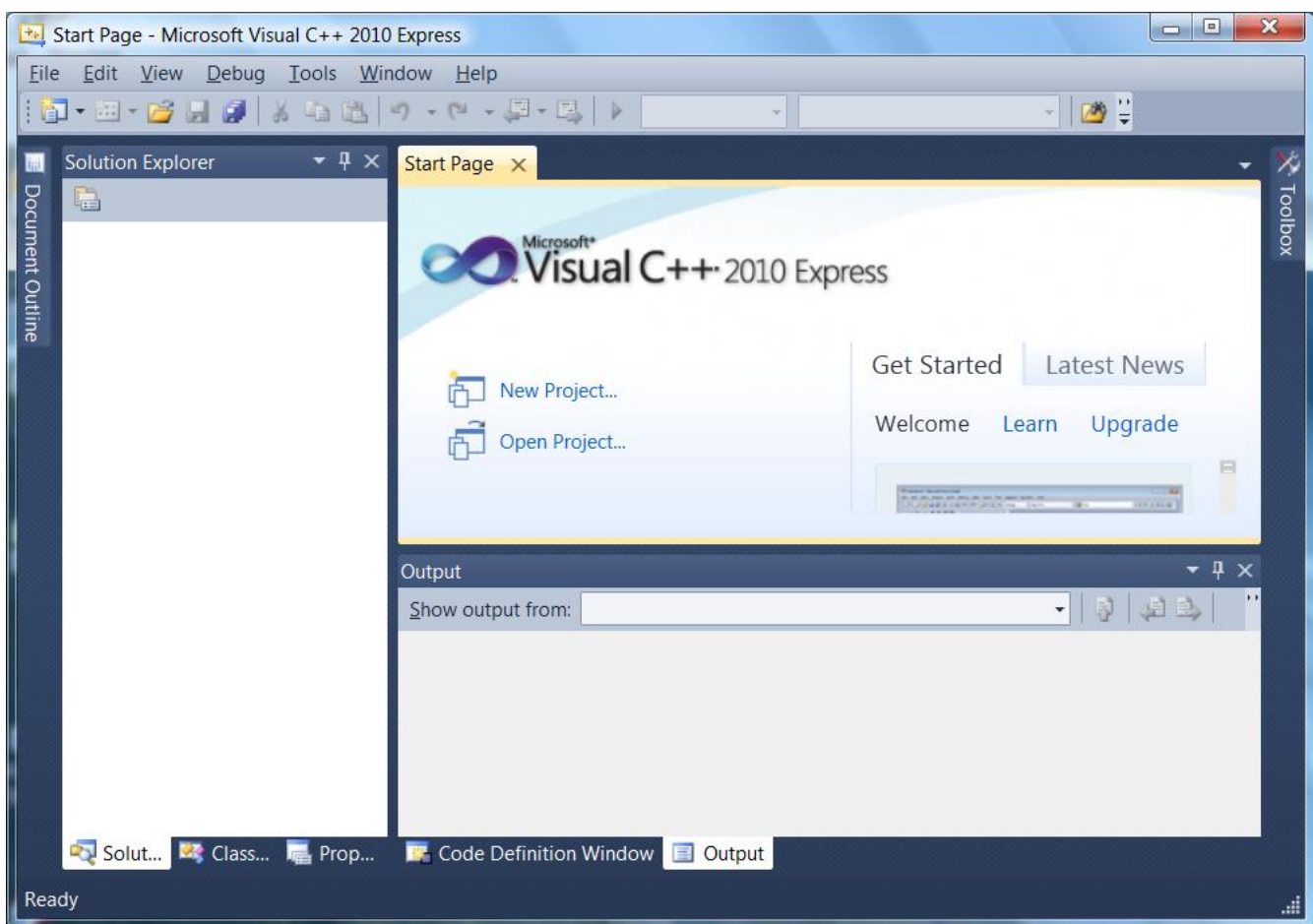

How To: Create a C++ Program Using Microsoft Visual C++ Express 2010

Instructor: A. Ford Tyson

Important Note: the instructions in this handout provide exactly what you need to do to set up a project which will comply to the ANSI Standard for C++. You *must* follow these directions to avoid losing points on your assignments for turning in non-standard program files.

