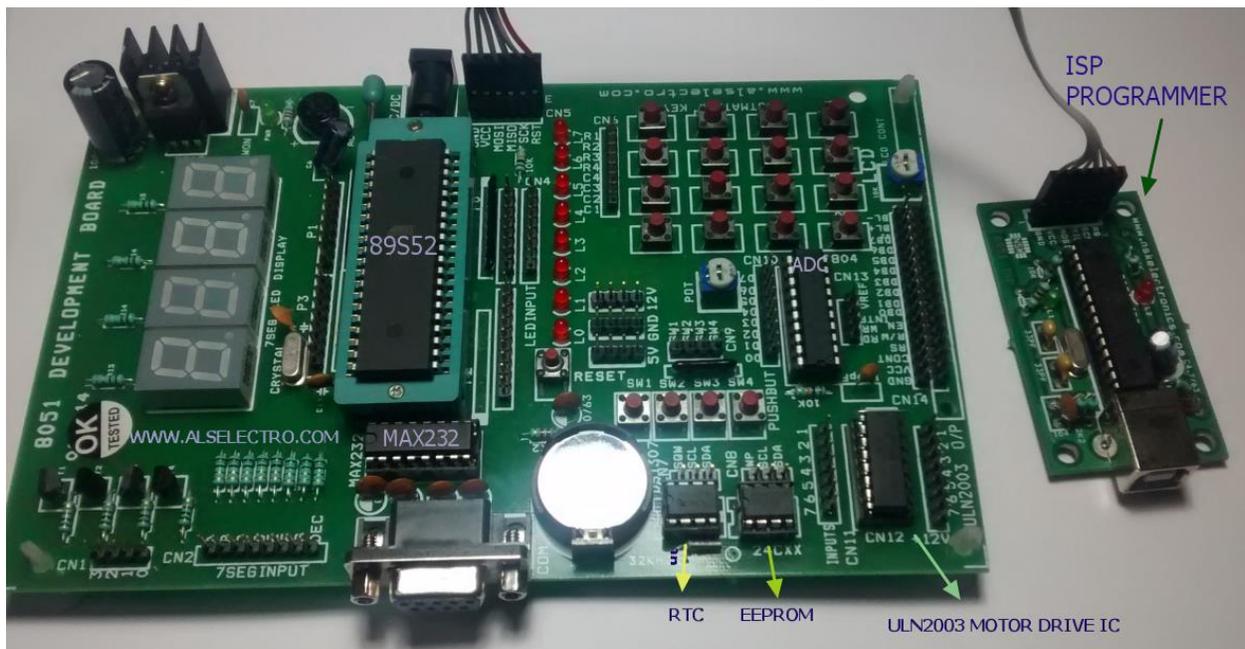


# 8051 development board

[www.alselectro.com](http://www.alselectro.com)

The 8051 development board can be used as a learners kit as well as a project board. An ISP programmer is required to fuse the HEX file on to the target 40 pin IC (89S 51 or 89S 52).

The HEX file is created using KEIL software.

