



## Procedure of HC6000 Version 6 Soft Refresh

Install the driver program for Atmel MCU, SAM-BA on your computer first.

The link for the Atmel program AT91-ISP.exe and the latest version of code can be found here:

[www.armstronginternational.com/hc6000refresh](http://www.armstronginternational.com/hc6000refresh)

Before refreshing the code, the old code in CPU must be erased:

1. Turn off the power supply from the breaker, and push the emergency stop button in.
2. Disconnect all wires at the bottom of main board, including display cable. Only connection to board should be the two wires on top left supplying power for main board.
3. Short the jumper J2 (test mode select) with a jumper cap, turn on the breaker and pull out emergency button. The indicator LED D47 on main board will remain ON. Keep the power supply on for at least 8 seconds.  
(This is the step to erase the old code.)
4. Turn off the power supply and remove the jumper cap from jumper J2.

Loading the new code:

5. Turn on the power supply, the indicator LED's D47 and D42 (FILL) will remain ON.
6. Connect the main board to computer with an USB cable. The computer should find the new hardware, "ATMEL AT91xxxx Test Board "and install driver for board automatically.

If system can not find the board automatically, please install driver manual, the path of the install file .inf is: c:/windows/info/atm6124.inf

7. Run program SAM-BA select the connection port as “usb\ARM0”, select board as “AT91SAM7S256-EK”, please see figure 1.

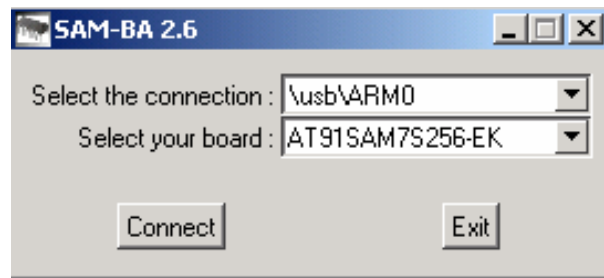


Fig.1 SAM-BA start up window

8. Click “Connect” button to enter the download window. Please see figure.2.

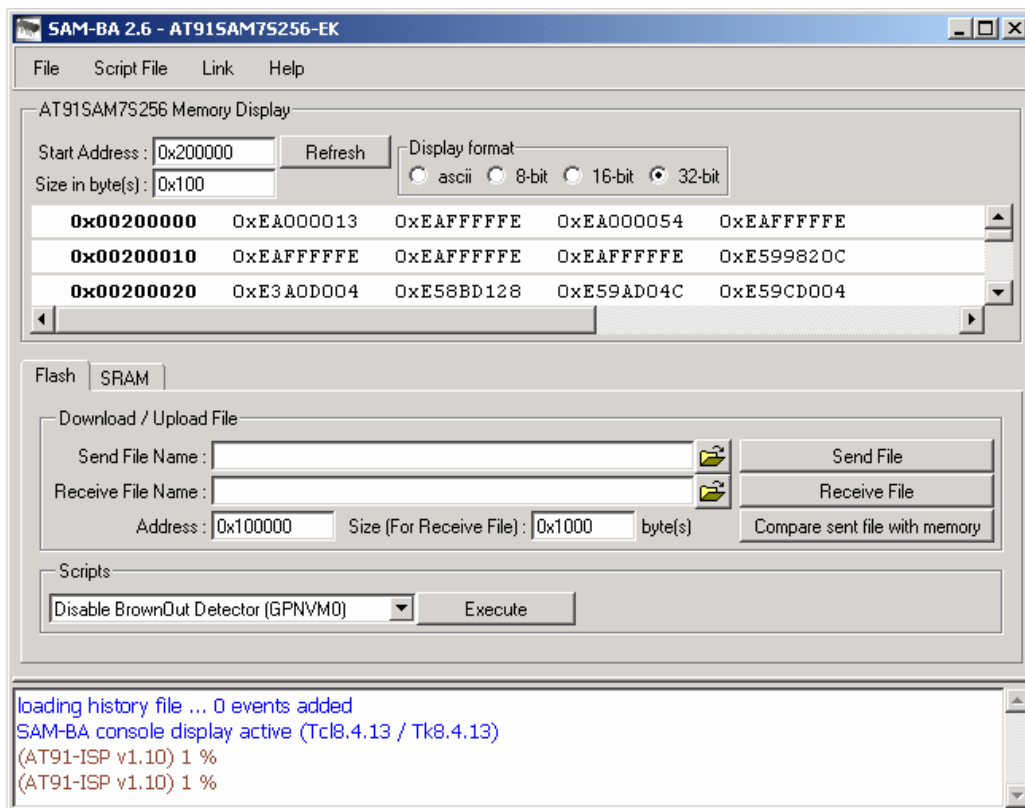


Fig.2 Code download window

- Click the “open folder” button on the right of textbox “Send File Name” to open the latest code, please see figure 3. You will then have to locate the .bin file that you downloaded from the website and then hit open.

