

Creating a Simple Visual C++ Program

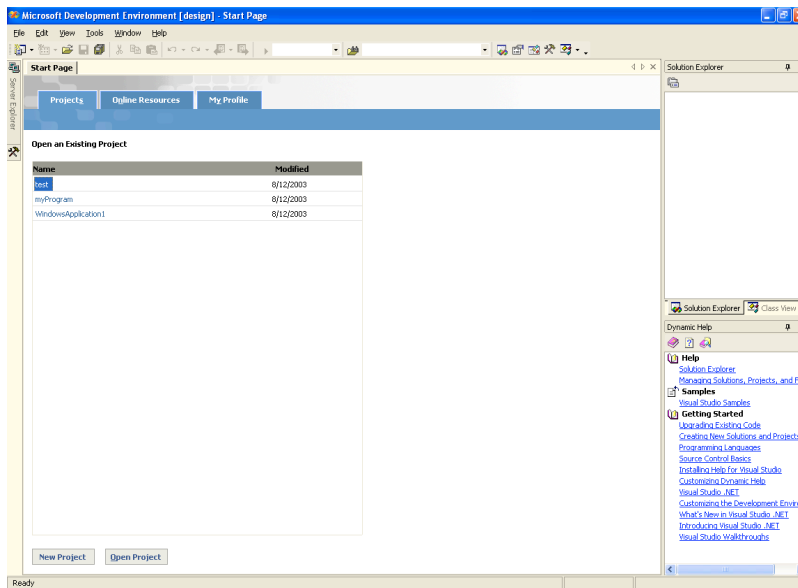
Logging in:

1. Once you have signed for a CPS computer account, use the login ID and the password *password* (lower case) to log in to the system. Change your password when prompted to do so. If you are not prompted, press Ctrl-Alt-Del once your system is booted, and then choose “Change password” from the options that will appear.

Be sure to remember the new password you select. If you forget your password, you will have to ask the system administrator (Mr. Dean Halter) to reset it. His office is located in the back of Anderson 131; his office hours are 8-5 Monday through Friday.

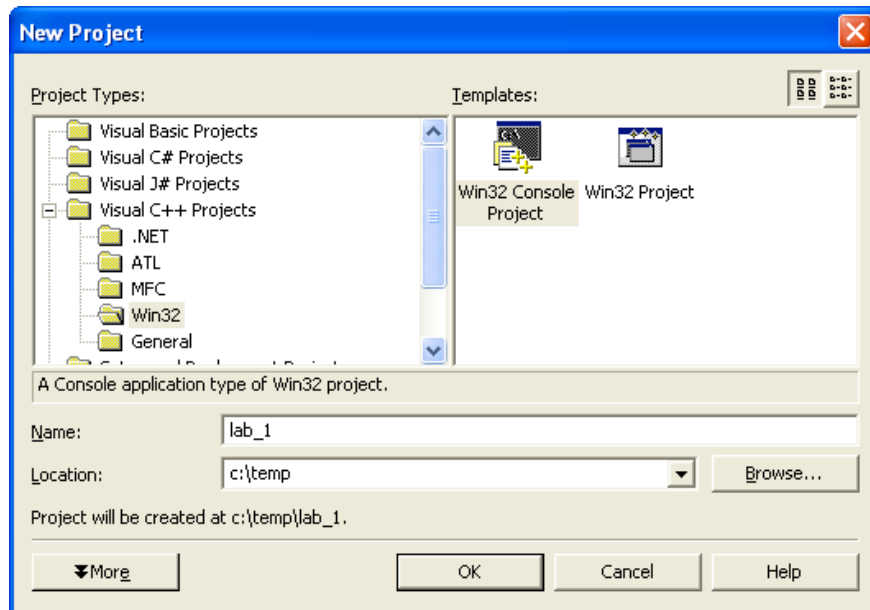
Creating and running a C++ program:

1. Open the Visual Studio environment by clicking the Start button, then choosing Programs, then choosing Microsoft Visual Studio.Net 2003 – Microsoft Visual Studio.Net 2003. You should see this window:

