Installation of the CTAN M-Tx Distribution

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1   Introduction

We assume that you have already installed MusiXTeX and PMX. Before trying to install M-Tx from CTAN, check whether your TeX distribution provides a packages for M-Tx; this will be easier than doing it yourself. But if your TeX distribution doesn't have M-Tx (or doesn't have the most recent version), this distribution of M-Tx is very easy to install, though you may need to read the material on installation of (La)TeX files in the TeX FAQ[1], particularly the pages on which tree to use[2] and installing files[3].

2   Installing `mtx-texmf.zip`

In this distribution of M-Tx, many of the files to be installed (including macros, documentation, and a wrapper script `mtx.lua`) are in `mtx-texmf.zip`, a zipped TEXMF hierarchy. Simply unzip this archive in the root folder/directory of whichever TEXMF tree you decide is most appropriate, likely a "local" or "personal" one. This should work with any TDS[4] compliant TeX distribution, including MikTeX, TeXlive and teTeX, but you must use an unzipping program that converts text files to the text-file format of your platform, such as `unzip -a ...` on Linux.

After unzipping the archive, update the filename database as necessary, for example, by executing `texhash ~/texmf` or clicking the button labelled "Refresh FNDB" in the MikTeX settings program.

Documentation for M-Tx is installed under `doc/generic/mtx` in the TEXMF tree.

3   Installing `prepmx`

The next step in the installation is to install the one essential file that can't be installed in a TEXMF tree: the `prepmx` preprocessor.

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[1] http://www.tex.ac.uk/cgi-bin/texfaq2html

[2] http://www.tex.ac.uk/cgi-bin/texfaq2html?label=what-TDS

[3] http://www.tex.ac.uk/cgi-bin/texfaq2html?label=inst-wlcf

[4] http://www.tex.ac.uk/cgi-bin/texfaq2html?label=tds

3.1 Pre-Compiled Executables

On Windows systems, one can install `prepmx.exe` in the `Windows` sub-directory; this is a pre-compiled executable and should be copied to any folder on the PATH of executables. This might entail creating a suitable folder and adding that folder to the PATH as follows: right click on the "My Computer" desktop icon, left click on

Properties→Advanced→Environment Variables

in the "System Variables" section, scroll down to "path", select it, click edit, and append the full path name you have selected for the new folder.

On the MAC OS-X/Intel platform, one can install `prepmx` in the `OSX-Intel` sub-directory.

3.2 Compilation from Source

On any platform with basic GNU tools (`tar`, `gunzip`, `make`) and the Free Pascal[5] compiler `fpc` installed, you should be able to build the `prepmx` executable as follows:

1. Unpack the `mtx-0.60d.tar.gz` archive:

    ```
    tar zxvf mtx-0.60d.tar.gz
    ```

    and move to the resulting `mtx-0.60d` directory.

2. Configure: Edit the PREFIX line in the `Makefile`; for example, use `PREFIX = $HOME` if you don't have super-user privileges or you want a "personal" version.

3. Build:

    ```
    make
    ```

4. Install:

    ```
    make install
    ```

    This step should be executed as root if you need super-user privileges.

You should now have an executable `prepmx` in your PATH; if not, you may have to add the appropriate directory (`/usr/local/bin` or `$HOME/bin`) to your PATH, for example by adding the following lines to your `$HOME/.profile` or `$HOME/.bash_profile`:

```
PATH="$PATH:$HOME/bin"
export PATH
```

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[5]http://www.freepascal.org/

4 The Processing Script

The Lua script `.../scripts/mtx/mtx.lua` is simply a convenient wrapper that by default runs the following processes in order (and then deletes intermediate files):

- `prepmx` (pre-pre-processing pass)
- `pmxab` (pre-processing pass)
- `etex` (1st pass)
- `musixflx` (2nd pass)
- `etex` (3rd pass)
- `dvips` (to convert `dvi` output to Postscript)
- `ps2pdf` (to convert `ps` output to Portable Document Format)

There are many options to vary the default behaviour.

On a Unix-like system (with `luatex` installed), you can put a symbolic link to `mtx.lua` in any directory on the executable PATH as follows:

```
ln -s <path to mtx.lua> mtx
```

On Windows, you can *either* copy the batch file

```
...\scripts\pmx\Windows\mtx.bat
```

to a folder on the executable PATH *or* add the folder `...\scripts\mtx\Windows` to the executable PATH as explained above.

Documentation for the `mtx` script is in the `doc/generic/mtx/scripts` directory.

5 Discussion

Other pre-processor packages, additional documentation, additional add-on packages, and many examples of M-Tx and MusiXTeX typesetting may be found at the Werner Icking Music Archive[6]. Support for users of MusiXTeX and related software may be obtained via the MusiXTeX mail list[7]. M-Tx may be freely copied, duplicated and used in conformance to the GNU General Public License (Version 2, 1991, see included file `gpl.txt`).

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[6]`http://icking-music-archive.org`
[7]`http://tug.org/mailman/listinfo/tex-music`