

Installation of the CTAN MusiXTeX Distribution

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1 Introduction

Before trying to install from CTAN, check whether your TeX distribution provides packages for MusiXTeX; this will be easier than doing it yourself. But if your TeX distribution doesn't have MusiXTeX (or doesn't have the most recent versions), this distribution of MusiXTeX is very easy to install, though you may need to read the material on installation of (La)TeX files in the TeX FAQ¹, particularly the pages on which tree to use² and installing files³.

2 Installing musixtex-texmf.zip

In this distribution of MusiXTeX, most of the files to be installed (including macros, fonts, and documentation) are in `musixtex-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 TDS⁴ compliant TeX distribution, including MikTeX, TeXlive and teTeX.

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.

You now need to update various font-map files. The details vary from one distribution to another. On any current TeXlive-based system, or a teTeX v3.0 system, execute the command

```
updmap --enable MixedMap musix.map
```

if you've installed into a "personal" TEXMF tree, or execute

```
updmap-sys --enable MixedMap musix.map
```

(as super-user) if you've installed to a "local" TEXMF tree.

On a current MikTeX system, update the system file `updmap.cfg`, using the shell command

```
initexmf --edit-config-file updmap
```

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>

adding the following line at the end:

```
MixedMap musix.map
```

Now generate revised maps with the shell command

```
initexmf --mkmaps
```

You should now be able to tex-process example files that use the MusiXTeX macros. Documentation for MusiXTeX is installed under `doc/generic/musixtex...` in the TEXMF tree.

3 Installing musixflx

The next step in the installation is to install the one crucial file that can't be installed in a TEXMF tree: the `musixflx` executable, which implements the second pass of the three-pass MusiXTeX typesetting system described in Section 1.3 of the MusiXTeX manual (`musixdoc.pdf`).

3.1 Pre-Compiled Executables

On Windows systems, one can install `musixflx/Windows/musixflx.exe`, a pre-compiled executable, in 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 platform (version 10.2 or better), one can install `musixflx/OSX/musixflx`.

3.2 Compilation from Source

On any platform with conventional GNU development tools (`tar`, `gunzip`, `make`, `gcc`), you can compile a `musixflx` executable as follows:

1. Unpack the `musixflx/musixflx-0.83.3.tar.gz` archive:

```
tar zxvf musixflx-0.83.3.tar.gz
```

and move to the resulting `musixflx-0.83.3` directory.

2. Configure:

```
./configure --prefix=/usr/local
```

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 super-user if you don't have the necessary privileges.

For more information, see `INSTALL` in the `musixflx-0.83.3` directory or do

```
./configure --help
```

You should now have an executable `musixflx` 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
```

4 Scripts

The files `scripts\Windows\musixtex.bat` and `scripts/Others/musixtex` are simple shell scripts for Windows and Unix-like systems, respectively, that run the following processes in order:

- `etex` (1st pass)
- `musixflx` (2nd pass)
- `etex` (3rd pass)
- `dvips` (to convert output to Postscript)
- `ps2pdf` (to convert output to Portable Document Format)

Intermediate files are deleted. The scripts should be installed in a folder/directory on the executable `PATH` and can then be used at a command line as follows:

```
musixtex basename
```

where `basename.tex` is the file to be processed. A TeX editing environment such as TeXworks can also be configured to use the relevant `musixtex` script as a typesetting process.

5 Addons

Unzipping `musixtex-texmf.zip` will install into `doc/generic/musixtex/addons/` several small packages which extend the capabilities of MusiXTeX:

<code>curly.tex</code>	multiple left curly brackets	by Mthimkhulu Molekwa
<code>tuplet.tex</code>	conventional tuplet brackets	by Col. G. L. Sicherman
<code>underbracket.sty</code>	brackets to underline text	by Bernd Jantzen

Check out the documentation in the comments. If you want to use any of these packages, you'll have to copy them to a place where TeX can find them, such as your working directory or the `tex/generic/musixtex` sub-directory of the TEXMF tree where `musixtex-texmf.zip` was installed.

6 Discussion

Many users, especially beginners, will find it easier to use the PMX and M-Tx pre-processors, which accept a simpler input language than MusiXTeX itself. These pre-processor packages may be found at CTAN under `support`. Additional documentation, additional add-on packages, and many examples of MusiXTeX typesetting may be found at the Werner Icking Music Archive⁵. Support for users of MusiXTeX and related software may be obtained via the MusiXTeX mail list⁶. MusiXTeX may be freely copied, duplicated and used in conformance to the GNU General Public License (Version 2, 1991, see included file `gpl.txt`).

⁵<http://icking-music-archive.org>

⁶<http://tug.org/mailman/listinfo/tex-music>