The St Mary's Road symbol font

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Version 2.02a-tmp-CAR, March 2004

1 Introduction

This is a brief guide to the St Mary's Road symbol font, a new symbol font for TEX and LATEX. It is designed to live with the American Mathematical Society's fonts, contained in amssymb.sty.

It provides a number of new symbols, including ones for derivation of functional programming (such as γ , \pm and \wedge), process algebra (\parallel , \square and \pm), domain theory (\square), linear logic (\otimes and \otimes), multisets ((x), \cap , and \subseteq) and many more. It also fixes some 'features' with previous symbols (\oplus used not to be circular, now you can use \oplus instead) and adds obvious variants of others (such as \leftarrow , \mapsto and \Leftarrow). It is all wrapped up in a LATEX 2ε package called **stmaryrd**, which can be used by saying:

\usepackage{stmaryrd}

This package understands a large number of options:

- heavycircles says that all of the circular operators such as \oplus and \otimes should by default be heavy, and that \varoplus and \varotimes should refer to the light ones.
- only says that only the symbols listed in the option list should be defined. For example:

\usepackage[only,mapsfrom,Mapsto,Mapsfrom]{stmaryrd}

says that only the symbols ' \leftarrow ', ' \Rightarrow ' and ' \Leftarrow ' should be defined, which is useful if you use a TFX implementation with limited memory.

2 Symbols

The following operators are defined:

Y \Ydown	√ Yleft	\succ \Yright
人 \Yup	\$\baro\$	$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $
$\&$ \binampersand	\otimes \bindnasrepma	*\boxast
	□ \boxbox	\square \boxbslash
<pre>O \boxcircle</pre>	· \boxdot	\square \boxempty

