

g++ for Windows

Follow these steps to install g++ (the GNU C++ compiler) for Windows. **There is no room for creativity here; you must follow the directions exactly.**

1. Pick the drive and a folder in which you want to install g++. I'll assume that it is C:, but you can choose a different one. **If you choose a different drive or a different folder, you'll need to adapt the directions below accordingly.**
2. Download [full.exe](#), a 14 megabyte executable, to C:\full.exe by right-clicking on the link. Use **Save Link As...** or **Save Target As...** Be sure the browser saves the file as **C:\full.exe**.
3. Run the downloaded executable. This will install g++ (and a lot of other things that you don't really need) on your hard drive. Go to the **C:** drive using Windows Explorer and double-click on **full.exe**. Or, open a DOS window (**Start > Programs > Command Prompt**), connect to the **C:** drive using the **cd** command, and type **full**.
4. Create an empty folder C:\tmp. At the DOS prompt, type **mkdir tmp**.
5. Add one of the following lines to the end of your autoexec.bat file (some versions of Windows seem to like one better than the other. I have the first one on my Windows 2000.):

```
@SET PATH=%PATH%;C:\cygnus\cygwin~1\h-i586~1\bin;
```

```
SET PATH="%PATH%";C:\cygnus\cygwin~1\h-i586~1\bin;
```

You will probably find **autoexec.bat** on your **C:** drive. Edit it with Notepad. You can't edit it by double clicking on it. Start Notepad and then open it with the File menu. Type the line exactly. Cutting and pasting is a good idea.

6. Restart your computer. **A Cygnus Solutions entry will appear in your Programs menu, and an icon may appear on your desktop. Don't use them!**

You should now be able to run g++ from a DOS (Command Prompt) window. For example, to compile a file called **C:\mine\hello.cpp**, connect to the **C:\mine** folder and enter

```
g++ -g hello.cpp -o hello -lm
```

You'll then be able to run the compiled program by entering **hello** in the DOS window.

If you've installed Emacs as described on the class web page, you will also be able to run g++ from Emacs as in class. If, when you do this, Emacs tries to compile with the command **make -k**, you made a mistake in either step 7 or 8 of the Emacs installation.

If you'd like to learn more about where this free compiler came from, we downloaded it from <http://sourceware.cygnus.com/cygwin/>.

If you wish to clean up a little, you may delete the **tmp** folder that you created and **full.exe** at this point. Your g++ compiler is installed under **C:\cygnus**.

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