



# Visual Studio

## INSTALLING VISUAL STUDIO 2015

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## INTRODUCTION

This document describes, step-by-step, how to install and setup Visual C++ 2015 Community which is one of the free versions of Microsoft Visual Studio. Let us get started first by downloading and installing Visual Studio 2015 Community Edition.

## INSTALLING VISUAL STUDIO 2015

Download your copy of Visual Studio 2015 Community Edition from Microsoft's website.

<https://www.visualstudio.com/en-us/downloads/download-visual-studio-vs.aspx>

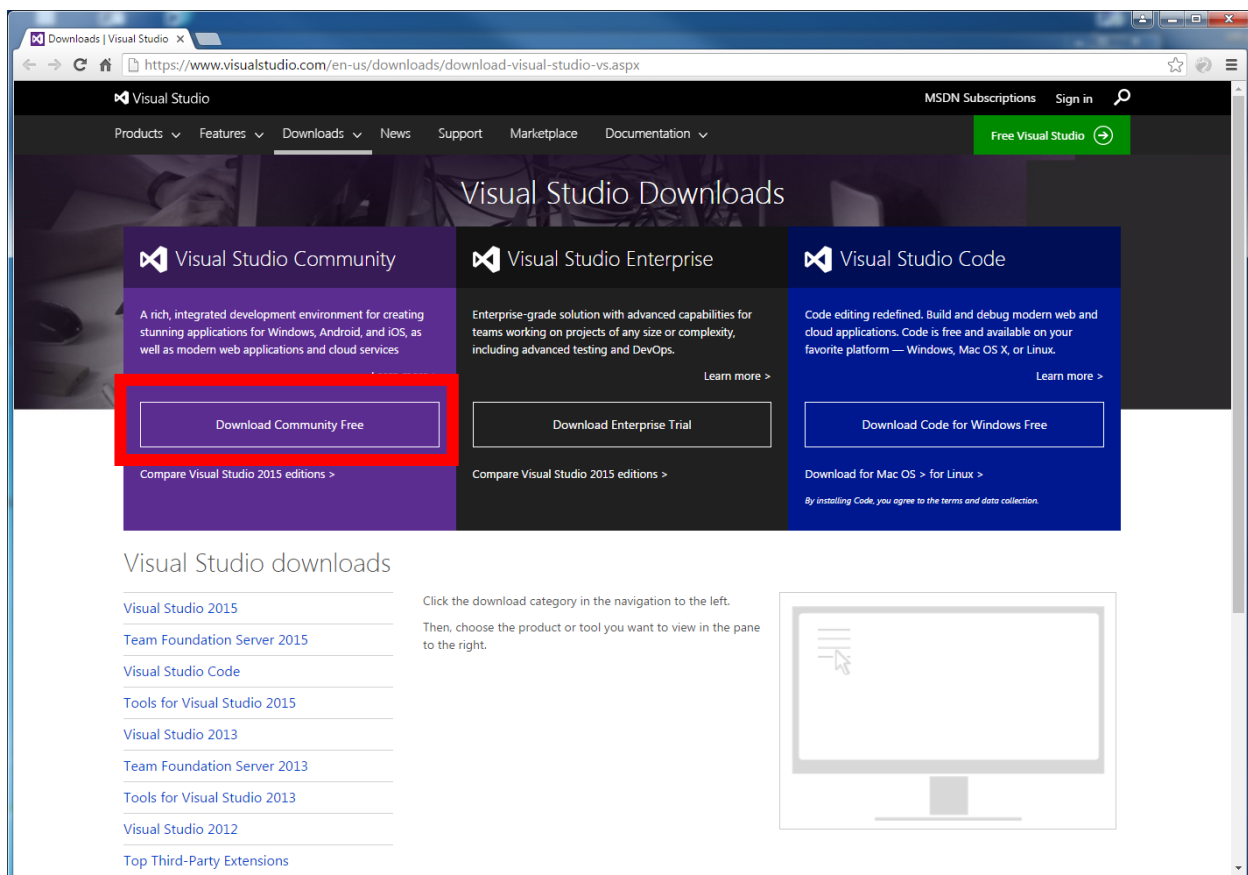


Figure 1. Visual Studio Community 2015 download web page.

Let's get started installing Visual Studio 2015 Community edition!

## INSTALLATION PROCEDURES

Launch the executable **vs\_community.exe** that was downloaded from the Microsoft website. The first screen you will see is the following.

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NOTE: In recent versions of Visual Studio, Microsoft decided not to include Visual C++ as a component to be installed for the "Default" installation. Therefore we need to make sure it gets included by performing a Custom installation.

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Select **Custom** and choose what you want however make sure **Programming Languages – Visual C++** and **Common Tools for Visual C++ 2015** are checked. This course will not need anything other than **Visual C++** but leaving other items checked is okay. Refer to Figure 3 for the Custom selections. Unlike previous Visual Studio version installers selecting Default will install a minimal set of software which will not include Visual C++.

