12 % :
149 \catcode64=11 % @
150 \catcode123=1 % {
151 \catcode125=2 % }
152 \expandafter\let\expandafter\x\csname ver@hobsub-hyperref.sty\endcsname
153 \ifx\x\relax % plain-TeX, first loading
154 \else
155   \def\empty{}%
156   \ifx\x\empty % LaTeX, first loading,
157     % variable is initialized, but \ProvidesPackage not yet seen
158   \else
159     \expandafter\ifx\csname PackageInfo\endcsname\relax
160       \def\x#1#2{%
161         \immediate\write-1{Package #1 Info: #2.}%
162       }%
163     \else
164       \def\x#1#2{\PackageInfo{#1}{#2, stopped}}%
165     \fi
166     \x{hobsub-hyperref}{The package is already loaded}%
167     \aftergroup\endinput
168   \fi
169 \fi
170 \endgroup%

```

Package identification:

```

171 \begingroup\catcode61\catcode48\catcode32=10\relax%
172 \catcode13=5 % ^^M
173 \endlinechar=13 %
174 \catcode35=6 % #
175 \catcode39=12 % '
176 \catcode40=12 % (
177 \catcode41=12 % )
178 \catcode44=12 % ,
179 \catcode45=12 % -
180 \catcode46=12 % .
181 \catcode47=12 % /
182 \catcode58=12 % :
183 \catcode64=11 % @
184 \catcode91=12 % [
185 \catcode93=12 % ]
186 \catcode123=1 % {
187 \catcode125=2 % }
188 \expandafter\ifx\csname ProvidesPackage\endcsname\relax
189 \def\x#1#2#3[#4]{\endgroup
190 \immediate\write-1{Package: #3 #4}%
191 \xdef#1{#4}%
192 }%
193 \else
194 \def\x#1#2[#3]{\endgroup
195 #2[{#3}]%
196 \ifx#1\@undefined
197 \xdef#1{#3}%
198 \fi
199 \ifx#1\relax
200 \xdef#1{#3}%
201 \fi
202 }%
203 \fi
204 \expandafter\x\csname ver@hobsub-hyperref.sty\endcsname
205 \ProvidesPackage{hobsub-hyperref}%
206 [2011/01/30 v1.0 Bundle oberdiek, subset hyperref (H0)]%
207 /hyperref)

```

2.2 Catcodes

```

208 (*package | generic | hyperref)
209 \begingroup\catcode61\catcode48\catcode32=10\relax%
210 \catcode13=5 % ^^M
211 \endlinechar=13 %
212 \catcode123=1 % {
213 \catcode125=2 % }
214 \catcode64=11 % @
215 \def\x{\endgroup
216 \expandafter\edef\csname HOBsub@AtEnd\endcsname{%
217 \endlinechar=\the\endlinechar\relax
218 \catcode13=\the\catcode13\relax
219 \catcode32=\the\catcode32\relax
220 \catcode35=\the\catcode35\relax
221 \catcode61=\the\catcode61\relax
222 \catcode64=\the\catcode64\relax
223 \catcode123=\the\catcode123\relax
224 \catcode125=\the\catcode125\relax
225 }%
226 }%
227 \x\catcode61\catcode48\catcode32=10\relax%
228 \catcode13=5 % ^^M
229 \endlinechar=13 %
230 \catcode35=6 % #

```



```

231 \catcode64=11 % @
232 \catcode123=1 % {
233 \catcode125=2 % }
234 \def\TMP@EnsureCode#1#2{%
235   \edef\HOBsub@AtEnd{%
236     \HOBsub@AtEnd
237     \catcode#1=\the\catcode#1\relax
238   }%
239   \catcode#1=#2\relax
240 }
241 \TMP@EnsureCode{39}{12}% '
242 \TMP@EnsureCode{40}{12}% (
243 \TMP@EnsureCode{41}{12}% )
244 \TMP@EnsureCode{45}{12}% -
245 \TMP@EnsureCode{46}{12}% .
246 \TMP@EnsureCode{47}{12}% /
247 \TMP@EnsureCode{58}{12}% :
248 \TMP@EnsureCode{60}{12}% <
249 \TMP@EnsureCode{62}{12}% >
250 \TMP@EnsureCode{96}{12}% `
251 \edef\HOBsub@AtEnd{\HOBsub@AtEnd\noexpand\endinput}
252 \end{package} | generic | hyperref

```

2.3 Package hobsup-hyperref loads hobsup-generic

