The \texttt{hobsub} package

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Abstract

Package \texttt{hobsub} implements the idea of loading several packages in one big collection package.

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\textsuperscript{*}Please report any issues at https://github.com/ho-tex/oberdiek/issues
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{ltcmds}[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, @currext 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 catched 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 catched by redefining macros that load files. But this will not work for the primitive \input.

Options: \LaTeX'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 hobsub-generic

Collection ‘generic’ contains some of the plain \TeX 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: \LaTeX, plain \TeX and even ini\TeX. This applies to the collection package hobsub-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 hobsub-generic can also preloaded in the format file with ini\TeX.

1.5 Package hobsub-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 hobsub-generic is loaded via a conventional \RequirePackage.

Because most of the packages in the collection ‘hyperref’ needs \LaTeX, the collection requires \LaTeX.
Table 1: Overview hobsub-generic

<table>
<thead>
<tr>
<th>Package</th>
<th>Release</th>
<th>Dependencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>infwarerr</td>
<td>2010/04/08 v1.3</td>
<td></td>
</tr>
<tr>
<td>ltxcmds</td>
<td>2011/11/09 v1.22</td>
<td></td>
</tr>
<tr>
<td>ifluatex</td>
<td>2010/03/01 v1.3</td>
<td></td>
</tr>
<tr>
<td>ifvtex</td>
<td>2010/03/01 v1.5</td>
<td></td>
</tr>
<tr>
<td>intcalc</td>
<td>2007/09/27 v1.1</td>
<td></td>
</tr>
<tr>
<td>ifpdf</td>
<td>2011/01/30 v2.3</td>
<td>ifluatex</td>
</tr>
<tr>
<td>etexcmds</td>
<td>2011/02/16 v1.5</td>
<td></td>
</tr>
<tr>
<td>kvsetkeys</td>
<td>2012/04/25 v1.16</td>
<td></td>
</tr>
<tr>
<td>kvdefkeys</td>
<td>2011/04/07 v1.3</td>
<td></td>
</tr>
<tr>
<td>luatex-loader</td>
<td>2010/03/09 v0.4</td>
<td></td>
</tr>
<tr>
<td>pdfescape</td>
<td>2011/11/29 v0.20</td>
<td>ifluatex, ifpdf, infwarerr, ltxcmds, luatex-loader</td>
</tr>
<tr>
<td>pdftexcmds</td>
<td>2011/11/29 v0.20</td>
<td>ltxcmds, pdftexcmds</td>
</tr>
<tr>
<td>bitset</td>
<td>2011/01/30 v1.1</td>
<td>bigintcalc, infwarerr, intcalc</td>
</tr>
<tr>
<td>uniquecounter</td>
<td>2011/01/30 v1.2</td>
<td>bigintcalc, infwarerr</td>
</tr>
</tbody>
</table>

Table 2: Overview hobsub-hyperref

<table>
<thead>
<tr>
<th>Package</th>
<th>Release</th>
<th>Dependencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>letltxmacro</td>
<td>2010/09/02 v1.4</td>
<td></td>
</tr>
<tr>
<td>hopatch</td>
<td>2016/05/16 v1.2</td>
<td></td>
</tr>
<tr>
<td>xcolor-patch</td>
<td>2011/01/30 v1.7</td>
<td></td>
</tr>
<tr>
<td>atveryend</td>
<td>2011/06/30 v1.8</td>
<td></td>
</tr>
<tr>
<td>atbegshi</td>
<td>2011/10/05 v1.16</td>
<td>ifpdf, infwarerr, ltxcmds</td>
</tr>
<tr>
<td>refcount</td>
<td>2011/10/16 v3.4</td>
<td>infwarerr, ltxcmds</td>
</tr>
<tr>
<td>hycolor</td>
<td>2011/01/30 v1.7</td>
<td>xcolor-patch</td>
</tr>
</tbody>
</table>
1.6 Package \texttt{hobsub}

This section is for advanced users that might want to build a collection package. Then it can be done by using \texttt{hobsub}:

\begin{verbatim}
...\newinput{foo1.sty}
\endinput
\hobsub@StopPackage
\hobsub@StartPackage{bar2}
... package code of bar2.sty ...
\endinput
\hobsub@StopPackage ...
\end{verbatim}

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 hobs2

Reload check, especially if the package is not used with \LaTeX.