	\bigvee \curlyveedownarrow	\bigvee \curlyveeuparrow	
igwedge igwedigwedge igwedge igwed igwedge igwedge igwedge igwedge igwedge igwedge igwed	$\int_{-\infty}^{\infty} 1$	\[\fatbslash	
% \fatsemi	//\fatslash	\interleave	
<pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>		→ \minuso	
± \moo	Ĥ \nplus	① \obar	
☐ \oblong	○ \obslash	○ \ogreaterthan	
⟨olessthan ⟩			
>\rightslice	//\sslash	\talloblong	
○\varbigcirc	√ \varcurlyvee	人 \varcurlywedge	
	① \varobar	○\varobslash	
	⊙ \varodot		
⟨\varolessthan ⟩		\oplus \varoplus	
⊘\varoslash	⊗ \varotimes		
	X \vartimes		
(CAR) Added by Chris Rowley, March 2004: If the amssymb package has been loaded then the following are also defined: \oast and \ocircle. The following large operators are defined:			
\bigbox		人 \bigcurlywedge	
$\parallel \parallel $ \biginterleave	+ \bignplus	\bigparallel	
\bigsqcap	$\sqrt{}$ \bigtriangledown	\bigwedge \bigtriangleup	
The following relations are	e defined:		
$\in \setminus inplus$	→ \niplus	$ ot\!\!/ \$ \ntrianglelefteqslant	
$ ot\!$	\oplus \subsetplus	$\underline{\oplus}$ \subsetpluseq	
\oplus \supsetplus	$\stackrel{ extstyle o}{=}$ \supsetpluseq	\leqslant \trianglelefteqslant	
\triangleright \trianglerighteqslant			
The following arrows are of	defined:		
_	lefined: ⇒\Longmapsto	← \Mapsfrom	
_		<pre></pre>	
<	⇒\Longmapsto ←\leftarrowtriangle		
← \Longmapsfrom	⇒\Longmapsto ←\leftarrowtriangle	\Leftrightarrow \leftrightarroweq	
<pre>← \Longmapsfrom ⇒ \Mapsto ⇒ \leftrightarrowtriangle</pre>	→\Longmapsto ←\leftarrowtriangle ½\lightning	⇔ \leftrightarroweq ←—— \longmapsfrom	
<pre>← \Longmapsfrom</pre>	→\Longmapsto -\leftarrowtriangle // \lightning // \nnearrow	⇔ \leftrightarroweq ← \longmapsfrom ↑ \nnwarrow	
<pre>← \Longmapsfrom</pre>	Longmapsto Ileftarrowtriangle Ileftarrow Innearrow rrparenthesis	⇔ \leftrightarroweq ← \longmapsfrom	
<pre> ├──\Longmapsfrom ├──\Mapsto ├──\leftrightarrowtriangle ├──\mapsfrom ──\rightarrowtriangle ├──\shortleftarrow</pre>	<pre></pre>	⇔ \leftrightarroweq ← \longmapsfrom	
<pre> ├──\Longmapsfrom ├──\Mapsto ├──\leftrightarrowtriangle ├──\mapsfrom ──\rightarrowtriangle ├──\shortleftarrow ↓ \ssearrow</pre>	<pre></pre>	⇔ \leftrightarroweq ← \longmapsfrom	
<pre> ├──\Longmapsfrom ├──\Mapsto ├──\leftrightarrowtriangle ├──\mapsfrom ──\rightarrowtriangle ├──\shortleftarrow ├──\ssearrow The following delimiters a</pre>	⇒\Longmapsto -\leftarrowtriangle \{\forall \lightning \forall \nnearrow \light\rangle \reftrict{\text{reparenthesis}} -\shortrightarrow \(\forall \sswarrow\) re defined:		
<pre> ├──\Longmapsfrom ├──\Mapsto ├──\leftrightarrowtriangle ├──\mapsfrom ├──\rightarrowtriangle ├──\shortleftarrow ├──\ssearrow The following delimiters as ├──\Lbag</pre>	Longmapsto Ileptarrowtriangle Ilightning Innearrow Irrparenthesis Ishortrightarrow Isswarrow Redefined: IRbag		
<pre> ├──\Longmapsfrom ├──\Mapsto ├──\leftrightarrowtriangle ├──\mapsfrom ──\rightarrowtriangle ├──\shortleftarrow ├──\ssearrow The following delimiters a { \Lbag [\lbag [\llbracket</pre>	Longmapsto Ileptarrowtriangle Ilightning Innearrow Interparenthesis Interpar		
<pre> ├──\Longmapsfrom ├──\Mapsto ├──\leftrightarrowtriangle ├──\mapsfrom ──\rightarrowtriangle ├──\shortleftarrow ├──\ssearrow The following delimiters and ├──\Lbag [\lbag [\llbracket</pre>	Longmapsto		
<pre> ├──\Longmapsfrom ├──\Mapsto ├──\leftrightarrowtriangle ├──\mapsfrom ├──\rightarrowtriangle ├──\shortleftarrow ├──\ssearrow The following delimiters as ├──\Lbag </pre>	Longmapsto Ileptarrowtriangle Ilightning Innearrow Inrparenthesis Interpolate in the state of the sta		
<pre> ├──\Longmapsfrom ├──\Mapsto ├──\leftrightarrowtriangle ├──\mapsfrom ├──\rightarrowtriangle ├──\shortleftarrow ├──\ssearrow The following delimiters as ├──\Lbag </pre>	Longmapsto Ileptarrowtriangle Ilightning Innearrow Inrparenthesis Interpolate in the state of the sta		
<pre> ├──\Longmapsfrom ├──\Mapsto ├──\leftrightarrowtriangle ├──\mapsfrom ├──\rightarrowtriangle ├──\shortleftarrow ├──\ssearrow The following delimiters as ├──\Lbag </pre>	Longmapsto Ileptarrowtriangle Ilightning Innearrow Inrparenthesis Interpolate in the state of the sta		
<pre> ├──\Longmapsfrom ├──\Mapsto ├──\leftrightarrowtriangle ├──\mapsfrom ├──\rightarrowtriangle ├──\shortleftarrow ├──\ssearrow The following delimiters as ├──\Lbag </pre>	Longmapsto Ileptarrowtriangle Ilightning Innearrow Inrparenthesis Interpolate in the state of the sta		
<pre> ├──\Longmapsfrom ├──\Mapsto ├──\leftrightarrowtriangle ├──\mapsfrom ├──\rightarrowtriangle ├──\shortleftarrow ├──\ssearrow The following delimiters as ├──\Lbag </pre>	Longmapsto		

The following special characters are used in building others:

```
/\Arrownot | \Mapsfromchar | \Mapstochar \\arrownot | \mapsfromchar
```

For example, if you type $\Lambda = \$ and if you type $\Lambda = \$ and if you type $\Lambda = \$

Acknowledgements

Thanks to David Murphy for suggestions in the design of the St Mary's Road font. Thanks to Martin Ward for the first pass of converting the stmaryrd package to \LaTeX Thanks to Simon Mercer for all the wine at 45 St. Mary's Road.

