

NAME

mftrace – convert METAFONT format fonts into Type1 outline fonts

SYNOPSIS

mftrace [*options*] *fontname*

DESCRIPTION

mftrace is a program that can convert a METAFONT font into a Type1 font. It is simply called with the name of the font (without a ‘.mf’ suffix) and produces a Type1 font file called either *fontname.pfa* or *fontname.pfb* depending on the command line options. With the help of **fontforge**(1) it can produce other font formats too.

For tracing the bitmap, **mftrace** either uses **potrace**(1) or **autotrace**(1) (the former preferred) if available; this can be overridden with the **--autotrace** and **--potrace** command line options.

OPTIONS

This program follows the usual GNU command line syntax, with long options starting with two dashes (‘-’).

-k, --keep

Keep all output in directory ‘mftrace.dir’.

--magnification=MAG

The magnification to use for the PFA file. The default is 1000. The larger the magnification, the more precise the PFA file will be. However, if the magnification is too large METAFONT can crash with overflow errors.

Sadly, many MF fonts contain resolution checks

```
if dots_per_inch * design_size > 1500:
```

This check is susceptible to overflow errors. Such code should be reported as a bug, and changed to

```
if dots_per_inch > (1500 / design_size):
```

--formats=FMT1,FMT2,...

Specify which formats to generate (default is pfa). Choices are: ‘afm’, ‘pfa’, ‘pfb’, ‘ttf’, ‘svg’. Note that **fontforge** (formerly called **pfaedit**) must be installed to generate any format except ‘pfa’ or ‘pfb’. For generating ‘afm’ you need either **fontforge** or **ghostscript**.

--simplify

This passes the created Type1 font to **fontforge** (formerly called **pfaedit**) to simplify and autohint it.

--gffile=FILE

Use generic font file *FILE* instead of running Metafont. (GF is the default output format of Metafont.)

-I DIR, --include=DIR

Add *DIR* to the current path for searching files.

--glyphs=LIST

Process only these glyphs. *LIST* is a comma separated list of decimal numbers or ranges, for example ‘1-10,50,55,90-100’.

--tfmfile=FILE

Use *FILE* for the TFM file. (The default is to use *fontname.tfm*).

-e ENC, --encoding=ENC

Use encoding file *ENC*. Encoding files used by **mftrace** are basically in the GhostScript/dvips format, but you may use a special **.notavail** glyph name in order to tell **mftrace** not to process a specific glyph. If this option is not specified, **mftrace** tries to determine the encoding file automatically, from the encoding specified in the TFM file, the default being ‘tex256.enc’.

--keep-trying

Try to continue if external programs called by `mftrace` fail. If METAFONT crashes with overflow errors, but nevertheless outputs a GF file, try to process its output as is (useful for some buggy fonts, see above). If **potrace** or **autotrace** fail to trace a specific character, first try it with a less smoothed curve, and if that fails, skip the character. By default, **mftrace** leaves a file ‘trace-bug-font-char.pbm’ and stops the process with a request to file a bugreport.

--dos-kpath

Try to use MikTeX’s version of **kpsewhich**.

--potrace

Use **potrace** for tracing bitmaps. The default is to use **potrace** if it is found, otherwise to use **autotrace**.

--autotrace

Use **autotrace** for tracing bitmaps.

--no-afm

Don’t read the AFM file to find font information.

--noround

Do not round coordinates of control points to integer values (use with **--grid**). Disabled by default.

--grid=GRID

Set reciprocal grid size in em units multiplied by ratio magnification/1000. For example, ‘**--grid 10 --magnification 1000**’ rounds coordinates of control points to 1/10th of the em unit. Useful simultaneously with the **--noround** option. Default *GRID* value is 1, i.e., round to integer. This option is only used with **potrace**.

-D,--define=SYMBOL=VALUE

Set the font info *SYMBOL* to the given *VALUE*. For example, **-DFamilyName=Foo** sets the font family name to *Foo*. **mftrace** tries to fill in sensible default values for the ‘FontName’, ‘FamilyName’, ‘FullName’ and ‘Weight’ fields.

-V,--verbose

Be verbose.

-h,--help

Show summary of options.

-v,--version

Show version of program.

-w,--warranty

Show warranty and copyright.

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SEE ALSO

mf(1), **autotrace(1)**, **potrace(1)**, **fontforge(1)**.

AUTHOR

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