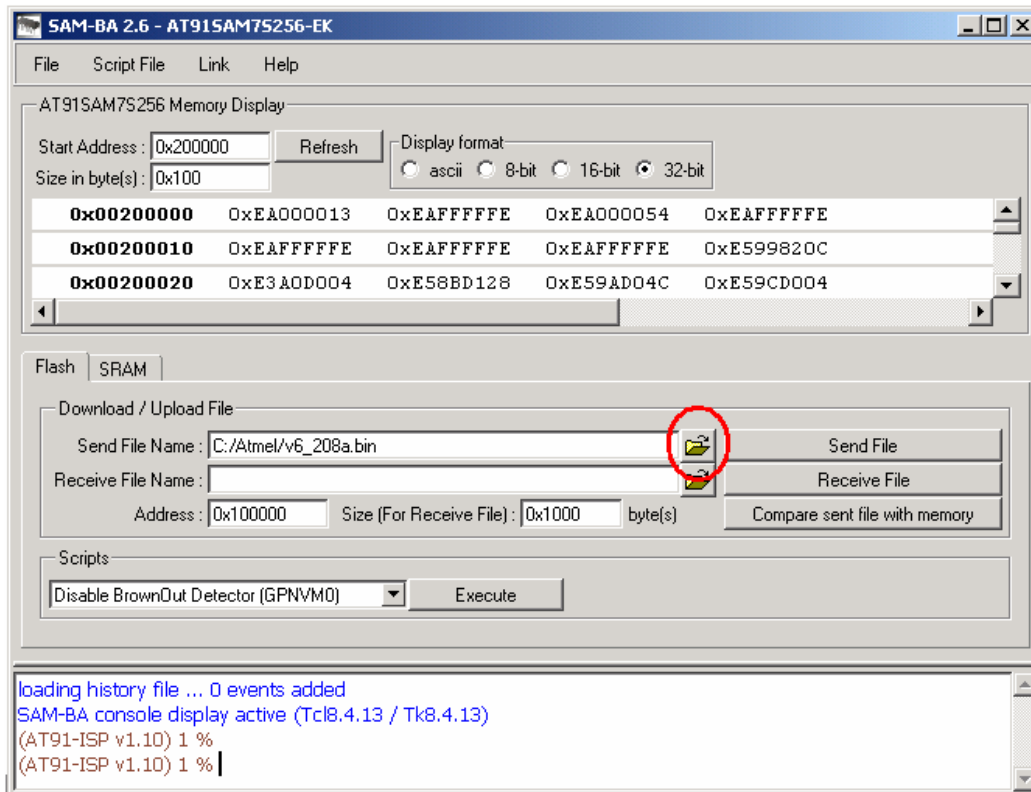


Fig. 3 Open the latest code window

10. Click the button “Send File” to send the latest code into board. You will be asked to unlock the involved lock regions (0 to 7), click the button “Yes” to begin send code into board. Please see figure 4.

