

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 version), 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, scripts, 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

```
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 if it isn't there:

```
MixedMap musix.map
```

Now generate revised maps with the shell command

```
initexmf --mkmaps
```

You should now be able to process files that use the MusiXTeX macros using `etex` or `pdfetex`; documentation for MusiXTeX is installed under `.../doc/generic/musixtex...` in the TEXMF tree. But the music will be “squeezed” to the left; to produce proper spacing, go on.

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: a `musixflx` executable, which calls the script that implements the second pass of the three-pass MusiXTeX typesetting system described in Section 1.3 of the MusiXTeX manual (`musixdoc.pdf`). In this MusiXTeX package, the calculations are done by a Lua script

```
.../scripts/musixtex/musixflx.lua
```

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

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

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

```
... \scripts\musixtex\Windows\musixflx.bat
```

to a folder on the executable PATH *or* add the folder `... \scripts\musixtex\Windows` to the executable PATH as follows: in “My Computer” click on

View System Information → Advanced → Environment Variables

scroll down to “path”, select it, click edit, and add the path to `... \scripts\musixtex\Windows` after a semi-colon. Documentation for `musixflx` is in the `doc/generic/musixtex/scripts` directory.

4 Installing musixtex

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

- `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)

To install, follow the instructions given in the preceding section; i.e., on Unix-like systems, install a symbolic link `musixtex`; on Windows, ensure that the corresponding batch file is in a folder on the executable PATH. Documentation is in the `doc/generic/musixtex/scripts` directory.

If the `musixps.tex` package is not used to produce slurs, it is possible to use `pdfetex` rather than `etex`, in which case a PDF file will be produced directly, without the use of `dvips` and `ps2pdf`; use the `-p` option in the call to `musixtex`. The `-d` option will replace `dvips` and `ps2pdf` by `dvipdfm`; again, this option is usable only if Postscript slurs are *not* used. Use the `-s` option to stop processing after the third pass; i.e., at the `dvi` file. Use the `-l` option for LaTeX processing and the `-f` option to restore the defaults for subsequent files.

The cross-platform TeXWorks editing environment can be configured to use the relevant `musixtex` script as a typesetting process as follows:

Edit → Preferences → Typesetting

then click on + to add a new processing tool as follows:

Name: `musixtex`

Program: `musixtex`

Arguments: `$basename`

If necessary, add the path to the directory/folder containing the `musixtex` script to the list of Paths for TeX and related programs.

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 `musixdoc.pdf` and in the comments of the files. 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>