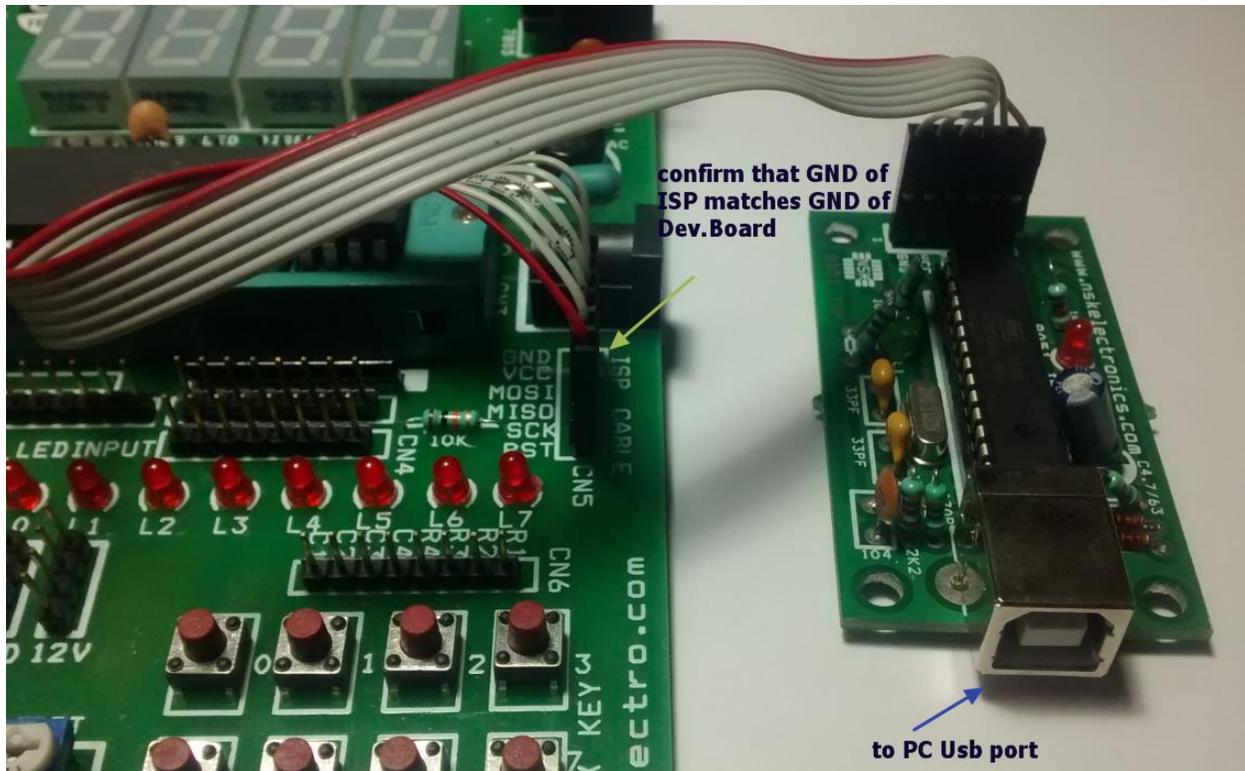


Care should be taken while connecting the ISP programmer with the Development board. Look out for the GND connection printed on the boards .

**The GND of ISP must match the GND of Development board.**

Connect the USB cable of ISP programmer to USB port of your PC.

No external power is required for the Development board. Power is sourced from USB port of PC.



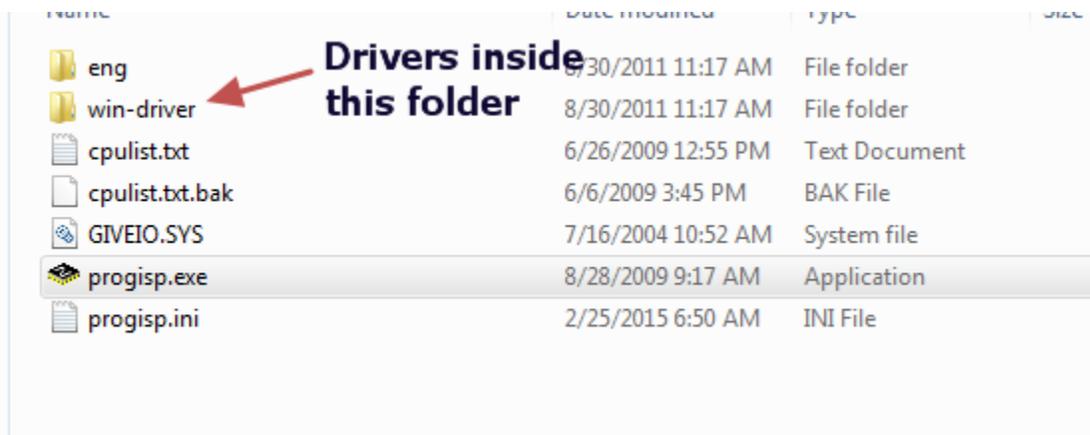
**PROGISP** is the software used to load the HEX file on to the target chip.

**KEIL Microvision** is the software to create HEX file using C code or Assembly language.

Download the software here :

[http://www.alselectro.com/files/8051\\_isp.zip](http://www.alselectro.com/files/8051_isp.zip)

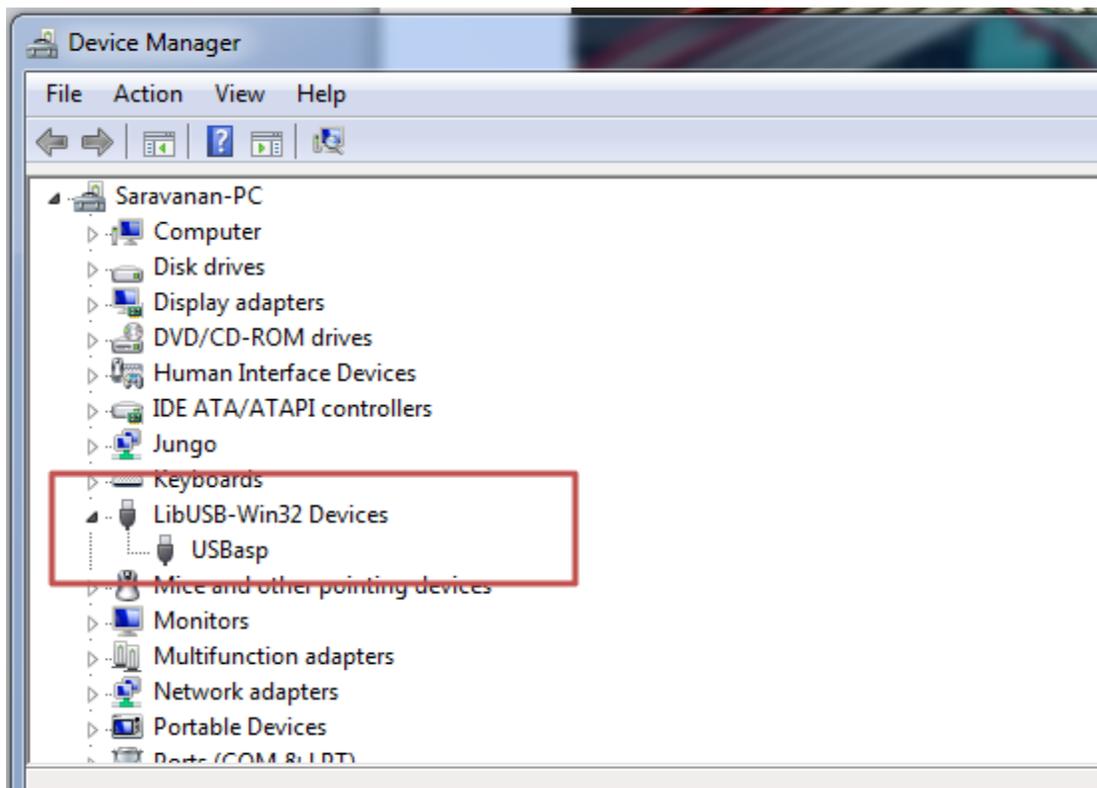
The drivers for the ISP Programmer is found inside the Drivers folder of PROGISP.



