

**NAME**

updmap – manage TeX font maps, per-user  
updmap-sys – manage TeX font maps, system-wide

**SYNOPSIS**

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

**DESCRIPTION**

updmap (TeX Live, multi) version \$Id: updmap.pl 31440 2013-08-15 22:39:10Z karl \$

Update the default font map files used by pdf<sub>tex</sub>, dvips, and dvipdfm(x), and optionally pxdvi, as determined by all configuration files updmap.cfg (the ones returned by running "kpsewhich **--all** updmap.cfg", but see below).

Among other things, these map files are used to determine which fonts should be used as bitmaps and which as outlines, and to determine which font files are included in the PDF or PostScript output.

updmap-sys is intended to affect the system-wide configuration, while updmap affects personal configuration files only, overriding the system files. As a consequence, once updmap has been run, even a single time, running updmap-sys no longer has any effect. (updmap-sys issues a warning in this situation.)

By default, the TeX filename database (ls-R) is also updated.

**OPTIONS**

- cnffile** FILE  
read FILE for the updmap configuration (can be given multiple times, in which case all the files are used)
- dvi<sub>pdfm</sub>xoutputdir** DIR  
specify output directory (dvipdfm(x) syntax)
- dvipsoutputdir** DIR  
specify output directory (dvips syntax)
- pdf<sub>tex</sub>outputdir** DIR  
specify output directory (pdf<sub>tex</sub> syntax)
- pxdvioutputdir** DIR  
specify output directory (pxdvi syntax)
- outputdir** DIR  
specify output directory (for all files)
- copy**  
cp generic files rather than using symlinks
- force**  
recreate files even if config hasn't changed
- nomkmap**  
do not recreate map files
- nohash**  
do not run texhash

- sys** affect system-wide files (equivalent to updmap--sys)
- n, --dry-run**  
only show the configuration, no output
- quiet, --silent**  
reduce verbosity

#### Commands:

- help** show this message and exit
- version**  
show version information and exit
- showoption** OPTION  
show the current setting of OPTION
- showoptions** OPTION  
show possible settings for OPTION
- setoption** OPTION VALUE  
set OPTION to value; option names below
- setoption** OPTION=VALUE  
as above, just different syntax
- enable** MAPTYPE MAPFILE  
add "MAPTYPE MAPFILE" to updmap.cfg, where MAPTYPE is Map, MixedMap, or KanjiMap
- enable** Map=MAPFILE  
add "Map MAPFILE" to updmap.cfg
- enable** MixedMap=MAPFILE add "MixedMap MAPFILE" to updmap.cfg
- enable** KanjiMap=MAPFILE add "KanjiMap MAPFILE" to updmap.cfg
- disable** MAPFILE  
disable MAPFILE, of whatever type
- listmaps**  
list all active and inactive maps
- listavailablemaps**  
same as **--listmaps**, but without unavailable map files
- syncwithtrees**  
disable unavailable map files in updmap.cfg

Explanation of the map types: the (only) difference between Map and MixedMap is that MixedMap entries are not added to psfonts\_pk.map. The purpose is to help users with devices that render Type 1 outline fonts worse than mode-tuned Type 1 bitmap fonts. So, MixedMap is used for fonts that are available as both Type 1 and Metafont. KanjiMap entries are added to psfonts\_t1.map and kanjix.map.

Explanation of the OPTION names for **--showoptions**, **--showoption**, **--setoption**:

dvipsPreferOutline  
true,false (default true)

Whether dvips uses bitmaps or outlines, when both are available.

`dvipsDownloadBase35`

true,false (default true)

Whether dvips includes the standard 35 PostScript fonts in its output.

`pdftexDownloadBase14`

true,false (default true)

Whether pdftex includes the standard 14 PDF fonts in its output.

`pxdviUse`

true,false (default false)

Whether maps for pxdvi (Japanese-patched xdvi) are under updmap's control.

`kanjiEmbed`

(any string)

`kanjiVariant`

(any string)

See below.