```

253 \*hyperref
254 \NeedsTeXFormat{LaTeX2e}
255 \RequirePackage{hobsup-generic}[2011/01/30]
256 \end{hyperref}

```

2.4 Preamble

```

257 \*preamble
258 \begingroup\expandafter\expandafter\expandafter\endgroup
259 \expandafter\ifx\csname ver@hobsup.sty\endcsname\relax
260 \else
261   \expandafter\hobsup@GobbleRemainingPackage
262 \fi
263 \end{preamble}
264 \*package | preamble

```

\HOBsub@OrgEndinput

```

265 \begingroup\expandafter\expandafter\expandafter\endgroup
266 \expandafter\ifx\csname HOBsub@OrgEndinput\endcsname\relax
267   \let\HOBsub@OrgEndinput\endinput
268 \fi

```

hobsup@GobbleRemainingPackage

```

269 \def\hobsup@GobbleRemainingPackage{%
270   \begingroup
271   \catcode92=14 % backslash: comment
272   \catcode32=14 % space: comment
273   \catcode123=14 % left brace: comment
274   \catcode125=14 % right brace: comment
275   \catcode60=3 % less: math
276   \catcode62=4 % greater: align
277   \endlinechar=-1 %
278   \HOBsub@GobbleRemainingPackage
279 }

```

HOBsub@GobbleRemainingPackage

```

280 \catcode60=3 % less: dollar
281 \catcode62=4 % greater: align

```

```

282 \long\def\HOBsub@GobbleRemainingPackage#1<hobsub>{%
283   \endgroup
284 }
285 \catcode60=12 % less: other
286 \catcode62=12 % greater: other

```

\hobsub@StartPackage

```

287 \def\hobsub@StartPackage#1{%
288   \begingroup\expandafter\expandafter\expandafter\endgroup
289   \expandafter\ifx\csname ver@#1.sty\endcsname\relax
290     \let\HOBsub@OrgCurrName\@currname
291     \let\HOBsub@OrgCurrExt\@current
292     \csname @pushfilename\endcsname
293     \def\@currname{#1}%
294     \def\@current{sty}%
295     \expandafter\def\csname\@currname.\@current-h@@k\endcsname{%
296       \let\endinput\hobsub@GobbleRemainingPackage
297       \def\hobsub@StopPackage{%
298         \let\hobsub@StopPackage\relax
299         \HOBsub@StopPackage
300       }%
301       \hobsub@AddToFileList{#1.sty}%
302     \else
303       \hobsub@Info{hobsub}{Skipping package '#1' (already loaded)}%
304       \let\hobsub@StopPackage\relax
305       \expandafter\hobsub@GobbleRemainingPackage
306     \fi
307 }
308 }

```

\hobsub@StopPackage

```

309 \let\hobsub@StopPackage\relax

```

\hobsub@Info

```

310 \def\hobsub@Info#1#2{%
311   \begingroup\expandafter\expandafter\expandafter\endgroup
312   \expandafter\ifx\csname @PackageInfoNoLine\endcsname\relax
313     \immediate\write-1{Package #1 Info: #2.}%
314   \else
315     \let\hobsub@Info\@PackageInfoNoLine
316     \hobsub@Info{#1}{#2}%
317   \fi
318 }

```

\HOBsub@StopPackage

```

319 \def\HOBsub@StopPackage{%
320   \csname\@currname.\@current-h@@k\endcsname
321   \let\endinput\HOBsub@OrgEndinput
322   \csname @popfilename\endcsname
323   \let\@currname\HOBsub@OrgCurrName
324   \let\@current\HOBsub@OrgCurrExt
325 }

```

\hobsub@AddToFileList

```

326 \begingroup\expandafter\expandafter\expandafter\endgroup
327 \expandafter\ifx\csname @addtofilelist\endcsname\relax
328   \def\hobsub@AddToFileList#1{%
329   \else
330     \def\hobsub@AddToFileList#1{%
331       \@addtofilelist{#1}%
332     }%
333   \fi

```

```
334 </package | preamble>
```

2.5 End of preamble for subset packages

Add the end marker for possible skipping of previous macros, if package `hobsub` was already loaded.

```
335 <*preamble>
336 \hobsub@GobbleRemainingPackage
337 <hobsub>

All macros of package hobsub are now available. Now we officially load the
package hobsub inline for proper package identification.

