Installation of Univers Condensed Font Library and USGS Style Files for TEX/LATEX

August 22, 2016

William H. Asquith in the Texas Water Science Center developed the USGS Style files and instructions for install the Univers Condensed Font library. These instructions are boiled down to a barebones description. Refer to Bill's original documents for more details on the Univers Condensed Font Library (`doc/README_FontLibraryInstallation.pdf`).

Installation Location

If you installed TEX/LATEX using a standard installation of the TEXLive distribution your local TEX tree is located at:

```
Windows
  $TEXROOT=C:/texlive/texmf-local

MacOSX - may vary slightly
  $TEXROOT=/sw/share/tex-local
              OR
  $TEXROOT=/usr/local/texlive/tex-local

Redhat and openSUSE Linux
  $TEXROOT=/usr/share/texmf
```

Installation Process

Unzip the `usgslatex.zip` archive file to a location of your choice. You will copy the subdirectories in the unzipped `texmf-local` directory to the directories with the same name in `$TEXROOT`. To start the process open a terminal in the unzipped `texmf-local` directory and type the following commands (use `xcopy` on Windows if you do not have access to UNIX command line tools):

```
cp -R fonts $TEXROOT/.
       OR
xcopy fonts /t /e $TEXROOT/fonts/

cp -R tex $TEXROOT/.
       OR
xcopy tex /t /e $TEXROOT/tex/
```

If the `$TEXROOT/dvips` directory exists type the following command:

```
cp -R dvips $TEXROOT/dvips/.
       OR
xcopy dvips /t /e $TEXROOT/dvips/
```

Otherwise type the following command:

```
cp -R dvips $TEXROOT/.
       OR
xcopy dvips /t /e $TEXROOT/
```

Basically, the map file is copied to some sort of `dvips` directory. The exact location is not critical since you will tell TEX how to find it. Finally, rebuild the hash tables for the file locations using the following program as `ROOT` (on MacOSX and Linux).

Open another terminal in `$TEXROOT/dvips/funivers/` and type:

```
texhash
```

and then enable `dvips` to see the `funivers.map` file by typing:

```
updmap --enable Map=funivers.map
```

and then type:

```
updmap-sys
```

Testing

The directory `test` contains `testunivers.tex` and `USGSLaTex.tex` test TEX files.

The file `testunivers.tex` is self contained in its definition of the Univers family, and does not use a separate package file. Try running `testunivers.tex` file through LATEX by typing `pdflatex testunivers.tex` in a terminal (or your preferred method of compiling TEX files). Inspect the `testunivers.pdf` file. Compare the content of the generated `pdf` file to `testuniversPROOF.pdf`. If these two `pdf` files appear different the Univers font family was not installed correctly. You might have forgotten to copy some of the file types or LATEX otherwise does not know how to file them. Confirm that you completed the installation process again. If you forgot a step, you will have to rerun `texhash` before things will work.

The file `USGSLaTex.tex` is a test of successful installation of the USGS Style files. Try running `USGSLaTex.tex` file through LATEX using your preferred method of compiling TEX files. Inspect the `USGSLaTex.pdf` file. Compare the content of the generated `pdf` file to `USGSLaTexPROOF.pdf`. If these two `pdf` files then there is a problem with your installation. Confirm that the USGS style files (in the `$TEXROOT/tex/latex/usgslatexdist`) subdirectory. The `$TEXROOT/tex/latex/usgslatexdist` subdirectory should include a `latex` and `visid_graphics` subdirectories. You will have to rerun `texhash` if you modify the location of the USGS style files.

Using the USGS Style Files

A simple example for using the LATEX USGS style files is included in `doc/README_USGSstyFILES.pdf`. Individual style files in the package are also listed and described in `doc/README_USGSstyFILES.pdf`.

Updating an existing installation

On `MacOSX`, an existing installation can be updated by:

1. Moving the existing installation (for example, texttt/usr/local/texlive/2014/) to the trash.
2. Move all existing LaTeX software (for example, `TeXShop`) to the trash.
3. Empty trash
4. Install the new distribution
5. Open the TeXLive Utility and
   (a) Update the TeXLive Utility and allow any infrastructure updates
   (b) Install the `graphics-def` package if it is not installed
   (c) Update all installed packages
6. Open a terminal in `$TEXROOT/dvips/funivers/` and type the following with `ROOT` privileges to allow the new version of LaTeX to access the Univers Condensed Font library
   (a) `texhash`
   (b) `updmap --enable Map=funivers.map`
   (c) `updmap-sys`