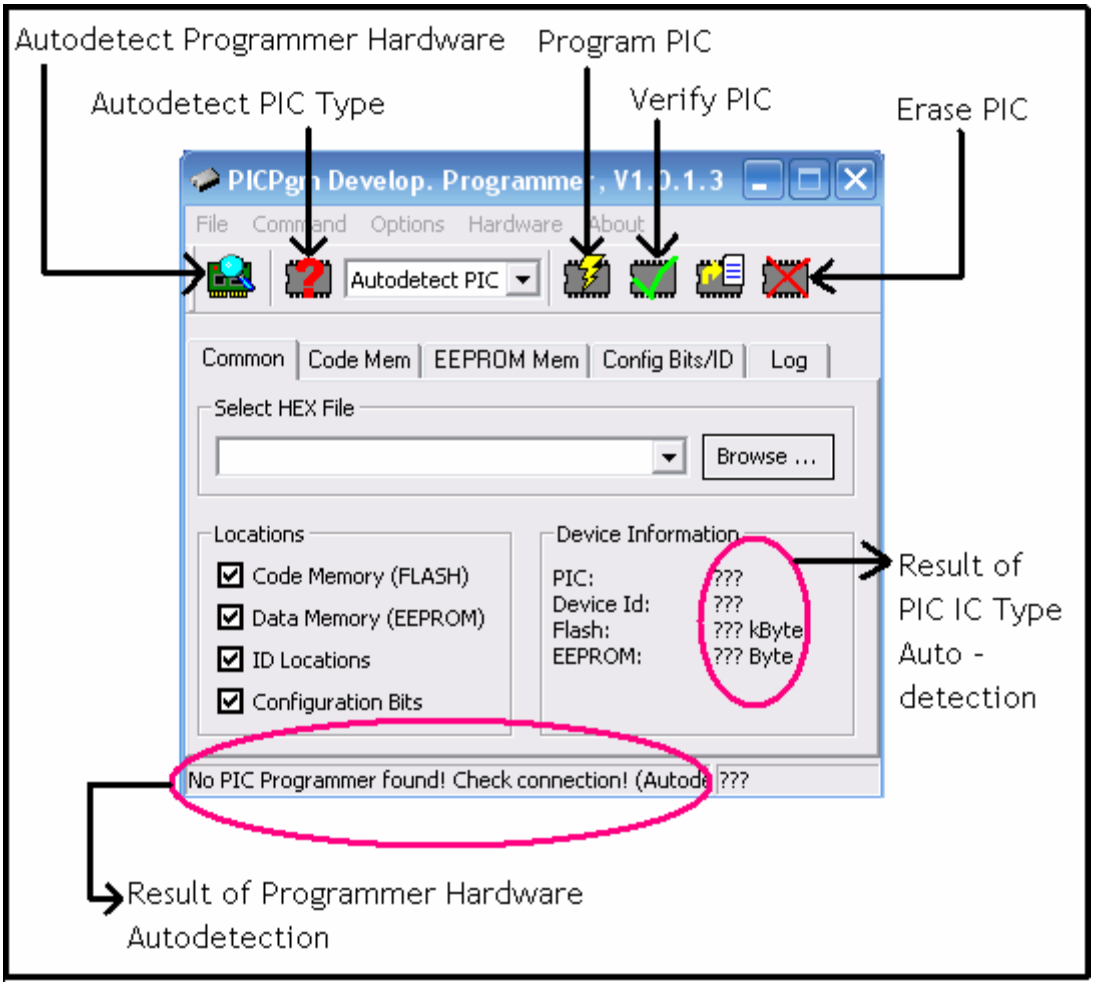
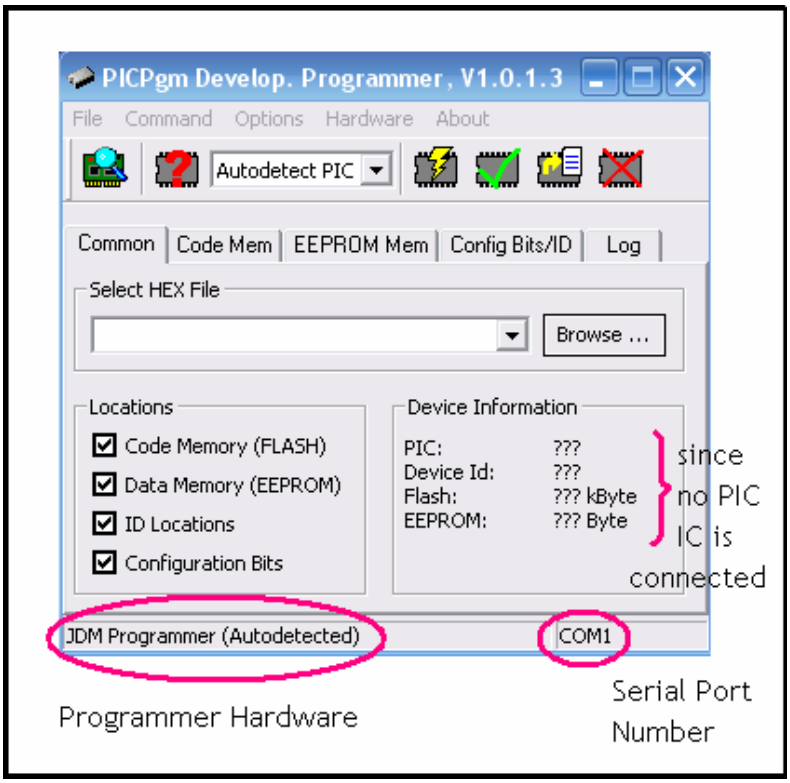
PIC Serial Programmer Tutorial (Software)