Start by running the Microsoft Visual C++ Express Edition 2010 IDE. You should find this program in your Windows **Start** menu. When you first start the program, you will see the **Start Page**. The Start Page has several components, and may look different from the one shown here depending on what options are chosen, but it will look generally like this:



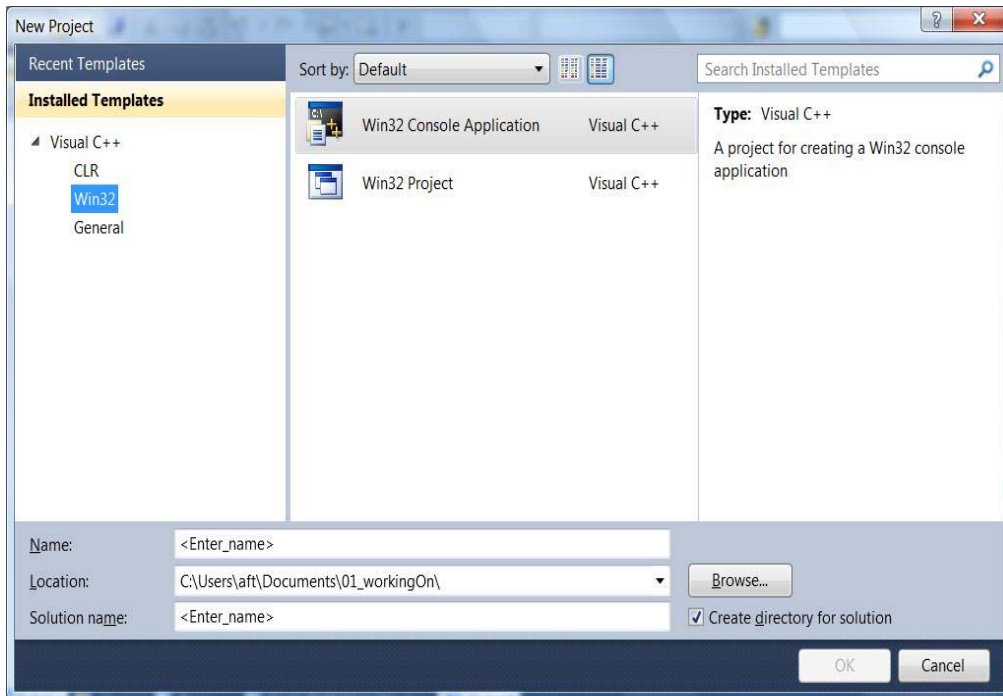
You will enter your C++ program into a .cpp file. Microsoft Visual C++ Express organizes your program file plus additional files that are needed to work with the program into a *project*. Recent projects that you have worked on will appear on your Start Page, as well as options to open an existing project or create a new project.

Before going any further, go under the **Tools** menu and select **Settings**. Then select **Expert Settings**. You will need this setting turned on in order to perform the various tasks you will need for this course.

Creating a New Project

Pull down the **File** menu and select **New**, and then **Project...**

You will now see a window that looks like this:

