EECE.2160: ECE Application Programming

## Creating Projects in Visual Studio Express 2015

The steps for creating a new project and adding a file or files to that project are slightly different in Visual Studio Express 2015 than they are in older—and newer—versions of the IDE. This document contains the full list of steps for project creation. Anyone running Visual Studio in VLabs should follow these steps.

Note: Project creation is virtually identical, so Figures 1 and 2 actually show windows from Visual Studio 2012

1. After starting Visual Studio, select **File→New Project** from the main menu, or simply click the "**New Project … "** link on the welcome screen.

The dialog window that appears allows you to choose the type and name of your project. After selecting **Visual C++** in the list of templates on the left, choose **Win32 Console Application** from the list of project types in the middle. (Note that your choices may not exactly match those shown in Figure 1.) Use the boxes at the bottom of this window to specify a name and location for your project.

Important note: Your project name **will not need to match the assignment name**. To avoid confusion, I suggest choosing a generic name for the project (for example, "program1") and then naming your source file appropriately later.
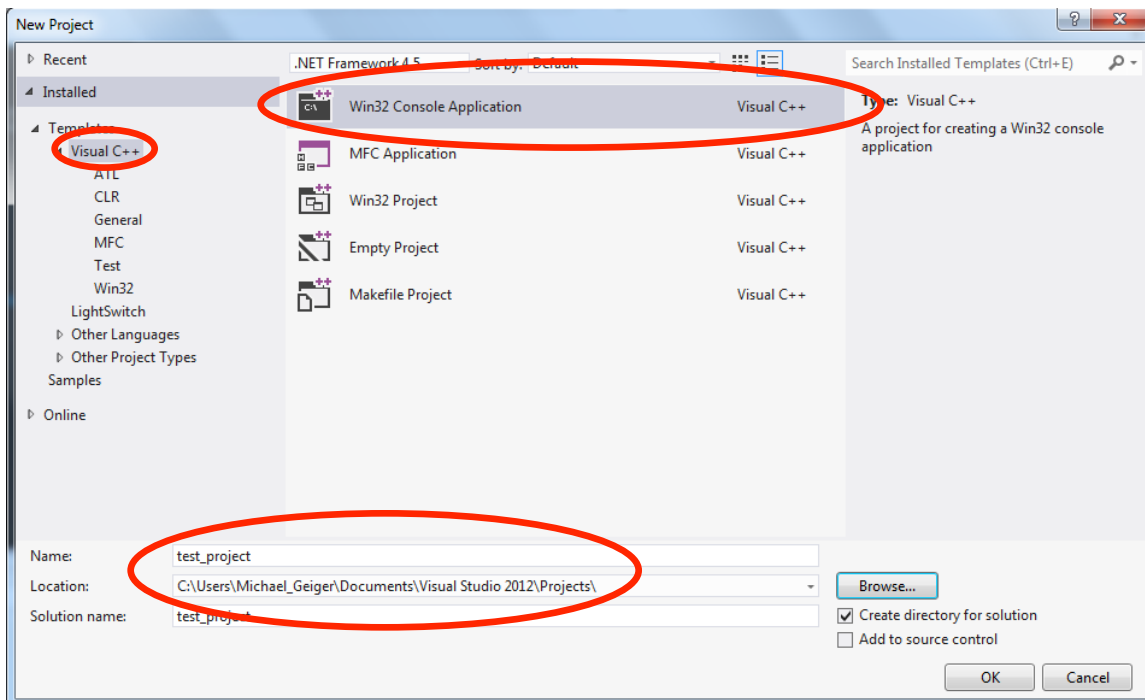
Figure 1: Creating a new Win32 Console Application by selecting "Visual C++" from the list of templates, "Win32 Console Application" from the list of project types, and specifying a name and location for your project. In this example, the project—not the source code file—is called "test_project" and stored in "C:\Users\Michael_Geiger\Documents\Visual Studio 2012\Projects\".

