

# T<sub>E</sub>X Live 2012



Recent developments (of the infra structure)

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## Overview

### multi-layered updmap

- ▶ what does updmap do
- ▶ previous and new operation modes
- ▶ transition and recommendations
- ▶ `updmap-setup-kanji`

### multi repository support for T<sub>E</sub>X Live Manager

- ▶ background
- ▶ operation mode: adding, pinning
- ▶ restrictions and caveats

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## What does updmap do?

**font map definition** maps a T<sub>E</sub>X internal name to an external font with optional additional transformations

**font map file** a collection of font map definitions, normally one per 'package' collecting all fonts shipped by that package

**updmap config file** list of font map files (and some options)

**generated files** updmap generates configuration files for various output drivers (dvips, pdftex, dvipdfmx, pxdvi)

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## Previous operation mode

One `updmap.cfg` file for the whole installation  
updated/changed with T<sub>E</sub>X Live Manager, `updmap`, hand-editing,  
etc

## Advantages and disadvantages

- ▶ (+) only one file, everything in one place
- ▶ (+) operation mode easy to understand
- ▶ (−) mixing of information from different trees
- ▶ (−) user–system mode interaction not good
- ▶ (−) persistent local adaptations over upgrade difficult

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## History of updmap

- ▶ first written by Thomas Esser in sh
- ▶ perl version written by Fabrice Popineau
- ▶ in T<sub>E</sub>X Live till 2010: sh-version for Unix, perl-version for Windows
- ▶ tl2011: perl version extended and small fixes, used uniformly
- ▶ tl2012: rewrite based on the old perl code but heavily changed

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## New operation mode

*all* `updmap.cfg` files are read in a stacked mode: later entries override former.

## System mode

<code>texmfsysconfig</code>	<code>\$TEXLIVE/YYYY/texmf-config/web2c/updmap.cfg</code>
<code>texmfsysvar</code>	<code>\$TEXLIVE/YYYY/texmf-var/web2c/updmap.cfg</code>
<code>texmflocal</code>	<code>\$TEXLIVE/texmf-local/web2c/updmap.cfg</code>
<code>texmfmain</code>	<code>\$TEXLIVE/YYYY/texmf/web2c/updmap.cfg</code>
<code>texmfdist</code>	<code>\$TEXLIVE/YYYY/texmf-dist/web2c/updmap.cfg</code>

## User mode

<code>texmfconfig</code>	<code>\$HOME/.texliveYYYY/texmf-config/web2c/updmap.cfg</code>
<code>texmfvar</code>	<code>\$HOME/.texliveYYYY/texmf-var/web2c/updmap.cfg</code>
<code>texmfhome</code>	<code>\$HOME/texmf/web2c/updmap.cfg</code>
<code>texmfsysconfig</code>	<code>\$TEXLIVE/YYYY/texmf-config/web2c/updmap.cfg</code>
<code>texmfsysvar</code>	<code>\$TEXLIVE/YYYY/texmf-var/web2c/updmap.cfg</code>
<code>texmflocal</code>	<code>\$TEXLIVE/texmf-local/web2c/updmap.cfg</code>
<code>texmfmain</code>	<code>\$TEXLIVE/YYYY/texmf/web2c/updmap.cfg</code>
<code>texmfdist</code>	<code>\$TEXLIVE/YYYY/texmf-dist/web2c/updmap.cfg</code>

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## How to disable 'earlier' maps?

- ▶ disabled maps are marked with the prefix `#!` (as it was in the original version)
  - `#! Map belleek.map`
- ▶ font map definitions from a map files that is disabled in a later (higher order) `updmap.cfg` will not be considered



## Practical example: mtpro fonts

Assume you have purchased mtpro2 fonts and want to use them with your T<sub>E</sub>X Live installation. Problem: T<sub>E</sub>X Live ships belleek fonts/maps defining the same fonts.

