

These are notes to install TEMPO2, PSRCHIVE and TEMPO on Mac OS X Snow Leopard, contributions from Rick and Delphine. Please feel free to edit or present things in a more elegant way:

[\[edit\]](#)

## Installing TEMPO2 on OSX 10.6

Commands should be run from an xterm, not a terminal.

0) Set up environment variables and directories:

Create the directories /pulsar,/pulsar/bin,/pulsar/tempo2 (i.e mkdir /pulsar, mkdir /pulsar/bin, mkdir /pulsar/tempo2)

Assuming you are running tcsh, in your .cshrc file (create that file in your home directory if you don't already have one), put the lines:

```
setenv PSRHOME /pulsar
```

```
setenv PATH ${PATH}:$PSRHOME/bin
```

```
setenv TEMPO2 $PSRHOME/tempo2
```

```
setenv F77 gfortran
```

save your .cshrc file and then type "source .cshrc".

1) Install PGPLOT and gfortran 4.6.0

It is recommended that you follow the instructions

located here: <http://iparrizar.mnstate.edu/%7Ejuan/urania/2009/10/23/pgplot-on-snow-leopard/> in order to install PGPLOT and download gfortran version 4.6.0.

Beware of the following typos on that page:

in 2. Install GFORTRAN, when running "sudo tar", the file is not "gfortran-snwleo-intel.bin.gz", but actually: "gfortran-snwleo-intel-bin.tar.gz"

in 3. there is an extra "pgplot" in that command.

Once installed, set the environment variable PGPLOT\_DIR to /usr/local/pgplot and PGPLOT\_FONT to \$PGPLOT\_DIR/grfont.dat in your .cshrc.

2) Download tempo2

Get tempo2-1.11 (that's tempo version 1.11)

from here: <http://www.atnf.csiro.au/research/pulsar/tempo2/index.php?n=Main.Download>

unpack the tar file in your src directory (e.g. /usr/local/src). You should now

have a directory: /usr/local/src/tempo2-1.11 which contains all relevant files.

3) Copy files to the tempo2 working directory:

Copy the entire contents of the folder "T2runtime" located in the tempo2-1.11 directory to \$TEMPO2. So, in the tempo2-1.11 directory, type  
`sudo cp -r T2runtime/ $TEMPO2`

4) In the tempo2-1.11 source directory, Edit Makefile.configure:

The line `FC=g77` should be changed to read `FC=gfortran`  
remove `-lpng` from the `LCPGPLOT` variable.

5) Compile and install

Note: need "sudo" to get permission to write files and configure correctly. but in "sudo", we're out of the C-shell, it doesn't read the `.cshrc` file and doesn't understand "setenv". here is one not-so-elegant way to get around that:

```
sudo tcsh
```

Enter by hand contents of `.cshrc` file (the 4 `setenv` commands mentioned above)

```
./bootstrap
```

```
./configure --prefix=$TEMPO2
```

```
make
```

```
make install
```

Now get the heck out of sudo.

P.S. the TEMPO2 manual mentions how "autotools" are used to install the latest versions of TEMPO2, as opposed to playing with makefiles? I'm not sure that I've used the autotools here.

6) Copy the executable file tempo2 to \$PSRHOME/bin

7) test tempo2

Assuming you have a test.par and a test.tim file, type `tempo2 -gr plk -f test.par test.tim`

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## Installing PSRCHIVE

1) Download PSRCHIVE

Its best to use the version obtained from the CVS archive. Goto your

source directory and issue the following commands:

```
touch $HOME/.cvspass
```

```
cvs -
```

```
d:pserver:anonymous@psrchive.cvs.sourceforge.net:/cvsroot/psrchive  
login
```

NOTE \$HOME is your home directory

In your src directory, run the following

```
cvs -z3 -
```

```
d:pserver:anonymous@psrchive.cvs.sourceforge.net:/cvsroot/psrchive co -  
P psrchive
```

This will create the necessary directories

2) Make and install

Follow the make and install instructions found here:

<http://psrchive.sourceforge.net/current/build.shtml>

[\[edit\]](#)

## Installing TEMPO

Commands should be run from an xterm, not a terminal.

0) Set up environment variables and directories:

Create the directories /pulsar,/pulsar/bin,/pulsar/tempo (i.e mkdir /pulsar,  
mkdir /pulsar/bin, mkdir /pulsar/tempo)

Assuming you are running tcsh, in your .cshrc file (create that file in your  
home directory if you don't already have one), put the lines:

```
setenv PSRHOME /pulsar
```

```
setenv PATH ${PATH}:%PSRHOME/bin
```

```
setenv TEMPO $PSRHOME/tempo
```

```
setenv F77 gfortran
```

save your .cshrc file and then type "source .cshrc".

We assume that you have gfortran 4.6.0 and PGPLOT installed (if not, see  
the notes above in TEMPO2).

1) Download newest version of TEMPO at : <http://tempo.sf.net>

2) Unpack tempo in source directory, e.g. /usr/local/src/tempo11/

3) Copy files into working directory:

There is no "runtime" folder here. The relevant folders and files are: CVS,

clock, ephem, obsys.dat, util, test, tzpar, tempo.cfg.in, tempo.hlp,src

Copy these files from source directory to/pulsar/tempo:

```
sudo cp -r CVS /pulsar/tempo/
```

4) In the source directory:

```
"sudo tcsh"
```

re-enter the 4 setenv commands above, then:

```
"./prepare"
```

```
"./configure --prefix=$TEMPO"
```

```
"make"
```

```
"make install"
```

then get the heck out of sudo.

I got a "tempo" executable in /pulsar/tempo/bin/. I moved that over to /pulsar/bin/ which is in the .cshrc path.

5) Testing tempo:

As long as I have sourced .cshrc (so the computer knows where to look), typing "tempo" by itself should look for tempo.hlp which lists directions on how to use tempo.

Now we're ready to test tempo with a tim file. Go to

/usr/local/src/tempo11/test and type:

```
tempo 0437.tim
```

which in theory should work.