Download & Install Microsoft Visual Studio **Ultimate** 2013

System requirement:

Supported operating systems
- Windows 7 SP1 (x86 and x64)
- Windows 8 (x86 and x64)
- Windows 8.1 (x86 and x64)
- Windows Server 2008 R2 SP1 (x64)
- Windows Server 2012 (x64)
- Windows Server 2012 R2 (x64)

Required components
- This version of Visual Studio works best with Internet Explorer 10 or higher. If Internet Explorer 10 is not installed on your computer, some features might not work as expected.

Hardware requirements
- 1.6 GHz or faster processor
- 1 GB of RAM (1.5 GB if running on a virtual machine)
- 10 GB of available hard disk space
- 5400 RPM hard disk drive
- DirectX 9-capable video card that runs at 1024 x 768 or higher display resolution

Download & Install:

Step 1:
Log in Dalhousie CS MSDN with your CSID. https://msdnaa.cs.dal.ca/

Step 2:
Find and download "Visual Studio Ultimate 2013 32-bit (English**)" (Ultimate version includes everything you need)**.

Step 3:
Open and click "vs_ultimate.exe" to install.

Step 4:
Just use default install directory, accept the license and select all components to install.

Download & Install Intel Parallel Studio XE Suites for Windows

Download & Install:

Step 1:
Access "http://software.intel.com/intel-education-offerings" and click "STUDENT".

Step 2:
Click "Intel C++ Studio XE for Windows", accept the agreement and fill your information to start downloading.

Step 3:**(Make sure you have installed and closed visual studio before doing below step).**
Click "c_studio_xe_2013_sp1_update1_setup.exe" to install. The installer will extract files for a while.
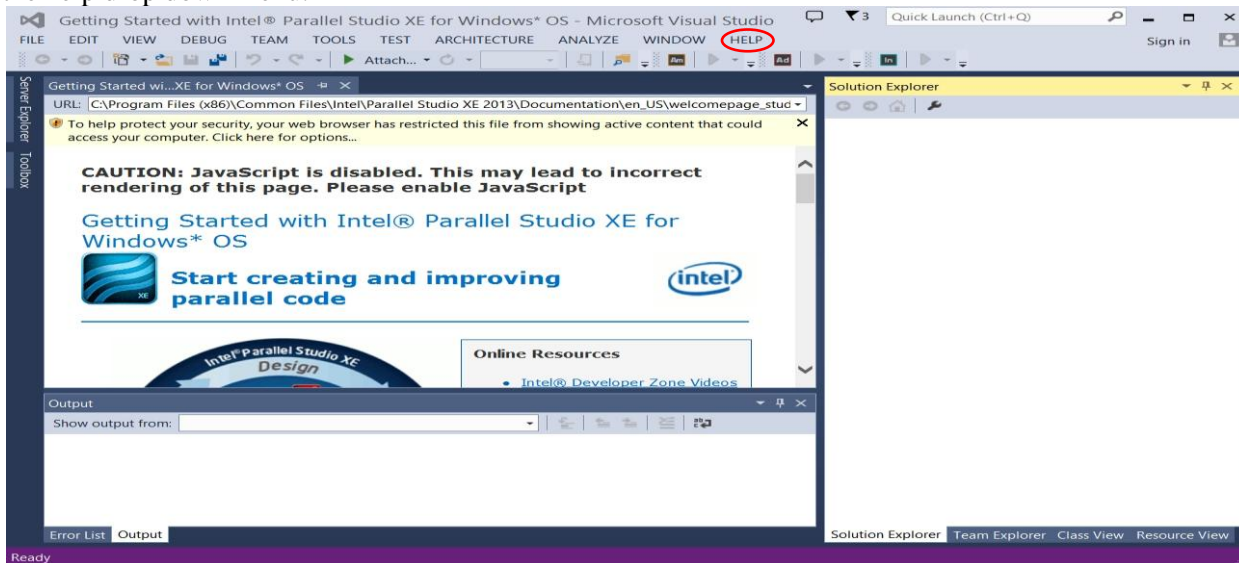
Step 4:
Accept the license and fill into the activation number get by email when you request the image.

Step 5:
Click next to finish install.

PS:
After you install and open Intel Parallel Studio you can find lots of well organized tutorial materials from the help drop down menu.

<p align="center">To create and compile a c/c++ program</p>

To create a solution:

1. From the main menu select File -> New -> Project
2. In the New Project window:
   Under Project types, select Win32 - Win32 Console Application
   Name your project, and specify a location for your project directory
   Click 'OK', then 'next'
3. In the Application Wizard:
   Select Console application
   Select Empty project
   Deselect Precompiled header
4. Once the project has been created, in the window on the left hand side you should see three folders:
   Header Files
   Resource Files
   Source Files
5. Drag and drop your c source code into the project folder or right click on source/head directory to add an exist or new item.

To compile and run:

1. Press the green play button.
2. By default, you will be running in debug mode and it will run your code and bring up the command window.
   To prevent the command window from closing as soon as the program finishes execution, add the following line to the end of your main function:
   getchar();
   This library function waits for any input key, and will therefore keep your console window open until a key is pressed.

<p align="center">To compile Cilk/OpenMP program</p>

1). Choose "project" -> "Intel Composer XE 2013 SP1" -> "use Intel C++".

2). Click "project" -> " 'name of project' properties ".

3). Click "C/C++" -> "All options" -> "enable OpenMP".

4). Cilk is enabled by default.

<p align="center">To use Amplifier XE in Visual Studio</p>

Things to remind:

1). Disable "Hype-V" feature, otherwise you may get PMU source failed error.

"control panel"->"turn windows feature on or off"->disable "Hype-V"

MPICH Download, Install and Integrated with MS Visual Studio

Reference:

http://nick-goodman.blogspot.ca/2012/02/using-mpich-from-ms-visual-studio-2010.html

Things to remind:

1). Download 32bit version if your Visual Studio is 32bit version, if you can't use installer, you can also download "unofficial binary packages" instead.

2). Download address "**http://www.mpich.org/downloads/**".

3). Run cmd with **administrator privilege**.

4). If you want to know more about the package and the program, please access "**http://www.mpich.org/documentation/guides/**".

5). MPI examples "**https://computing.llnl.gov/tutorials/mpi/exercise.html**".