The obsolete everyshi package*

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Why you should no longer use this package:

This packages provides hooks into `\sshipout` called `\EveryShipout` and `\AtNextShipout` analogous to `\AtBeginDocument`.

With the introduction of the LaTeX hook management this package became obsolete in 2020. Information on their usage can be found in the the corresponding documentation for lthooks[1] and ltshipout[2]. We only provide this package to allow backwards compatibility. For current versions of LaTeX it's only mapping the hooks to the original everyshi macros. In case you use an older LaTeX format, everyshi will automatically fallback to its' old implementation by loading everyshi-2001-05-15.

Contents

*The version umber of this file is v4.00, last revised 2020/11/18.
The name everyshi is a tribute to the 8+3 file-naming convention of certain "operating systems"; strictly speaking it should be everyshipout.

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1 Introduction

This package provides the hooks `\EveryShipout` and `\AtNextShipout` whose arguments are executed after the output routine has constructed `\box255`, and before `\shipout` is called.

2 Usage

`\EveryShipout{`⟨*code*⟩`}` declares ⟨*code*⟩ that is saved internally and executed before each `\shipout`.

Warning: The ⟨*code*⟩ is saved globally; there is currently no way to remove it.

`\AtNextShipout` `\AtNextShipout{`⟨*code*⟩`}` declares ⟨*code*⟩ that is saved internally and executed just before *only the next* `\shipout`.

The ⟨*code*⟩ is executed after `\box255` has been constructed by the output routine and can change `\box255`. `\shipout` is called *after* ⟨*code*⟩.

Repeated use of the commands is permitted: the code in the argument is stored (and executed) in the order of their declarations.

The argument of `\AtNextShipout` is executed *after* the argument of `\EveryShipout`.

3 Options

The package has no options.

4 Required packages

The package does not require any further packages.

References

[1] Frank Mittelbach. The ltshipout package. `http://mirrors.ctan.org/macros/latex/base/lthooks-doc.pdf`

[2] Frank Mittelbach. The ltshipout package. `http://mirrors.ctan.org/macros/latex/base/ltshipout-doc.pdf`

5 The implementation

```
1 ⟨*package⟩
2 \providecommand\IfFormatAtLeastTF{\@ifl@t@r\fmtversion}
3 \IfFormatAtLeastTF{2020/10/01}{}{\input{everyshi-2001-05-15.sty}}
4 \IfFormatAtLeastTF{2020/10/01}{}{\endinput}
5 \protected \def \EveryShipout  {\AddToHook{shipout/before}}
6 \protected \def \AtNextShipout {\AddToHookNext{shipout/before}}
7 ⟨/package⟩
```

5.1 The original implementation by Martin Schröder

To provide compatibility for older LaTeX formats we wrap the original implementation of everyshi version 3.00 into the fallback package everyshi-2001-05-15.

```
⟨*fallback⟩
\ProvidesPackage{everyshi-2001-05-15}
        [2020/11/18 v4.00 EveryShipout Package (fallback mechanism)]
```

5.2 Allocations

First we allocate the hooks

`\@EveryShipout@Hook` The code to be executed before `\shipout` is stored in `\@EveryShipout@Hook`.

```
\newcommand{\@EveryShipout@Hook}{}
```

`\@EveryShipout@AtNextHook` The code to be executed just before the normal `\shipout` and `\@EveryShipout@EveryHook`.

```
\newcommand{\@EveryShipout@AtNextHook}{}
```

5.3 The user-visible commands

`\EveryShipout` `\AtNextShipout` The commands are modeled after `\AtBeginDocument`.

```
\newcommand*{\EveryShipout}[1]
   {\g@addto@macro\@EveryShipout@Hook{#1}}
\newcommand*{\AtNextShipout}[1]
   {\g@addto@macro\@EveryShipout@AtNextHook{#1}}
```

5.4 Inserting the hooks

We want to redefine `\shipout` so that first `\box255` is constructed and after that we can do something and at last shipout the (possible modified) `\box255`. Alas, this does not work in the usual way, since `\shipout` is a TeX primitive whose argument is a ⟨*box*⟩. This means that simply redefining `\shipout` via `\newcommand[1]` is impossible since ⟨*box*⟩ can be something like `\box255` or something like `\vbox{…}`. In the first case `#1` would be ⟨`\box`⟩ (without ⟨*255*⟩); in the second case it would be ⟨`\vbox`⟩ (without ⟨*{…}*⟩).
The solution we use here is borrowed from quire.tex by Marcel R. van der Goot. It is based upon `\afterassignment` and `\aftergroup`.

`\@EveryShipout@Shipout` `\@EveryShipout@Shipout` is our replacement for `\shipout`.

```
\newcommand{\@EveryShipout@Shipout}{%
   \afterassignment\@EveryShipout@Test
   \global\setbox\@cclv= %
   }
```

`\box255` is set to whatever comes after `\shipout`; but after that assignment `\@EveryShipout@Test` is called.

\@EveryShipout@Test

\@EveryShipout@Test determines if \shipout is called with an argument like \box255 or something like \vbox{…}. In the later case we delay the call of \@EveryShipout@Output (where the original \shipout is called) via \aftergroup.

```
\newcommand{\@EveryShipout@Test}{%
   \ifvoid\@cclv\relax
      \aftergroup\@EveryShipout@Output
   \else
      \@EveryShipout@Output
   \fi%
   }
```

\@EveryShipout@Output

\@EveryShipout@Output does the actual work. First the ⟨*code*⟩ accumulated via \EveryShipout and \AtNextShipout is called and then the original \shipout stored in \@EveryShipout@Org@Shipout is called to finally ship out \box255.

```
\newcommand{\@EveryShipout@Output}{%
   \@EveryShipout@Hook%
   \@EveryShipout@AtNextHook%
```

We have to reset \@EveryShipout@AtNextHook after each use.

```
      \gdef\@EveryShipout@AtNextHook{}%
   \@EveryShipout@Org@Shipout\box\@cclv%
   }
```

\@EveryShipout@Org@Shipout

The original \shipout is stored in \@EveryShipout@Org@Shipout by \@EveryShipout@Init. Here we allocate it.

```
\newcommand{\@EveryShipout@Org@Shipout}{}
```

\@EveryShipout@Init

\@EveryShipout@Init stores the original \shipout in \@EveryShipout@Org@Shipout and sets \shipout to \@EveryShipout@Shipout. This is done at \begin{document} via \AtBeginDocument.

```
\newcommand*{\@EveryShipout@Init}{%
   \message{ABD: EveryShipout initializing macros}%
   \let\@EveryShipout@Org@Shipout\shipout
   \let\shipout\@EveryShipout@Shipout
   }
\AtBeginDocument{\@EveryShipout@Init}
```

⟨/fallback⟩

6 Acknowledgements

Thanks to Ulrike Fischer for the advice during preparation of Version 4.00. Version 2.0 of everyshi borrows heavily from quire.tex of the Midnight Macros by Marcel R. van der Goot (marcel@cs.caltech.edu). The pointer to quire was provided by Lothar Meyer-Lerbs (TEXSatz@zfn.uni-bremen.de). As usual Rebecca Stiels improved the quality of this documentation.