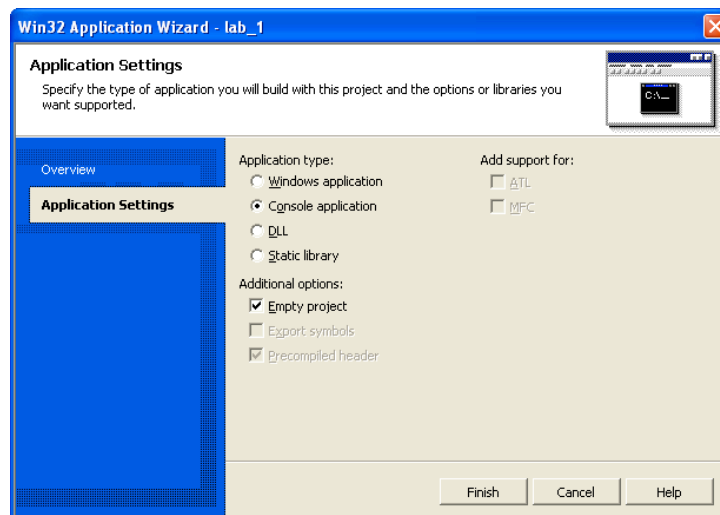


2. Click the **New Project** button which appears in the lower left corner of the Projects tab.

- From the New Project dialog box (shown below), do the following:
 - choose **Visual C++ Projects, Win32** from the left pane
 - choose **Win32Console Application** from the right pane
 - In the Name box, enter **lab1**
 - In the Location box, enter **c:\temp** (rather than type the location, you can click the Browse button, find the c:\temp folder, and click on it)
 - Click **OK**

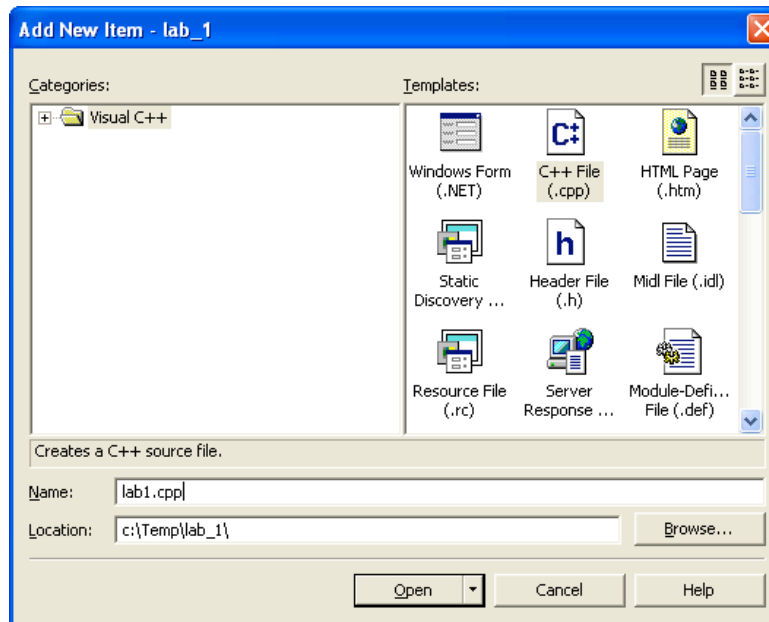


- From the Win32 Application wizard dialog box that appears, click on the “**Application Settings**” tab and choose **Console application** and **Empty Project**, as shown below, then click the **Finish** button.



Add a file to your solution:

1. From the Tool bar, choose **File, Add New Item**. From the Add New Item dialog box (shown below), do the following:
 - choose **C++ File (.cpp)**
 - In the name box, type **lab1** or **lab1.cpp** (if you just type lab1, the .cpp will be appended to your filename automatically)
 - click the **Open** button.



