

Installation of **cleanstrain+**

Step 1

untar files into a directory

Step 2

change directory to .../Progs

use script to compile programs;

For the Intel Mac, use

```
./comp_mactel+
```

Before running `comp_mactel+`, you'll need to locate the fortran compiler; I've gotten both `gfortran` and `g95` from the web.

<http://hpc.sourceforge.net/>

In addition, you'll need to have the mac "developer's library". This is needed for the c-compiler that goes with either `gfortran` or `g95` AND for many of the critical libraries called in `est_noise6ac`.

One complication that occurred when I recently (Feb 2010) aquired a MacPro (single quad core Xeon processor) is that the newer version of `gfortran` for OS 10.6 is written for a 64-bit processor; For whatever reason, the linking to the `vecLib` (in the system developer's kit) produced code for `est_noise6ac` that gave incorrect results. That is now fixed in the `comp_mactel+` by specifying `gfortran` with `-m 32` (32 bit).

Compile programs by typing

```
./comp_mactel+
```

As an alternative to `gfortran/g95`, I've compiled the all of the fortran in the Mac using Intel fortran (`ifort`). That compiler can be invoked using `./comp_ifort_mac+`

For linux with the `ifc` fortran compiler and the `mkl` library installed on my computer `shastina`, I run `./comp_ifc+`

For linux, if you've downloaded the tar file `cleanstrain_linux.tar`, you can skip this step!

Step 3

The GMT plotting library needs to be present. I use version 4.1 or greater since these newer versions have sensible time axis.

And, the command '`convert`' needs to be present. On the Mac, you can get that through the `fink` package manager; you'll want the `imagemagick` stuff.

In addition, you'll need the bottle processing software, xqp, bag, catbot, too.

Step 4

The program baytap needs to be installed; Kathleen H. at Unavco has some concise instructions on its installation; it is included here as install_baytap.pdf.

Step 5

Depending upon your installation, you'll need to edit the script called Edit_files_for_install+ which identifies the directories where the various supporting programs are located; there are 4 lines that you need to edit; follow the instructions in this script. The script is set-up to run on my computer where the resident directory for cleanstrain+ is /home/langbein/proglib/Strain, the GMT programs are located in /usr/local/GMT4.1.4/bin, the bottle routines are /usr/local/LOWFREQ, and baytap is located in /home/langbein/proglib/baytap/baytap.

Step 6

Finally, you might want to look at the example in the EXAMPLE directory.