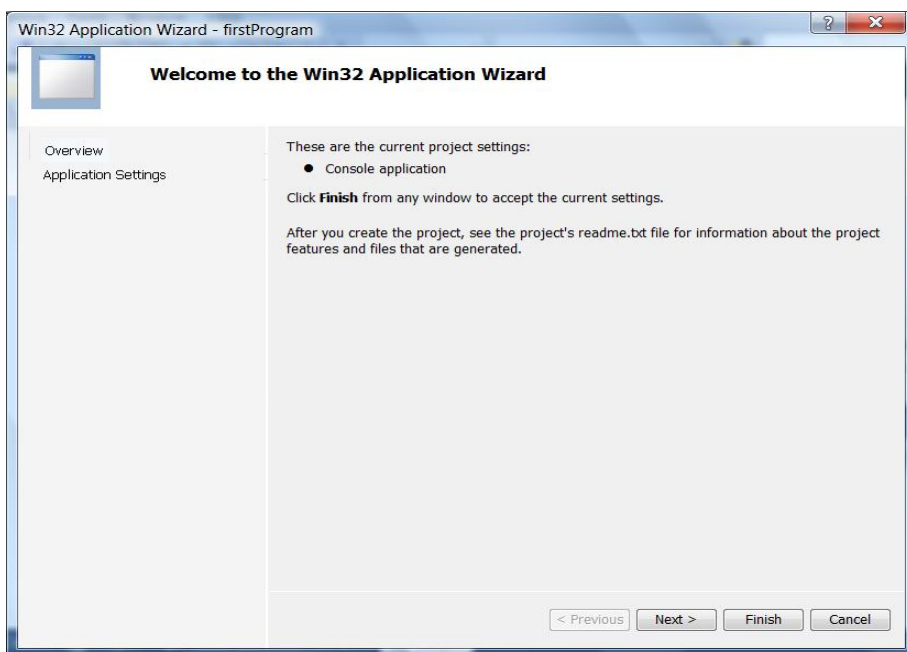


In this window,

- click on **Win32** under **Installed Templates**
- click on **Win32 Console Application** in the adjacent window frame
- type **firstProgram** as the name
- use the **Browse** button to select a location for your program folder
- check the box next to **Create directory for solution** (or leave it checked)
- click **OK**

Now, Microsoft Visual C++ Express will create a new project for you in a new directory according to your choices.

You will see a new window:

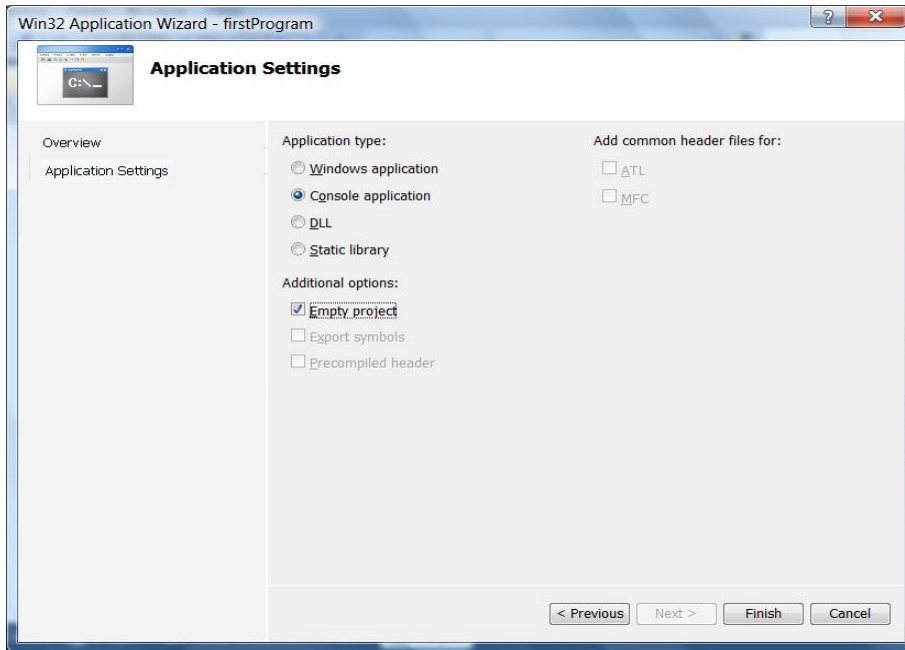


Click on **Next**.

In the next window,

- select (check) **Console Application** under **Application Type**
- deselect (uncheck) **Precompiled header** under **Additional options**
- select (check) **Empty Project** under **Additional options**

and you should see this:



Now click **Finish**. You now have a project, but it does not have a .cpp file (the "source code") as of yet. You will go back to the **Start Page** window with new information added for your project.