2. An empty editing window appears; type in the code exactly as it appears on the following page (except replace [your name] with your actual name).

```
//lab1.cpp
```

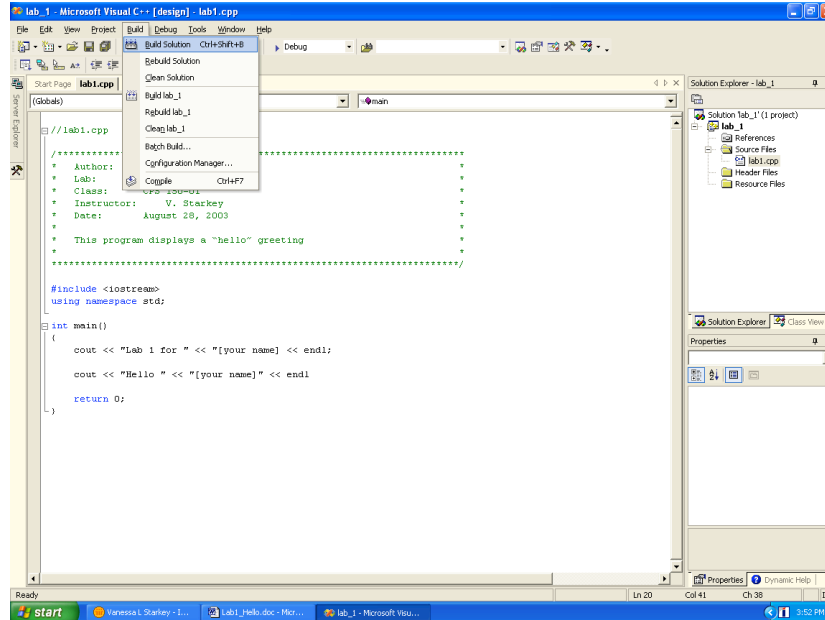
```
/*
 * Author:      [your name]
 * Lab:        1
 * Class:      CPS 150-01
 * Instructor: Dr. Saverio Perugini
 * Date:       August 26, 2004
 *
 * This program displays messages to the screen.
 *
 */
```

```
#include <iostream>
using namespace std;
```

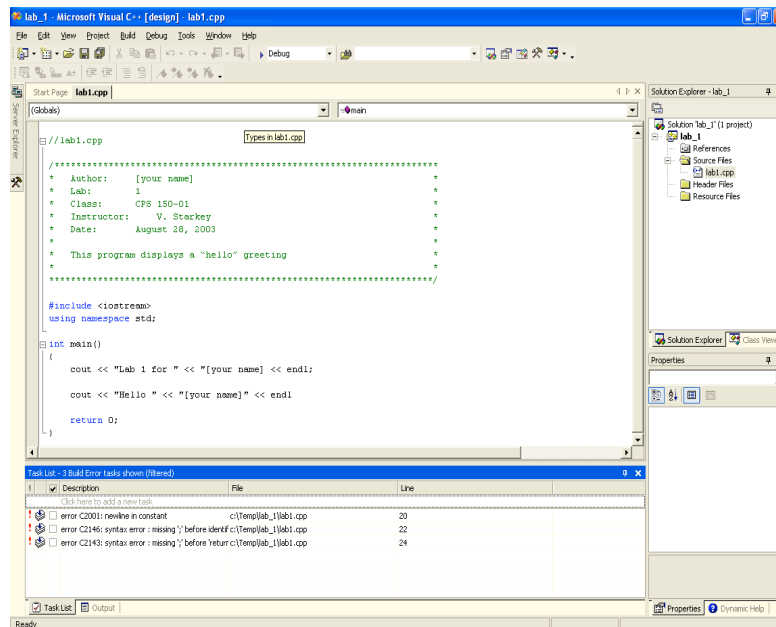
```
main() {
    cout << "Lab 1 for " << "[your name] << endl;
    cout << "This is my first C++ program." << endl;
    cout << "Have fun dude!" << endl
}
```

Compiling your program:

1. To compile and create an executable program, choose **Build** from the menu bar, and then select **Build Solution** as shown below.

