

The EverySel package*

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Abstract

This packages provides hooks into the NFSS-command `\selectfont` called `\EverySelectfont` and `\AtNextSelectfont` analogous to `\AtBeginDocument`.

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1 Introduction

This package provides the hooks `\EverySelectfont` and `\AtNextSelectfont` whose arguments are executed just after \LaTeX has loaded a new font using `\selectfont` (which means that it will be executed after *every* font loaded via NFSS).

An example application would be a package for setting ragged text which needs to distiguish between monospaced and proportional fonts. Such a package exists: `ragged2e`[2].

2 Usage

`\EverySelectfont` `\EverySelectfont{<code>}` declares `<code>` that is saved internally and executed just after *each* `\selectfont`.

*The version number of this file is v1.03, last revised 1999/06/08.

The name EverySel is a tribute to the 8 + 3 file-naming convention of certain “operating systems” and their “file systems”; strictly speaking it should be Every-Selectfont.

Warning: The $\langle code \rangle$ is saved globally; there is currently no way to remove it.

`\AtNextSelectfont` `\AtNextSelectfont{\langle code \rangle}` declares $\langle code \rangle$ that is saved internally and executed just after *and only the next* `\selectfont`. Repeated use of the commands is permitted: the code in their argument is stored (and executed) in the order of their declarations. The argument of `\AtNextSelectfont` is executed *after* the argument of `\EverySelectfont`.

3 Options

The package has no options.

4 Required packages

The package requires no further packages.

5 The implementation

1 $\langle *package \rangle$

5.1 Allocations

First we allocate the hooks

`\@EverySelectfont@EveryHook` The code to be executed just after the normal `\selectfont`.
2 `\newcommand{\@EverySelectfont@EveryHook}{}`

`\@EverySelectfont@AtNextHook` The code to be executed just after the normal `\selectfont` and `\@EverySelectfont@EveryHook`.
3 `\newcommand{\@EverySelectfont@AtNextHook}{}`

5.2 The user-visible commands

`\EverySelectfont` These commands are modeled after `\AtBeginDocument`.
`\AtNextSelectfont` 4 `\newcommand*{\EverySelectfont}[1]`
5 `{\g@addto@macro\@EverySelectfont@EveryHook{#1}}`
6 `\newcommand*{\AtNextSelectfont}[1]`
7 `{\g@addto@macro\@EverySelectfont@AtNextHook{#1}}`

5.3 Inserting the hooks

The hooks are placed *inside* `\selectfont`. Unfortunately for us there are *two* versions of `\selectfont` in normal L^AT_EX: One is defined in the kernel and the other by the package `tracefn[1]`. So we have to check for two versions.

`\@EverySelectfont@Init` We do this in the macro `\@EverySelectfont@Init`, which is executed just after `\begin{document}` (with the aid of `\AtBeginDocument`), when we know for sure which version of `\selectfont` we have to overload.

```
8 \newcommand*{\@EverySelectfont@Init}{%
```

We have to distinguish two cases: `tracefmt` and no `tracefmt`.

```
9   \@ifpackageloaded{tracefmt}{%
```

And we have a problem: `\selectfont` is defined using `\DeclareRobustCommand`, which really defines `\selectfont`.. So instead of simply using `\CheckCommand` we also have to use `\expandafter` and `\csname... \endcsname`.

```
10     \expandafter\CheckCommand\csname selectfont \endcsname{%
11         \ifx\f@linespread\baselinestretch \else
12             \set@fontsize\baselinestretch\f@size\f@baselineskip \fi
13         \xdef\font@name{%
14             \csname\curr@fontshape/\f@size\endcsname}%
15         \pickup@font
16         \font@name
17         \ifnum \tracingfonts>\tw@
18             \@font@info{Switching to \font@name}\fi
19         \size@update
20         \enc@update
21     }%
22 }
```

Now the case without `tracefmt`.

```
23     \expandafter\CheckCommand\csname selectfont \endcsname{%
24         \ifx\f@linespread\baselinestretch \else
25             \set@fontsize\baselinestretch\f@size\f@baselineskip \fi
26         \xdef\font@name{%
27             \csname\curr@fontshape/\f@size\endcsname}%
28         \pickup@font
29         \font@name
30         \size@update
31         \enc@update
32     }%
33 }
```

After the checks we can be sure we have the correct version of `\selectfont`, so we redefine it with our hooks.

```
34 \DeclareRobustCommand{\selectfont}%
35 {%
36     \ifx\f@linespread\baselinestretch \else
37         \set@fontsize\baselinestretch\f@size\f@baselineskip \fi
38     \xdef\font@name{%
39         \csname\curr@fontshape/\f@size\endcsname}%
40     \pickup@font
41     \font@name
42     \@EverySelectfont@EveryHook
43     \@EverySelectfont@AtNextHook
```

We have to reset `\@EverySelectfont@AtNextHook` after each use.

```
44     \gdef\@EverySelectfont@AtNextHook{}
```

```

45     \size@update
46     \enc@update
47     }%

```

The additions of `tracefont` to `\selectfont` can be implemented using `\EverySelectfont`.

```

48     \ifpackageloaded{tracefont}{%
49         \EverySelectfont{%
50             \ifnum \tracingfonts>\tw@
51                 \@font@info{Switching to \font@name}\fi}%
52         }{}%

```

Since `\@EverySelectfont@Init` should only be used once it is self-destructing.

```

53     \let\@EverySelectfont@Init\undefined
54     }

```

Finally we insert `\EverySelectfont@Init` into `\begin{document}`.

```

55 \AtBeginDocument{\@EverySelectfont@Init}
56 \end{package}

```

6 Acknowledgements

David Carlisle provided the solution for my problems with `\CheckCommand`.

References

- [1] Frank Mittelbach and Rainer Schöpf. The `tracefont` package for use with the new font selection scheme. CTAN:tex-archive/macros/latex/base/ltfsstrc.dtx. L^AT_EX 2_ε package.
- [2] Martin Schröder. The `ragged2e` package. CTAN:tex-archive/macros/latex/contrib/supported/ms/ragged2e.dtx. L^AT_EX 2_ε package.

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Numbers written in *italic* refer to the page where the corresponding entry is described, the ones underlined to the code line of the definition, the rest to the code lines where the entry is used.

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Change History

v1.00		v1.02	
General: New	1	General: Minor documenta- tion enhancements	1
v1.01		v1.03	
General: Fixed use of \newline in title.	1	General: Moved to LPPL . .	1