338 \hobsub@StartPackage{hobsub}%
339 \begingroup\expandafter\expandafter\expandafter\endgroup
340 \expandafter\ifx\csname ProvidesPackage\endcsname\relax
341   \immediate\write-1{%
342     Package: hobsub 2011/01/30 v1.0 Subsetting bundle oberdiek (HO)%
343   }%
344 \else
345   \ProvidesPackage{hobsub}%
346   [2011/01/30 v1.0 Subsetting bundle oberdiek (HO)]%
347 \fi
348 </preamble>

349 <*post | preamble>
350 \endinput
351 <hobsub>
352 \hobsub@StopPackage
353 </post | preamble>
```

2.6 Package list

```
354 <infwarerr>\hobsub@StartPackage{infwarerr}
355 <ltxcmds>\hobsub@StartPackage{ltxcmds}
356 <ifluatex>\hobsub@StartPackage{ifluatex}
357 <ifvtex>\hobsub@StartPackage{ifvtex}
358 <intcalc>\hobsub@StartPackage{intcalc}
359 <ifpdf>\hobsub@StartPackage{ifpdf}
360 <etexcmds>\hobsub@StartPackage{etexcmds}
361 <kvsetkeys>\hobsub@StartPackage{kvsetkeys}
362 <kvdefinekeys>\hobsub@StartPackage{kvdefinekeys}
363 <*luatex-loader>
364 \ifluatex
365 \else
366   \expandafter\hobsub@GobbleRemainingPackage
367 \fi
368 \hobsub@StartPackage{luatex-loader}
369 </luatex-loader>
370 <pdftexcmds>\hobsub@StartPackage{pdftexcmds}
371 <pdfescape>\hobsub@StartPackage{pdfescape}
372 <bigintcalc>\hobsub@StartPackage{bigintcalc}
373 <bitset>\hobsub@StartPackage{bitset}
374 <uniquecounter>\hobsub@StartPackage{uniquecounter}
375 <letltxmacro>\hobsub@StartPackage{letltxmacro}
376 <hopatch>\hobsub@StartPackage{hopatch}
377 <xcolor-patch>\hobsub@StartPackage{xcolor-patch}
378 <atveryend>\hobsub@StartPackage{atveryend}
379 <atbegshi>\hobsub@StartPackage{atbegshi}
380 <refcount>\hobsub@StartPackage{refcount}
381 <hycolor>\hobsub@StartPackage{hycolor}
```

2.7 End of packages

382 (package | atend)\HOBsub@AtEnd%

3 Test

3.1 Catcode checks for loading

```
383 (*test1)
384 \catcode'\{=1 %
385 \catcode'\}=2 %
386 \catcode'\#=6 %
387 \catcode'\@=11 %
388 \expandafter\ifx\csname count@\endcsname\relax
389   \countdef\count@=255 %
390 \fi
391 \expandafter\ifx\csname @gobble\endcsname\relax
392   \long\def\@gobble#1{%
393 \fi
394 \expandafter\ifx\csname @firstofone\endcsname\relax
395   \long\def\@firstofone#1{#1}%
396 \fi
397 \expandafter\ifx\csname loop\endcsname\relax
398   \expandafter\@firstofone
399 \else
400   \expandafter\@gobble
401 \fi
402 {%
403   \def\loop#1\repeat{%
404     \def\body{#1}%
405     \iterate
406   }%
407   \def\iterate{%
408     \body
409     \let\next\iterate
410   \else
411     \let\next\relax
412   \fi
413   \next
414 }%
415 \let\repeat=\fi
416 }%
417 \def\RestoreCatcodes{
418 \count@=0 %
419 \loop
420   \edef\RestoreCatcodes{%
421     \RestoreCatcodes
422     \catcode\the\count@=\the\catcode\count@\relax
423   }%
424 \ifnum\count@<255 %
425   \advance\count@ 1 %
426 \repeat
427
428 \def\RangeCatcodeInvalid#1#2{%
429   \count@=#1\relax
430   \loop
431     \catcode\count@=15 %
432   \ifnum\count@<#2\relax
433     \advance\count@ 1 %
434   \repeat
435 }
436 \def\RangeCatcodeCheck#1#2#3{%
437   \count@=#1\relax
438   \loop
439     \ifnum#3=\catcode\count@
```