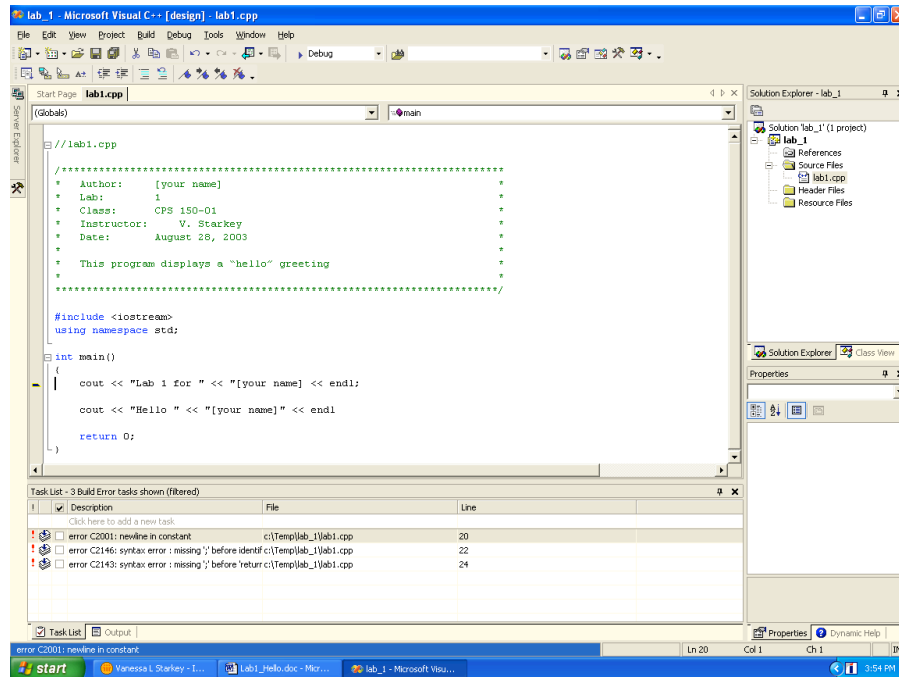


After attempting to build your program, the compiler should have detected syntax errors, a listing of which appear in a new window at the bottom of your screen, as shown below:

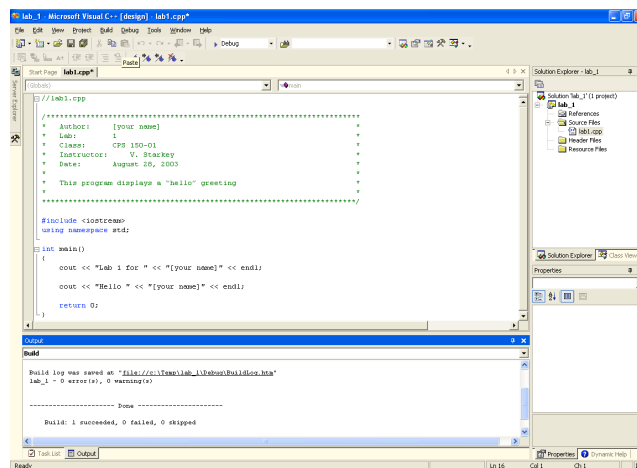


Have your instructor initial here to verify that your screen matches the one above: _____

2. Move your mouse pointer to the first error message, and double-click anywhere within the message. Your cursor will be placed in the code window, to the left of the line containing the error.



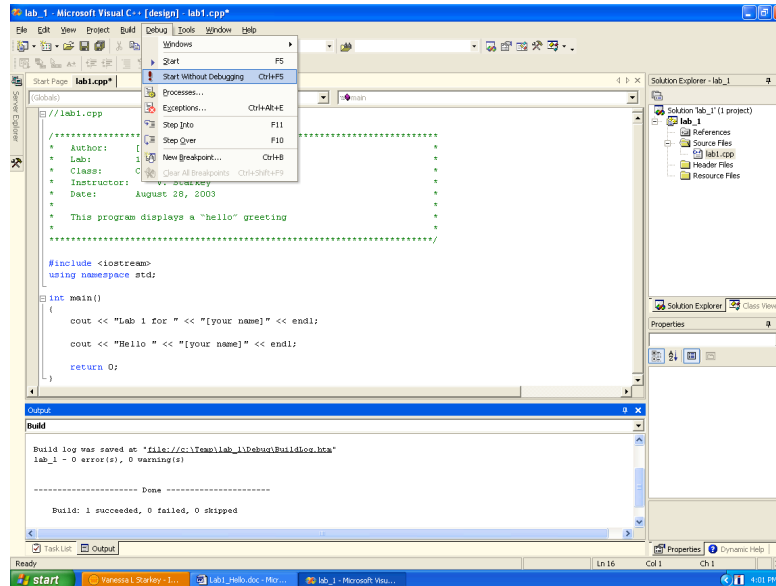
3. Correct the error.
4. Again from the Build menu, choose Build Solution. Repeat steps 2-4 until your program is free from errors. When error-free, an Output window as shown below should appear (you may need to re-size the Output window and/or use the scroll bars to view the complete message):