\begingroup\catcode61\catcode48\catcode32=10\relax\%
\catcode13=5 \string~~M
\endlinechar=13 \%
\catcode35=6 \# 
\catcode39=12 \'
\catcode44=12 \,
\catcode45=12 \-
\catcode46=12 \.
\catcode58=12 \:
\catcode64=12 \@
\catcode123=1 \{
\catcode125=2 \}
\expandafter\ifx\csname ver@hobs2.sty\endcsname\relax
\else
\expandafter\ifx\csname PackageInfo\endcsname\relax
\def\x#1#2{\immediate\write-1{Package #1 Info: #2.}\
}\x{hobs2}{The package is already loaded}\
\aftergroup\endinput
\fi
\else
\expandafter\ifx\csname ProvidesPackage\endcsname\relax
\def\x#1#2#3[#4]{\endgroup\immediate\write-1{Package: #3 #4}\
\xdef#1{#4}\
}\x{ hbox}{\roman{#2}}{#2, stopped}\
\fi
\fi
\endgroup\%

Package identification:

\begingroup\catcode61\catcode48\catcode32=10\relax\%
\catcode13=5 \string~~M
\endlinechar=13 \%
\catcode35=6 \# 
\catcode39=12 \'
\catcode40=12 \)
\catcode41=12 \)
\catcode44=12 \,
\catcode45=12 \-
\catcode46=12 \.
\catcode47=12 \/
\catcode58=12 \:
\catcode64=12 \@
\catcode123=1 \{
\catcode125=2 \}
\expandafter\ifx\csname ProvidesPackage\endcsname\relax
\def\x#1#2#3[#4]{\endgroup\immediate\write-1{Package: #3 #4}\
\xdef#1{#4}\
}\x{ hbox}{\roman{#2}}{#2, stopped}\
\fi
\fi
\endgroup\%
\else
  \def\x#1#2[#3]{\endgroup
    #2[#3]%
  }
  \ifx#1\@undefined
    \xdef#1{#3}%
  \fi
  \ifx#1\relax
    \xdef#1{#3}%
  \fi
}\fi
\expandafter\x\csname ver@hobsub.sty\endcsname
\ProvidesPackage{hobsub}[
  2016/05/16 v1.14 Construct package bundles (HO)]
⟨/package⟩

2.1.2 Package hobsub-generic

(*generic)

Reload check, especially if the package is not used with \LaTeX{}.
\begingroup\catcode61\catcode48\catcode32=10\relax%
\catcode13=5 \% ^\M
\endlinechar=13 \%
\catcode35=6 \%
\catcode39=12 \%
\catcode40=12 \%
\catcode41=12 \%
\catcode44=12 \%
\catcode45=12 \%
\catcode46=12 \%
\catcode58=12 \%
\catcode64=11 \%
\catcode123=1 \%
\catcode125=2 \%
\expandafter\let\expandafter\x\csname ver@hobsub-generic.sty\endcsname
  \ifx\x\relax % plain-TeX, first loading
    \else
  \def\empty{}%
      \ifx\x\empty % LaTeX, first loading, \ProvidesPackage not yet seen
        \else
          \expandafter\ifx\csname PackageInfo\endcsname\relax
            \def\x#1#2{%
              \immediate\write-1{Package #1 Info: #2.}%
            }%
          \else
            \def\x#1#2{\PackageInfo{#1}{#2, stopped}%
          \fi
          \x{hobsub-generic}{The package is already loaded}%
          \aftergroup\endinput
      \fi
    \else
      \def\empty{}%
  \fi
\endgroup
\PackageIdentification:

\begingroup\catcode61\catcode48\catcode32=10\relax%
\catcode13=5 \% ^\M
\endlinechar=13 \%
\catcode35=6 \%
\catcode39=12 \%
\catcode40=12 \%
\catcode41=12 \%
\catcode44=12 \%
\catcode45=12 \%
\catcode46=12 %.
\begin{verbatim}
\catcode47=12 \catcode58=12 \catcode64=11 \catcode91=12 \catcode93=12 \catcode123=1 \catcode125=2
\expandafter\ifx\csname ProvidesPackage\endcsname\relax
\def\x#1#2#3[#4]{\endgroup
\immediate\write-1{Package: #3 #4}\
\xdef#1{#4}\
}\else
\def\x#1#2[#3]{\endgroup
#2[#3]\
\ifx#1\@undefined
\xdef#1{#3}\
\fi
\ifx#1\relax
\xdef#1{#3}\
\fi
}\fi
\expandafter\x\csname ver@hobsub-generic.sty\endcsname
\ProvidesPackage{hobsub-generic}
[2016/05/16 v1.14 Bundle oberdiek, subset generic (HO)]
\langle/generic\rangle

