The **auxhook** package

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Abstract

Package auxhook provides hooks for adding stuff at the begin of .aux files.

Contents

1 User interface

There are two kinds of .aux files, the main .aux file and the .aux file that belongs to an included file, specified by \include.

Some packages write macros in the auxiliary files. If the user stops using the package, these macros will usually cause error messages because of unknown commands. Prominent example is package babel's \select@language.

But such a package could be written more cooperative. It can also provide a definition in the auxiliary file (\providecommand) that silently disables the macros of the package if the package is no longer in use.

In case of the main auxiliary file, `\AtBeginDocument` can be used for this purpose. Especially if several packages are involved, the order cannot be controlled always (e.g., see package hypdestopt that hooks into hyperref's macros). And there isn't any hook for the auxiliary files of the `\include` feature.

Thus this package patches LaTeX's macros `\document` and `\@include` to add the hooks where the auxiliary files are opend and the first line with `\relax` is written.

The patching can fail, if these macros are redefined by some other package. If the other package still uses the original definition, then load package auxhook earlier. (With `\RequirePackage` the package also can be loaded before the class). If the redefinition doesn't use the original meaning, then you can try to load package auxhook afterwards, but you need luck that the patch succeeds.

The hooks are macros:

`\@beginmainauxhook`: Start of the main auxiliary file. The hook is called after the first line with `\relax` is written.

`\@beginpartauxhook`: The same for the auxiliary files that belongs to the files that are included by `\include`.

If you want to add something to these hooks, you can use `\g@addto@macro` from LaTeX's kernel. But the package provides macros to add code that adds a line to the auxiliary file:

```
\AddLineBeginMainAux {⟨line⟩}
\AddLineBeginPartAux {⟨line⟩}
\AddLineBeginAux {⟨line⟩}
```

The ⟨line⟩ is added at the begin of the main auxiliary file by `\AddLineBeginMainAux` and at the begin of the auxiliary files of included files by `\AddLineBeginPartAux`. `\AddLineBeginAux` writes in both kinds of auxiliary files.

Examples, see packages hypdestopt ([1]) and zref ([3]).

2 Implementation

2.1 Identification

```
1 ⟨*package⟩
2 \NeedsTeXFormat{LaTeX2e}
3 \ProvidesPackage{auxhook}%
4    [2011/03/04 v1.3 Hooks for auxiliary files (HO)]%
```

2.2 Hook setup

`\@beginmainauxhook`   The hook for the main auxiliary file, initially empty.

```
5 \providecommand*{\@beginmainauxhook}{}
```

`\@beginpartauxhook`   The hook for auxiliary files of included files, initially empty.

```
6 \providecommand*{\@beginpartauxhook}{}

7 \ifx\AtBeginDocument\@firstofone
8    \global\let\@beginmainauxhook\relax
9 \else
10   \g@addto@macro{\@beginmainauxhook}{%
11     \global\let\@beginmainauxhook\relax
12   }%
13 \fi
```

2.3 User macros

\AddLineBeginMainAux

```
14 \newcommand{\AddLineBeginMainAux}[1]{%
15   \ifx\@beginmainauxhook\relax
16     \if@filesw
17       \PackageInfo{auxhook}{%
18         \@backslashchar AddLineBeginMainAux comes a little late,%
19         \MessageBreak
20         because the main .aux file is already opened%
21       }%
22       \immediate\write\@mainaux{#1}%
23     \fi
24   \else
25     \g@addto@macro\@beginmainauxhook{%
26       \immediate\write\@mainaux{#1}%
27     }%
28   \fi
29 }
```

\AtBeginPartAuxLine

```
30 \newcommand{\AddLineBeginPartAux}[1]{%
31   \g@addto@macro\@beginpartauxhook{%
32     \immediate\write\@partaux{#1}%
33   }%
34 }
```

\AddLineBeginAux

```
35 \newcommand{\AddLineBeginAux}[1]{%
36   \AddLineBeginMainAux{#1}%
37   \AddLineBeginPartAux{#1}%
38 }
```

2.4 Patches

2.4.1 \document

```
39 \begingroup
40   \@ifundefined{beamer@origdocument}{%
41     \def\auxhook@document{\document}%
42   }{%
43     \def\auxhook@document{\beamer@origdocument}%
44   }%
45   \long\def\y#1\immediate\write\@mainaux#2#3\auxhook@nil{%
46     \toks@{%
47       #1\immediate\write\@mainaux{#2}%
48       \@beginmainauxhook
49       #3%
50     }%
51     \expandafter\xdef\auxhook@document{\the\toks@}%
52     \endgroup
53   }%
54   \long\def\x#1\immediate\write\@mainaux#2#3\auxhook@nil{%
55     \toks@{#3}%
56     \edef\x{\the\toks@}%
57     \ifx\x\@empty
58       \PackageWarningNoLine{auxhook}{%
59         Cannot patch \expandafter\string\auxhook@document,%
60         \MessageBreak
61         using \string\AtBeginDocument\space instead%
62       }%
63       \endgroup
64       \AtBeginDocument{%
```

```
65        \if@filesw
66          \@beginmainauxhook
67        \fi
68      }%
69      \else
70        \expandafter\expandafter\expandafter\y\auxhook@document
71            \auxhook@nil
72      \fi
73    }%
74 \expandafter\expandafter\expandafter\x\auxhook@document
75      \immediate\write\@mainaux{}\auxhook@nil
```

