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1 Introduction

This is a guide to the St Maryjs Road symbol package for LATEX. It contains a number of new commands for use in math mode, and a new document style option `module`, for modularizing large `sty` files. The package is available as free software, the only restriction we make is that it should always be distributed as a package, not as individual files. The package consists of:

`README`: a short description.

`stmaryrd.tex`: this documentation.

`ltugboat.sty`: the `sty` file this document uses.

`stmaryrd.sty`: loads the St Maryjs Road symbol font.

`msam.sty`: loads the AMS symbol A font.

`msbm.sty`: loads the AMS symbol B font.

`module.sty`: provides commands for modularizing document style options.

Various files, which generate the St Maryjs Road symbol font.

At its simplest, you can use the St Maryjs Road symbol font by saying

```
\documentstyle[stmaryrd]article
```

This gives you the new symbols in Tables ?, ?, ?, ? and ?. However, this defines over 100 new commands, and if you are using a TEX implementation with limited memory, you might want to be more selective about which commands you use. In that case, you should read on, in order to find out about how modules work.

[Sorry. Ignored `\beginsymbols ... \endsymbols`]

Table 1: New large operators

[Sorry. Ignored `\beginsymbols ... \endsymbols`]

Table 2: New binary operators

[Sorry. Ignored `\beginsymbols ... \endsymbols`]

Table 3: New relations

[Sorry. Ignored `\beginsymbols ... \endsymbols`]

Table 4: New arrows

[Sorry. Ignored `\beginsymbols ... \endsymbols`]

Table 5: New delimiters

2 Modules

It is not uncommon for some document style options, particularly those loading new symbol fonts, to define hundreds of new commands, of which each user only wants a handful. This is not a problem on machines with memory to spare, but on a PC one has to be careful about these things.

The solution adopted by the AMS, in their `amsfonts` document style option, is to provide a new command `\newsymbol`. For example, to use the symbol `\lneq`, you say

```
\newsymbol\lneqq 2308
```

Unfortunately, this requires the user to look up the four-digit code for each symbol whenever they want to use it. The `module` document style option is designed to get around this problem, by allowing the user to specify which new commands they want, without having to remember how they are defined.

The main concept the user needs is that of a *tag* which is a request to a module saying iplease give me this facilityj. Usually these are just command names that the module will definenfor example the module `stmaryrd` has tags `\varoplus`, `\llbracket`, and so on. But there are other tags which control how the module behaves, for example the tag `\heavycircles` means iplease redefine *, *, etc. to make them heavier.j

To set the tag `\foo`, you say `\settag\foo`. To set `\foo`, `\baz` and `\bar`, you say:

```
  \beginsettags
\foo\baz\bar
  \endsettags
```

To unset the tag `\foo`, you say `\unsettag\foo`. To unset `\foo`, `\baz` and `\bar`, you say:

```
  \beginunsettags
\foo\baz\bar
  \endunsettags
```

You can then import a module. This can be done in various ways:

By saying `\importfred`, which only loads the commands whose tags you set.

By saying `\import*fred`, which loads in all the commands.

In the same way as a `\documentstyle` option, e.g. `\documentstyle[module,fred]report`. This is equivalent to `\import*fred`.

For example, to load in the St Maryjs Road symbol font, but only define `\Lbag` and `\Rbag`, you say:

```
\settag\Lbag \settag\Rbag
\importstmaryrd
```

The St Maryjs Road package comes with three modulesn`stmaryrd`, which loads the St Maryjs Road symbol font, `msam`, which loads the AMS A font, and `msbm`, which loads the AMS B font.