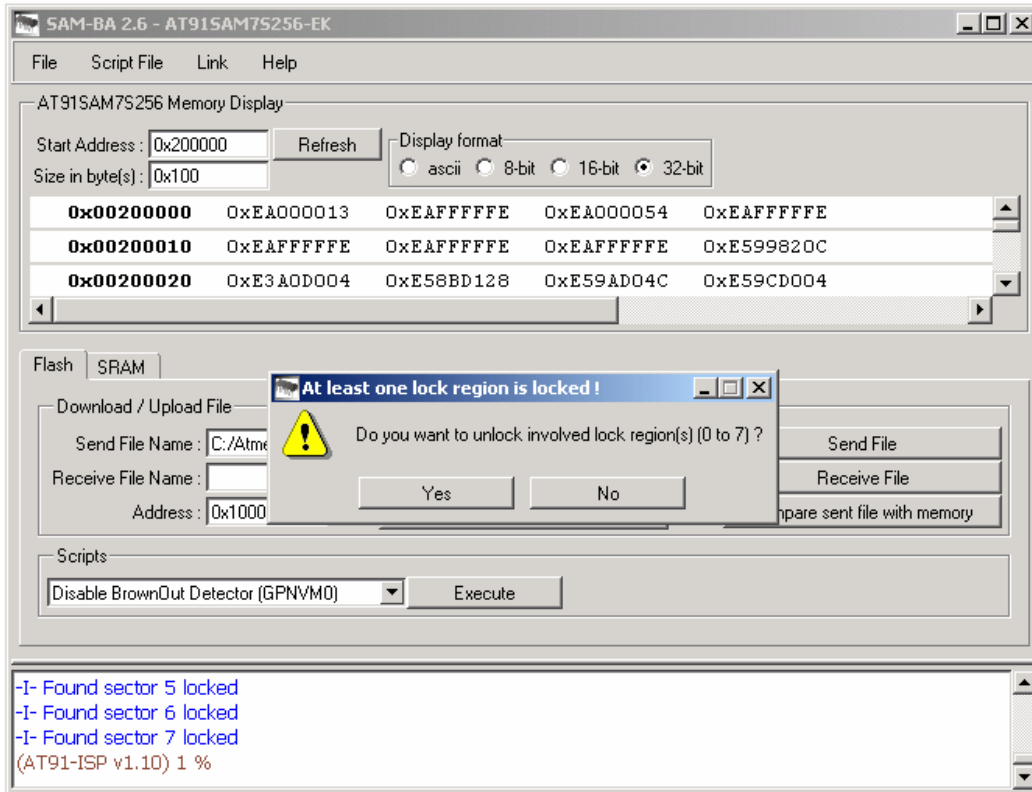


Fig.4 Message unlock involved lock regions window

11. When sending is finished, you will be asked to lock all locks that you have opened just now, click the button “Yes” to lock these locks. You can verify that the code was send to the board by scrolling up in the message box. See Figure 5.

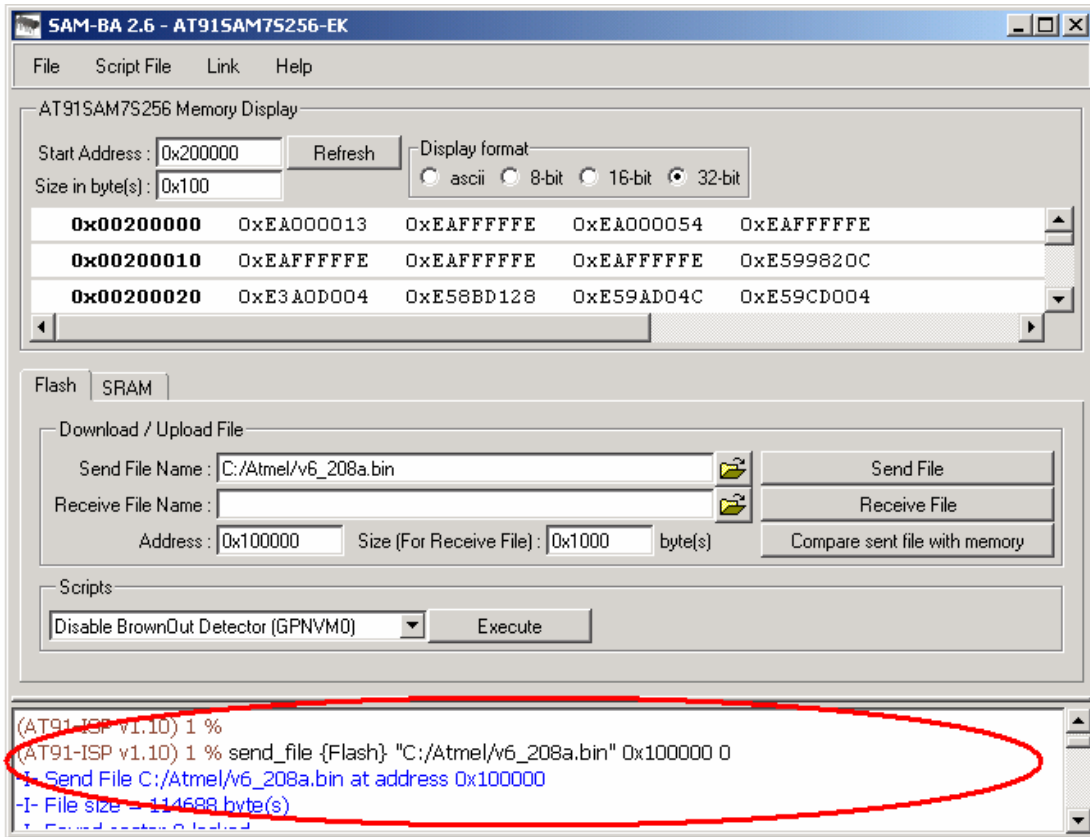


Fig. 5 Verifying Code was Sent

12. When operation is finished, close the “SAM-BA” window first, and then click the icon “remove the USB hardware” to disconnect the link between computer and board. After reminder by system, disconnect the power supply from breaker and pull out the USB cable.

13. The soft refresh of HC-6000 is complete, connect all wires and display cable to board, restart the unit.