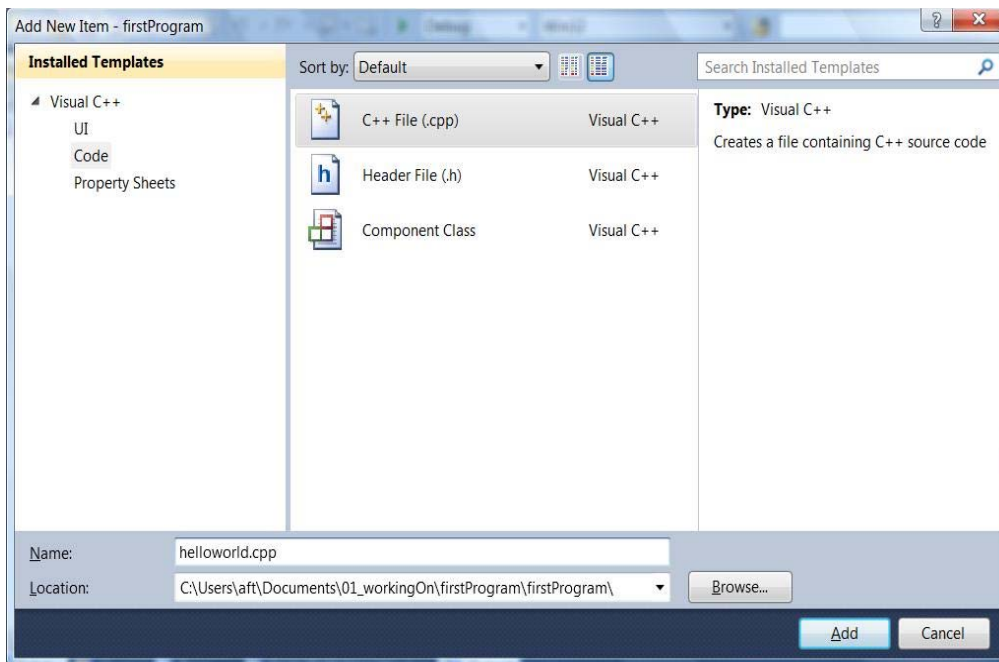
Add the Source File

We need to add the .cpp source file for our program now.

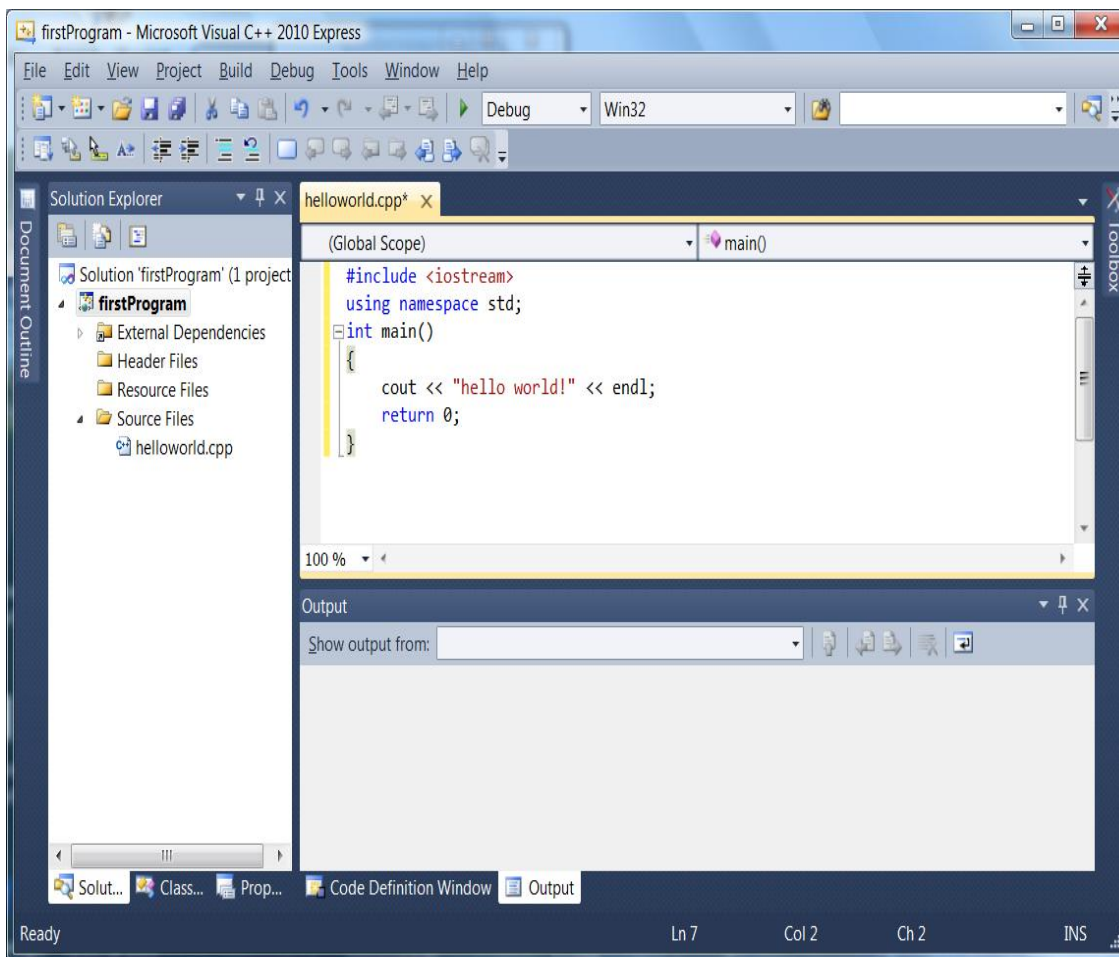
Under the **Project** menu, choose **Add New Item**. You will see a new window. In this window:

- under **Visual C++** click on **Code**
- in the adjacent window click **C++ File (.cpp)**
- type *helloworld.cpp* as the **Name**

Your window will look like this:



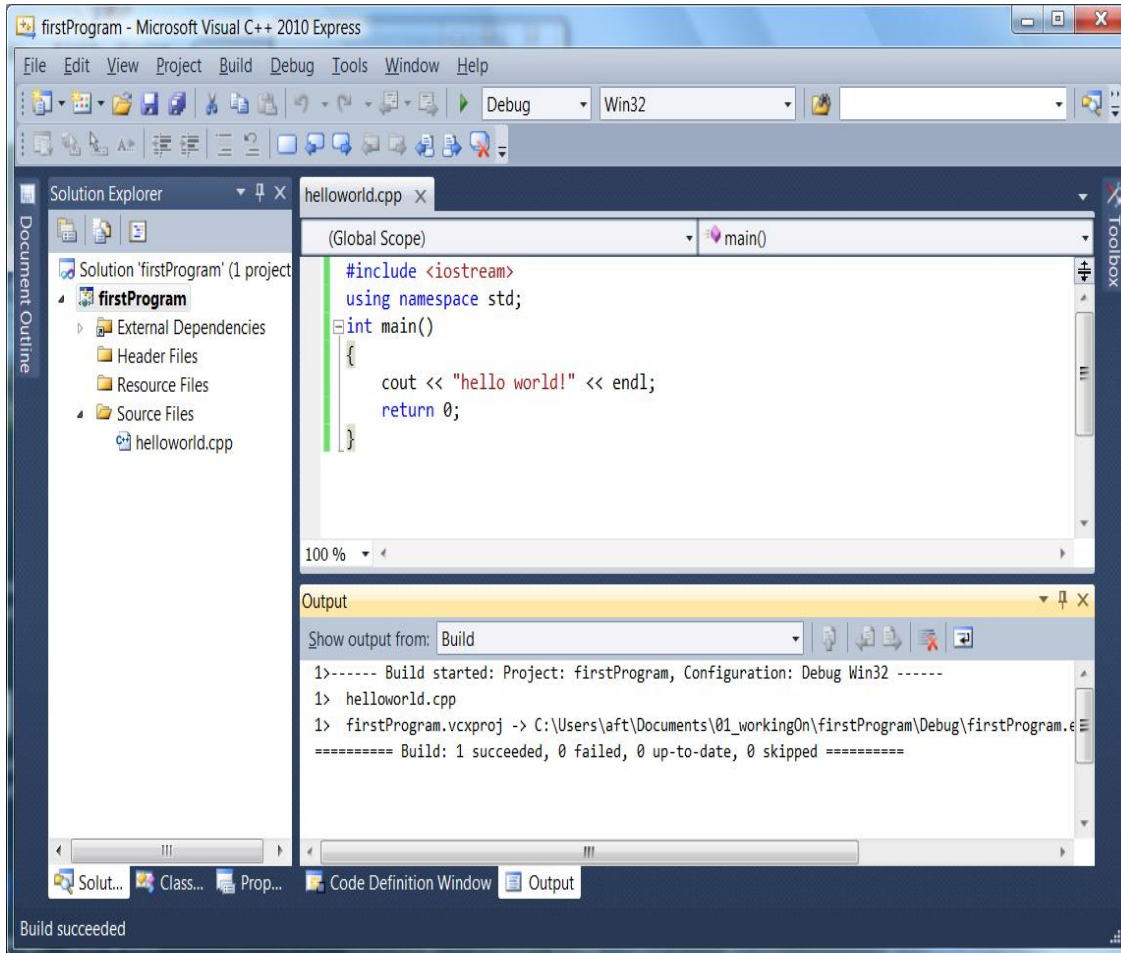
Next, after you click on **Add**, you will see a new window display allowing you to type your program into the upper right window pane. Type the program in as follows:



Building and Running the Program

Under the **Build** menu, select **Build Solution**. This option will compile your program and link it with the libraries that are needed to run it. If the program was typed in incorrectly, you may see compiler errors listed in the error window. If there are any, fix them and then re-build.