Legal rubbish

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3 Installation

To begin with, the stmaryrd package is installed by running LaTeX 2ε on this document, so we begin with the instllation procedure. This needs to use LaTeX 2ε :

```
1 \( \*install \)
2 \NeedsTeXFormat{LaTeX2e}
```

First of all, we write out a little .ins file which creates the stmaryrd package:

```
3 \begin{filecontents}{stmaryrd.ins}
4 \generateFile{stmaryrd.sty}{f}{
5 \from{stmaryrd.dtx}{package}}
6 \generateFile{Ustmry.fd}{f}{
7 \from{stmaryrd.dtx}{fontdef}}
8 \end{filecontents}
```

Then we do some horrible low-level hacks to run docstrip on stmaryrd.ins:

```
9 \bgroup
10 \makeatletter
11 \let\@@end=\relax
12 \def\batchfile{stmaryrd.ins}
13 \input{docstrip}
14 \egroup
That's it for the installation:
15 \( /install \)
```

Documentation 4

```
We now provide the documentation driver for this document:
             16 (*driver)
             17 \documentclass{ltxdoc}
             18 \DisableCrossrefs
             19 \OnlyDescription
             20 \usepackage{stmaryrd}
            Some hacks that are used in the documentation:
   \symbols
\endsymbols
             21 \def\symbols{\flushleft}
  \dosymbol
            22 \def\endsymbols{\endflushleft}
      \test 23 \def\dosymbol#1{\leavevmode\hbox to .33\textwidth{\hbox to 1.2em
                   {\hss$#1$\hfil}\footnotesize\tt\string#1\hss}\penalty10}
             25 \def\test#1{\par\leavevmode\llap{#1\tt\string#1:}
                  \label{left} $$  I}^{a \vee plus I}^{a \vee plus B} P_i $$
                  \right\rrbracket$}}
             Then we produce the documentation:
             28 \begin{document}
                  \DocInput{stmaryrd.dtx}
             30 \end{document}
             31 (/driver)
             5
```

The package

We can now implement the stmaryrd package.

```
32 (*package)
```

33 \NeedsTeXFormat{LaTeX2e}

34 \ProvidesPackage{stmaryrd}[1994/03/03 St Mary's Road symbol package]

\stmry@if

Most definitions in this file are preceded by stm@if, which sets its second argument to be undefined, and expands to \iftrue if its second argument is going to be defined, for example:

\stmry@if\def\foo{baz}\fi

By default, this is always true.

35 \def\stmry@if#1#2{\let#2=\@undefined\iftrue#1#2}

\ds@only \stmry@only The only option causes \stmry@if to be true only when its second argument is defined to be \relax.

```
36 \DeclareOption{only}{\let\stmry@if=\stmry@only}
```

 $37 \ensuremath{$\def\stmry@only#1#2{\ifx#2\relax\let#2=\@undefined#1#2}}$

\ds@heavycircles \ifstmry@heavy@ The heavy circles option makes sure all of the heavy circles are defined, and sets \stmry@heavy@true.

```
38 \newif\ifstmry@heavy@
```

