Installing gcc

Learn C With Babbo

gcc

Because C is a compiled language, we will need to install a C compiler for your system if it does not already have one. The C compiler program is called **gcc**, which stands for "GNU Compiler Collection". I will give directions on how to install gcc for the various operating systems in the following sections.

Windows

1. Go to http://www.mingw.org

2. Click the "Download Installer" button. A download should start automatically.

3. Open the downloaded file, named "mingw-get-setup.exe" at the time of writing.

4. Click "Install", then click "Continue"

5. Wait for installation to complete, then click "Continue"

6. You should see an interface listing packages that may be installed. Check "mingw32-gcc-g++" and then click "Mark for installation."

7. Click on "Installation" in the top left and select "Apply Changes."

8. Wait for installation to complete, and then close the dialog box.

9. Press the Windows key and type "environment variables" and select the first option.

10. Click on the "Environment Variables..." button at the bottom right.

11. In the top box, click on the entry with "Path" under the variable column.

12. Click the "Edit..." button

13. If you have an "Add..." button, click it and paste (without quotes) "C:\MinGW\bin" into the new entry. If you don't have an add button, paste (without quotes, note the semi-colon) ";C:\MinGW\bin" to the end of the Path content, without modifying the existing Path.

14. Press "OK" until you have closed the window with the "Environment Variables..." button.
    Important: Do not click "Cancel" or close the windows with the X in the top right: this will discard your changes.

15. Open the Command Prompt (Windows Key + R, and then enter "cmd"). Enter `gcc`. You should see something like

    ```
    gcc: fatal error: no input files
    compilation terminated.
    ```

    If so, your installation was successful. If instead you see something like

    ```
    'gcc' is not recognized as an internal or external command,
    operable program or batch file.
    ```

    then something went wrong in your installation. If the file `C:\MinGW\bin\gcc` exists on your system, you have probably not set your Path environment variable correctly. Also, you need to have opened a *new* Command Prompt after editing the Path environment variable, `gcc` will not be recognized if you attempt to use an already opened Command Prompt.

Mac

1. Open the AppStore and search for Xcode.

2. Install Xcode.

3. After Xcode is done installing, open a terminal (⌘+ ⌷ , enter "Terminal") and enter gcc. You should see something like

    ```
    gcc: fatal error: no input files
    compilation terminated.
    ```

    If so, your installation was successful. If instead you see something like

    ```
    gcc: command not found
    ```

    then something went wrong in your installation. Make sure that installation has finished, and that you opened the terminal *after* installation was complete, and did not use a previously open terminal.

Linux

You probably already have `gcc` installed. To check, open a terminal and enter `gcc`. If you see something like

```
gcc: fatal error: no input files
compilation terminated.
```

You already have `gcc`. Otherwise, you should install it using a package manager available for your linux distribution. Try the following commands:

```
sudo apt-get update && apt-get install gcc
sudo yum install gcc
```

If neither of these commands work, enter `cat /etc/*-release` to get your linux distribution name (there should be a line similar to `NAME=<name>`), and use a search engine like Google with the query "install gcc on <distribution name>" to get help on installing `gcc` on your distribution, or look up how to install it from source.