We use the **PICPgm Develop Software** for writing our codes into the Flash Memory of the PIC Microcontroller. **PICPgm** is very good open source software for Windows. Works well with Windows 98, XP and Vista. It supports even our **JDM** based programmer circuit.

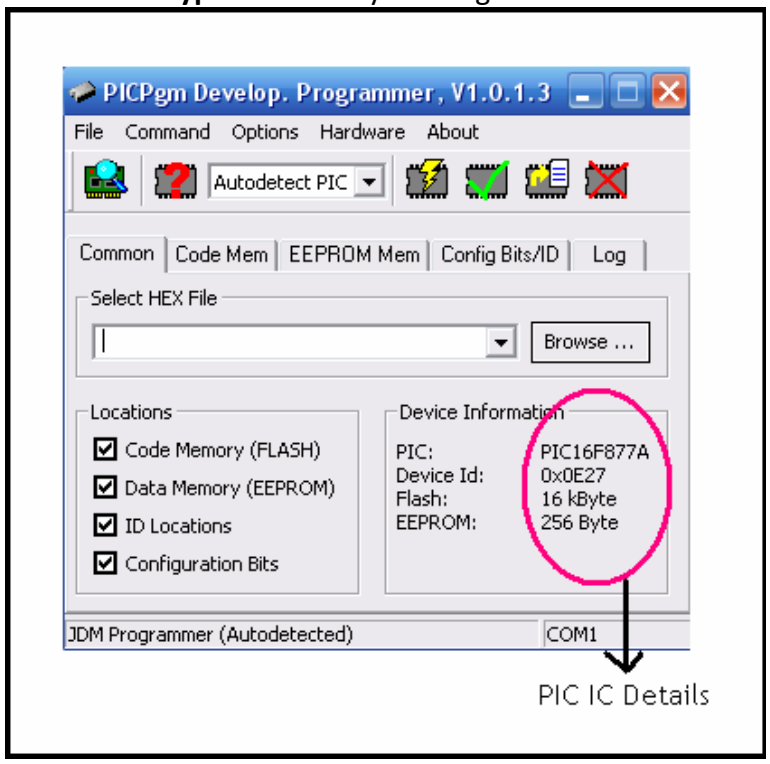
Here is a Screenshot of the software as you open it (*without connecting any hardware circuitry*).