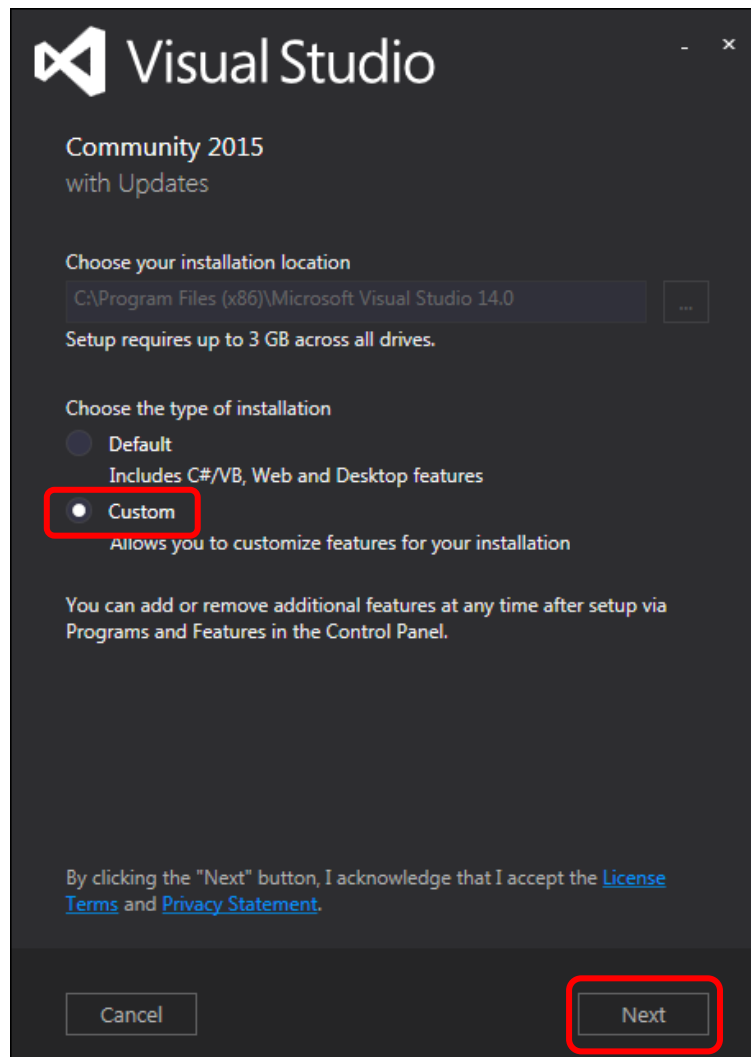


Figure 2. Visual Studio Community 2015 installation start screen – select Custom

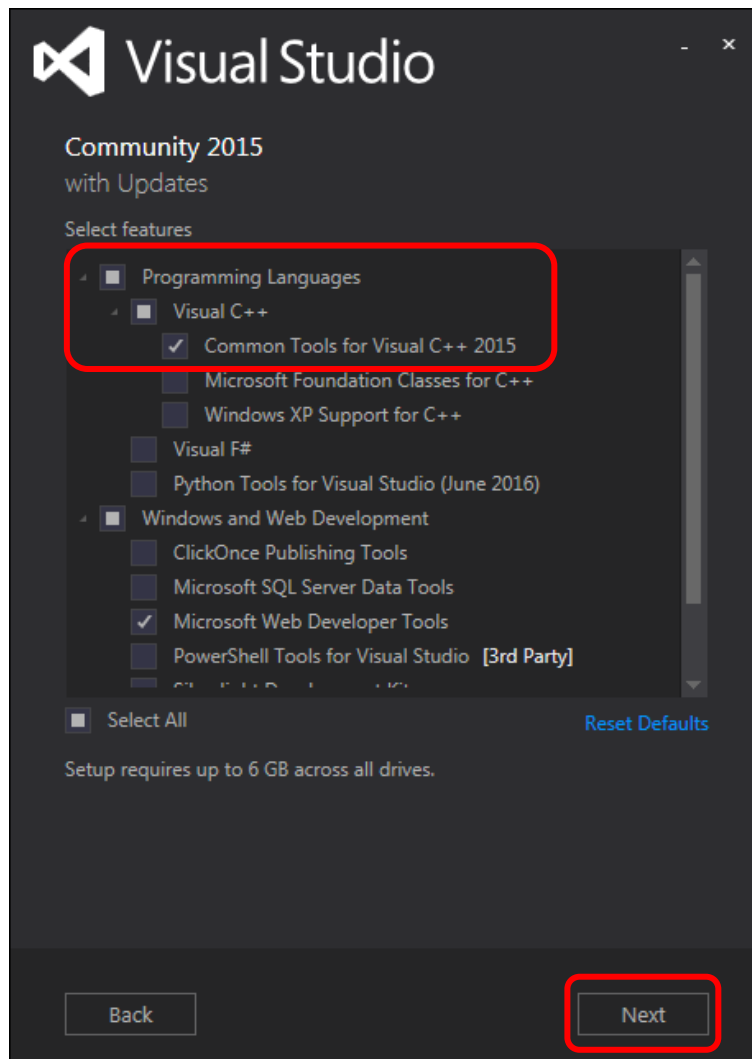
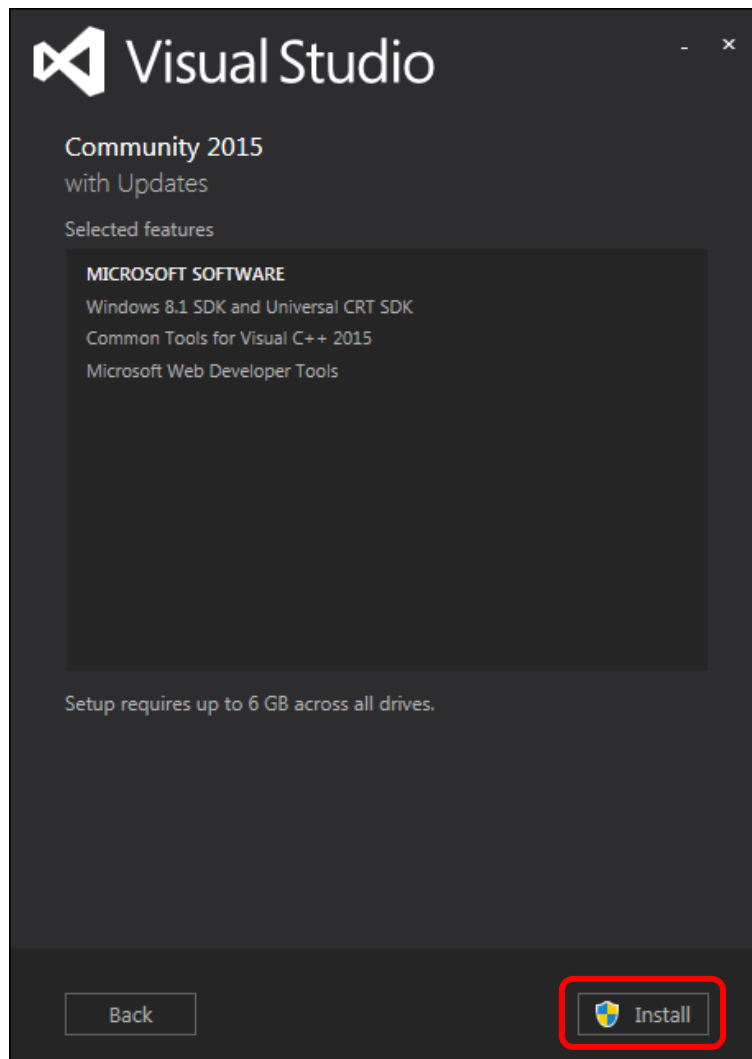