- ▶ put the files in texmflocal
- ▶ edit (or create) texmflocal/texmf/web2c/updmap.cfg
- ▶ disable the belleek map file by adding  
    #! Map belleek.map
- ▶ enable the mtpro2 map file by adding Map mtpro2.map
- ▶ run updmap-sys



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## user mode versus system mode

- ▶ if a user *once* calls `updmap`, he will have local copies of the config files for the output drivers, that shadow the system wide
- ▶ after changes on the system side, the config files of that user are *not* update, so the user has to run `updmap` again
- ▶ reason: output drivers don't read stacked config files

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## Transition and recommendation

- ▶ former `updmap-local.cfg` file is still read, but should be converted to a proper `updmap.cfg` in `texmflocal`. Format has changed, disabled entries have to be adapted:  
`updmap-local.cfg`    `#!belleek.map`  
`updmap.cfg`            `#! Map belleek.map`
- ▶ recommendation for single-user installations: install as normal user, put all the additional fonts in `texmflocal`, always run the `-sys` variants



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## updmap-setup-kanji

Controls font embedding for dvipdfmx

### Invocation

```
updmap-setup-kanji(-sys) {<fontname>|auto|nofont|status}
```

where <fontname> is one of hiragino, morisawa, kozuka,  
ipaex, ipa

Option: --jis2004 for respective variants of fonts

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multi repository support for tlmgr

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## multi repository support for tlmgr — background

- ▶ traditionally tlmgr only supports one repository, the main T<sub>E</sub>X Live repository
- ▶ since now 2 years (at least) additional repositories are in common use:
  - tlcontrib (for testing releases and items not distributable in T<sub>E</sub>X Live)
  - tlptexlive Japanese T<sub>E</sub>X integration
  - tlcritical by the T<sub>E</sub>X Live team, test release of the T<sub>E</sub>X Live Manager
  - Korean T<sub>E</sub>X User Group (no details)



## multi repository support – implementation notes

- ▶ distinction between main and subsidiary repositories
- ▶ by default everything is **only** taken from the main repo
- ▶ to get a package from a subsidiary repo one has to **pin** it to this repo
- ▶ absolute revision numbers are **not** compared between repositories, only the pinning counts (difference to Debian)



## How to add/remove repositories

New tlmgr action repository:

---

```
tlmgr repository list
tlmgr repository add url [tag]
tlmgr repository remove url|tag
```

---

Where the tag is a (optional) short-hand for url. The main repository always has the tag main.





## How to pin a package – format of the pinning file

- ▶ the pinning is specified in `texmflocal/tlpkg/pinning.txt`
- ▶ format of this file: lines of the form

`repo:pkg[,pkg]`

where

`repo` full url or a repository tag (see later)

`pkg` shell-style glob for package names

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## Example setup: tlcontrib

Current status:

---

```
$ tlmgr repository list
List of repositories (with tags if set):
  /var/www/norbert/tlnet
```

---

Add the tlcontrib repository, and check again:

---

```
$ tlmgr repository add http://tlcontrib.metatex.org/2012 tlcontrib
$ tlmgr repository list
List of repositories (with tags if set):
  http://tlcontrib.metatex.org/2011 (tlcontrib)
  /var/www/norbert/tlnet (main)
```

---



## Example setup: tlcontrib

Current status:

---

```
$ tlmgr repository list
List of repositories (with tags if set):
  /var/www/norbert/tlnet
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Add the tlcontrib repository, and check again:

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List of repositories (with tags if set):
  http://tlcontrib.metatex.org/2011 (tlcontrib)
  /var/www/norbert/tlnet (main)
```

---

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## Example cont.

Tell T<sub>E</sub>X Live Manager to get microtype from tlcontrib:

---

```
$ tlocal='kpsewhich -var-value TEXMFLOCAL  
$ echo "tlcontrib:microtype" > $tlocal/tlpkg/pinning.txt
```

---

Install the package:

---

```
$ tlmgr install microtype  
tlmgr: using pinning file ../tlpkg/pinning.txt  
tlmgr: package repositories:  
...  
[1/1,  ??:??/?:??] install: microtype @tlcontrib [39k]  
...
```

---



## Example cont.

Check which package has been installed

---

```
$ tlmgr info microtype
package:      microtype
...
cat-version:  2.5 (beta-08)
...
```

---

which shows that we have a beta version installed, ctan and T<sub>E</sub>X Live currently ships version 2.4.



## Example cont.

Check which package has been installed

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$ tlmgr info microtype
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which shows that we have a beta version installed, ctan and T<sub>E</sub>X Live currently ships version 2.4.

Side note: `tlmgr info` is now the best way, it does everything the previous `info` and `show` did.

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## Restrictions and caveats

- ▶ no way to make purely number based repository selection work
- ▶ not all operation of T<sub>E</sub>X Live Manager are supported
- ▶ use with caution!
- ▶ due to the fixed pinning, if an outdated package is **not** removed from the subsidiary repository, you will remain stuck with it even if main ships a newer version

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Closing

Any wishes and requests?



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Closing

Any wishes and requests?

Thanks