\subsection{Package hobsub-hyperref}

Reload check, especially if the package is not used with \LaTeX{}.
\begin{group}
\catcode4\catcode8\catcode32=10 \relax
\catcode13=5 \catcode35=6 \catcode39=12 \catcode44=12 \catcode45=12 \catcode46=12
\endlinechar=13
\expandafter\let\expandafter\x\csname ver@hobsub-hyperref.sty\endcsname
\ifx\x\relax % plain-TeX, first loading
\else
\def\empty{}
\ifx\x\empty % LaTeX, first loading,
% variable is initialized, but \ProvidesPackage not yet seen
\else
\expandafter\ifx\csname PackageInfo\endcsname\relax
\def\x#1#2{\immediate\write-1{Package #1 Info: #2.}\
}\else
\def\x#1#2{\PackageInfo{#1}{#2, stopped}}\
\fi
\x{hobsub-hyperref}{The package is already loaded}
\aftergroup\endinput
\fi
\else
\empty{}
\fi
\endgroup
\end{verbatim}
2.2 Catcodes

(\package{generic}{hyperref})

\begin{verbatim}
\def\x#1#2#3\[#4\]{\endgroup
\immediate\write-1{Package: #3 #4}\
\xdef#1{#4}\
}\else
\def\x#1#2\[#3\]{\endgroup
#2\[{#3}\]\
\ifx#1\@undefined
\xdef#1{#3}\
\fi
\ifx#1\relax
\xdef#1{#3}\
\fi
}\fi
\expandafter\ifx\csname ProvidesPackage\endcsname\relax
\def\x#1#2\[#3\]{\endgroup
\immediate\write-1{Package: #3 #4}\
\xdef#1{#4}\
}\else
\def\x#1#2\[#3\]{\endgroup
#2\[{#3}\]\
\ifx#1\@undefined
\xdef#1{#3}\
\fi
\ifx#1\relax
\xdef#1{#3}\
\fi
}\fi
\expandafter\ifx\csname ver@hobsub-hyperref.sty\endcsname\relax
\ProvidesPackage{hobsub-hyperref}\
[2016/05/16 v1.14 Bundle oberdiek, subset hyperref (HO)]\
\end{verbatim}

\section*{2.2 Catcodes}

\begin{verbatim}
\def\x#1#2#3\[#4\]{\endgroup
\immediate\write-1{Package: #3 #4}\
\xdef#1{#4}\
}\else
\def\x#1#2\[#3\]{\endgroup
#2\[{#3}\]\
\ifx#1\@undefined
\xdef#1{#3}\
\fi
\ifx#1\relax
\xdef#1{#3}\
\fi
}\fi
\expandafter\ifx\csname ProvidesPackage\endcsname\relax
\def\x#1#2\[#3\]{\endgroup
\immediate\write-1{Package: #3 #4}\
\xdef#1{#4}\
}\else
\def\x#1#2\[#3\]{\endgroup
#2\[{#3}\]\
\ifx#1\@undefined
\xdef#1{#3}\
\fi
\ifx#1\relax
\xdef#1{#3}\
\fi
}\fi
\expandafter\ifx\csname ver@hobsub-hyperref.sty\endcsname\relax
\ProvidesPackage{hobsub-hyperref}\
[2016/05/16 v1.14 Bundle oberdiek, subset hyperref (HO)]\
\end{verbatim}
\catcode35=6 \% #
\catcode64=11 \% @
\catcode123=1 \% {
\catcode125=2 \% }
\def\TMP@EnsureCode#1#2{% 
\edef\HOBsub@AtEnd{% 
\HOBsub@AtEnd
\catcode#1=\the\catcode#1\relax 
\catcode#1=#2\relax 
}
}
\TMP@EnsureCode{39}{12}\% ' 
\TMP@EnsureCode{40}{12}\% ( 
\TMP@EnsureCode{41}{12}\% ) 
\TMP@EnsureCode{45}{12}\% - 
\TMP@EnsureCode{46}{12}\% . 
\TMP@EnsureCode{47}{12}\% / 
\TMP@EnsureCode{58}{12}\% : 
\TMP@EnsureCode{60}{12}\% < 
\TMP@EnsureCode{62}{12}\% > 
\TMP@EnsureCode{96}{12}\% ` 
\edef\HOBsub@AtEnd{\HOBsub@AtEnd\noexpand\endinput}
\langle/\package j\ generic j \hyperref\rangle

