Getting Assembly on Windows

To enable usb serial:
Download and install from:
http://www.wch.cn/download/CH341SER_EXE.html

Check for your COM port:
Open your device manager and click on the tab for COM ports. This should display COMX.

Create a working directory:
Create a folder and ensure that you know the path to the folder.

To compile (GAVRASM):
Download & install gavrasm

- Follow this link http://www.avr-asm-tutorial.net/gavrasm/v36/gavrasm_win64_en_36.zip

- Copy the file, gavrasm.exe to your working directory

- Open Command Prompt

- Change to your working directory using cd <folder name> (cd .. to go back) and dir to view files in folder.

- You should be able to compile your AVR assembly code by navigating to the location of your .asm file(s), and simply entering **gavrasm {$NAME}.asm**, this should create your .hex file in the current directory with the same name as your .asm file.

To send the .hex to the arduino:
Download **avrdude** from:
http://ftp.twaren.net/Unix/NonGNU/avrdude/avrdude-6.1-mingw32.zip

Decompress the downloaded file and copy avrdude.exe and avrdude.conf to your working directory

Open command prompt, navigate to your working directory as above

To upload (ensure you are in the correct folder and in one line):
avrdude -v -patmega328p -carduino -P <your_COM port> -b 57600 -U flash:w:<your_hex_filename>