2. After accepting these settings, a window appears that you can use to set application settings. Click **Next**, then select the check box next to **Empty project**, which is under **Additional options**, in the following window. Click **Finish** to create your project.
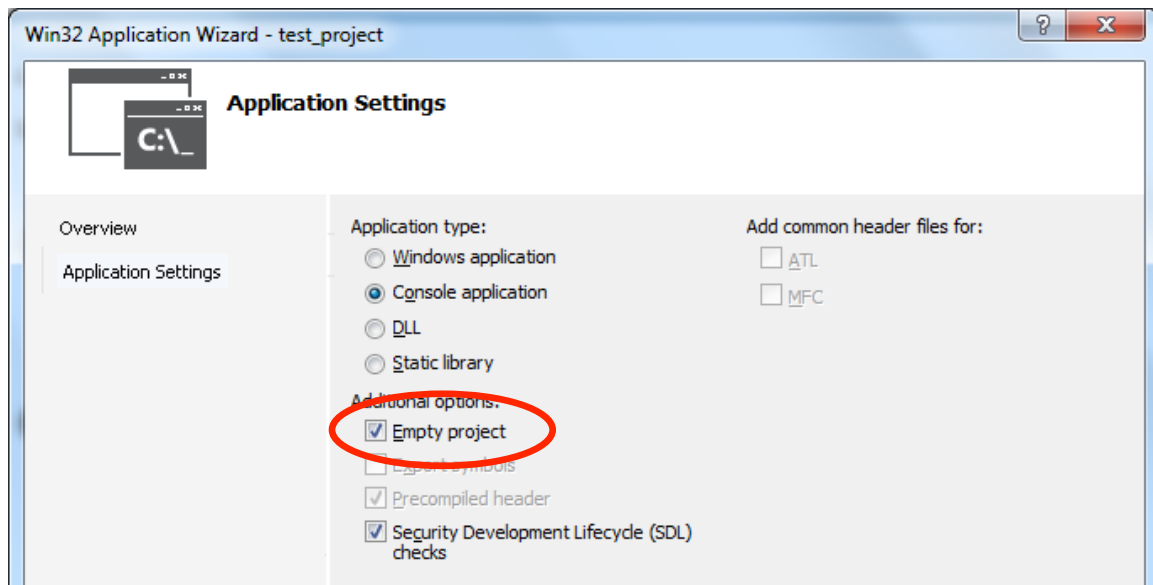
Figure 2: Initial application settings. After completing the steps shown in Figure 1, click "Next" in the first window that appears to reach this window—do not choose "Finish." Once you reach this window, be sure to select the "Empty project" check box before clicking "Finish".

