How to set up a C++ development environment

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Basic assumptions

It is assumed that the reader of this guide has a decent grasp on how to download and save files, run programs, and use Microsoft Windows. No knowledge of C++ or programming is required, but would be helpful to progress onto writing programs, which is beyond the scope of this guide.

It is also assumed that the reader is using Windows 2000, Me, XP, Vista, or 7. Other versions of Windows may not be compatible with the software outlined in this guide.

Glossary

IDE

Integrated Development Environment. Modern IDEs are "all-in-ones" for development, including features such as a debugger, code editor, and other tools to facilitate the process of software development.

Setting up your C++ environment

Download and install

1. To download the Dev-C++ IDE, go to the Dev-C++ downloads page at http://www.bloodshed.net/dev/devcpp.html. Files available are listed near the bottom of the page.
    a. Download the ***Dev-C++ 5.0 beta 9.2 (4.9.9.2)*** **(9.0 MB) with Mingw/GCC 3.4.2** package, by clicking the **SourceForge** link, as shown in Figure 1.

Figure 1. The downloads section, with the correct package highlighted.

b. You will be redirected to the SourceForge download page, where the download should start automatically. Save the file to disk in a location where you can find it easily (i.e., your Desktop).

c. Run the file by double-clicking on it. If prompted whether or not to run the file (on Windows Vista or Windows 7) click "Yes".

d. Click "OK" on the first window that appears, and then select your language. As in Figure 2, it will be assumed that the "English" option is selected.

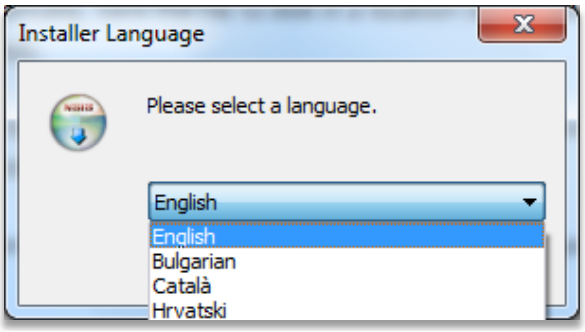

Figure 2. Language selection.

e. Read the License Agreement, and click "I Agree" if you agree to the terms of the license.
f. Click "Next" to choose all components to be installed.
g. The default install location, **C:\Dev-Cpp**, will be selected. (See Figure 3) If you wish to change the location of the install, you may do so here, although this is not recommended.
h. Click "Install" to begin the automatic installation process.
i. When prompted if Dev-C++ should be installed for all users, you may select "Yes" or "No".
j. Click "Finish" to complete the installation and to run Dev-C++.