Figure 3. Custom installation dialog.

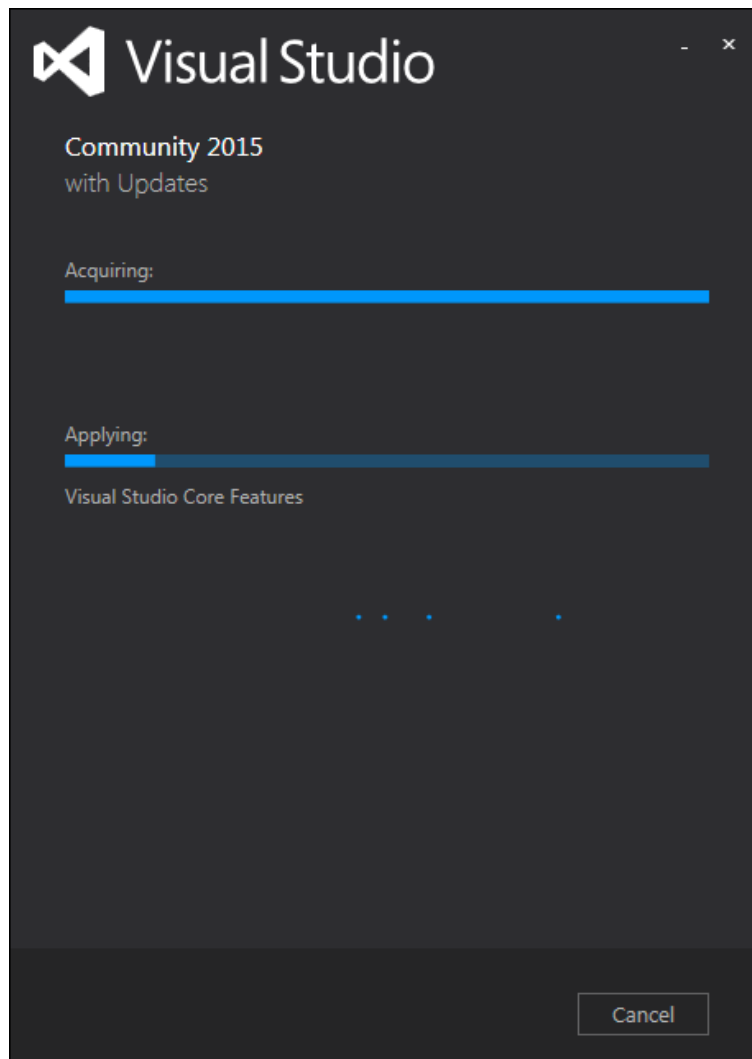
After selecting **Visual C++** and **Common Tools for Visual C++ 2015**, click Next.

The software that will be installed is shown on the next dialog. Click **Install** to start the installation.



**Figure 4. Selected features dialog.**

Figure 5 shows the progress of the installation. The installation will take many minutes so be patient.



**Figure 5. Installation progress.**

Figure 6 shows the final screen after the installation has successfully been installed.



