

The file `oldfont.dtx` for use with L^AT_EX 2_ε.^{*}

It contains the code for `oldfont.sty`

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August 28, 2006

1 Introduction

This file contains the code for the `oldfont` package which emulates the following L^AT_EX 2.09 font commands:

- The two-letter font-changing commands `\rm`, etc. are defined to cancel each other out as they did in L^AT_EX 2.09.
- The two-letter font-changing commands are allowed in math mode.
- The `latexsym` package is loaded.

For full compatibility mode, the file `latex209.def` is loaded by `\documentstyle`.

The following modules are used in the implementation to direct DOCSTRIP in generating the external files:

driver	produce a documentation driver file
package	produce <code>oldfont.sty</code>
latex209	produce part of <code>latex209.def</code>

2 The Code

`\math@bgroup` To make $\langle\textit{math alphabet identifier}\rangle$ work like simple font switches we change the meaning of `\math@bgroup` and `\math@egroup` to `\@empty`. This emulates the behavior of `oldfont.sty` in NFSS1 setups. These definitions are not part of `latex209` automatically, since to emulate 2.09 they are not necessary (all standard fonts are declared as math symbol fonts).

`\math@egroup`

```
1 \let\math@bgroup\@empty
2 \let\math@egroup\@empty
3 \let \@@math@bgroup \math@bgroup
4 \let \@@math@egroup \math@egroup
```

The rest of this document describes code that is used in `oldfont.sty` and `latex209.def`.

```
5 \<package | latex209>
```

When emulating the old settings we don't want a lot of NFSS information being displayed. Thus we required that the `tracefmt` package is loaded with the option `errorshow`.

```
6 \RequirePackage[errorshow]{tracefmt}
```

We define math *alphabet* identifiers for the typefaces described in the L^AT_EX manual. This is straightforward. Some are already defined by the kernel code. And here are the other ones defined by the old L^AT_EX. They all get declared as math symbol font alphabets. Thus we first allocate the additional symbol fonts.

^{*}This file has version number v2.2k, dated 1994/11/29.

```

7 \DeclareSymbolFont{bold}{OT1}{cmr}{bx}{n}
8 \DeclareSymbolFont{sans}{OT1}{cmss}{m}{n}
9 \DeclareSymbolFont{typewriter}{OT1}{cmtt}{m}{n}
10 \DeclareSymbolFont{italic}{OT1}{cmr}{m}{it}
11 \DeclareSymbolFont{smallcaps}{OT1}{cmr}{m}{sc}
12 \DeclareSymbolFont{slanted}{OT1}{cmr}{m}{sl}

```

And here are the corresponding math identifiers.

```

13 \DeclareSymbolFontAlphabet\mathbf{bold}
14 \DeclareSymbolFontAlphabet\mathsf{sans}
15 \DeclareSymbolFontAlphabet\mathtt{typewriter}
16 \DeclareSymbolFontAlphabet\mathsc{smallcaps}
17 \DeclareSymbolFontAlphabet\mathsl{slanted}

```

We undefine the old `\mit` and `\cal` macros (whatever meaning they have) and reallocate them as symbol font alphabets.

```

18 \let\mit\undefined
19 \let\cal\undefined
20 \let\mathit\undefined
21 \DeclareSymbolFontAlphabet\mathit{italic}
22 \DeclareSymbolFontAlphabet{\mit}{letters}
23 \DeclareSymbolFontAlphabet{\cal}{symbols}

```

We define the font commands for selecting the typeface. They are probably defined by the document class/style but we want to force the old meaning.

And here are the definition as they were in L^AT_EX 2.09 but translated into NFSS2 language.

```

24 \DeclareRobustCommand\rm{\normalfont\rmfamily\mathgroup\symoperators}
25 \DeclareRobustCommand\sff{\normalfont\sffamily\mathgroup\symsans}
26 \DeclareRobustCommand\sl{\normalfont\slshape\mathgroup\symslanted}
27 \DeclareRobustCommand\bf{\normalfont\bfseries\mathgroup\symbolbold}
28 \DeclareRobustCommand\sc{\normalfont\scshape\mathgroup\symsmallcaps}
29 \DeclareRobustCommand\it{\normalfont\itshape\mathgroup\symitalic}
30 \DeclareRobustCommand\tt{\normalfont\ttfamily\mathgroup\symtypewriter}

```

We also have to define the *emphasize* font change command (i.e. `\em`). This command will look whether the current font is sloped (i.e. has a positive `\fontdimen1`) and will then select either `\rm` or `\it`.

```

31 \DeclareRobustCommand\em{%
32   \@nomath\em
33   \ifdim \fontdimen \@ne\font > \z@ \rm \else \it \fi}

```

\setfontsize Font size changes are handled using the `\setfontsize` command (in new class files) or by the `@setsize` command in old document style files. The latter is now defined to call `\setfontsize` in the NFSS2 kernel code. Thus to make all size changing commands automatically return to the normal font of the document we only have to slightly modify the definition of `\setfontsize` by adding a `\normalfont` command to it.

```

34 \def\setfontsize#1#2#3{\@nomath#1%
35   \ifx\protect\@typeset@protect
36     \let\currszsize#1%
37   \fi
38   \fontsize{#2}{#3}\normalfont}

```

\non@alpherr Since we emulate the old syntax we also have to silently ignore uses of a math alphabet outside math mode. Since we now use the `\sym...` switches the following setting is not longer necessary.

```

39 %\let\non@alpherr\@gobble

```

\not@math@alphabet But we need to disable the error message that is generated from `\bfseries` etc.

```

40 \let\not@math@alphabet\@gobbletwo

```

We left out the special L^AT_EX fonts which are not automatically included in the base version of the font selection since these fonts contain only a few characters which are also included in the AMS fonts so anybody who is using these fonts doesn't need them. But for compatibility reasons we will define these symbols.

```
41 \RequirePackage{latexsym}  
42 \end{package} | latex209
```