2.3 Package hobsub-hyperref loads hobsub-generic

\NeedsTeXFormat{LaTeX2e}
\RequirePackage{hobsub-generic}[2016/05/16]
\langle/\hyperref\rangle

2.4 Preamble

\langle/*\preamble\rangle
\begingroup\expandafter\expandafter\expandafter\endgroup
\expandafter\ifx\csname ver@hobsub.sty\endcsname\relax
\else
\expandafter\hobsub@GobbleRemainingPackage
\fi
\langle/*\preamble\rangle
\HOBsub@OrgEndinput
\begingroup\expandafter\expandafter\expandafter\endgroup
\expandafter\ifx\csname HOBsub@OrgEndinput\endcsname\relax
\let\HOBsub@OrgEndinput\endinput
\fi
\hobsub@GobbleRemainingPackage

\langle/*\package j\ preamble\rangle
\hobsub@GobbleRemainingPackage
\\HOBsub@OrgEndinput
\\begingroup\expandafter\expandafter\expandafter\endgroup
\expandafter\ifx\csname HOBsub@OrgEndinput\endcsname\relax
\let\HOBsub@OrgEndinput\endinput
\fi
\hobsub@GobbleRemainingPackage

\def\hobsub@GobbleRemainingPackage{% 
\begingroup
\catcode92=14 \% backslash: comment
\catcode32=14 \% space: comment
\catcode35=14 \% hash: comment
\catcode123=14 \% left brace: comment
\catcode125=14 \% right brace: comment
\catcode60=3 \% less: math
\catcode62=4 \% greater: align
\endlinechar=-1 \%
\HOBsub@GobbleRemainingPackage
}\hobsub@GobbleRemainingPackage
\catcode60=3 % less: dollar
\catcode62=4 % greater: align
\long\def\HOBsub@GobbleRemainingPackage#1<hobsub>{%
  \endgroup
}\catcode60=12 % less: other
\catcode62=12 % greater: other

\hobsub@StartPackage
\def\hobsub@StartPackage#1{%
  \begingroup
    \expandafter\expandafter\expandafter\endgroup
    \expandafter\ifx\csname ver@#1.sty\endcsname\relax
      \let\HOBsub@OrgCurrName\@currname
      \let\HOBsub@OrgCurrExt\@currext
      \csname @pushfilename\endcsname
      \def\@currname{#1}%
      \def\@currext{sty}%
      \expandafter\def\csname\@currname.@currext-h@@k\endcsname{}%
      \let\endinput\hobsub@GobbleRemainingPackage
    \else
      \hobsub@Info{hobsub}{Skipping package `#1’ (already loaded)}%
      \let\hobsub@StopPackage\relax
      \expandafter\hobsub@GobbleRemainingPackage
    \fi
  \}
\hobsub@StopPackage
\let\hobsub@StopPackage\relax
\hobsub@Info
\def\hobsub@Info#1#2{%
  \begingroup
    \expandafter\expandafter\expandafter\endgroup
    \expandafter\ifx\csname @PackageInfoNoLine\endcsname\relax
      \immediate\write-1{Package #1 Info: #2.}%
    \else
      \let\hobsub@Info\@PackageInfoNoLine
      \hobsub@Info{#1}{#2}%
    \fi
  \}
\hobsub@AddToFileList
\begingroup
  \expandafter\expandafter\expandafter\endgroup
  \expandafter\ifx\csname @addtofilelist\endcsname\relax
    \def\hobsub@AddToFileList#1{}%
  \else
    \def\hobsub@AddToFileList#1{%
      \@addtofilelist{#1}%
    }
  \fi
\endgroup
\HOBsub@StopPackage
\let\HOBsub@StopPackage\relax
\hobsub@AddToFileList
\begingroup
  \expandafter\expandafter\expandafter\endgroup
  \expandafter\ifx\csname @addtofilelist\endcsname\relax
    \def\hobsub@AddToFileList#1{}%
  \else
    \def\hobsub@AddToFileList#1{%
      \@addtofilelist{#1}%
    }
  \fi
\endgroup
2.5 End of preamble for subset packages

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

```
\hobsub@GobbleRemainingPackage
\hobsub>
```

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

```
\hobsub@StartPackage{hobsub}\
\begingroup\expandafter\expandafter\expandafter\endgroup
\expandafter\ifx\csname ProvidesPackage\endcsname\relax
 \immediate\write-1{%
 Package: hobsub 2016/05/16 v1.14 Construct package bundles (HO)%
}%
\else
 \ProvidesPackage{hobsub}[
2016/05/16 v1.14 Construct package bundles (HO)]%
\fi
\endinput
```

