

The auxhook package

Heiko Oberdiek*

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Abstract

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

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*Please report any issues at <https://github.com/ho-tex/auxhook/issues>

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 L^AT_EX's macros `\document` and `\@include` to add the hooks where the auxiliary files are opened 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 L^AT_EX's kernel. But the package provides macros to add code that adds a line to the auxiliary file:

<pre>\AddLineBeginMainAux {<line>} \AddLineBeginPartAux {<line>} \AddLineBeginAux {<line>}</pre>
--

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 [2019-12-17 v1.6 Hooks for auxiliary files (H0)]%
```

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 }%

```

3 Installation

3.1 Download

Package. This package is available on CTAN¹:

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

[CTAN:macros/latex/contrib/auxhook/auxhook.pdf](#) Documentation.

Bundle. All the packages of the bundle ‘auxhook’ 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/auxhook.tds.zip](#)

TDS refers to the standard “A Directory Structure for T_EX Files” ([CTAN:pkg/tds](#)). Directories with `texmf` in their name are usually organized this way.

3.2 Bundle installation

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

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

3.3 Package installation

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

```
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/auxhook/auxhook.sty
auxhook.pdf → doc/latex/auxhook/auxhook.pdf
auxhook.dtx → source/latex/auxhook/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 T_EX distribution (T_EX Live, MiK_TE_X, ...) relies on file name databases, you must refresh these. For example, T_EX Live users run `texhash` or `mktextlsr`.

¹[CTAN:pkg/auxhook](#)

3.5 Some details for the interested

Unpacking with L^AT_EX. The `.dtx` chooses its action depending on the format:

plain T_EX: Run `docstrip` and extract the files.

L^AT_EX: Generate the documentation.

If you insist on using L^AT_EX for `docstrip` (really, `docstrip` does not need L^AT_EX), 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 pdfL^AT_EX:

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

4 References

- [1] Heiko Oberdiek: *The hypdestopt package*; 2006/05/30 v1.0; [CTAN:pkg/hypdestopt](#).
- [2] Sebastian Rahtz, Heiko Oberdiek: *The hyperref package*; 2006/08/16 v6.75c; [CTAN:pkg/hyperref](#).
- [3] Heiko Oberdiek: *The zref package*; 2006/05/25 v1.2; [CTAN:pkg/zref](#).

5 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.

[2016/05/16 v1.4]

- Documentation updates.

[2019/12/15 v1.5]

- Documentation updates.

[2019-12-17 v1.6]

- Updated

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