The file syntonly.dtx for use with $\LaTeX 2_{\varepsilon}$.* It contains the code for syntonly.sty

Frank Mittelbach

Rainer Schöpf

April 5, 2008

This package implements the \syntaxonly declaration for $\LaTeX 2_{\varepsilon}$. This command can be used in the preamble for running a document through $\LaTeX 2_{\varepsilon}$ without actually getting any output.

1 Identification

We identify the package and its current version.

```
 \begin{array}{lll} 1 & \providesPackage\{syntonly\} \\ 2 & \providesFile\{syntonly.dtx\} \\ 3 & \providesFile\{syntonly.dtx\} \\ 4 & \providesFile\{syntonly.dtx\} \\ 5 & \providesFile\{syntonly.dtx\} \\ 6 & \providesFile\{syntonly.dtx\} \\ 7 & \providesFile\{syntonly.dtx\} \\ 9 & \providesFile\{syntonly.dtx\}
```

2 Implementation

 $8 \langle *package \rangle$

\dummyft@ First of all we need to define the 'dummy' font.

9 \font\dummyft@=dummy \relax

\ifsyntax@

Now we can define the 'syntax only' feature. We define a switch \if@syntax so that any macro can always find out if it is really supposed to typeset text. Its default is to run in normal mode.

- 10 \newif\ifsyntax@
- 11 \syntax@false

\syntaxonly

The \syntaxonly macro sets up everything for syntax checking.

12 \def\syntaxonly{%

First of all it sets the syntax@ switch to true.

13 \syntax@true

Then it globally sets all fonts to the dummy font. These are: the current font outside math mode,

14 \global\dummyft@

and the 3×16 math fonts for the 16 math groups. We use a loop to set these.

- 15 \count@\sixt@@n
- 16 \loop
- 17 \ifnum\count@ >\z@
- 18 \advance\count@\m@ne
- 19 \global\textfont\count@\dummyft@
- 20 \global\scriptfont\count@\dummyft@
- 21 \global\scriptscriptfont\count@\dummyft@
- 22 \repeat

^{*}This file has version number v2.1e, dated 1999/09/17.

Since all font changes occur either via \selectfont (in text or \mathversion (for math mode) it is sufficient to change these to no-ops. In addition we must prevent the loading of math fonts, this is done by making \getanddefine@fonts a no-op.

- 23 \global\let\selectfont\relax
- 24 \global\let\mathversion\@gobble
- 25 \global\let\getanddefine@fonts\@gobbletwo

We prevent TeX from complaining about the dummy font having no characters.

26 \tracinglostchars\z@

Then we disable the output routine, and set \frenchspacing (which is slightly faster than \nonfrenchspacing). Finally we set \hbadness to 10000 to avoid overfull box messages.

- 27 \nopages@
- 28 \frenchspacing
- 29 \hbadness\@M}

\nopages@

The \nopages@ macro disables the LATEX output routine. To this end we define a very simple output routine that empties the output and footnote boxes (remember that the latter are insertions.

- $30 \ensuremath{\mbox{def}\nopages@{\mbox{\mbox{\mbox{\mbox{$\%$}}}}}$
- 31 \output ${\setbox\z@\box\@cclv}$
- 32 \setbox\z@\box\footins
- 33 \deadcycles\z@}%

Then we protect it against definition by a style file.

34 \newtoks\output

But this is not enough: normally the LATEX output routine is responsible for dealing with floating objects. We therefore also redefine the internal macros for handling floats and marginpars.

```
35 \def\@xfloat##1[##2]{%
```

There are a few things that have to be retained: the definition of \@captype since it is used by the \caption command,

36 \def\@captype{##1}%

the error message issued when not in outer paragraph mode,

37 \ifinner\@parmoderr\fi

and the \@parboxrestore command for the body of the float. This is necessary since it restores the original definitions of important commands like \par or \\.

38 \setbox\@tempboxa\vbox\bgroup\@parboxrestore}%

\end@float must now only close the brace:

39 \let\end@float\egroup

The redefinition of the \marginpar command is a bit more complicated since we have to check for the optional argument. First we redefine the command itself:

40 \def\marginpar{\ifinner\@parmoderr\fi

We open a group so that everything gathered in a temporary box can easily be thrown away by closing it again (see below).

41 \begingroup \@ifnextchar [\@xmpar\@ympar}

\@xmpar and \@ympar are now defined similar to \@xfloat above. If an optional argument is present \@xmpar typesets it in a temporary box that is thrown away later. Then it calls up \@ympar to process \marginpar's argument.

- 42 \long\def\@xmpar[##1]{%
- 43 \setbox\@tempboxa\vbox{\@parboxrestore ##1}\@ympar}%

\@ympar gathers its argument in the same temporary box and throws away its contents by closing the group opened up in \marginpar above.

- 44 \long\def\@ympar##1{%
- $\label{lem:lemphoxavbox{\Qparboxrestore $#$1}\endgroup} \%$

And that's all we had to do.

46 }

\@preamblecmds

We disable the use of the \syntaxonly command after \begin{document}

- 47 \@onlypreamble\syntaxonly $48 \; \big \langle / \texttt{package} \big \rangle$