2.6 Package list

```
\infwarerr\hobsub@StartPackage{infwarerr}
\ltxcmds\hobsub@StartPackage{ltxcmds}
\ifluatex\hobsub@StartPackage{ifluatex}
\ifvtex\hobsub@StartPackage{ifvtex}
\intcalc\hobsub@StartPackage{intcalc}
\ifpdf\hobsub@StartPackage{ifpdf}
\etexcmds\hobsub@StartPackage{etexcmds}
\kvsetkeys\hobsub@StartPackage{kvsetkeys}
\kvdefinekeys\hobsub@StartPackage{kvdefinekeys}
\letltxmacro\hobsub@StartPackage{letltxmacro}
\hopatch\hobsub@StartPackage{hopatch}
\xcolorpatch\hobsub@StartPackage{xcolor-patch}
\atveryend\hobsub@StartPackage{atveryend}
\atbegshi\hobsub@StartPackage{atbegshi}
\refcount\hobsub@StartPackage{refcount}
\hycolor\hobsub@StartPackage{hycolor}
```

```
\luatex\hobsub@StartPackage{luatex-loader}\
\etexcmds\hobsub@StartPackage{etexcmds}\
\pdfescape\hobsub@StartPackage{pdfescape}
\bigintcalc\hobsub@StartPackage{bigintcalc}
\bitset\hobsub@StartPackage{bitset}
\uniquecounter\hobsub@StartPackage{uniquecounter}
\letlxmacro\hobsub@StartPackage{letlxmacro}
\hpatch\hobsub@StartPackage{hpatch}
\xcolorpatch\hobsub@StartPackage{xcolor-patch}
\atveryend\hobsub@StartPackage{atveryend}
\atbegshi\hobsub@StartPackage{atbegshi}
\refcount\hobsub@StartPackage{refcount}
\hycolor\hobsub@StartPackage{hycolor}
```

```
\expandafter\hobsub@GobbleRemainingPackage
\fi
\hobsub@StartPackage{luatex-loader}\
```

```
\expandafter\hobsub@GobbleRemainingPackage
\fi
\hobsub@StartPackage{luatex-loader}\
```

```
\expandafter\hobsub@GobbleRemainingPackage
\fi
```
2.7 End of packages

3 Test

3.1 Catcode checks for loading

(*test1*)
\catcode`\{=1 %
\catcode`\}=2 %
\catcode`\#=6 %
\catcode`@=11 %
\expandafter\ifx\csname count@\endcsname\relax
\countdef\count@=255 %
\fi
\expandafter\ifx\csname @gobble\endcsname\relax
\long\def\@gobble#1{}%
\fi
\expandafter\ifx\csname @firstofone\endcsname\relax
\long\def\@firstofone#1{#1}%
\fi
\expandafter\ifx\csname loop\endcsname\relax
\else
\expandafter\@gobble
\fi{
\def\loop#1\repeat{%
\def\body{#1}%
\iterate
}%
\def\iterate{%
\body
\let\next\iterate
\else
\let\next\relax
\fi
\next
}%
\let\repeat=\fi
}%
\edef\RestoreCatcodes{}%\count@=0 %
\loop
\edef\RestoreCatcodes{%
\RestoreCatcodes%\catcode\the\count@=\the\catcode\count@%\relax
}%
\ifnum\count@<255 %
\advance\count@ 1 %
\repeat%\def\RangeCatcodeInvalid#1#2{%\count@=#1\relax
\loop
\catcode\count@=15 %
\ifnum\count@<#2\relax
\advance\count@ 1 %
\repeat%\def\RangeCatcodeCheck#1#2#3{%\count@=#1\relax
\loop
4 439 \loop
440 \ifnum#3=\catcode\count@
441 \else
442 \errormessage{%
443 Character \the\count@ space
444 with wrong catcode \the\catcode\count@ space
445 instead of \number#3%
446 }
447 \fi
448 \ifnum\count@<#2\relax
449 \advance\count@ 1 %
450 \repeat
451 }
452 \def\space{ }
453 \expandafter\ifx\csname LoadCommand\endcsname\relax
454 \def\LoadCommand{\input hobsub.sty\relax}%
455 \fi
456 \def\Test{%
457 \RangeCatcodeInvalid{0}{47}%
458 \RangeCatcodeInvalid{58}{64}%
459 \RangeCatcodeInvalid{91}{96}%
460 \RangeCatcodeInvalid{123}{255}%
461 \catcode`\@=12 %
462 \catcode`\\=0 %
463 \catcode`\%=14 %
464 \LoadCommand
465 \RangeCatcodeCheck{0}{36}{15}%
466 \RangeCatcodeCheck{37}{37}{14}%
467 \RangeCatcodeCheck{38}{47}{15}%
468 \RangeCatcodeCheck{48}{57}{12}%
469 \RangeCatcodeCheck{58}{63}{15}%
470 \RangeCatcodeCheck{64}{64}{12}%
471 \RangeCatcodeCheck{65}{90}{11}%
472 \RangeCatcodeCheck{91}{91}{15}%
473 \RangeCatcodeCheck{92}{92}{0}%
474 \RangeCatcodeCheck{93}{96}{15}%
475 \RangeCatcodeCheck{97}{122}{11}%
476 \RangeCatcodeCheck{123}{255}{15}%
477 \RestoreCatcodes
478 }
479 \Test
480 \csname @@end\endcsname
481 \end
482 (/test1)

