**Instructions for Compiling PEST++ on Linux**

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**Introduction:**

The windows version of PEST++ supports the serial, YAMR and GENIE run managers, however Genie is not available under Linux so the Linux version of PEST++ only supports the serial and YAMR run managers.

The PEST++ input instructions located at <http://www.inversemodeler.org/downloads/pest++_input.pdf> provides a quick summary of the run mangers as well as the command line arguments necessary to invoke them.

**Dependencies:**

1. gcc, g++ and gfortran 4.9.0 or newer : PEST++ relies on some newer features of C++11 standard which are only supported in these newer releases .
2. blas
3. lapack

**Instructions to build PEST++ on Linux:**

1. Edit the file pestpp/pest++/common/config\_os.h and make the following change:

|  |
| --- |
| change:  *//#define OS\_LINUX*  *#define OS\_WIN* |
| to:  *#define OS\_LINUX*  *//#define OS\_WIN* |

1. In the main pestpp directory execute the following command to delete any files associated with a previous build:

*make –f makefile\_linux clean*

1. Build PEST++ in the main pestpp directory using the following command:

*make –f makefile\_linux clean*

This creates the PEST++ executable:

*pestpp/pest++/pestpp*

**Instructions to build PEST++ on mac**

Building PEST++ on mac is very similar to building on Linux: GCC 4.9 or greater with associated GFORTRAN. However, since mac discourages static linking, a slightly different makefile (*makefile\_macports*) is needed.

The easiest way to get going on a mac is to use macports (<https://www.macports.org/>) to install GCC 4.9:

>>>sudo port install gcc49 +gfortran

This will get everything you need. Then it is as simple as:

>>>make –f makefile\_macports clean

>>>make –f makefile\_macports

This will clean and then build PEST++ and yield an app named *pestpp*. The key to makefile\_macports is pointing to the location of the GCC (and GFORTRAN) libraries. For GCC49 on MAC OSX 10.10.4, the libraries are located in */opt/local/lib/gcc49*. If this is different on your machine, you will need to replace all the occurrences of */opt/local/lib/gcc49* with the correct location of the GCC libraries.