Open the DEVICE Manager of your PC while connecting the ISP programmer to USB port.If you get an exclamation mark against device , Update driver & browse to the location of Drivers inside PROGISP folder you've downloaded.

Once the Drivers are installed you get the USBasp under Device manager.

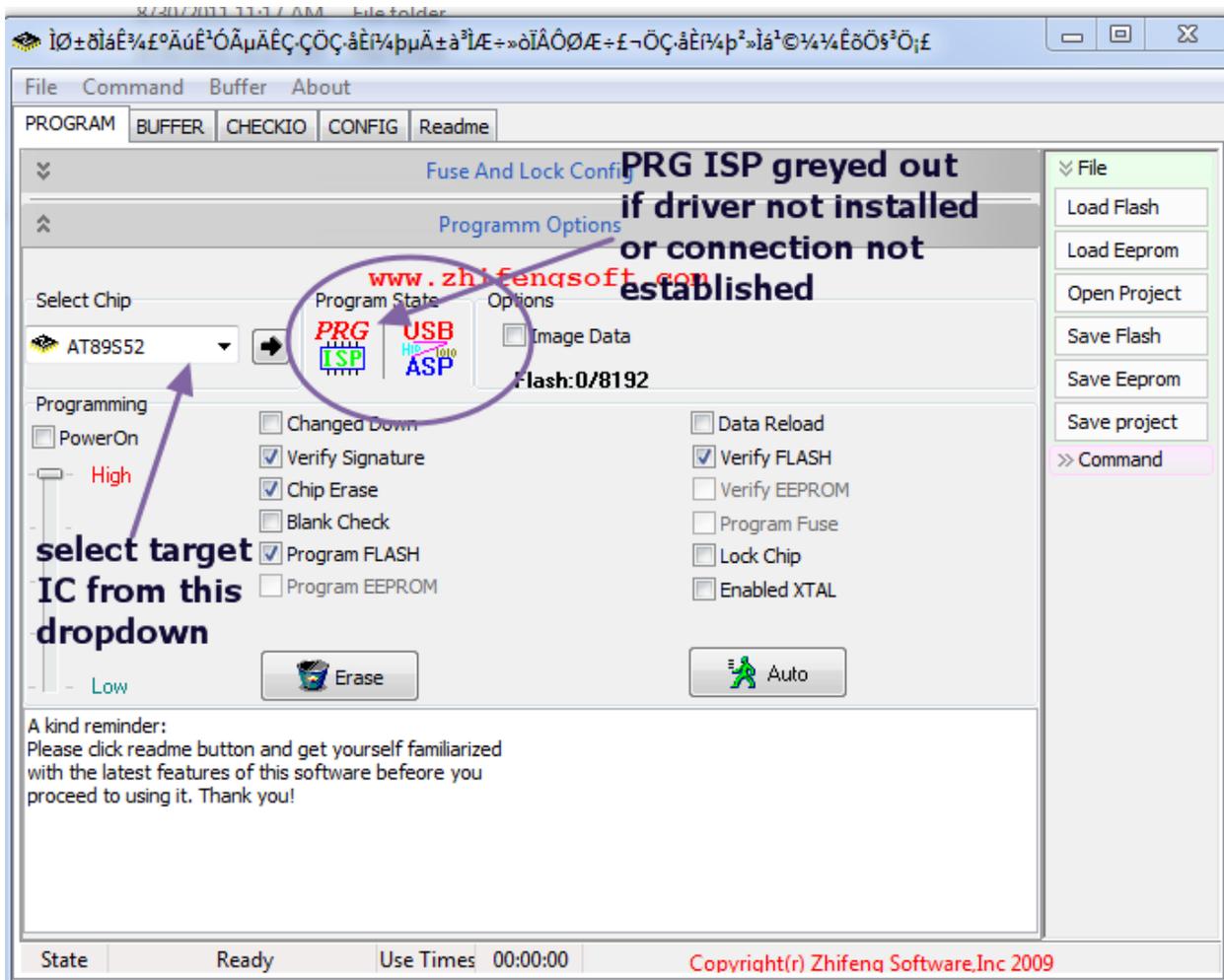
The setup is now ready to load the HEX file.



