The LaTeX symbol fonts for use with LaTeX 2$_\varepsilon$.*

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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 2$_\varepsilon$ 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⟩

\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.

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

Otherwise we define the new symbol font.

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

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

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

```
 7    \let\mho\undefined              \let\sqsupset\undefined
 8    \let\Join\undefined             \let\lhd\undefined
 9    \let\Box\undefined              \let\unlhd\undefined
10    \let\Diamond\undefined          \let\rhd\undefined
11    \let\leadsto\undefined          \let\unrhd\undefined
12    \let\sqsubset\undefined

13    \DeclareMathSymbol\mho     {\mathord}{lasy}{"30}
14    \DeclareMathSymbol\Join    {\mathrel}{lasy}{"31}
15    \DeclareMathSymbol\Box     {\mathord}{lasy}{"32}
16    \DeclareMathSymbol\Diamond {\mathord}{lasy}{"33}
17    \DeclareMathSymbol\leadsto {\mathrel}{lasy}{"3B}
18    \DeclareMathSymbol\sqsubset{\mathrel}{lasy}{"3C}
19    \DeclareMathSymbol\sqsupset{\mathrel}{lasy}{"3D}
20    \DeclareMathSymbol\lhd     {\mathbin}{lasy}{"01}
21    \DeclareMathSymbol\unlhd   {\mathbin}{lasy}{"02}
22    \DeclareMathSymbol\rhd     {\mathbin}{lasy}{"03}
23    \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.)

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

3.1 LATEX symbols fonts

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

```
26 ⟨*fd⟩
27 \DeclareFontFamily{U}{lasy}{}
28 \DeclareFontShape{U}{lasy}{m}{n}{ <5> <6> <7> <8> <9> gen * lasy
29       <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.

```
30 \DeclareFontShape{U}{lasy}{b}{n}{ <-10> ssub * lasy/m/n
31       <10> <10.95> <12> <14.4> <17.28> <20.74> <24.88>lasyb10  }{}
32 ⟨/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).

```
33 \endinput
```