40 \DeclareOption{heavycircles}{%

\stmry@option{varotimes}\stmry@option{varoast}%

^{39 \}stmry@heavy@false

```
\stmry@option{varobar}\stmry@option{varodot}%
                   42
                        \stmry@option{varoslash}\stmry@option{varobslash}%
                   43
                   44
                        \stmry@option{varocircle}\stmry@option{varoplus}%
                        \stmry@option{varominus}\stmry@option{varbigcirc}%
                   45
                        \stmry@heavy@true
                   46
                   47 }
                   For every other option, we call \stmry@option, which defines its argument to be
   \stmry@option
                   48 \def\stmry@option#1{\expandafter\let\csname#1\endcsname\relax}
                   49 \DeclareOption*{\stmry@option\CurrentOption}
      \ds@Mapsto
                   All of the other options for stmaryrd are command names. Some of the commands
                   need others to be defined, so we declare these explicitly.
    \ds@mapsfrom
    \ds@Mapsfrom
                   50 \DeclareOption{Mapsto}{%
\ds@longarrownot
                        \stmry@option{Mapsto}%
\ds@Longarrownot
                   52
                        \stmry@option{Mapstochar}%
  \ds@longmapsto
                   53 }
                   54 \DeclareOption{mapsfrom}{%
  \ds@Longmapsto
                        \stmry@option{mapsfrom}%
                   55
\ds@longmapsfrom
                        \stmry@option{mapsfromchar}%
                   56
\ds@Longmapsfrom
                   57 }
                   58 \label{lem:mapsfrom} $58 \in \mathbb{M}_{n}$
                        \stmry@option{Mapsfrom}%
                   59
                        \stmry@option{Mapsfromchar}%
                   60
                   61 }
                   62 \DeclareOption{longarrownot}{%
                        \stmry@option{longarrownot}%
                        \stmry@option{arrownot}%
                   64
                   65 }
                   66 \DeclareOption{Longarrownot}{%
                        \stmry@option{Longarrownot}%
                   67
                   68
                        \stmry@option{Arrownot}%
                   69 }
                   70 \DeclareOption{Longmapsto}{%
                        \stmry@option{Longmapsto}%
                   71
                         \stmry@option{Mapstochar}%
                   72
                   73 }
                   74 \DeclareOption{longmapsfrom}{%
                        \stmry@option{longmapsfrom}%
                   75
                        \stmry@option{mapsfromchar}%
                   76
                   77 }
                   78 \DeclareOption{Longmapsfrom}{%
                        \stmry@option{Longmapsfrom}%
                        \stmry@option{Mapsfromchar}%
                   80
                   81 }
                      Then we can process the options!
                   82 \ProcessOptions
                   Declare the symbol fonts:
                   83 \DeclareSymbolFont{stmry}{U}{stmry}{m}{n}
                   84 \SetSymbolFont{stmry}{bold}{U}{stmry}{b}{n}
```