2.4.2 \@include

```
76 \begingroup
77    \long\def\y#1\immediate\write\@partaux#2#3\auxhook@nil#4{%
78      \endgroup
79      \def#4##1 {%
80        #1\immediate\write\@partaux{#2}%
81        \@beginpartauxhook
82        #3%
83      }%
84    }%
85    \long\def\x#1\immediate\write\@partaux#2#3\auxhook@nil#4{%
86      \toks@{#3}%
87      \edef\x{\the\toks@}%
88      \ifx\x\@empty
89        \PackageWarningNoLine{auxhook}{%
90          Cannot patch \string#4,\MessageBreak
91          patch dropped%
92        }%
93        \endgroup
94      \else
95        \expandafter\y#4{##1} \auxhook@nil#4%
96      \fi
97    }%
98 \@ifundefined{ReFiCh@org@include}{%
99    \expandafter\x\@include{#1} %
100   \immediate\write\@partaux{}\auxhook@nil\@include
101 }{%
102   \expandafter\x\ReFiCh@org@include{#1} %
103   \immediate\write\@partaux{}\auxhook@nil\ReFiCh@org@include
104 }%
105 ⟨/package⟩
```

3 Installation

3.1 Download

Package. This package is available on CTAN[1]:

CTAN:macros/latex/contrib/oberdiek/auxhook.dtx The source file.

CTAN:macros/latex/contrib/oberdiek/auxhook.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 TEX Files" (**CTAN:tds/tds.pdf**). Directories with `texmf` in their name are usually organized this way.

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[1]**ftp://ftp.ctan.org/tex-archive/**

3.2 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/
```

3.3 Package installation

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

```
tex auxhook.dtx
```

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

```
auxhook.sty → tex/latex/oberdiek/auxhook.sty
auxhook.pdf → doc/latex/oberdiek/auxhook.pdf
auxhook.dtx → source/latex/oberdiek/auxhook.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.

3.4 Refresh file name databases

If your TeX distribution (teTeX, mikTeX, …) relies on file name databases, you must refresh these. For example, teTeX users run `texhash` or `mktexlsr`.

3.5 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 auxhook.pdf unpack_files output .
```

Unpacking with LaTeX. The `.dtx` chooses its action depending on the format:

plain TeX: Run docstrip and extract the files.

LaTeX: Generate the documentation.

If you insist on using LaTeX for docstrip (really, docstrip does not need LaTeX), then inform the autodetect routine about your intention:

```
latex \let\install=y\input{auxhook.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 auxhook.dtx
makeindex -s gind.ist auxhook.idx
pdflatex auxhook.dtx
makeindex -s gind.ist auxhook.idx
pdflatex auxhook.dtx
```

4 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 `auxhook.xml`.

```
106 ⟨*catalogue⟩
107 <?xml version='1.0' encoding='us-ascii'?>
108 <!DOCTYPE entry SYSTEM 'catalogue.dtd'>
109 <entry datestamp='$Date$' modifier='$Author$' id='auxhook'>
110   <name>auxhook</name>
111   <caption>Hooks for auxiliary files.</caption>
112   <authorref id='auth:oberdiek'/>
113   <copyright owner='Heiko Oberdiek' year='2006,2007,2009,2011'/>
114   <license type='lppl1.3'/>
115   <version number='1.3'/>
116   <description>
117     This package auxhook provides hooks for adding stuff at
118     the begin of <tt>.aux</tt> files.
119     <p/>
120     The package is part of the <xref refid='oberdiek'>oberdiek</xref> bundle.
121   </description>
122   <documentation details='Package documentation'
123      href='ctan:/macros/latex/contrib/oberdiek/auxhook.pdf'/>
124   <ctan file='true' path='/macros/latex/contrib/oberdiek/auxhook.dtx'/>
125   <miktex location='oberdiek'/>
126   <texlive location='oberdiek'/>
127   <install path='/macros/latex/contrib/oberdiek/oberdiek.tds.zip'/>
128 </entry>
129 ⟨/catalogue⟩
```

5 References

[1] Heiko Oberdiek: *The hypdestopt package*; 2006/05/30 v1.0; CTAN:macros/latex/contrib/oberdiek/hypdestopt.pdf.

[2] Sebastian Rahtz, Heiko Oberdiek: *The hyperref package*; 2006/08/16 v6.75c; CTAN:macros/latex/contrib/hyperref/.

[3] Heiko Oberdiek: *The zref package*; 2006/05/25 v1.2; CTAN:macros/latex/contrib/oberdiek/zref.pdf.

6 History

[2006/05/31 v1.0]

- First version.

[2007/04/06 v1.1]

- Fix for class beamer.

[2009/12/14 v1.2]

- Support for package rerunfilecheck added (`\@include`).

[2011/03/04 v1.3]

- `\AddLineBeginMainAux` also supports write requests after the main `.aux` file is opened.

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.