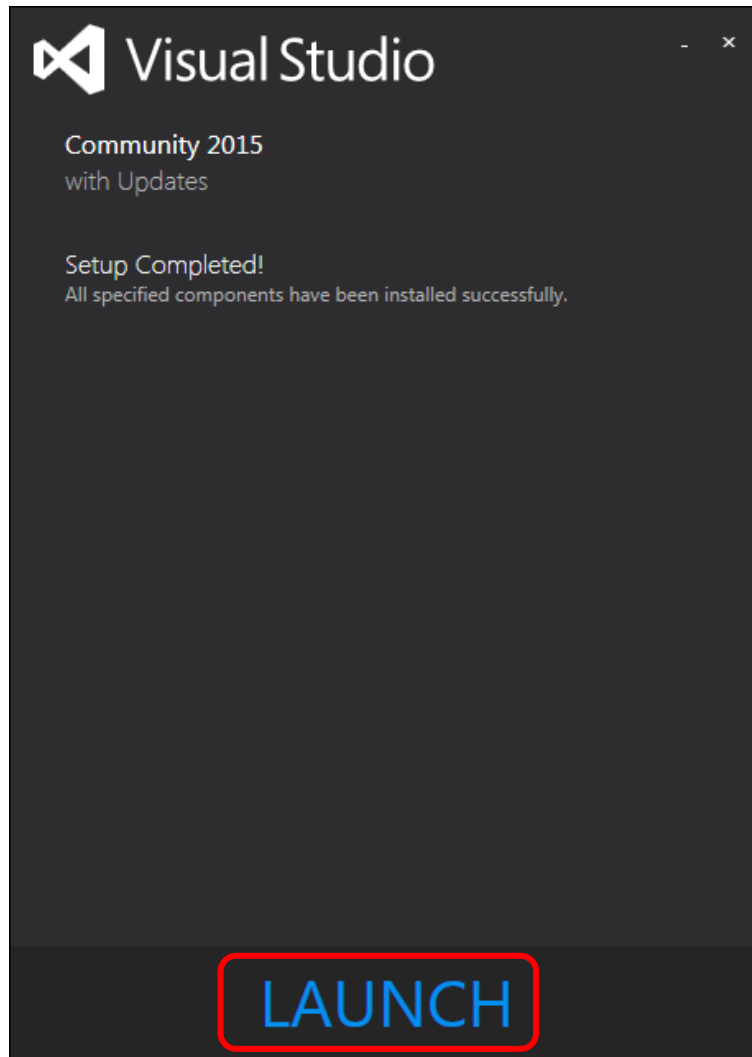


Figure 6. Installation complete, final screen

That's it! We've just installed Visual Studio 2015 Community Edition which is all that is necessary for many of the programming courses at the Game Institute. Click **LAUNCH** to start Visual Studio 2015. There are a couple more dialogs that will be presented the first time you run Visual Studio.

You will be presented with a login screen. If you already have a Microsoft account you can sign in using that account or you can click Sign up to create an account. An account is not necessary for this course so you can just click "Not now, maybe later" to continue.

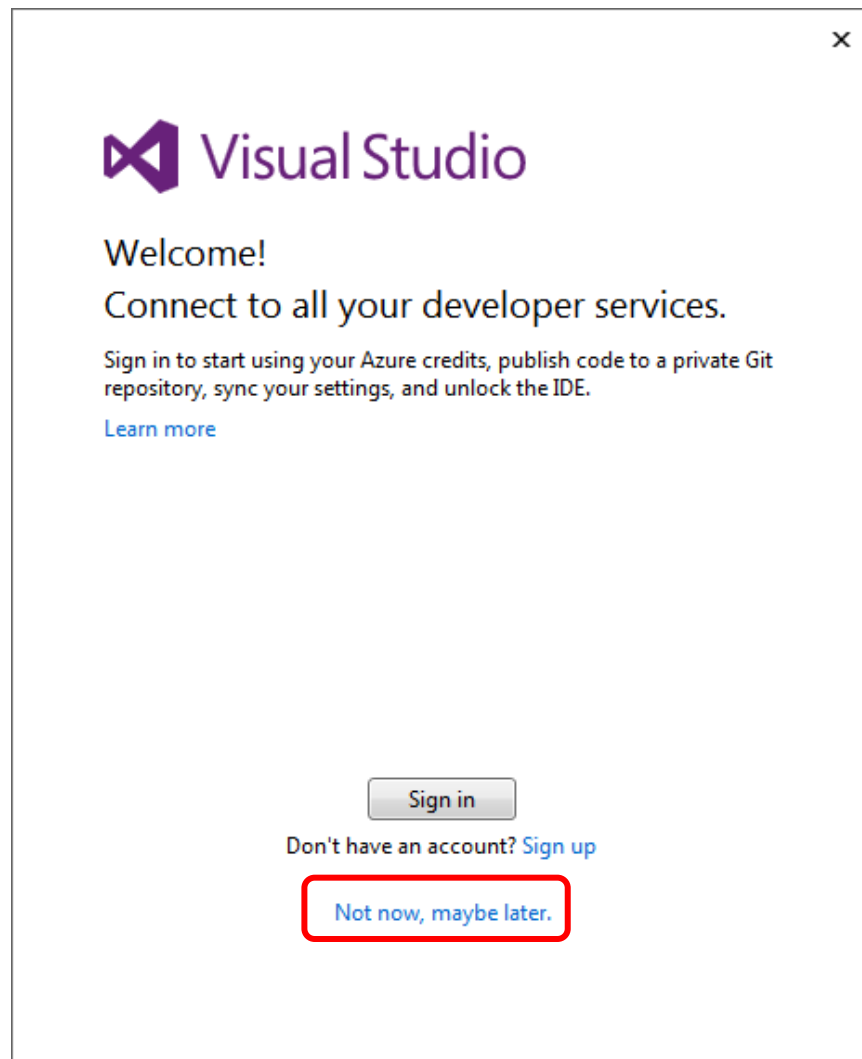


Figure 7. Login screen.

The next screen shown in Figure 8 is will allow you to select environment settings such as the color theme and development settings. The Dark theme is particularly easy on the eyes so that is what was chosen for this tutorial.