Then we load those symbols!

```
85 \stmry@if\DeclareMathSymbol\shortleftarrow\mathrel{stmry}{"00}\fi
       86 \t mry@if\DeclareMathSymbol\shortrightarrow\mathrel{stmry}{"01}\fine the continuous continuous
       87 \stmry@if\DeclareMathSymbol\shortuparrow\mathrel{stmry}{"02}\fi
       88 \stmry@if\DeclareMathSymbol\shortdownarrow\mathrel{stmry}{"03}\fi
       89 \stmry@if\DeclareMathSymbol\Yup\mathbin{stmry}{"04}\fi
     90 \stmry@if\DeclareMathSymbol\Ydown\mathbin{stmry}{"05}\fi
     91 \stmry@if\DeclareMathSymbol\Yleft\mathbin{stmry}{"06}\fi
     92 \stmry@if\DeclareMathSymbol\Yright\mathbin{stmry}{"07}\fi
     93 \stmry@if\DeclareMathSymbol\varcurlyvee\mathbin{stmry}{"08}\fi
     94 \t \end{orange} wedge \mathbf{Mathbin} {\rm Stmry} {\rm "09} \fina \t \end{orange} 
     95 \stmry@if\DeclareMathSymbol\minuso\mathbin{stmry}{"OA}\fi
     96 \mbox{ \normalfile} OB}\fi
     97 \stmry@if\DeclareMathSymbol\sslash\mathbin{stmry}{"OC}\fi
     98 \stmry@if\DeclareMathSymbol\bbslash\mathbin{stmry}{"OD}\fi
     99 \stmry@if\DeclareMathSymbol\moo\mathbin{stmry}{"0E}\fi
100 \stmry@if\DeclareMathSymbol\varotimes\mathbin{stmry}{"OF}\fi
101 \stmry@if\DeclareMathSymbol\varoast\mathbin{stmry}{"10}\fi
102 \stmry@if\DeclareMathSymbol\varobar\mathbin{stmry}{"11}\fi
103 \stmry@if\DeclareMathSymbol\varodot\mathbin{stmry}{"12}\fi
104 \textbf{\xtmry@if\DeclareMathSymbol\varoslash\mathbin\{stmry\}{"13}\fine and the stmry} for the content of the co
105 \verb|\display=2.05| $$ \operatorname{Cont} \operatorname{Co
106 \stmry@if\DeclareMathSymbol\varocircle\mathbin{stmry}{"15}\fi
107 \mbox{\colored} \mbox{\c
108 \texttt{\coloreMathSymbol\varominus\mathbin{stmry}{"17}\finction{Colored Colored Color
109 \stmry@if\DeclareMathSymbol\boxast\mathbin{stmry}{"18}\fi
110 \stmry@if\DeclareMathSymbol\boxbar\mathbin{stmry}{"19}\fi
111 \stmry@if\DeclareMathSymbol\boxdot\mathbin{stmry}{"1A}\fi
113 \stmry@if\DeclareMathSymbol\boxbslash\mathbin{stmry}{"1C}\fi
114 \stmry@if\DeclareMathSymbol\boxcircle\mathbin{stmry}{"1D}\fi
115 \mbox{mathbin{stmry}{"1E}fi}
117 \stmry@if\DeclareMathSymbol\lightning\mathord{stmry}{"20}\fi
118 \mbox{\clareMathSymbol\merge\mathbin{stmry}{"21}\fi}
119 \stmry@if\DeclareMathSymbol\vartimes\mathbin{stmry}{"22}\fi
120 \stmry@if\DeclareMathSymbol\fatsemi\mathbin{stmry}{"23}\fi
121 \stmry@if\DeclareMathSymbol\sswarrow\mathrel{stmry}{"24}\fi
122 \stmry@if\DeclareMathSymbol\ssearrow\mathrel{stmry}{"25}\fi
123 \stmry@if\DeclareMathSymbol\curlywedgeuparrow\mathrel{stmry}{"26}\fi
124 \stmry@if\DeclareMathSymbol\curlywedgedownarrow\mathrel{stmry}{"27}\fi
125 \textbf{\def}\ \textbf{\de}
126 \textbf{\tmry@if\DeclareMathSymbol\fatbslash\mathbin\{stmry\}{"29}\fine and the stmry of the stmry
127 \mbox{\localereMathSymbol\lbag\\mathbin{stmry}{"2A}\fi}
128 \verb|\dim| 28 \end{orange} $$128 \end{orange} $$
129 \stmry@if\DeclareMathSymbol\varbigcirc\mathbin{stmry}{"2C}\fi
130 \stmry@if\DeclareMathSymbol\leftrightarroweq\mathrel{stmry}{"2D}\fi
131 \stmry@if\DeclareMathSymbol\curlyveedownarrow\mathrel{stmry}{"2E}\fi
132 \texttt{\coloreMathSymbol\curlyveeuparrow\mathrel\{stmry\}{"2F}\fine the constraint of the constraint of
