NAME

fmtutil – manage TeX formats and Metafont bases, per-user

fmtutil-sys – manage TeX formats and Metafont bases, system-wide

mktexfmt – create a TeX format or Metafont base

SYNOPSIS

fmtutil [*-user/-sys*] [*OPTION*] ... [*COMMAND*]

fmtutil-sys [*OPTION*] ... [*COMMAND*]

fmtutil-user [*OPTION*] ... [*COMMAND*]

mktexfmt *FORMAT.fmt/BASE.base/FMTNAME.EXT*

DESCRIPTION

fmtutil version r43794 (2017−04−15 02:12:54 +0200)

Rebuild and manage TeX fmts and Metafont bases, collectively called "formats" here. (MetaPost no longer uses the past−equivalent "mems".)

If the command name ends in mktexfmt, only one format can be created. The only options supported are −−**help** and −−**version**, and the command line must be either a format name, with extension, or a plain name that is passed as the argument to −−**byfmt** (see below). The full name of the generated file (if any) is written to stdout, and nothing else.

If not operating in mktexfmt mode, exactly one command must be given, extensions should generally not be specified, no non−option arguments are allowed, and multiple formats can be generated, as follows.

By default, the return status is zero if all formats requested are successfully built, else nonzero.

OPTIONS

−−**sys**   use TEXMFSYS{VAR,CONFIG}

−−**user**   use TEXMF{VAR,CONFIG}

−−**cnffile** FILE

read FILE instead of fmtutil.cnf (can be given multiple times, in which case all the files are used)

−−**fmtdir** DIR

write formats under DIR instead of TEXMF[SYS]VAR

−−**no−engine−subdir**

don't use engine−specific subdir of the fmtdir

−−**no−error−if−no−format** exit successfully if no format is selected

−−**no−error−if−no−engine**=*ENGINE1*,ENGINE2,...

exit successfully even if a required engine

is missing, if it is included in the list.

−−**no−strict**

exit successfully even if a format fails to build

−−**nohash**

don't update ls−R files

−−recorder

        pass the **−recorder** option and save .fls files

−−quiet

        be silent

−−catcfg

        (does nothing, exists for compatibility)

−−dolinks

        (does nothing, exists for compatibility)

−−force

        (does nothing, exists for compatibility)

−−test   (does nothing, exists for compatibility)

Commands:

    −−all   recreate all format files

    −−missing

        create all missing format files

    −−refresh

        recreate only existing format files

    −−byengine ENGINE

        (re)create formats built with ENGINE

    −−byfmt FORMAT

        (re)create format FORMAT

    −−byhyphen HYPHENFILE

        (re)create formats that depend on HYPHENFILE

    −−enablefmt

        FORMAT[/ENGINE] enable FORMAT, as built with ENGINE

    −−disablefmt FORMAT[/ENGINE] disable FORMAT, as built with ENGINE

        If multiple formats have the same name and

        different engines, */ENGINE* specifier is required.

    −−listcfg

        list (enabled and disabled) configurations, filtered to available formats

    −−showhyphen FORMAT

        print name of hyphen file for FORMAT

    −−version

        show version information and exit

    −−help show this message and exit

ENVIRONMENT

Explanation of trees and files normally used:

        If **−−cnffile** is specified on the command line (possibly multiple times), its value(s) are used. Otherwise, fmtutil reads all the fmtutil.cnf files found by running 'kpsewhich **−all** fmtutil.cnf', in the order returned by kpsewhich.

In any case, if multiple fmtutil.cnf files are found, all the format definitions found in all the fmtutil.cnf files are merged.

Thus, if fmtutil.cnf files are present in all trees, and the default layout is used as shipped with TeX Live, the following files are read, in the given order.