We use the PROGISP application to load the HEX file on to the target IC. No installation is required for this software , it's a standalone one.

Double click progisp.exe to open the application.

The PRG ISP & USB ASP buttons should be bright .If it's greyed out , then check the USB cable connection & the driver installation.



Select the target chip (here 89S 52) from the “Select Chip “ drop down menu.

Ensure that following buttons are Enabled :

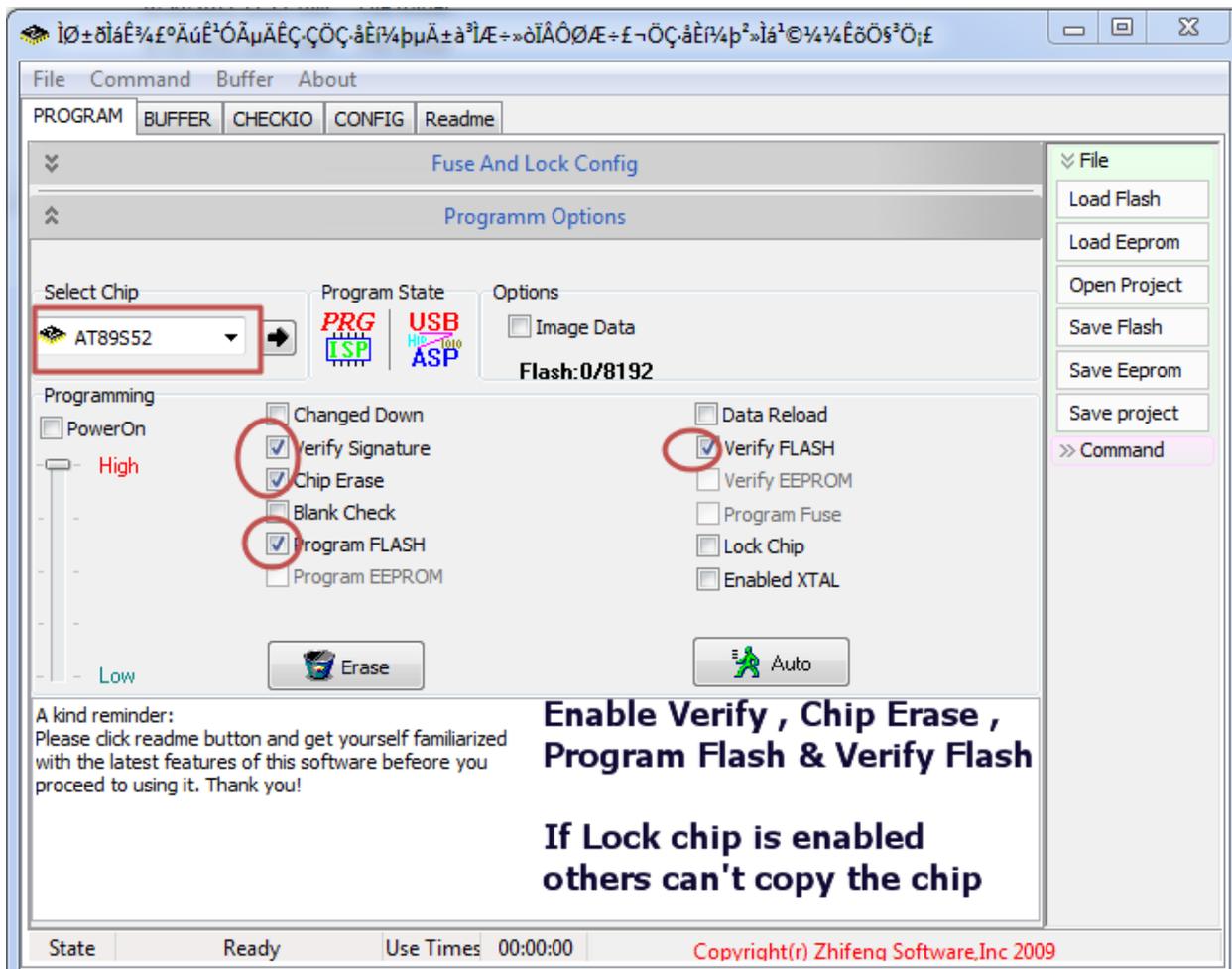
**Verify Signature**

**Chip Erase**

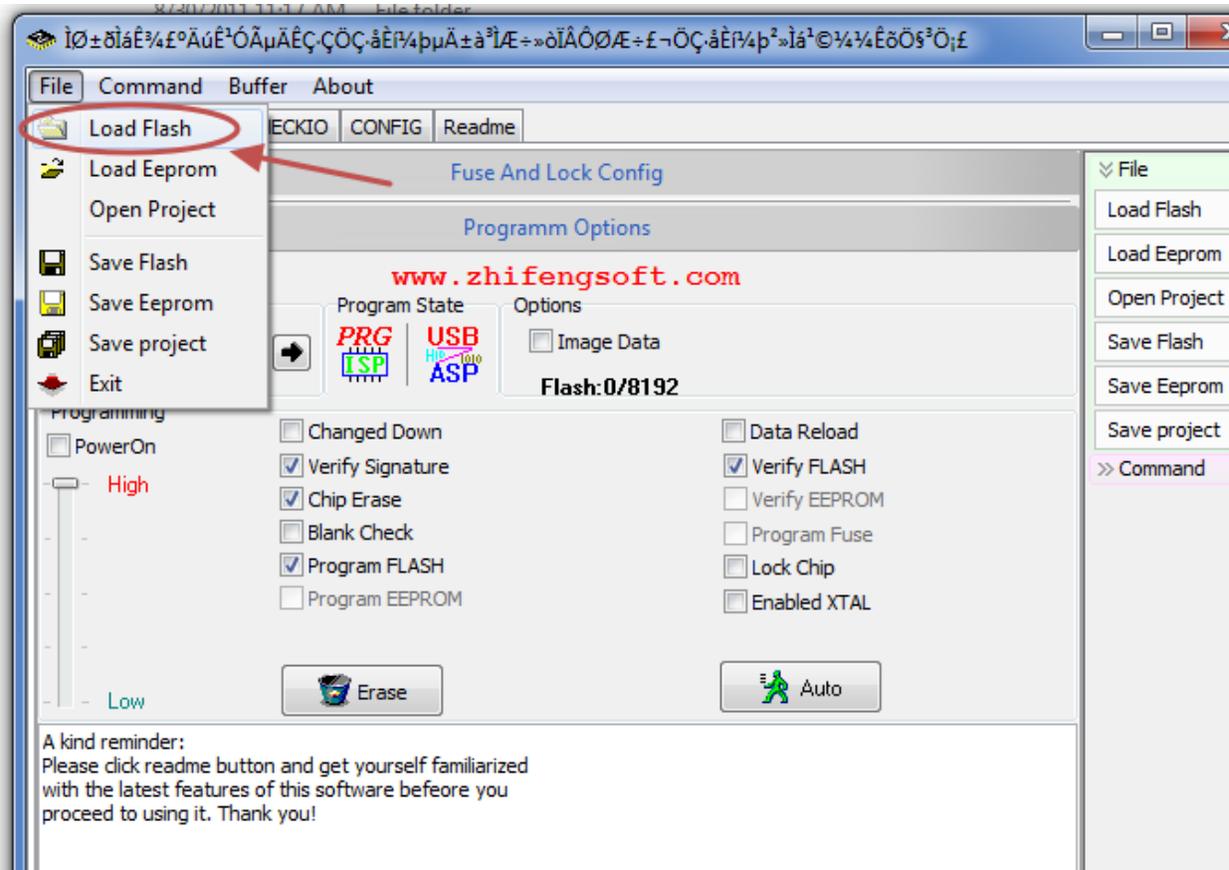
**Program Flash**

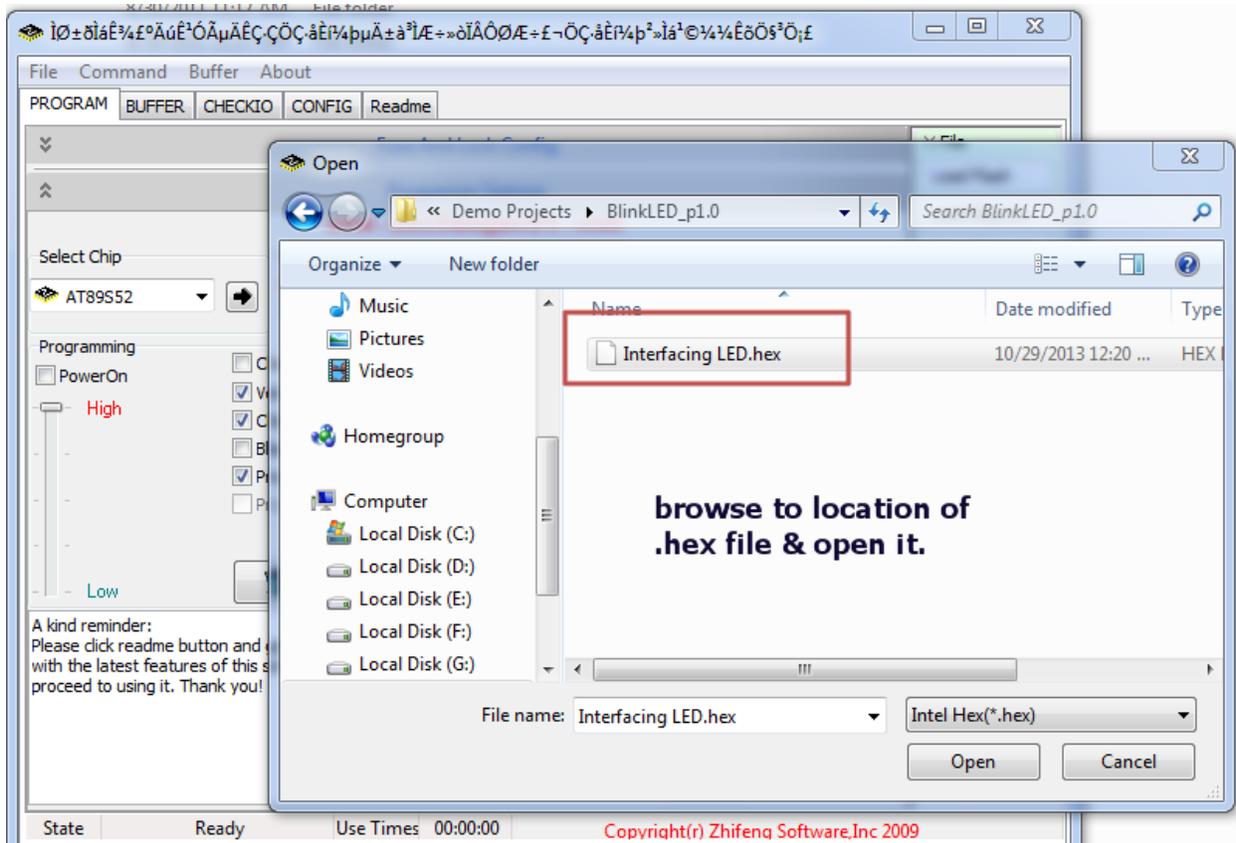
**Verify Flash**

If you enable the LOCK CHIP button , others can’t make a copy of your chip.