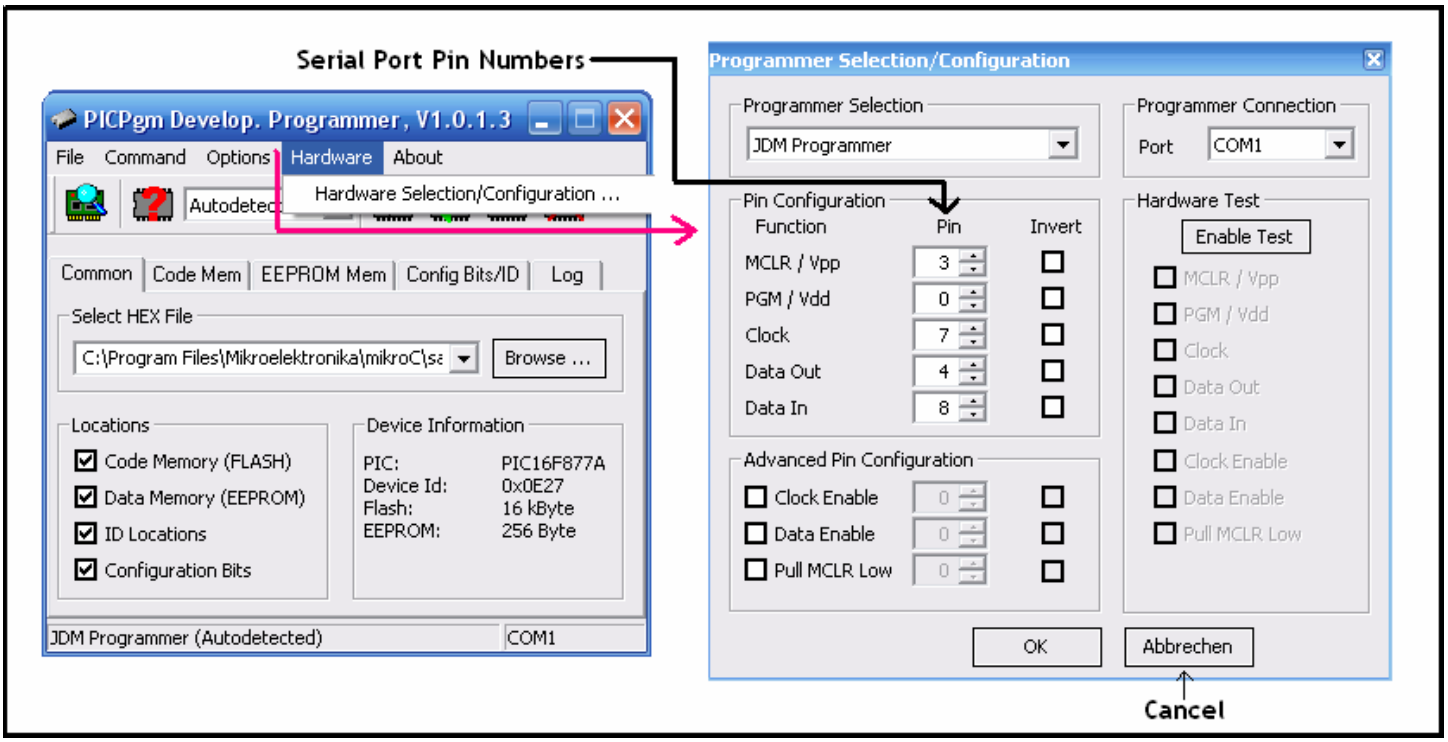
Now, if you just connect the Programmer Hardware PCB (*without the actual PIC Microcontroller IC placed on it*) to the Serial Port of the Computer CPU (*through a Serial Port Connection Wire*), and press the '**Autodetect Programmer Hardware**' Button … you will get to see the type of Programmer Hardware, as follows:



Now additionally, if you place any 40-pin PIC Microcontroller IC (*belonging to the 16F or 18F Series*) on the zip socket, and press the '**Autodetect PIC Type**' button … you will get to see the IC Number.



(*You can also program a non-40-pin PIC IC using the external pin connector, instead of using the zip-socket*)
If the JDM programmer is not automatically detected, then you can try setting Hardware settings from **Hardware** option. See the screenshot for setting it up.

