

Compiling and Linking *gcc* and *g++* Programs

08/28/06 - Computational Methods - ECL

The following assumes you have already installed Cygwin and *gcc* (everything that looks like *gcc* under the “devel” packages in the Cygwin installation). The other possibility is you have Linux on your computer. To help accommodate using Cygwin on campus I will make sure that both machines in HOH 163 and the Physics and Engineering designated machines in HOH 319 have Cygwin with *gcc*.

Let's assume you have a program written in c (not c++) called *program.cc*. The following line will compile and link it and create an executable program named *output_program*.

```
gcc program.cc -o output_program
```

To run this program in Cygwin or Linux you have to let the shell know where you want to look for the program (I know this seems strange since you are already in the correct directory, but bear with me). The current directory is identified by a dot (.). Also a slash (/) is needed as a directory separator. So to run the program type:

```
./output_program
```

If you have a c++ program then the process is very similar. Assuming the program is *program.cpp* then to create an executable program called *output_program* the following line is necessary.

```
g++ program.cc -o output_program
```

If you are interested, the *-o* part of the compiling options means send the *.o file* (the object file) following compilation to the linker to link in libraries and make an executable.