3. To create your first C file, select **File → New File** from the main menu (Figure 3). In the window that appears, choose **Visual C++** from the list of **Installed** templates, then select **C++ file (.cpp)** and select **Open** (or press return) (Figure 4).
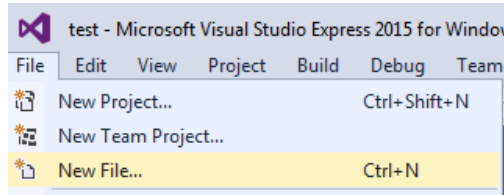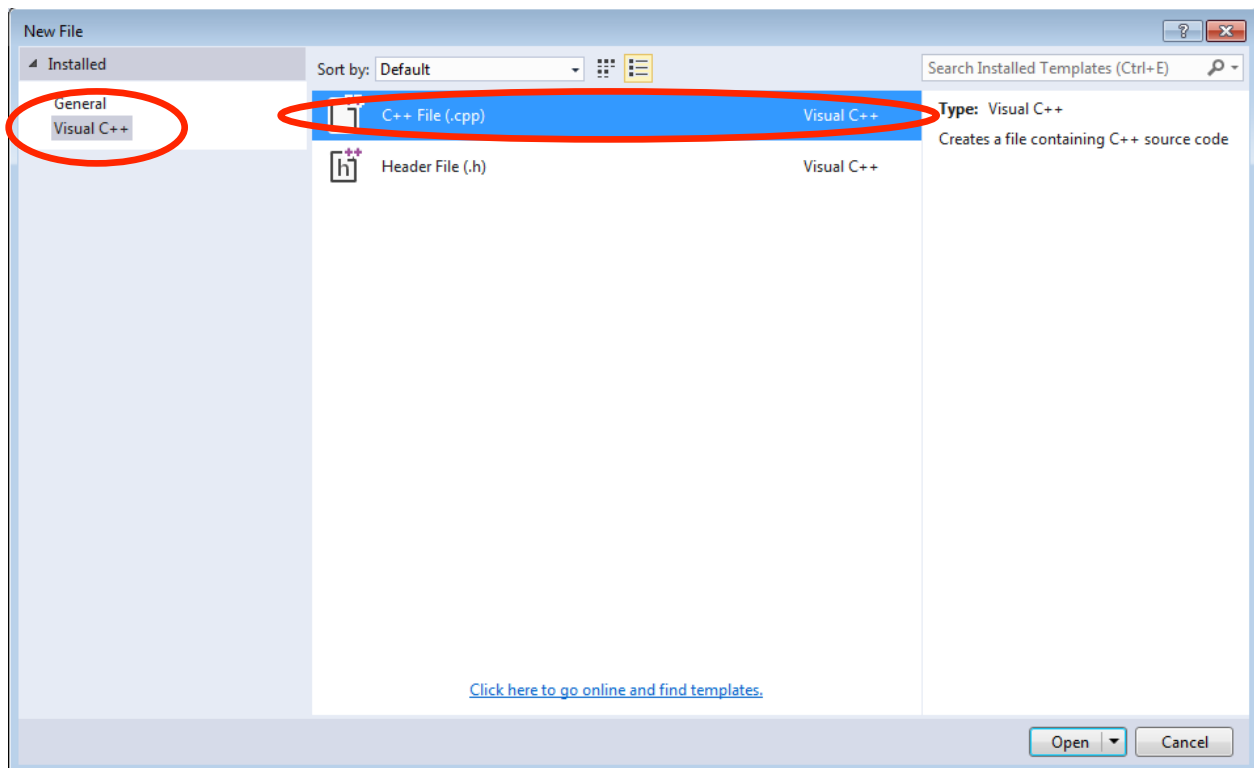