133 \stmry@if\DeclareMathSymbol\nnwarrow\mathrel{stmry}{"30}\fi
134 \stmry@if\DeclareMathSymbol\nnearrow\mathrel{stmry}{"31}\fi
135 \stmry@if\DeclareMathSymbol\leftslice\mathbin{stmry}{"32}\fi
136 \texttt{\chirp{cif}\declareMathSymbol\rightslice\mathbin{stmry}{"33}\fine and the stmry} is the stmry of the 
137 \mbox{\colored} \mbox{\c
```

```
138 \stmry@if\DeclareMathSymbol\varogreaterthan\mathbin{stmry}{"35}\fi
139 \stmry@if\DeclareMathSymbol\varovee\mathbin{stmry}{"36}\fi
140 \stmry@if\DeclareMathSymbol\varowedge\mathbin{stmry}{"37}\fi
141 \stmry@if\DeclareMathSymbol\talloblong\mathbin{stmry}{"38}\fi
142 \stmry@if\DeclareMathSymbol\interleave\mathbin{stmry}{"39}\fi
143 %% (CAR) Added by Chris Rowley, March 2004:
144 \stmry@if\let\oast\circledast\fi
145 \stmry@if\let\ocircle\circledcirc\fi
146 %%
147 \stmry@if\DeclareMathSymbol\obar\mathbin{stmry}{"3A}\fi
148 \stmry@if\DeclareMathSymbol\obslash\mathbin{stmry}{"3B}\fi
149 \textbf{\gray@if\DeclareMathSymbol\olessthan\mathbin{stmry}{"3C}\fine and the stmry of the content of the conte
150 \verb|\claim=MathSymbol\ogreaterthan\mathbin{stmry}{"3D}\find the context of th
151 \stmry@if\DeclareMathSymbol\ovee\mathbin{stmry}{"3E}\fi
152 \stmry@if\DeclareMathSymbol\owedge\mathbin{stmry}{"3F}\fi
153 \stmry@if\DeclareMathSymbol\oblong\mathbin{stmry}{"40}\fi
154 \stmry@if\DeclareMathSymbol\inplus\mathrel{stmry}{"41}\fi
155 \stmry@if\DeclareMathSymbol\niplus\mathrel{stmry}{"42}\fi
156 \stmry@if\DeclareMathSymbol\nplus\mathbin{stmry}{"43}\fi
157 \stmry@if\DeclareMathSymbol\subsetplus\mathrel{stmry}{"44}\fi
158 \stmry@if\DeclareMathSymbol\supsetplus\mathrel{stmry}{"45}\fi
159 \verb|\claim= MathSymbol\subsetpluseq\mathrel{stmry}{"46} \verb|\fi|
160 \verb|\claim= MathSymbol\supsetpluseq\mathrel{stmry}{"47}\fi
161 \stmry@if\DeclareMathSymbol\Lbag\mathopen{stmry}{"48}\fi
162 \stmry@if\DeclareMathSymbol\Rbag\mathclose{stmry}{"49}\fi
164 \stmry@if\DeclareMathSymbol\llparenthesis\mathopen{stmry}{"4C}\fi
165 \stmry@if\DeclareMathSymbol\rrparenthesis\mathclose{stmry}{"4D}\fi
166 \stmry@if\DeclareMathSymbol\binampersand\mathopen{stmry}{"4E}\fi
167 \stmry@if\DeclareMathSymbol\bindnasrepma\mathclose{stmry}{"4F}\fi
168 \stmry@if\DeclareMathSymbol\trianglelefteqslant\mathrel{stmry}{"50}\fi
169 \verb|\trianglerighteqslant\mathrel{stmry}{"51}\fine the continuous of the continuous 
170 \t mry@if\DeclareMathSymbol\ntrianglelefteqslant\mathrel{stmry}{"52}\fine the continuous cont
171 \stmry@if\DeclareMathSymbol\ntrianglerighteqslant\mathrel{stmry}{"53}\fi
172 \stmry@if\DeclareMathSymbol\llfloor\mathopen{stmry}{"54}\fi
173 \stmry@if\DeclareMathSymbol\rrfloor\mathclose{stmry}{"55}\fi
174 \stmry@if\DeclareMathSymbol\llceil\mathopen{stmry}{"56}\fi
175 \stmry@if\DeclareMathSymbol\rrceil\mathclose{stmry}{"57}\fi
176 \stmry@if\DeclareMathSymbol\arrownot\mathrel{stmry}{"58}\fi
177 \stmry@if\DeclareMathSymbol\Arrownot\mathrel{stmry}{"59}\fi
178 \stmry@if\DeclareMathSymbol\Mapstochar\mathrel{stmry}{"5A}\fi
179 \stmry@if\DeclareMathSymbol\mapsfromchar\mathrel{stmry}{"5B}\fi
180 \verb|\claim= MathSymbol\Mapsfromchar\mathrel{stmry}{"5C}\fi