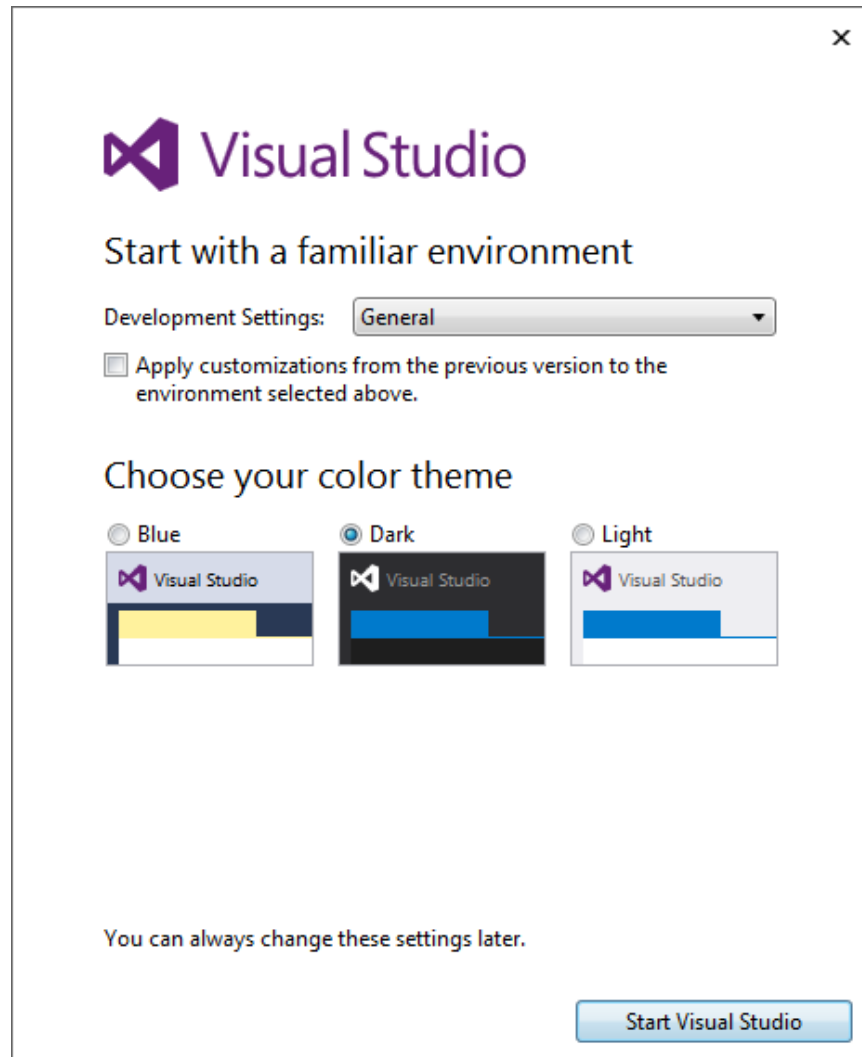
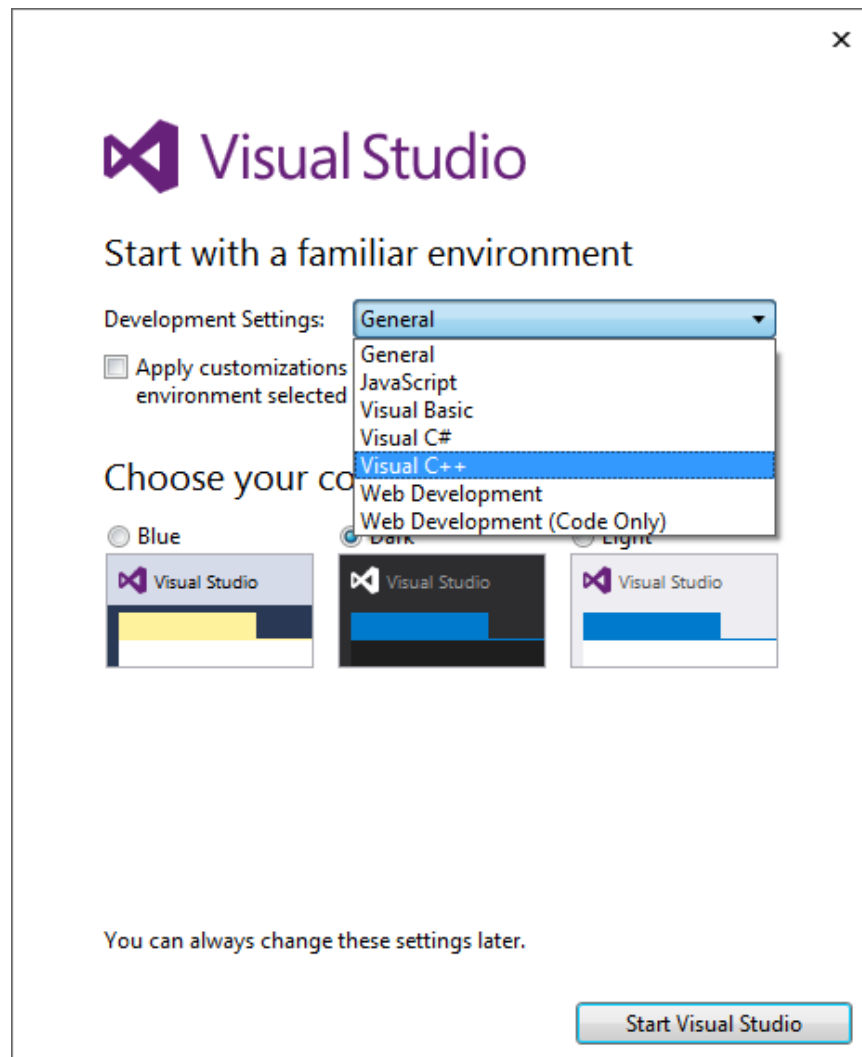


Figure 8. First time settings after launching Visual Studio 2015.