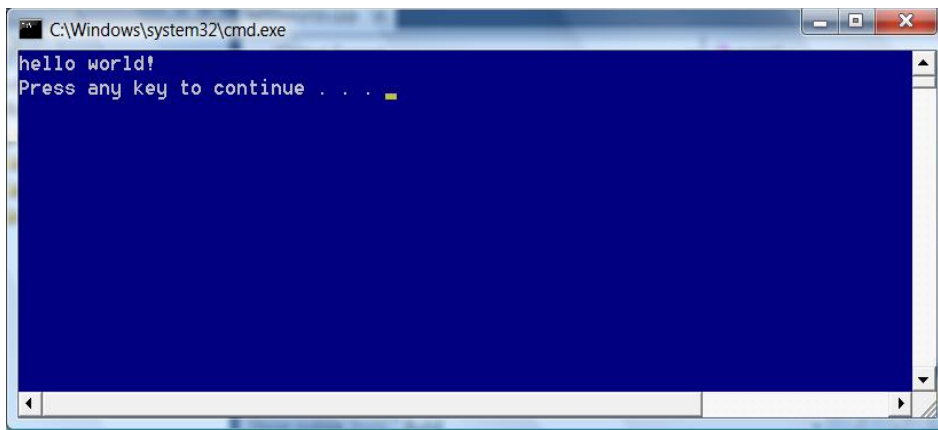
When the build was successful, you will see this:



Now we can run the program!

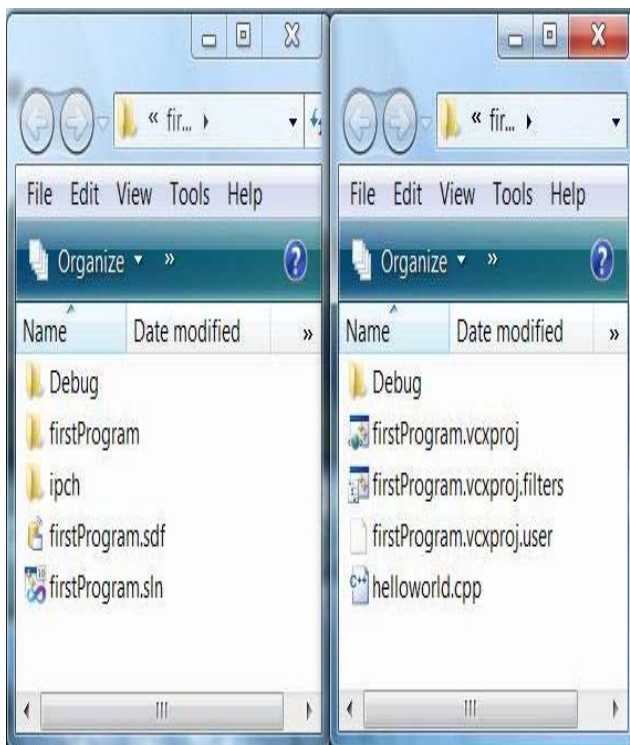
To run it, go under the **Debug** menu and choose **Start without Debugging**. This will run the program normally, that is, not in "debugging" mode (we will learn about debugging later on). If you do not see this menu option, make sure you have followed the earlier directions in this handout, and turned on **Expert Settings**.

You will see this output window for the run:



PROJECT FILES

Microsoft Visual C++ Express automatically creates folders and files to carry out the operations required to work on your program. For example, if you look at two of the folders and the major files for the project we just created, you would see something like this:



The ONLY file you need to turn to us for grading is your .cpp file. Do not turn in any of the other files for project grading.

SUMMARY

You did it! You created a project using Microsoft Visual C++ Express, then entered and ran a C++ program successfully. After you have done this once or twice, you'll be able to set up a new project *very* quickly.

You can use these same instructions to create every program you work on in this course.

NOTE ON RE-OPENING THE PROJECT TO WORK ON IT AT ANOTHER TIME

If you want to work on the program you just created at another time in the future, start by double-clicking on the **.sln** file. That is the quickest and easiest way to get back to the point where you can work on your program. You do not need to start Visual C++ prior to clicking on the .sln file, as Visual C++ should start automatically as soon as you load the .sln. Think of .sln as standing for the word "solution."

Last Update: August 12, 2010 A. Ford Tyson
