The LaTeX symbol fonts for use with LaTeX 2ε.*

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1998/08/17

This file is maintained by the LaTeX Project team.
Bug reports can be opened (category `latex`) at
https://latex-project.org/bugs.html.

1 Introduction

This file defines the package `latexsym` which makes the few additional characters available that come from the `lasy` fonts (LaTeX's symbol fonts). These fonts are not automatically included in the NFSS2/LaTeX 2ε since they take up important space and aren't necessary if one makes use of the packages `amsfonts` or `amssymb`.

The commands defined by the `latexsym` package are:

`\mho` ℧ `\Join` ⋈ `\Box` □ `\Diamond` ◇ `\leadsto` ⇝
`\sqsubset` ⊏ `\sqsupset` ⊐ `\lhd` ◁ `\unlhd` ⊴ `\rhd` ▷
`\unrhd` ⊵

2 The DOCSTRIP modules

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

driver	produce a documentation driver file
package	produce a package file
fd	produce a font definition file

3 The Implementation

The individual files generated from this code are identified at the very top of this file by a couple of lines looking like this:

```
%<fd>\ProvidesFile{Ulasy.fd}
%<-driver>              [????/??/?? v2.2?
%<package>                  Standard LaTeX package (lasy symbols)]
%<fd>              LaTeX symbol font definitions]
```

1 ⟨*package⟩

*This file has version number v2.2e, dated 1998/08/17.

\symlasy It is possible to detect whether or not the LaTeX symbols are already defined by checking for the math group number with the name \symlasy.

In that case we exit but write a message to the transcript file.

```
\ifx\symlasy\undefined \else
  \wlog{Package latexsym: nothing to set up^^J}%
  \endinput \fi
```

Otherwise we define the new symbol font.

```
  \DeclareSymbolFont{lasy}{U}{lasy}{m}{n}
  \SetSymbolFont{lasy}{bold}{U}{lasy}{b}{n}
```

Because the lasy symbols are made an error in the format we have to undefine them before we can set them anew with \DeclareMathSymbol.

```
  \let\mho\undefined            \let\sqsupset\undefined
  \let\Join\undefined           \let\lhd\undefined
  \let\Box\undefined            \let\unlhd\undefined
  \let\Diamond\undefined        \let\rhd\undefined
  \let\leadsto\undefined        \let\unrhd\undefined
  \let\sqsubset\undefined

  \DeclareMathSymbol\mho     {\mathord}{lasy}{"30}
  \DeclareMathSymbol\Join    {\mathrel}{lasy}{"31}
  \DeclareMathSymbol\Box     {\mathord}{lasy}{"32}
  \DeclareMathSymbol\Diamond {\mathord}{lasy}{"33}
  \DeclareMathSymbol\leadsto {\mathrel}{lasy}{"3B}
  \DeclareMathSymbol\sqsubset{\mathrel}{lasy}{"3C}
  \DeclareMathSymbol\sqsupset{\mathrel}{lasy}{"3D}
  \DeclareMathSymbol\lhd     {\mathbin}{lasy}{"01}
  \DeclareMathSymbol\unlhd   {\mathbin}{lasy}{"02}
  \DeclareMathSymbol\rhd     {\mathbin}{lasy}{"03}
  \DeclareMathSymbol\unrhd   {\mathbin}{lasy}{"04}
```

To save some space we can remove the definition of \not@base since it isn't any longer needed. (We use \@undefined so that gives an error and not a recursive definition if it is still used somewhere.)

```
  \let\not@base\@undefined
⟨/package⟩
```

3.1 LaTeX symbols fonts

The rest of this file defines the font shape declarations that have to go into the corresponding .fd file.

```
⟨*fd⟩
\DeclareFontFamily{U}{lasy}{}
\DeclareFontShape{U}{lasy}{m}{n}{ <5> <6> <7> <8> <9> gen * lasy
      <10> <10.95> <12> <14.4> <17.28> <20.74> <24.88>lasy10  }{}
```

Since there are no bold lasy symbols below 10pt we silently substitute them by the medium ones to avoid terminal warnings if \boldmath is selected.

```
\DeclareFontShape{U}{lasy}{b}{n}{ <-10> ssub * lasy/m/n
     <10> <10.95> <12> <14.4> <17.28> <20.74> <24.88>lasyb10  }{}
⟨/fd⟩
```

The next line goes into all files and in addition prevents DOCSTRIP from adding any further code from the main source file (such as a character table).

```
\endinput
```