

Installation of the CTAN PMX Distribution

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1 Introduction

We assume that you have already installed a MusiXTeX distribution. Before trying to install PMX from CTAN, check whether your TeX distribution provides a packages for PMX; this will be easier than doing it yourself. But if your TeX distribution doesn't have PMX (or doesn't have the most recent version), this distribution of PMX 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 `pmx-texmf.zip`

In this distribution of PMX, many of the files to be installed (including macros and documentation) are in `pmx-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.

Documentation for PMX is installed under `doc/generic/pmx` in the TEXMF tree.

3 Installing `pmxab` and `scor2prt`

The next step in the installation is to install the two essential files that can't be installed in a TEXMF tree: the `pmxab` preprocessor and `scor2prt`, an executable used to produce single-player parts from multi-player scores.

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 `pmxab.exe` and `scor2prt.exe` in the `Windows` sub-directory; these are pre-compiled executables 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 platform (version 10.3 or better), one can install `pmxab` and `scor2prt` that are in the `OSX` sub-directory.

3.2 Compilation from Source

On any platform with conventional GNU development tools (`tar`, `gunzip`, `make`, `gcc`), you should be able to build `pmxab` and `scor2prt` executables.

The first step is to install `f2c`, a Fortran-to-C translator. This may be available as a package for your platform, or you can get the source and installation instructions from

<http://netlib.org/f2c/>

Although `f2c`-translated source files `pmxab.c` and `scor2prt.c` are included in the archive, the `libf2c` library provided by `f2c` is essential to link and use these programs after compilation.

To build `pmxab` and `scor2prt` for your platform:

1. Unpack the `pmx-2.5.21.tar.gz` archive:

```
tar zxvf pmx-2.5.21.tar.gz
```

and move to the resulting `pmx-2.5.21` 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 root if you need and don't have super-user privileges.

For more information, see `INSTALL` in the `pmx-2.5.21` directory or do

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

You should now have a executable `pmxab` and `scor2prt` 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
```

The `install` step described above should also install `pmx`, a simple shell script that runs `pmxab` and all three passes of MusiXTeX.

If installation of `f2c` is problematic on your system, you can try compiling the FORTRAN source files `pmxab.f` and `scor2prt.f` directly using any available FORTRAN compiler; for example, use `gfortran`⁵ as follows:

```
gfortran pmxab.f -o pmxab
```

and similarly for `scor2prt.f`. Note that it's been reported that the "indirect" route via `f2c` seems to work better for some users.

4 Discussion

Other pre-processor packages, additional documentation, additional add-on packages, and many examples of PMX and MusiXTeX typesetting may be found at the Werner Icking Music Archive⁶. Support for users of MusiXTeX and related software may be obtained via the MusiXTeX mail list⁷. PMX 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://gcc.gnu.org/fortran/>

⁶<http://icking-music-archive.org>

⁷<http://tug.org/mailman/listinfo/tex-music>