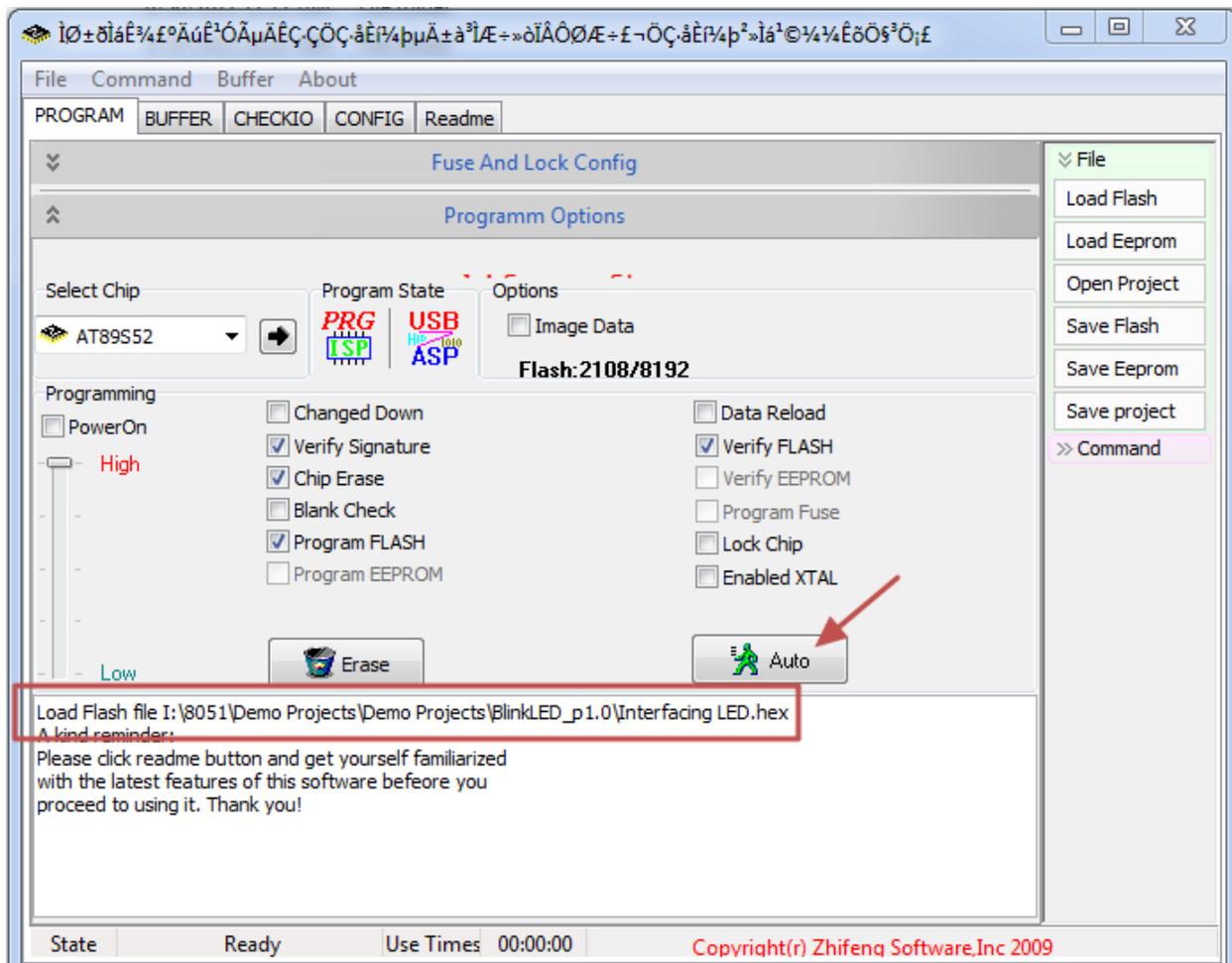


Click on FILE --> LOAD FLASH & browse to the location of the HEX file you've created using KEIL.





Once the HEX file is loaded , click on AUTO button to perform the tasks you've enabled.



The status bar at the bottom indicates the progress of operation.

Photo Print

Burn New folder

- Name
- eng
- win-driver
- cpulist.bt
- cpulist.bt.bak
- GIVEIO.SYS
- progisp.exe
- progisp.ini

8/20/2011 11:17 AM File folder