Figure 3: Creating a new file

Figure 4: Choosing the appropriate file type when creating a new file

4. To add the new file to the currently open project, it must first be saved to the project directory and then added as an existing item. To save the file, first select the option **Move <fname> into → <projname>** from the main menu, where **<fname>** is the default name for the unsaved file (typically "Source1.cpp") and **<projname>** is the name of your currently open project (in Figure 5 below, "test").
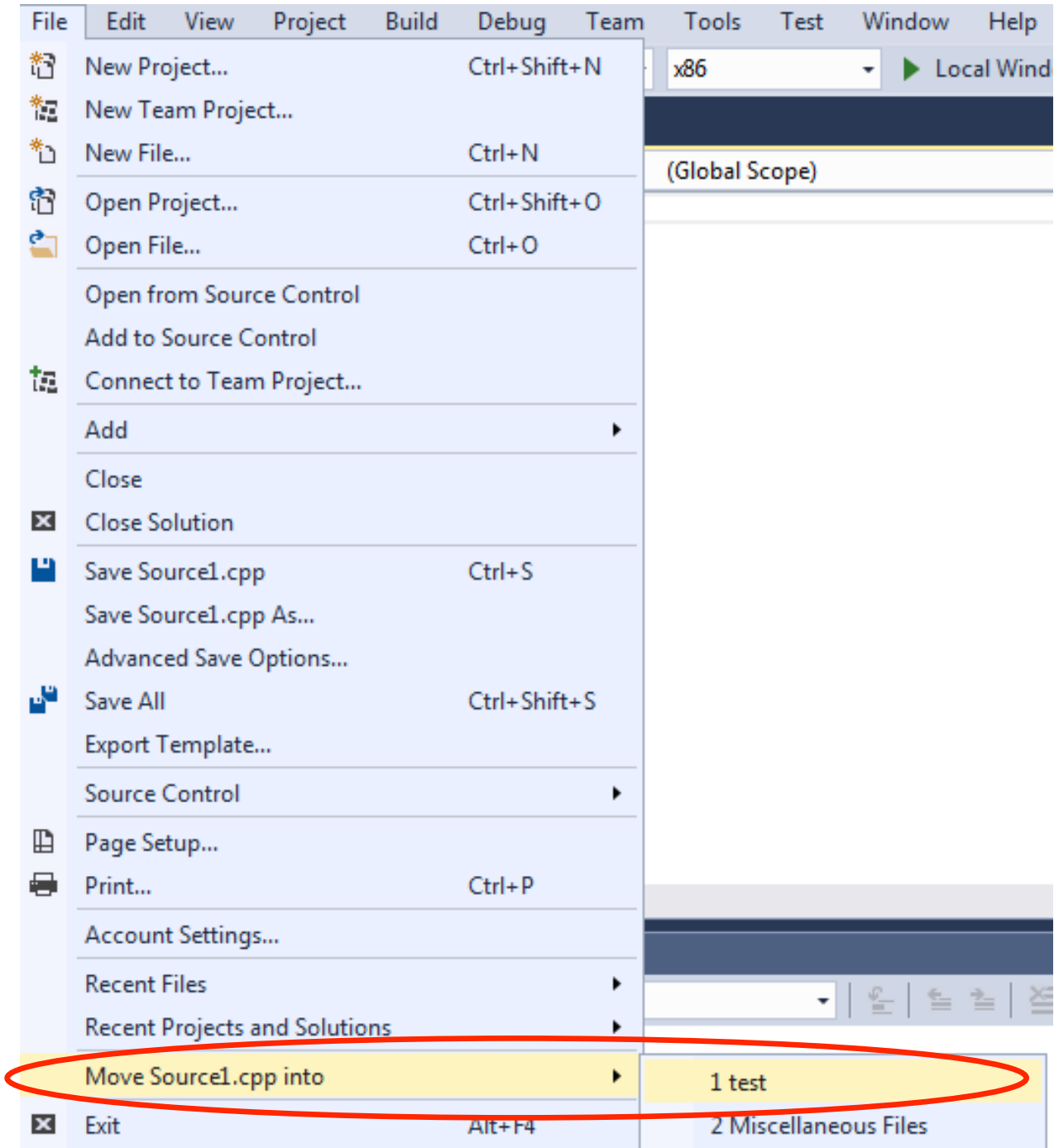