```

440 \else
441 \errmessage{%
442 Character \the\count@\space
443 with wrong catcode \the\catcode\count@\space
444 instead of \number#3%
445 }%
446 \fi
447 \ifnum\count@<#2\relax
448 \advance\count@ 1 %
449 \repeat
450 }
451 \def\space{ }
452 \expandafter\ifx\csname LoadCommand\endcsname\relax
453 \def\LoadCommand{\input hobsub.sty\relax}%
454 \fi
455 \def\Test{%
456 \RangeCatcodeInvalid{0}{47}%
457 \RangeCatcodeInvalid{58}{64}%
458 \RangeCatcodeInvalid{91}{96}%
459 \RangeCatcodeInvalid{123}{255}%
460 \catcode'\@=12 %
461 \catcode'\=0 %
462 \catcode'\%=14 %
463 \LoadCommand
464 \RangeCatcodeCheck{0}{36}{15}%
465 \RangeCatcodeCheck{37}{37}{14}%
466 \RangeCatcodeCheck{38}{47}{15}%
467 \RangeCatcodeCheck{48}{57}{12}%
468 \RangeCatcodeCheck{58}{63}{15}%
469 \RangeCatcodeCheck{64}{64}{12}%
470 \RangeCatcodeCheck{65}{90}{11}%
471 \RangeCatcodeCheck{91}{91}{15}%
472 \RangeCatcodeCheck{92}{92}{0}%
473 \RangeCatcodeCheck{93}{96}{15}%
474 \RangeCatcodeCheck{97}{122}{11}%
475 \RangeCatcodeCheck{123}{255}{15}%
476 \RestoreCatcodes
477 }
478 \Test
479 \csname @@end\endcsname
480 \end
481 \</test1>

```

4 Installation

4.1 Download

Package. This package is available on CTAN¹:

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

[CTAN:macros/latex/contrib/oberdiek/hobsub.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 T_EX Files” ([CTAN:tds/tds.pdf](#)). Directories with `texmf` in their name are usually organized this way.

¹<http://ftp.ctan.org/tex-archive/>

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 $\mathrm{T}_{\mathrm{E}}\mathrm{X}$:

```
tex hobsub.dtx
```

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

```
hobsub.sty          → tex/generic/oberdiek/hobsub.sty
hobsub-generic.sty  → tex/generic/oberdiek/hobsub-generic.sty
hobsub-hyperref.sty → tex/generic/oberdiek/hobsub-hyperref.sty
hobsub.pdf          → doc/latex/oberdiek/hobsub.pdf
test/hobsub-test1.tex → doc/latex/oberdiek/test/hobsub-test1.tex
hobsub.dtx          → source/latex/oberdiek/hobsub.dtx
```

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

4.4 Refresh file name databases

If your $\mathrm{T}_{\mathrm{E}}\mathrm{X}$ distribution (`te $\mathrm{T}_{\mathrm{E}}\mathrm{X}$` , `mik $\mathrm{T}_{\mathrm{E}}\mathrm{X}$` , ...) relies on file name databases, you must refresh these. For example, `te $\mathrm{T}_{\mathrm{E}}\mathrm{X}$` 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 hobsub.pdf unpack_files output .
```

Unpacking with $\mathrm{L}^{\mathrm{A}}\mathrm{T}_{\mathrm{E}}\mathrm{X}$. The `.dtx` chooses its action depending on the format:

plain $\mathrm{T}_{\mathrm{E}}\mathrm{X}$: Run `docstrip` and extract the files.

$\mathrm{L}^{\mathrm{A}}\mathrm{T}_{\mathrm{E}}\mathrm{X}$: Generate the documentation.

If you insist on using $\mathrm{L}^{\mathrm{A}}\mathrm{T}_{\mathrm{E}}\mathrm{X}$ for `docstrip` (really, `docstrip` does not need $\mathrm{L}^{\mathrm{A}}\mathrm{T}_{\mathrm{E}}\mathrm{X}$), then inform the autodetect routine about your intention:

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

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

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

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

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

```
pdflatex hobsub.dtx
makeindex -s gind.ist hobsub.idx
pdflatex hobsub.dtx
makeindex -s gind.ist hobsub.idx
pdflatex hobsub.dtx
```

5 References

- [1] Will Robertson, *[ltx] quietening lualatex console output*; mailing list lualatex-dev at tug.org, 2011-01-29;
<http://tug.org/pipermail/lualatex-dev/2011-January/001031.html>.

6 History

[2011/01/30 v1.0]

- First public version.

7 Index

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

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