

The `show2e` package

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Important note for French readers: the file `show2e-fr.pdf` contains the same documentation in French.

1 Introduction

This small package aims at making debugging (esp. in an interactive way) easier, by providing `\show` variants suited to L^AT_EX 2_ε's commands (with optional arguments or robust) and environments.

2 Usage

`\showcmd` The `\showcmd` command displays a command like T_EX's `\show`, but with a little bonus: it also checks if the macros takes an optional argument (like some commands defined with `\newcommand do`), or was made robust by using `\DeclareRobustCommand` or fixltx2e's `\MakeRobust`. Such commands use other(s) internal command(s), which `\showcmd` will also display for you.

`\showcs` The `\showcs` command does the same thing as `\showcmd`, but takes the command's *name* as its argument: `\showcmd\truc` is equivalent to `\showcs{truc}`.
`\showenv` Finally, the `\showenv` command does the same for environments.

The previous commands will only work on simple commands defined with standard L^AT_EX 2_ε commands (or, by the way, with `xargs`): they do not try to guess such things as a direct use of `\@ifnextchar`, or even `\@ifstar` (at the moment).

3 Implementation

`\showcmd` The `\showcmd` macro just checks to beginning of the meaning of its argument, in order to decide if there are any internal macro to show too. It also sets a default value for `\escapechar` for sake of readability.

```
1 \newcommand* \showcmd [1] {%
2   \begingroup \escapechar92
3   \show#1%
4   \showe@if@meaning@prefix@NnT #1 {\x@protect}
5     {\showe@show@space@macro@N #1}%
6   \showe@if@meaning@prefix@NnT #1 {\protect}
7     {\showe@show@space@macro@N #1}%
```

```

8 \showe@if@meaning@prefix@NoT #1 {\string\@protected@testopt}
9   {\showe@show@backslash@macro@N #1}%
10 \endgroup}

\showcs The two variants are only wrappers for \showcmd.
\showenv 11 \newcommand* \showcs [1] {%
12   \expandafter \showcmd \csname#1\endcsname}

13 \newcommand* \showenv [1] {%
14   \showcs{#1}%
15   \expandafter \show\csname end#1\endcsname}

\showe@show@backslash@macro@N Macros for showing the internal macros found, either with \show or with \showcmd.
\showe@show@space@macro@N 16 \newcommand* \showe@show@backslash@macro@N [1] {%
17   \expandafter \show \csname\string#1\endcsname}

18 \newcommand* \showe@show@space@macro@N [1] {%
19   \begingroup \escapechar\m@ne \expandafter\endgroup
20   \expandafter \showcmd \csname\string#1 \endcsname}

\showe@if@meaning@prefix@NnT Check if the second argument is a prefix for the meaning of the first. Variant
\showe@if@meaning@prefix@NoT expanding the second argument once before (named in l3 style).

21 \newcommand* \showe@if@meaning@prefix@NnT [2] {%
22   \def \@tempa {#2}%
23   \showe@if@prefix@ooT {\meaning #1} {\meaning \@tempa}}

24 \newcommand* \showe@if@meaning@prefix@NoT [2] {%
25   \expandafter \showe@if@meaning@prefix@NnT
26   \expandafter #1%
27   \expandafter {#2}}

\showe@if@prefix@nnT Check if string 2 is a prefix of string 1. Variant expanding the two arguments once
\showe@if@prefix@ooT before checking.

28 \newcommand* \showe@if@prefix@nnT [2] {%
29   \def \@tempa ##1#2##2\@nil {%
30     \ifx\empty##2\empty
31       \expandafter\@gobble
32     \else
33       \expandafter\@firstofone
34     \fi}%
35   \@tempa#1#2\@nil}

36 \newcommand* \showe@if@prefix@ooT [2] {%
37   \edef \@tempa {{#1}{#2}}%
38   \expandafter \showe@if@prefix@nnT\@tempa}

```

That's all folks!
Happy T_EXing!