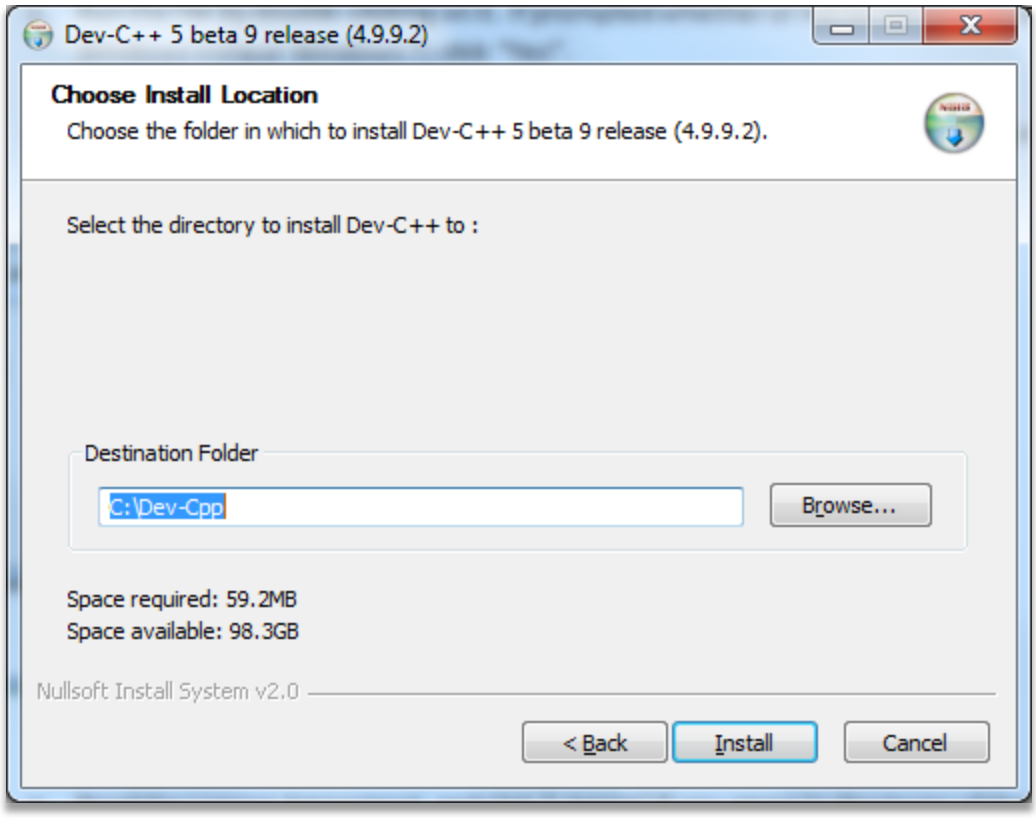

Figure 3. Choosing a location for install.

Setting up your new environment

2. At this point, Dev-C++ should be running. If not, find it in your Start menu (under **Bloodshed Dev-C++**) and run it.
    a. Click "OK" on the **Beta version Notice** window to close it.
    b. The current window (Figure 4) will allow you to customize the look and feel of Dev-C++. You may choose any combination, but this guide will be using the **New Look** theme, with the "Use XP Theme" box **unchecked**.

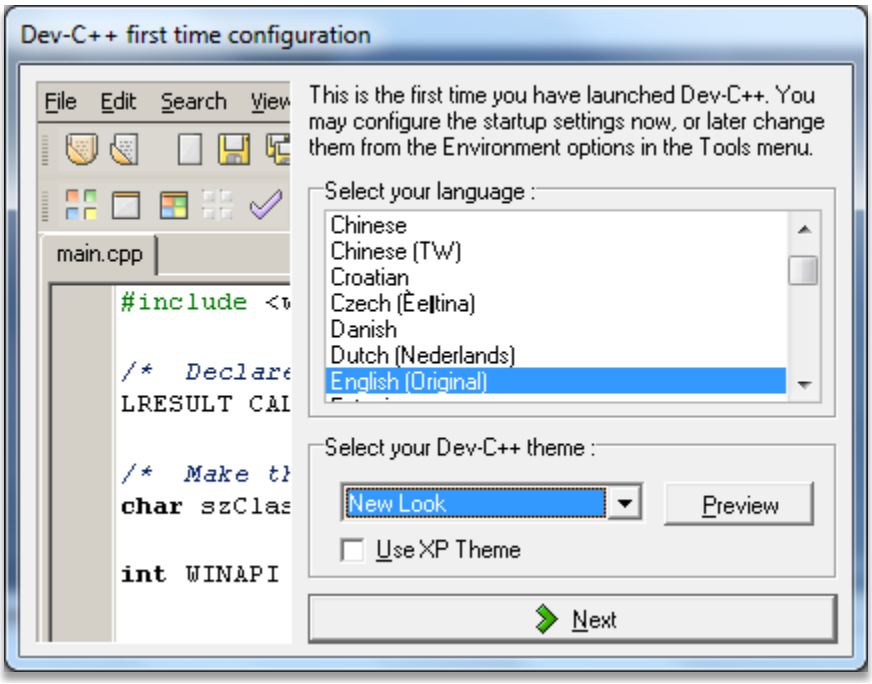

Figure 4. The look and feel screen.