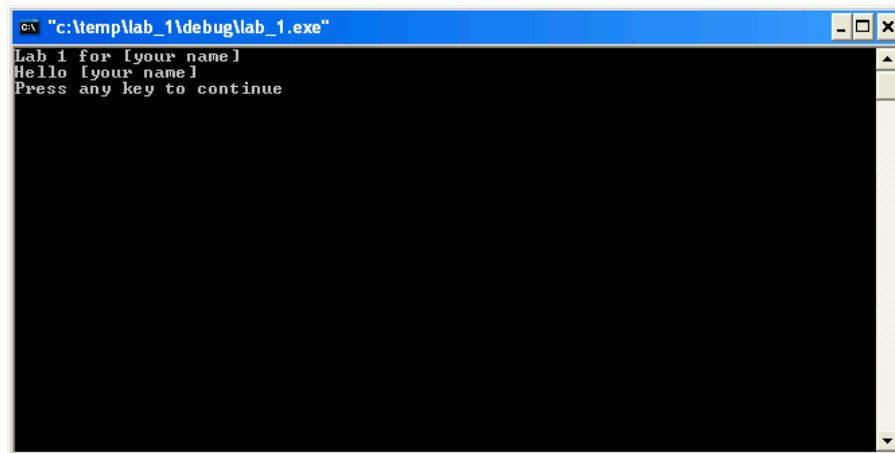
Have your instructor initial here to verify that your screen matches the one above: _____

Executing your program:

1. To execute, choose **Debug** from the menu bar, and then select “**Start Without Debugging**” as shown below:



An output window as shown below should appear (except your actual name should appear instead of [your name]):

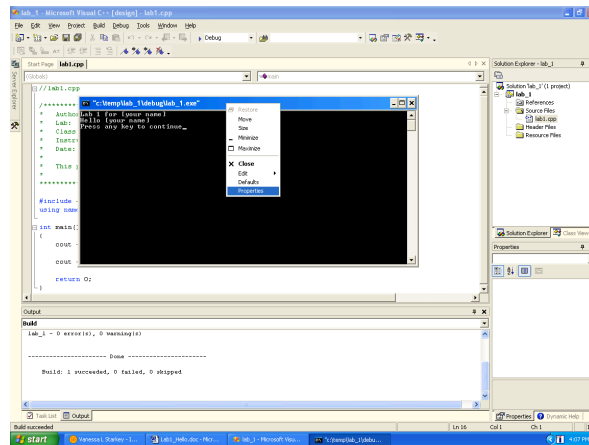


Have your instructor initial here to verify that your program output was correct: _____

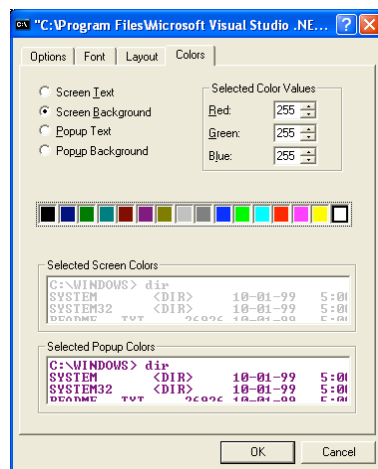
Printout your output:

You can capture the DOS window from the previous step and then print it within Microsoft Word by following these steps:

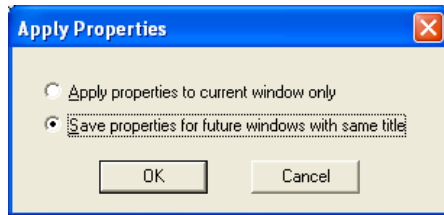
1. Change the background and foreground colors to conserve ink:
 - Move the mouse pointer to the title bar of the DOS window, right click, and choose **Properties**:



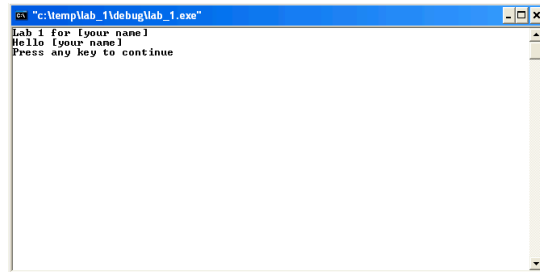
- From the dialog box that appears, select the “**Colors**” tab, select White for the Screen Background and Black for the Screen Text. Click **OK**.