Select Visual C++ from the Development Settings drop down list. This will set the common keyboard keys for building and other common settings used for C++ development. Note that both the color theme and **Development Settings** can be changed at any time later on under **Tools - Options**.

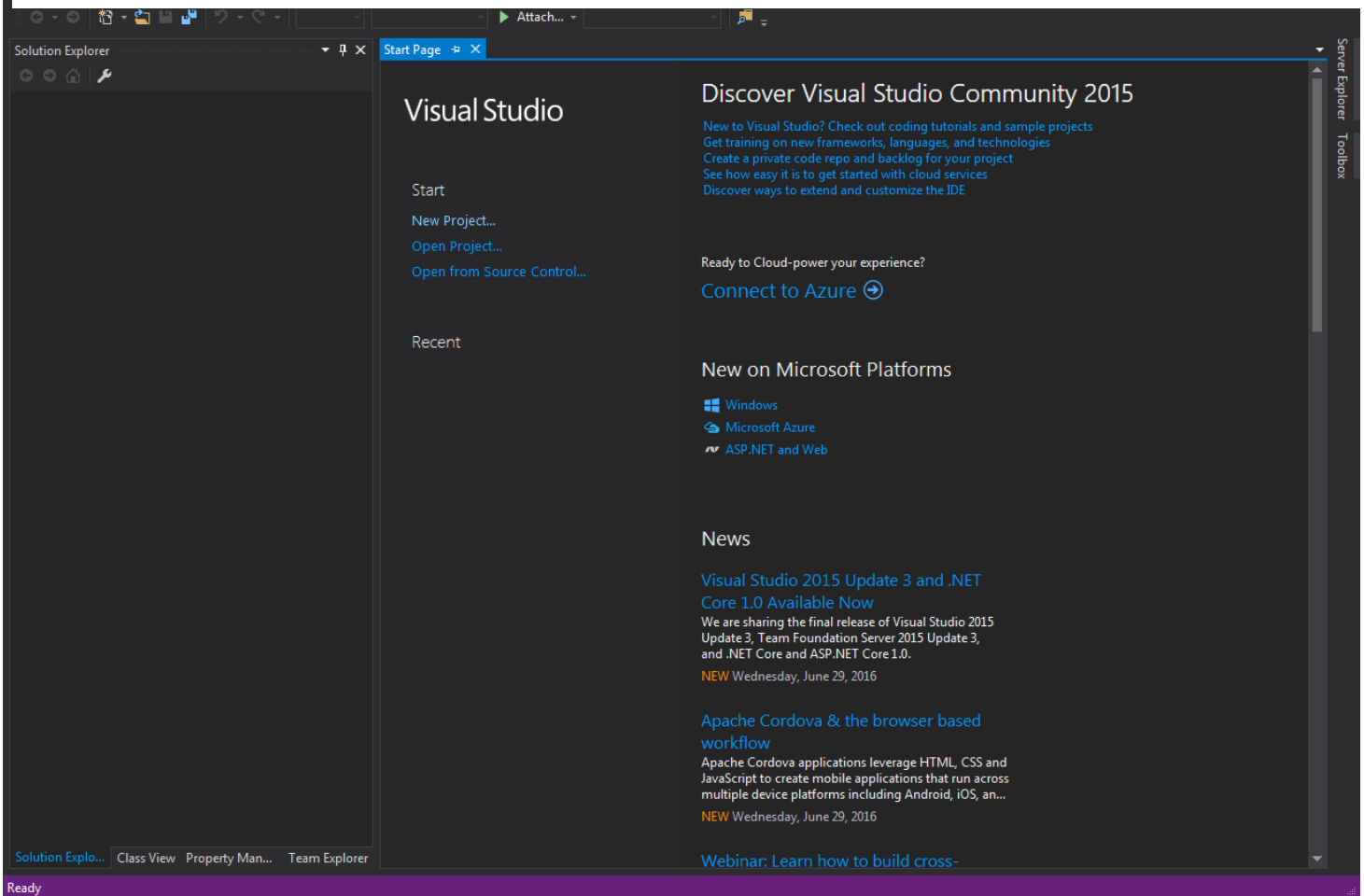
You do not need to check **Apply customizations from the previous version to the environment selected above** unless you have installed another version of Visual Studio already and want any custom settings to be applied to this installation.



**Figure 9. Select Visual C++ for the Development Settings.**

When you launch the app for the first time you will get this window shown in Figure 10.

Figure 10. Visual Studio 2015 Community Edition



## UPDATING OLDER PROJECTS

Visual Studio 2015 can open older projects like Visual Studio 2013 and earlier. When you open the project you may be asked to update the project. In this case the project will be updated to Visual Studio 2015. You can choose to update the project by clicking "OK" or leave the original version the project was written in if you click "Cancel". However this depends on the version. Versions older than Visual Studio 2010 will require you to update due to major changes in the Project file formatting. In fact Visual Studio 2010 and higher project files were renamed to `.vcxproj` from the older `.vcproj`.