File Command Buffer About

PROGRAM BUFFER CHECKIO CONFIG Readme

Fuse And Lock Config

Programm Options

Select Chip: AT89552

Program State: Prg OK USB ASP

Options: Image Data

Flash: 2108/8192

Programming:

- PowerOn
- Changed Down
- Verify Signature
- Chip Erase
- Blank Check
- Program FLASH
- Program EEPROM

Buttons: Erase, Auto

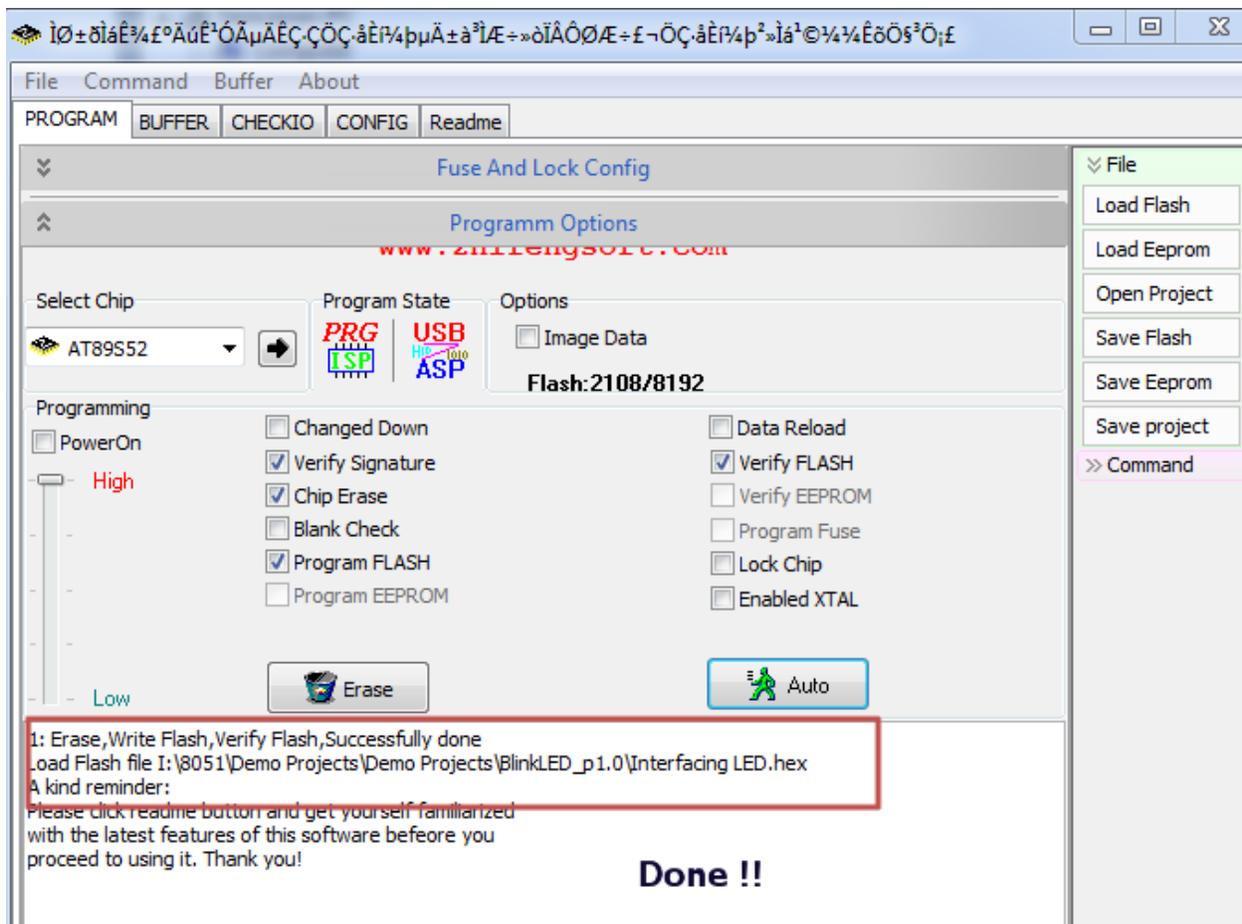
Data Reload:  Data Reload,  Verify FLASH,  Verify EEPROM,  Program Fuse,  Lock Chip,  Enabled XTAL