`LW35 URWkb,URW,ADOBEkb,ADOBE` (default URWkb)

Adapt the font and file names of the standard 35 PostScript fonts.

`URWkb`

URW fonts with "berry" filenames (e.g. uhvbo8ac.pfb)

`URW` URW fonts with "vendor" filenames (e.g. n019064l.pfb)

`ADOBEkb`

Adobe fonts with "berry" filenames (e.g. phvbo8an.pfb)

`ADOBE`

Adobe fonts with "vendor" filenames (e.g. hvnbo\_\_\_\_.pfb)

These options are only read and acted on by updmap; dvips, pdftex, etc., do not know anything about them. They work by changing the default map file which the programs read, so they can be overridden by specifying command-line options or configuration files to the programs, as explained at the beginning of updmap.cfg.

The options `kanjiEmbed` and `kanjiVariant` specify special replacements in the map lines. If a map contains the string `@kanjiEmbed@`, then this will be replaced by the value of that option; similarly for `kanjiVariant`. In this way, users of Japanese TeX can select different fonts to be included in the final output.

## 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, updmap reads all the updmap.cfg files found by running `'kpsewhich --all updmap.cfg'`, in the order returned by `kpsewhich`.

In any case, if multiple updmap.cfg files are found, all the maps mentioned in all the updmap.cfg files are merged.

Thus, if `updmap.cfg` 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 `updmap-sys`:

```
TEXMFCONFIG $TEXLIVE/YYYY/texmf-config/web2c/updmap.cfg
TEXMFSYSVAR  $TEXLIVE/YYYY/texmf-var/web2c/updmap.cfg
TEXMFLOCAL   $TEXLIVE/texmf-local/web2c/updmap.cfg
TEXMFDIST    $TEXLIVE/YYYY/texmf-dist/web2c/updmap.cfg
```

For `updmap`:

```
TEXMFCONFIG $HOME/.texlive/YYYY/texmf-config/web2c/updmap.cfg
TEXMFVAR     $HOME/.texlive/YYYY/texmf-var/web2c/updmap.cfg
TEXMFHOME    $HOME/texmf/web2c/updmap.cfg
TEXMFCONFIG $TEXLIVE/YYYY/texmf-config/web2c/updmap.cfg
TEXMFSYSVAR  $TEXLIVE/YYYY/texmf-var/web2c/updmap.cfg
TEXMFLOCAL   $TEXLIVE/texmf-local/web2c/updmap.cfg
TEXMFDIST    $TEXLIVE/YYYY/texmf-dist/web2c/updmap.cfg
```

(where `YYYY` is the TeX Live release version).

There is one exception to keep upgradability from earlier versions of TeX Live: if a file `TEXMFLOCAL/web2c/updmap-local.cfg` exists (formerly used by `tlmgr` to merge local fonts), then the file `TEXMFLOCAL/web2c/updmap.cfg` is ignored (if it exists) and that `updmap-local.cfg` is used instead. In this case, `updmap` recognizes the previous syntax for disabling map files in `updmap-local.cfg` (this syntax is different from what is used now).

According to the actions, `updmap` might write to one of the given files or create a new `updmap.cfg`, described further below.

Where 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 **--setoption**, **--enable** or **--disable**. If the config files are taken from `kpsewhich` output, then the algorithm is more complex:

- 1) If `$TEXMFCONFIG/web2c/updmap.cfg` or `$TEXMFHOME/web2c/updmap.cfg` appears in the list of used files, then the one listed first by `kpsewhich --all` (equivalently, the one returned by `kpsewhich updmap.cfg`), is used.
- 2) If neither of the above two are present and changes are made, a new config file is created in `$TEXMFCONFIG/web2c/updmap.cfg`.

Resolving multiple definitions of a font:

If a font is defined in more than one map file, then the definition coming from the first-listed `updmap.cfg` is used. If a font is defined multiple times within the same map file, one is chosen arbitrarily. In both cases a warning is issued.