Figure 5: Moving the unsaved file to the project directory

5. In the window that appears, change the file type to a C source file by selecting **C Source File (*.c)** from the **Save as type:** drop-down menu. Type in the desired file name, as shown in Figure 6 below. If you have selected C Source File as your file type, you do not need to add the ".c" extension to the end of the file name. **Remember that, in your programming assignments, source file names are specified for you.**
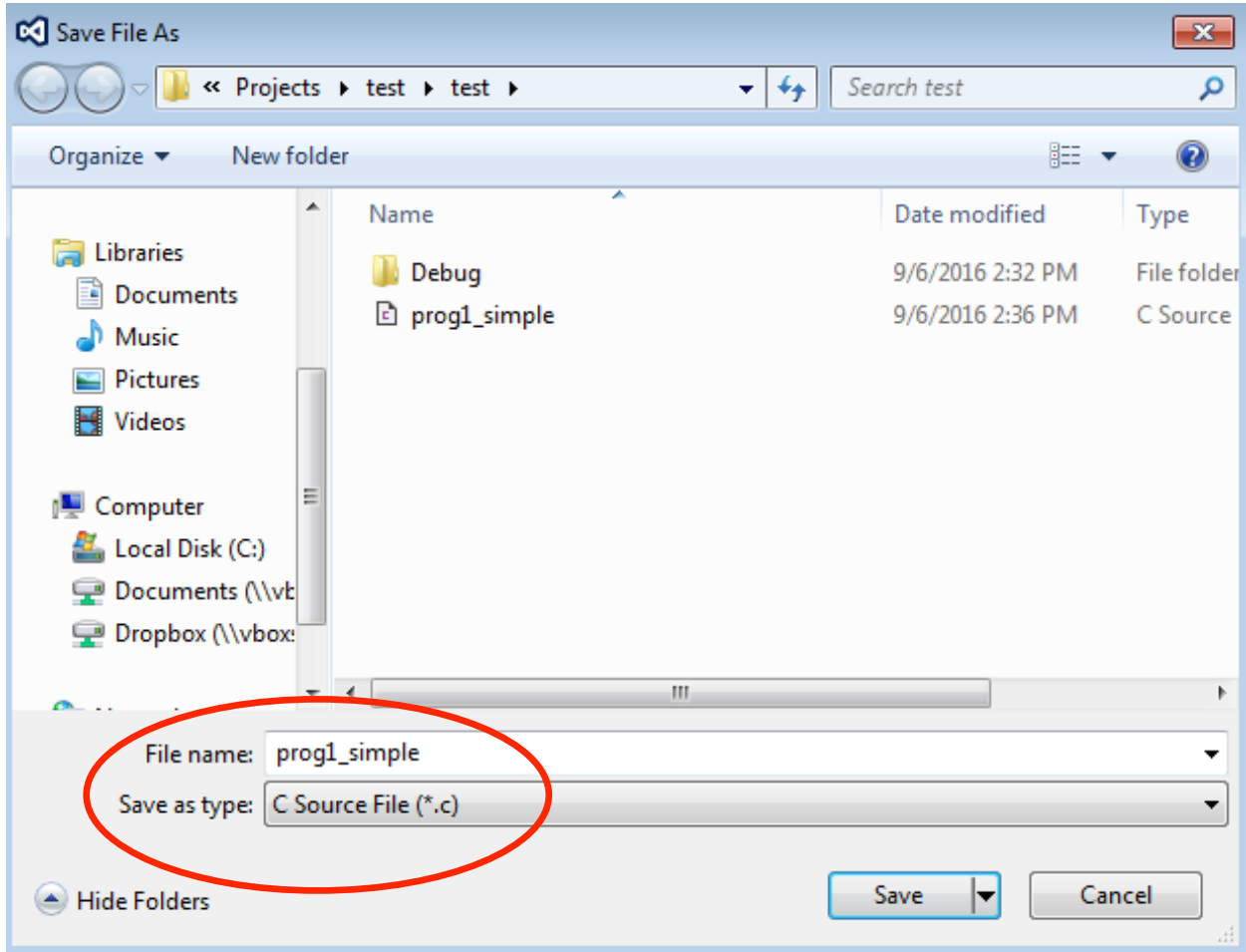
Figure 6: Saving the new source file to the project directory. Remember to select **C Source File (*.c)** as the file type, and ensure the file name matches the name provided in your programming assignment.

6. You can now add the file to the list of source files in your currently open project. If you don't add the new file to the source file list, that file won't be compiled when you build the project.