Load Flash file I:\8051\Demo Projects\Demo Projects\BlinkLED\_p1.0\Interfacing LED.hex

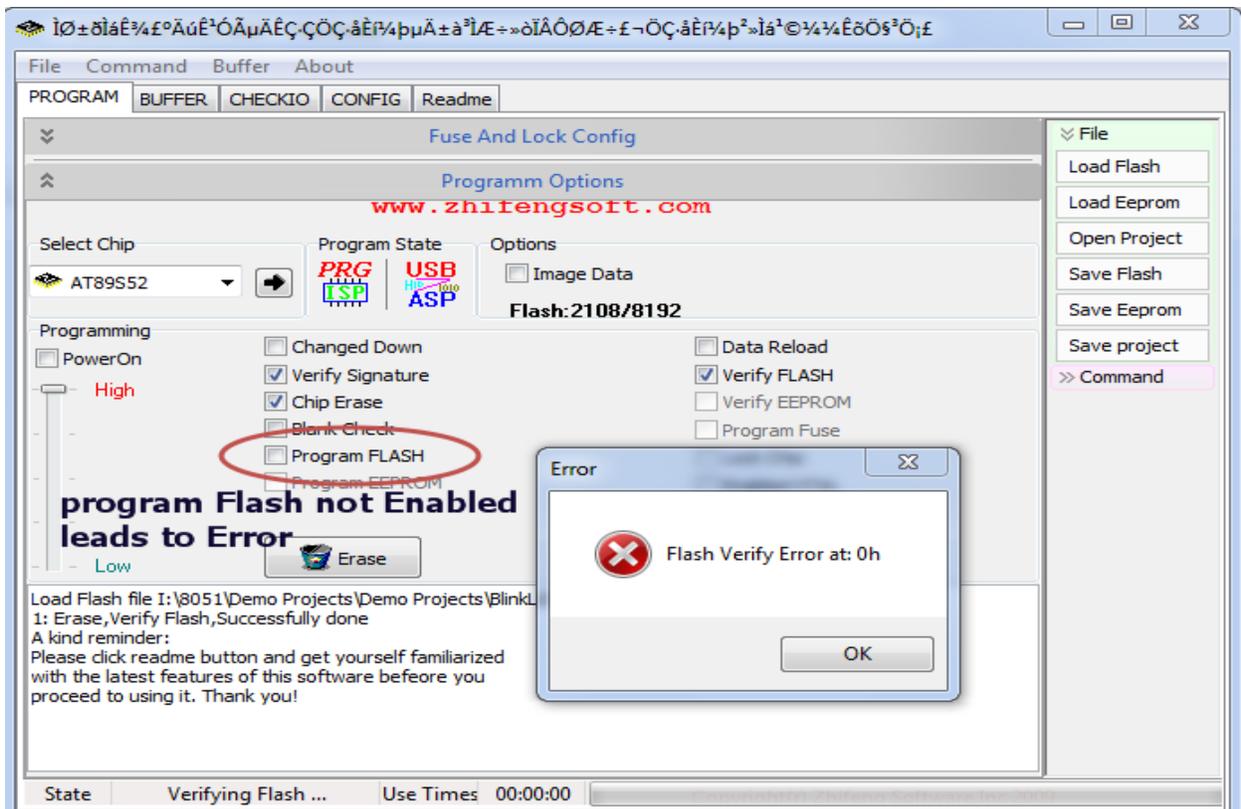
A kind reminder:  
Please click readme button and get yourself familiarized with the latest features of this software before you proceed to using it. Thank you!

status bar

State: Programming Flash ... Use Times: 00:00:00



Finally the HEX is successfully loaded on to the target chip.



If the PROGRAM FLASH button is not enabled , you get Flash Verify Error while fusing.



[alselectro@gmail.com](mailto:alselectro@gmail.com) Technical Blog : [www.alselectro.wordpress.com](http://www.alselectro.wordpress.com)