



SM9169 V3.X AP Writer User Manual (1 to 1 Writer)

1. Introduction :

MSM9169 Writer can be use for programming all SyncMOS products(including Flash and e-MCU , such as SM79xx,SM89xx,and SM59xx).

2. Basic Operations :

MSM9169 Writer can operate in two modes :

2.1 On-line programming: used MSM9169 connect with PC which can download program code into target IC.

2.2 Off-line programming: when PC download program code into writer's controller, offline programming can be achieved without PC via "Auto" button .



Fig 1 MSM9169 Writer

Specifications subject to change without notice, contact your sales representatives for the most recent information.



3. Components :

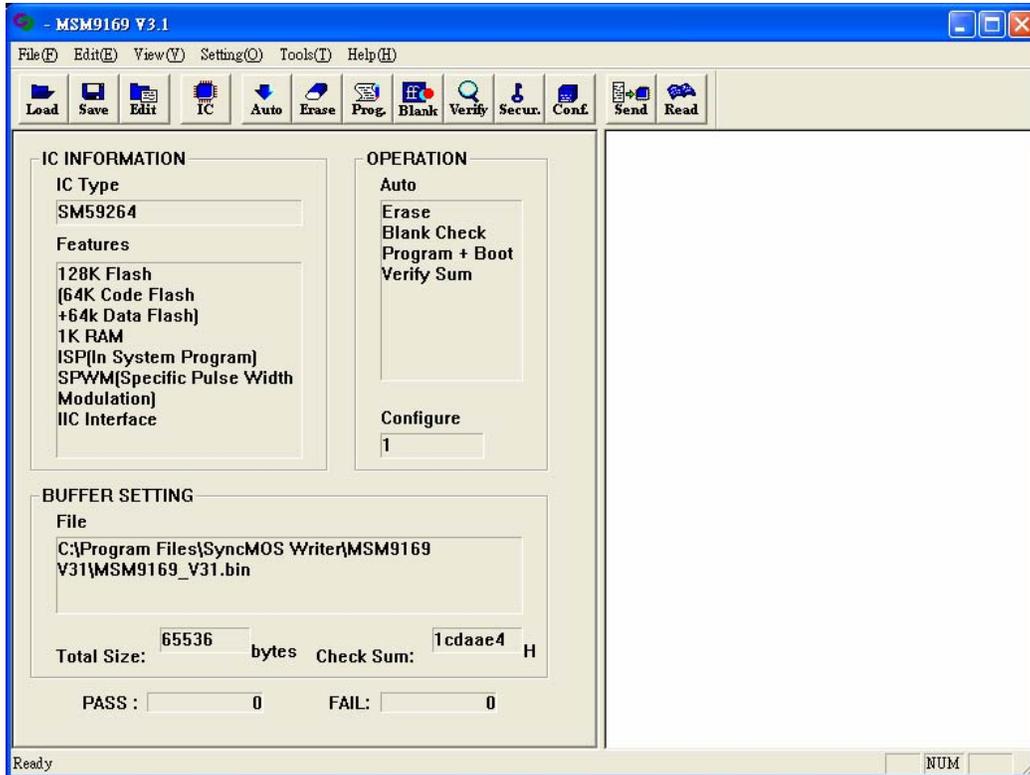
- 3.1 MSM9169 board.
- 3.2 Windows 95/98/2000/XP OS.
- 3.3 DB-9 pin cable (for serial port) or USB To COM Port connector (for USB).
- 3.4 Writer application utility.
- 3.5 One power adapter +12V DC, connector (inside "+", outside "-").

4. Setup Procedure :

- 4.1 Copy MSM9169 application utility in your OS , then run SyncMOS Writer Setup.exe which support Windows 95/98/2000/XP OS.
- 4.2 Use DB-9 pin cable to connect PC's COM port and MSM9169's RS232 Port.
- 4.3 Plug the 12 DC power adapter in to MSM9169's DC Power Jack . Note : the power adapter which plug in the writer is anode inside and negative pole outside . Then the Power LED will light.
- 4.3 When MSM9169's power LED is light , MSM9169 has ready to work.