Disabling maps:

`updmap.cfg` files with higher priority (listed earlier) can disable maps mentioned in lower priority (listed later) `updmap.cfg` files by writing, e.g.,

```
#! Map mapname.map
```

or

```
#! MixedMap mapname.map
```

in the higher-priority updmap.cfg file.

As an example, suppose you have a copy of MathTime Pro fonts and want to disable the Belleek version of the fonts; that is, disable the map belleek.map. You can create the file *\$TEXMFCONFIG/web2c/updmap.cfg* with the content

```
#! Map belleek.map Map mt-plus.map Map mt-yy.map
```

and call updmap.

updmap writes the map files for dvips (psfonts.map) and pdftex (pdftex.map) to the TEXMFVAR/fonts/map/updmap/{dvips,pdftex}/ directories.

The log file is written to TEXMFVAR/web2c/updmap.log.

When updmap-sys is run, TEXMFSYSCONFIG and TEXMFSYSVAR are used instead of TEXMFCONFIG and TEXMFVAR, respectively. This is the only difference between updmap-sys and updmap.

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.

To see the precise locations of the various files that will be read and written, give the **-n** option (or read the source).

## EXAMPLES

For step-by-step instructions on making new fonts known to TeX, read <http://tug.org/fonts/fontinstall.html>. For even more terse instructions, read the beginning of the main updmap.cfg.

## FILES

Configuration and input files:

*updmap.cfg*

Main configuration file. In *texmf-dist/web2c* by default, but may be located elsewhere depending on your distribution. Each texmf tree read should have its own *updmap.cfg*.

*dvips35.map*

Map file for standard 35 PostScript fonts for use with **dvips**(1).

*pdftex35.map*

Map file for standard 35 PostScript fonts for use with **pdftex**(1).

*ps2pk35.map*

Map file for standard 35 PostScript fonts for use with **ps2pk**(1).

Output files:

*psfonts.map*

For **dvips**(1). Same as *psfonts\_t1.map* if option **dvipsPreferOutline** active, else as *psfonts\_pk.map*.

*psfonts\_pk.map*

For **dvips**(1). Without information from MixedMap files. (Setting of **dvipsPreferOutline** ignored.)

*psfonts\_t1.map*

For **dvips**(1). With information from MixedMap files. (Setting of **dvipsPreferOutline** ignored.)

*download35.map*

For **dvips**(1). Always downloads the standard 35 fonts. (Setting of **dvipsDownloadBase35** ignored.)

*builtin35.map*

For **dvips**(1). Never downloads the standard 35 fonts. (Setting of **dvipsDownloadBase35** ignored.)

*pdftex.map*

For **pdftex**(1). Same as *pdftex\_dl14.map* if option **pdftexDownloadBase14** active, else as *pdftex\_ndl14.map*.

*pdftex\_dl14.map*

For **pdftex**(1). Always downloads the standard 14 fonts.

*pdftex\_ndl14.map*

For **pdftex**(1). Never downloads the standard 14 fonts.

*ps2pk.map*

Similar to *psfonts.map* file, but forces all fonts to be downloaded, so this map file can be used with **xdvi**(1) and **ps2pk**(1).

Configuration files for **dvips**(1):

*config.builtin35*

Loads *builtin35.map* instead of *psfonts.map*.

*config.download35*

Loads *download35.map* instead of *psfonts.map*.

*config.outline*

Loads *psfonts\_t1.map* instead of *psfonts.map*.

*config.pdf*

Loads *psfonts\_t1.map* instead of *psfonts.map* and has additional optimizations for PDF generation.

*config.pk*

Loads *psfonts\_pk.map* instead of *psfonts.map*.

*config.www*

Loads *psfonts\_t1.map* instead of *psfonts.map*. (For compatibility with old versions.)

*config.gstopk*

Loads *psfonts\_t1.map* instead of *psfonts.map*.

## REPORTING BUGS

Report bugs to: [tex-k@tug.org](mailto:tex-k@tug.org)

TeX Live home page: <http://tug.org/texlive/>