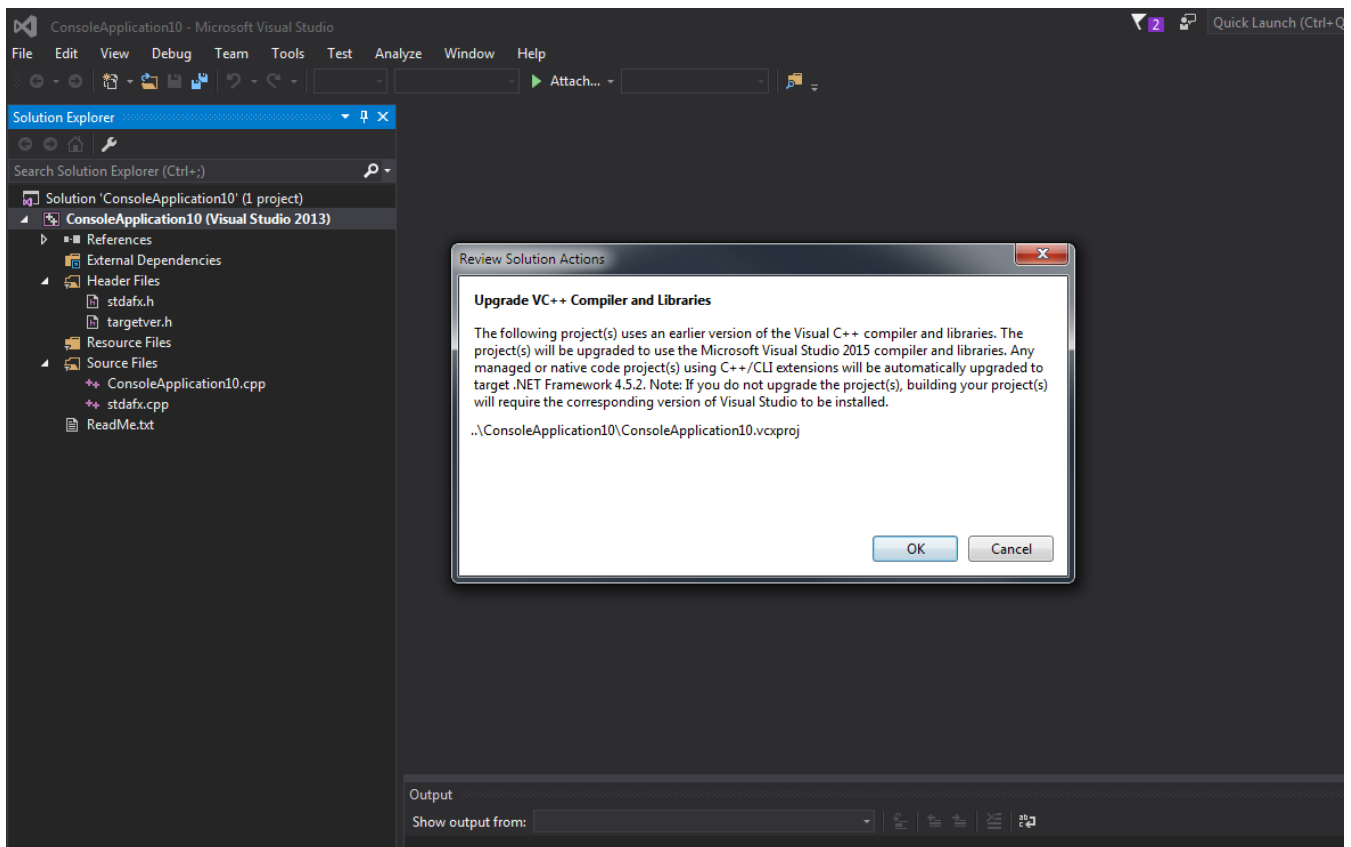


Figure 11. Update Project prompt

If you select "OK" then the Project and Solution files will be automatically updated to this version of Visual Studio. All Projects in the Solution will be updated however for these courses we only work with one. Updating typically works well.

You can view the compiler that will be used to build your project, also known as the Platform Toolset, in the **General** tab under **Project – Properties**.