c. Click “Next” to continue.
d. The current window will allow you to use the code completion feature for Dev-C++. If you are unsure which option to select, select “Yes”, and then click “Next”.
e. The current window gives the option to create a cache for code completion, to speed up the retrieval information while working. Select whether or not you would like to use the feature. If you are unsure, select “Yes”. (If you chose “No” on the previous step, you may not see this window.) Click “Next” to continue.
f. If you chose to use the cache, wait until the cache has been fully created.
g. Click “OK” to finish setup.

Testing your new environment

3. Dev-C++ should now be ready to go.
    a. If the “Tip of the Day” window appears, click “Close” to dismiss it.
    b. Create a new file by clicking on **File**, **New**, **Source File**, or by pressing **Ctrl+N**.
    c. Type the following exactly as it appears into the text area (see Figure 5):

```
#include <windows.h>
#include <iostream>
using namespace std;

int main()
{
    cout << "Hello, universe(s)!" << endl;
    system("PAUSE");
}
```

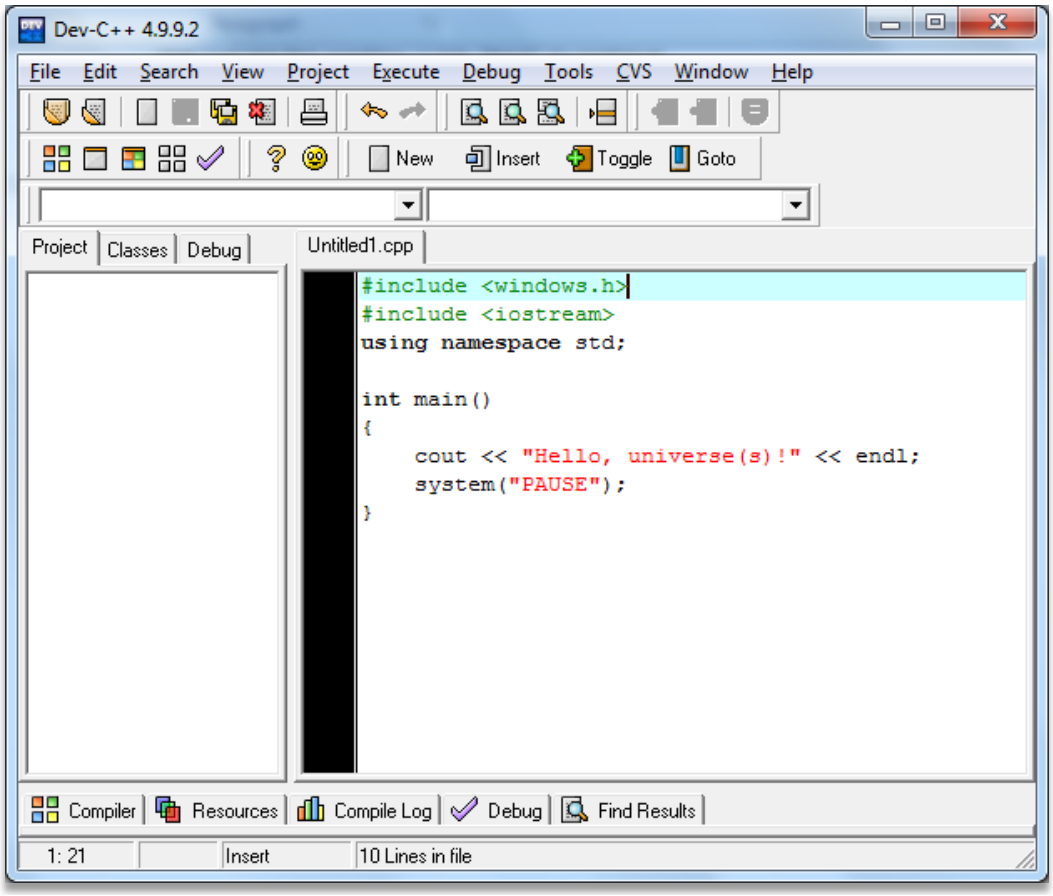

Figure 5. Results of entering the code.

d. Save your file by clicking on **File**, **Save**, or by pressing **Ctrl+S**. When prompted for a name, use Test.cpp. Save it in a memorable location.

e. Compile and run your test program by clicking the **Compile & Run** button (Figure 6) or by pressing **F9**.