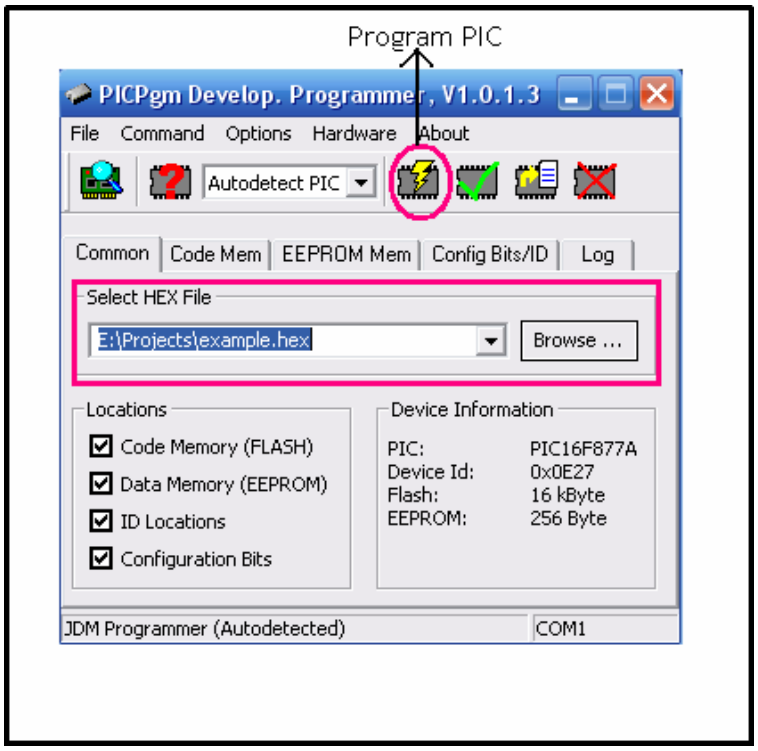


Any program that you wish to feed into the (Flash memory of) Microcontroller, must be in the Hex (*Hexadecimal*) File Format. i.e. with the '.hex ' file extension.

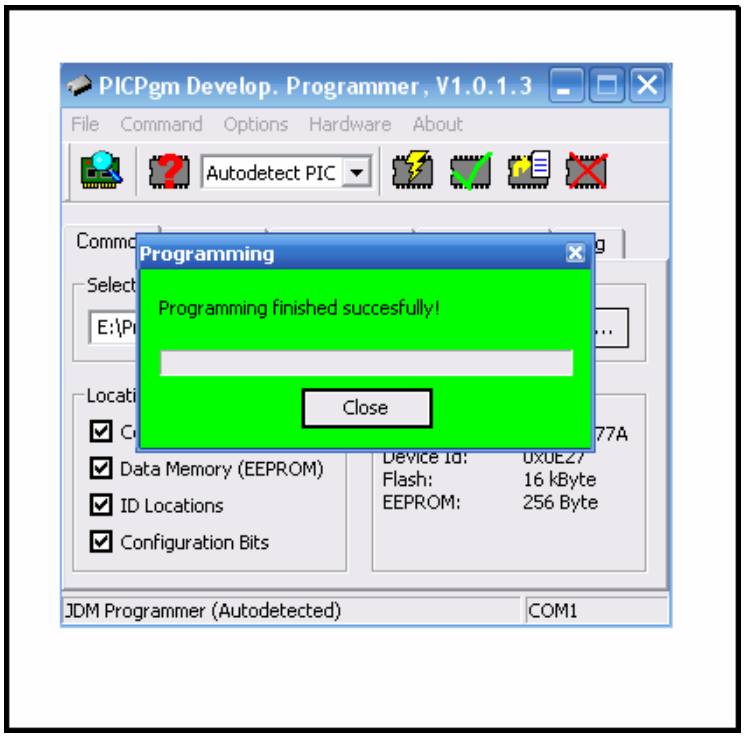
You can write for yourself, the program in any higher-level language (for example: **C**). But then you need another software, or more specifically, a compiler; that compiles your higher-level language program into the Assembly language (*by default in Hex Format*), which can be understood by the specific Microcontroller in use.

There are various Compilers available, which are made specifically to program any type of PIC Microcontroller. For e.g.: *MikroC, MPLAB*. Each one of them will create a *.hex file of your required program.

To feed the .hex file into the microcontroller, locate the .hex file through the browse function, and use the '**Program PIC**' button.



If everything is fine, then you will get a Green message window signifying the successful process of burning (*programming*) the file into the Target Microcontroller.



Now, your PIC IC is fully programmed (*as per the fed code*), and can be removed from the ZIP-Socket for further use.