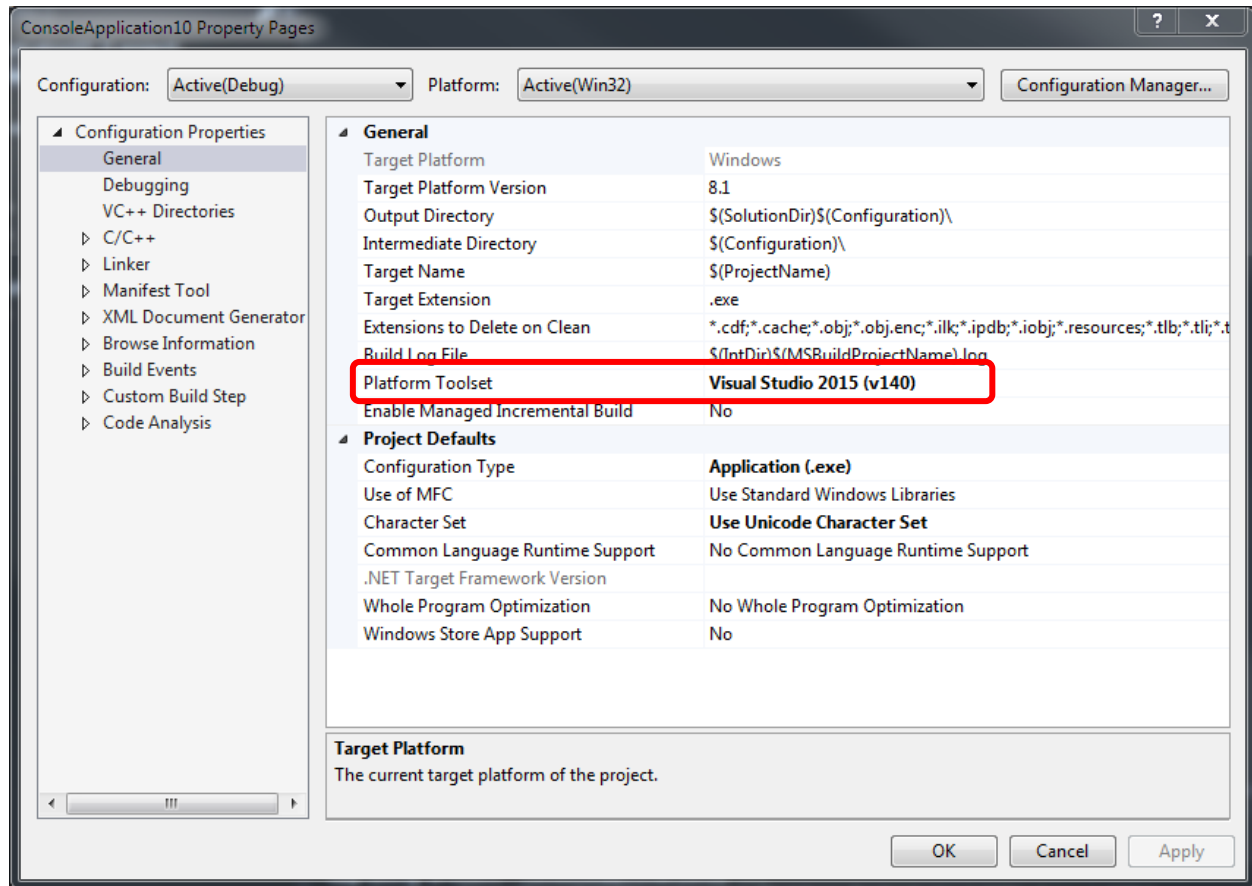


Figure 12. Platform Toolset showing successful update to Visual Studio 2015

If you choose the "Cancel" button in the Upgrade VC++ dialog box the Platform Toolset will match the version of Visual Studio the project was originally written in. The project will compile using that version of Visual Studio assuming it is installed on your system.

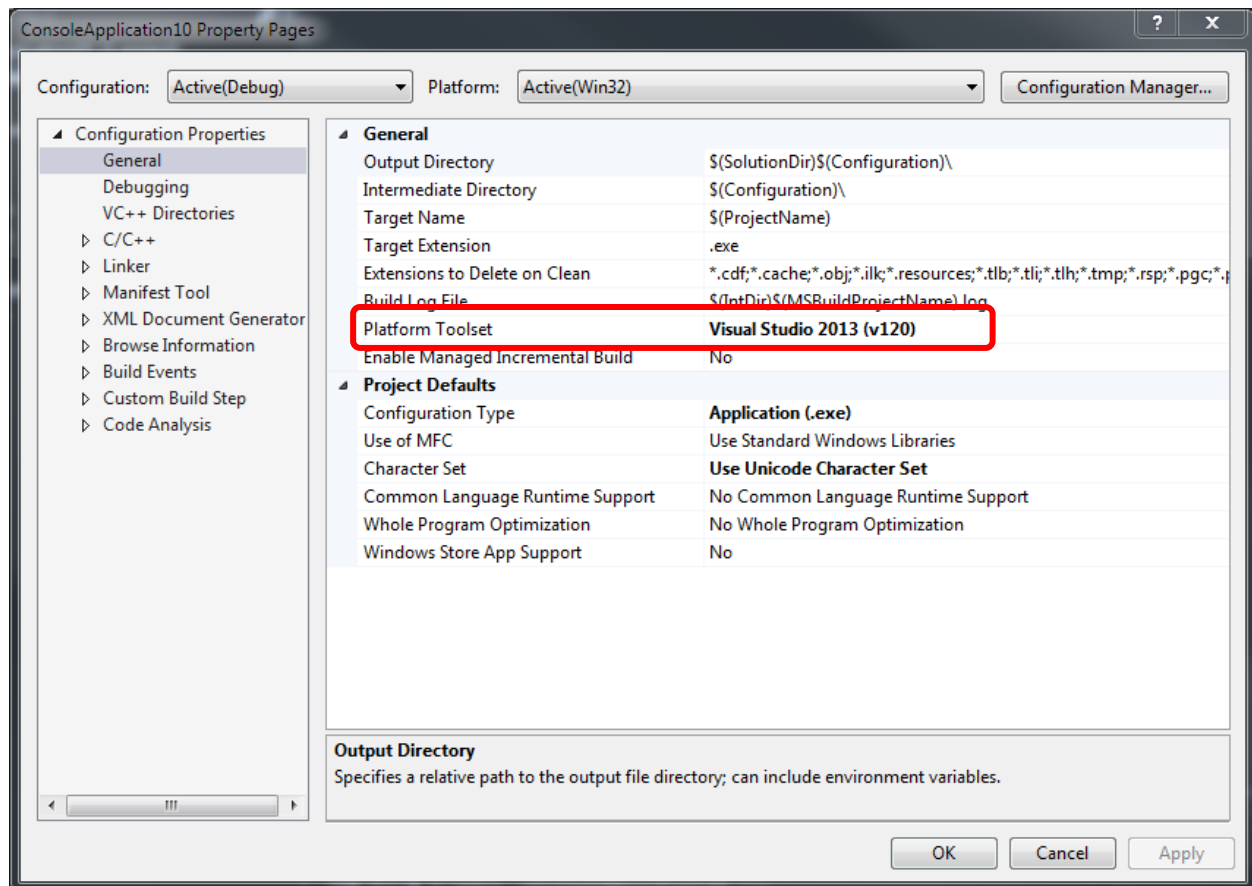


Figure 13. Platform Toolset showing project in original version. In this case, Visual Studio 2013.