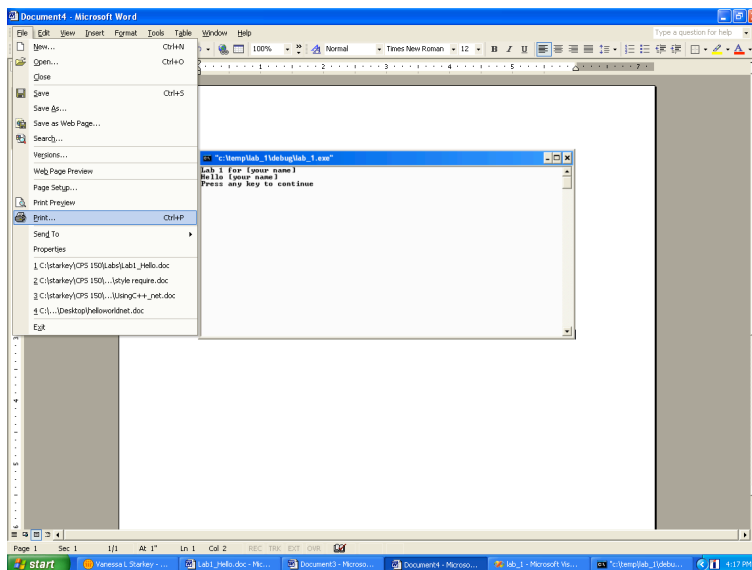
- Choose the second option on the Apply Properties dialog box, and click **OK**.



- The DOS window should now appear as below.



2. “Capture” this window by holding the **Alt** key down while you press the **Print Screen** key on the keyboard. This places a copy of the active window in the clipboard.
3. Open Microsoft Word (Click on **Start**, select **Programs**, select **Microsoft Word**).
4. Select **Edit, Paste** to place your output window in the Microsoft Word document.
5. Select **File - Print** to print the document.



6. Before clicking OK to print, check the printer name that appears in the dialog box. The printer name should include “21A” as part of its name. If you do not see 21A in the printer

name, click on the drop-down arrow next to the printer name, and select the appropriate printer (the one that has 21A as part of its name). Now click **OK** to print the file.

Your printout will be available in the printer room at the back of MH21A.

7. Close Microsoft Word and close your DOS output window.

Print your code:

1. Within Visual Studio, be sure your code window is the active window (the blinking cursor anywhere within your code window indicates that it is active).
2. From the **File** menu, choose **Print**. Verify that the printer name is the printer in 21A and click OK. Your printout will be available in the printer room at the back of MH21A.

Have your instructor sign here to verify that you successfully printed your output window and your source code: _____

Save your solution to your network account:

In this lab, you will always use c:\temp for your programs because it is much faster than working with files on the network drive. However, when you log out, all files in c:\temp are deleted. Therefore, you must copy your work to your network account folder before logging out. Follow these steps:

1. Close Visual Studio. (Since Visual Studio automatically saves all files when your solution is Built, it is not necessary to save first.)
2. Open **Windows Explorer** (right click the **Start** button and choose **Explore**).
3. In the left pane, click on the **c:\temp** folder. Your lab1 folder should be visible within this folder.
4. Open the lab1 folder and delete the Debug folder within it. This folder contains the executable program file, which is very large. The folder will be automatically re-created the next time you open your program, so it is not necessary that it be saved.
5. Copy the entire lab1 folder to your Z: drive (which should have your account number as the part of the drive name). If you are not sure how to do this, ask your instructor for help.

Have your instructor sign here to verify that you successfully copied your program folder (minus the debug folder) to your Z: drive: _____

Log off of the computer

Click the **Start** button, choose **Shut Down...** , and choose **Log off**.

Turn in: Your output and code printouts.