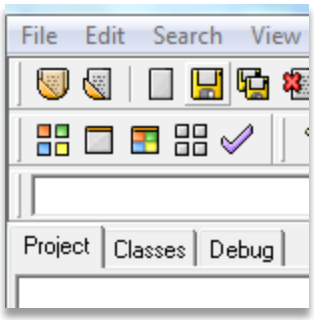

Figure 6. The Compile & Run button.

f. You should see a window similar to Figure 7 after a few seconds. If not, check if the text was entered exactly.

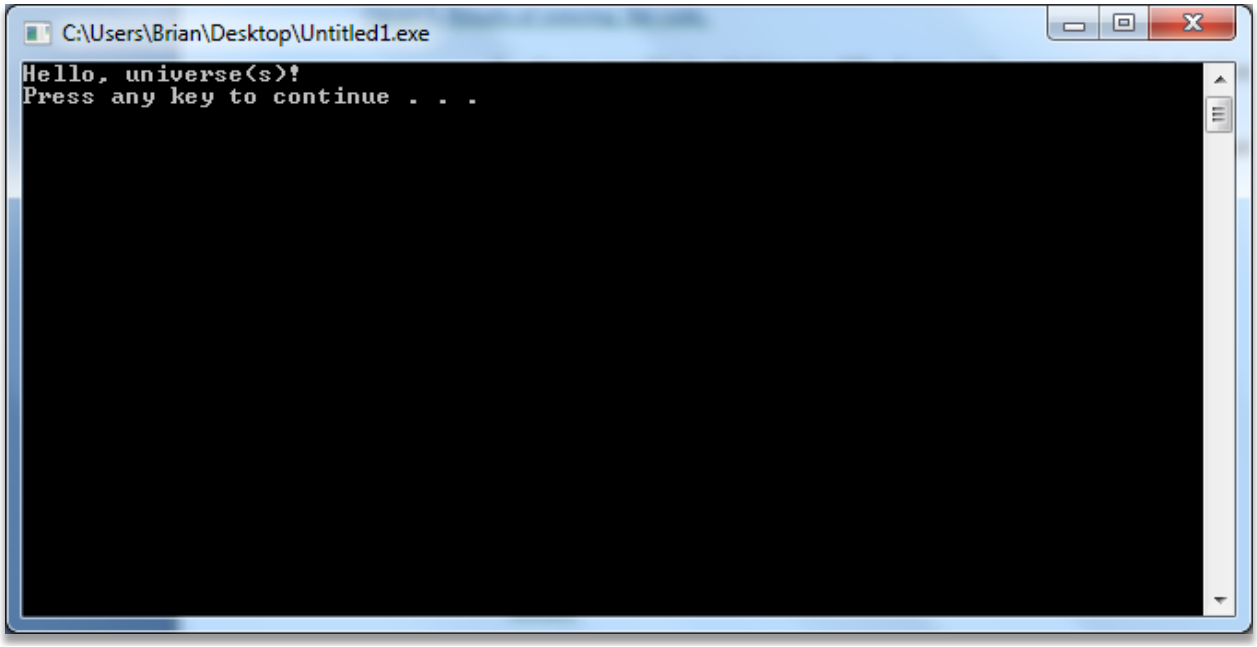

Figure 7. The result of a compile and run.

g. Press **Enter** to close the window. Congratulations, you now have a working C++ development environment!