For fmtutil−sys:
TEXMFSYSCONFIG *$TEXLIVE/YYYY/texmf−config/web2c/fmtutil.cnf*
TEXMFSYSVAR   *$TEXLIVE/YYYY/texmf−var/web2c/fmtutil.cnf*
TEXMFLOCAL   *$TEXLIVE/texmf−local/web2c/fmtutil.cnf*
TEXMFDIST   *$TEXLIVE/YYYY/texmf−dist/web2c/fmtutil.cnf*

For fmtutil−user:
TEXMFCONFIG $HOME/.texliveYYYY/texmf−config/web2c/fmtutil.cnf
TEXMFVAR $HOME/.texliveYYYY/texmf−var/web2c/fmtutil.cnf
TEXMFHOME   *$HOME/texmf/web2c/fmtutil.cnf*
TEXMFSYSCONFIG *$TEXLIVE/YYYY/texmf−config/web2c/fmtutil.cnf*
TEXMFSYSVAR   *$TEXLIVE/YYYY/texmf−var/web2c/fmtutil.cnf*
TEXMFLOCAL   *$TEXLIVE/texmf−local/web2c/fmtutil.cnf*
TEXMFDIST   *$TEXLIVE/YYYY/texmf−dist/web2c/fmtutil.cnf*

(where YYYY is the TeX Live release version).

According to the actions, fmtutil might write to one of the given files or create a new fmtutil.cnf, described further below.

Where formats are written:

By default, format files are (re)written in TEXMFSYSVAR/ENGINE by fmtutil−sys, and TEXMFVAR/ENGINE by fmtutil, where */ENGINE* is a subdirectory named for the engine used, such as "pdftex".

If the −−**fmtdir**=*DIR* option is specified, DIR is used instead of TEXMF[SYS]VAR, but the */ENGINE* subdir is still used by default.

In any case, if the −−**no−engine−subdir** option is specified, the */ENGINE* subdir is omitted.

Where configuration changes are saved:

If config files are given on the command line, then the first one given will be used to save any changes from −−**enable** or −−**disable**. If the config files are taken from kpsewhich output, then the algorithm is more complex:

1) If *$TEXMFCONFIG/web2c/fmtutil.cnf* or *$TEXMFHOME/web2c/fmtutil.cnf* appears in the list of used files, then the one listed first by kpsewhich −−**all** (equivalently, the one returned by kpsewhich fmtutil.cnf), is used.

2) If neither of the above two are present and changes are made, a new config file is created in *$TEXMFCONFIG/web2c/fmtutil.cnf* .

In general, the idea is that if a given config file is not writable, a higher−level one can be used. That way, the distribution's settings can be overridden system−wide using TEXMFLOCAL, and system settings can be overridden again in a particular user's TEXMFHOME.

Resolving multiple definitions of a format:

If a format is defined in more than one config file, then the definition coming from the first−listed fmtutil.cnf is used.

Disabling formats:

fmtutil.cnf files with higher priority (listed earlier) can disable formats in lower priority (listed later) fmtutil.cnf files by writing a line like

#! <fmtname> <enginename> <hyphen> <args>

in the higher−priority fmtutil.cnf file.
The #! must be at the

beginning of the line, with at least one space or tab afterward, and there must be whitespace between each word on the list.

For example, you can disable the luajitlatex format by creating the file *$TEXMFCONFIG/web2c/fmtutil.cnf* with the line

#! luajitlatex luajittex language.dat,language.dat.lua lualatex.ini

(As it happens, the luajittex−related formats are precisely why the **−−no−error−if−no−engine** option exists, since luajittex cannot be compiled on all platforms.)

fmtutil−user (fmtutil **−user**) vs. fmtutil−sys (fmtutil **−sys**):

When fmtutil−sys is run or the command line option **−sys** is used, TEXMFSYSCONFIG and TEXMFSYSVAR are used instead of TEXMFCONFIG and TEXMFVAR, respectively. This is the primary difference between fmtutil−sys and fmtutil−user.

See http://tug.org/texlive/scripts−sys−user.html for details.

Other locations may be used if you give them on the command line, or these trees don't exist, or you are not using the original TeX Live.

Supporting development binaries

If an engine name ends with "−dev", formats are created in the respective directory with the **−dev** stripped. This allows for easily running development binaries in parallel with the released binaries.

REPORTING BUGS

Report bugs to: tex−live@tug.org
TeX Live home page: <http://tug.org/texlive/>