181 %% (CAR) Corrected by Chris Rowley, March 2004:
182 %% \stmry@if\DeclareMathSymbol\leftrightarrowtriangle\mathbin{stmry}{"5D}\fi
183 \stmry@if\DeclareMathSymbol\leftrightarrowtriangle\mathrel{stmry}{"5D}\fi
184 %%
185 \stmry@if\DeclareMathSymbol\leftarrowtriangle\mathrel{stmry}{"5E}\fi
186 \stmry@if\DeclareMathSymbol\rightarrowtriangle\mathrel{stmry}{"5F}\fi
187 \stmry@if\DeclareMathSymbol\bigtriangledown\mathop{stmry}{"60}\fi
188 \stmry@if\DeclareMathSymbol\bigtriangleup\mathop{stmry}{"61}\fi
189 \stmry@if\DeclareMathSymbol\bigcurlyvee\mathop{stmry}{"62}\fi
190 \textbf{\gcurlywedge\mathop{stmry}{"63}\fi}
```

```
192 \stmry@if\DeclareMathSymbol\bigbox\mathop{stmry}{"65}\fi
193 \stmry@if\DeclareMathSymbol\bigparallel\mathop{stmry}{"66}\fi
194 \stmry@if\DeclareMathSymbol\biginterleave\mathop{stmry}{"67}\fi
195 \stmry@if\DeclareMathSymbol\bignplus\mathop{stmry}{"70}\fi
197 \stmry@if\DeclareMathDelimiter\llbracket{\mathopen}{stmry}{"4A}
                                                                                                      {stmry}{"71}\fi
199 \verb|\clareMathDelimiter\rbracket{\mathbf \{stmry}{"4B}| and the limiter exercises of the constant of the constant
200
                                                                                                        {stmry}{"79}\fi
  The heavy ©:
201 \stmry@if\def\varcopyright
              {{\ooalign{\hfil\raise.07ex\hbox{c}\hfil\crcr%
                  \mbox{$\m0th\varbigcirc$}}\\
203
  The long arrow negations.
204 \stmry@if\def\longarrownot{\mathrel{\mkern5.5mu\arrownot\mkern-5.5mu}}\fi
205 \stmry@if\def\Longarrownot{\mathrel{\mkern5.5mu\Arrownot\mkern-5.5mu}}\fi
  The variants on \mapsto:
206 \stmry@if\def\Mapsto{\Mapstochar\Rightarrow}\fi
207 \stmry@if\def\mapsfrom{\leftarrow\mapsfromchar}\fi
208 \stmry@if\def\Mapsfrom{\Leftarrow\Mapsfromchar}\fi
209 \stmry@if\def\Longmapsto{\Mapstochar\Longrightarrow}\fi
210 \stmry@if\def\longmapsfrom{\longleftarrow\mapsfromchar}\fi
211 \stmry@if\def\Longmapsfrom{\Longleftarrow\Mapsfromchar}\fi
  The circular circles:
212 \ifstmry@heavy@
              214
              \@swap\varotimes\otimes
215
              \@swap\varolessthan\olessthan
216
              \@swap\varogreaterthan\ogreaterthan
217
              \@swap\varovee\ovee
218
              \@swap\varowedge\owedge
              \@swap\varoast\oast
219
              \@swap\varobar\obar
220
221
              \@swap\varodot\odot
222
              \@swap\varoslash\oslash
223
              \@swap\varobslash\obslash
              \@swap\varocircle\ocircle
224
225
              \@swap\varoplus\oplus
226
              \@swap\varominus\ominus
              \@swap\varbigcirc\bigcirc
227
              \@swap\varcopyright\copyright
228
229 \fi
230 (/package)
```

6 The font definitions

The font definitions for the St Mary's Road fonts are:

```
231 \langle*fontdef\rangle
232 \DeclareFontFamily{U}{stmry}{}
233 \DeclareFontShape{U}{stmry}{m}{n}
```

```
234 { <5> <6> <7> <8> <9> <10> gen * stmary
235 <10.95><12><14.4><17.28><20.74><24.88>stmary10%
236 }{}
237 \/fontdef\/
```