4 4 Installation

4.1 Download

Package. This package is available on CTAN\footnote{http://ctan.org/pkg/hobsub}:

\verb|CTAN:macros/latex/contrib/oberdiek/hobsub.dtx| The source file.

\verb|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 documenta-
tion files are generated. The files and directories obey the TDS standard.

\verb|CTAN:install/macros/latex/contrib/oberdiek.tds.zip|
**4.2 Bundle installation**

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

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

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

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

**4.3 Package installation**

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

```
tex 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 \TeX{} distribution (`\TeX`, `\l\TeX`, …) relies on file name databases, you must refresh these. For example, `\l\TeX` users run `texhash` or `mktexlsr`.

**4.5 Some details for the interested**

**Unpacking with \l\TeX.** The `.dtx` chooses its action depending on the format:

- **plain \TeX:** Run `docstrip` and extract the files.
- **\l\TeX:** Generate the documentation.

If you insist on using \l\TeX{} for `docstrip` (really, `docstrip` does not need \l\TeX{}), then inform the autodetect routine about your intention:

```
l\TeX\ \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 `pdflatex`:

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

5 Catalogue

The following XML file can be used as source for the `\TeX` Catalogue. The elements `caption` and `description` are imported from the original XML file from the Catalogue. The name of the XML file in the Catalogue is `hobsub.xml`.

```
<!--
catalogue

<?xml version='1.0' encoding='us-ascii'?>
<!DOCTYPE entry SYSTEM 'catalogue.dtd'>
<entry datestamp='$Date$' modifier='$Author$' id='hobsub'>
  <name>hobsub</name>
  <caption>Construct package bundles</caption>
  <authorref id='auth:oberdiek'/>
  <copyright owner='Heiko Oberdiek' year='2011,2012'/>
  <license type='lppl1.3'/>
  <version number='1.14'/>
  <description>
    The package offers a means of loading a bundle of (other) packages "at once", offering a means of reducing the amount of log output as the packages are loaded, and an aide-memoire for complicated requirements. In some ways, loading a package via `hobsub` behaves much like loading the package in the normal way; for example, reloads are suppressed, as in `\LaTeX` proper, and correct `\listfiles` output is produced.
    Examples provided are a `generic` bundle (comprising the author's packages that can be used with Plain `\TeX`), a `hyperref` bundle (comprising packages useful when generating hypertext output with `\LaTeX`), and a `generic,hyperref` bundle (comprising packages useful when generating hypertext output with `\LaTeX`).
    The package is part of the `oberdiek` bundle. 
  </description>
</entry>
<!--

catalogue
```

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6 References


7 History

[2011/01/30 v1.0]
- First public version.

[2011/04/16 v1.1]
- Package updates.

[2011/04/17 v1.2]
- White spaces at line begins are removed or reduced in the generated collection packages.

[2011/04/18 v1.3]
- Package updates.

[2011/04/23 v1.4]
- Package updates.

[2011/06/24 v1.5]
- Package updates.

[2011/06/30 v1.6]
- Package updates.

[2011/07/01 v1.7]
- Package updates.

[2011/07/28 v1.8]
- Package updates.

[2011/08/22 v1.9]
- Package updates.

[2011/10/16 v1.10]
- Package updates.

[2011/11/29 v1.11]
- Package updates.
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