To add the file, right click on **Source Files** in the **Solution Explorer** window. Choose **Add → Existing Item** (Figure 7). In the window that appears, select the file that you saved in the previous step and choose **Add** or press return. Your file will appear under the Source Files folder and will be compiled when you build your project.
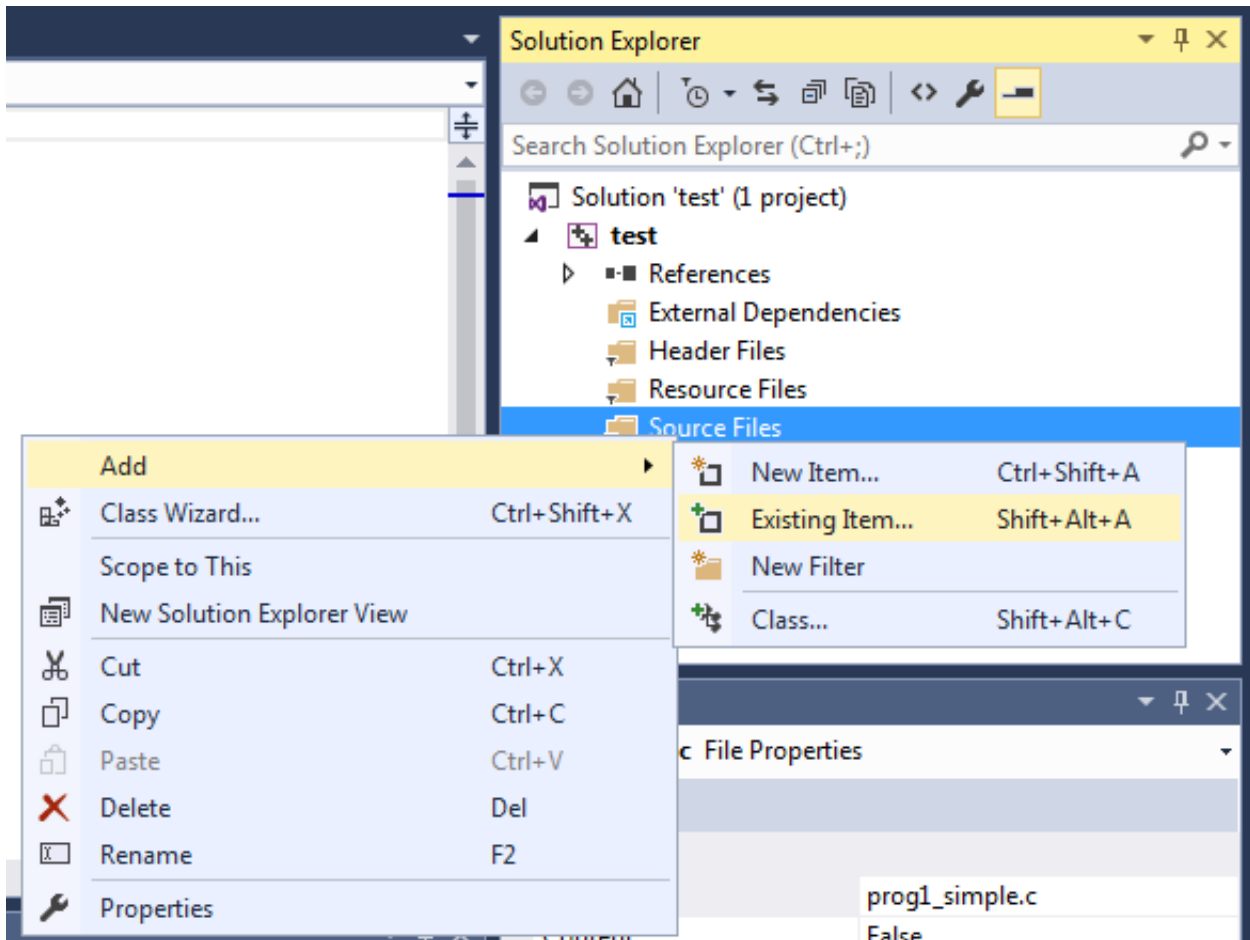

Figure 7: Adding an existing file to your project