5. User Interface:



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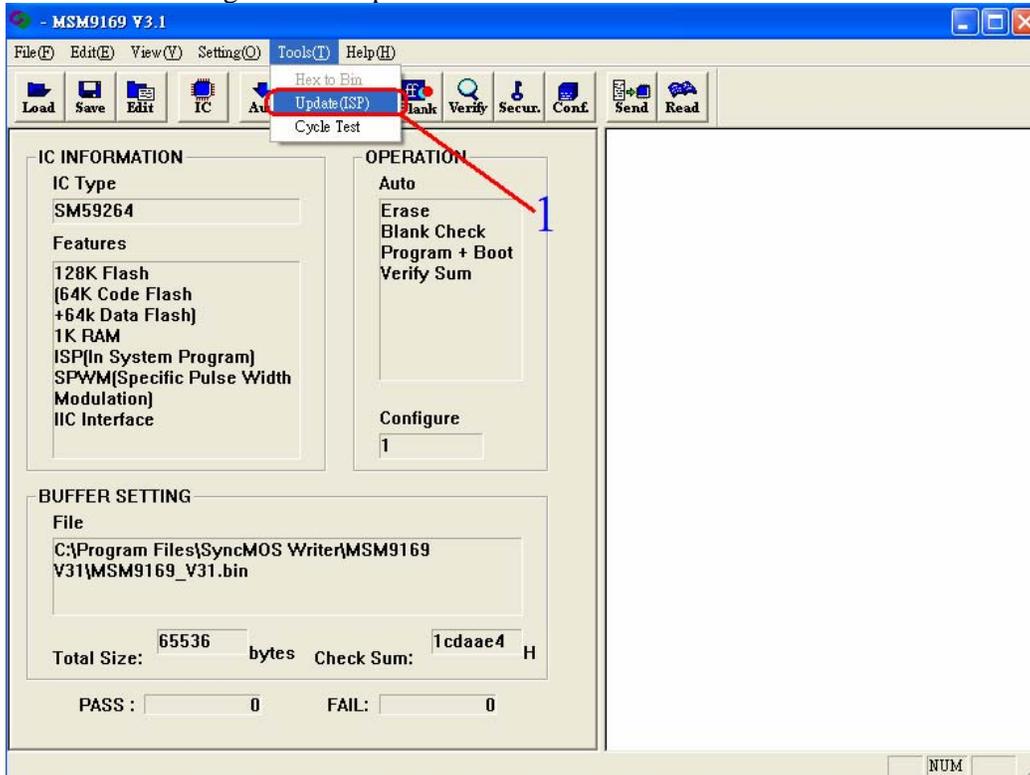
6. Update: Update Writer Timing

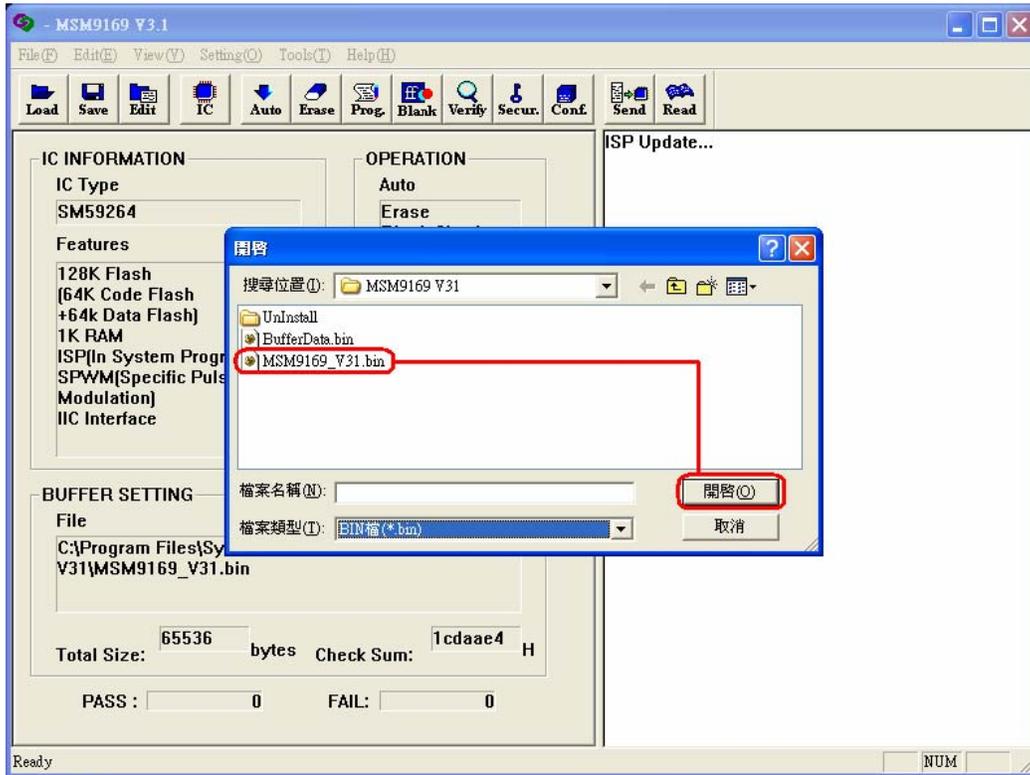
MSM9169 V3.x can update writer timing without modifying hardware.

6.1 Click “Update (ISP)” from Tools item.

6.2 Warning message for notice will come up.

6.3 Select target file for update.

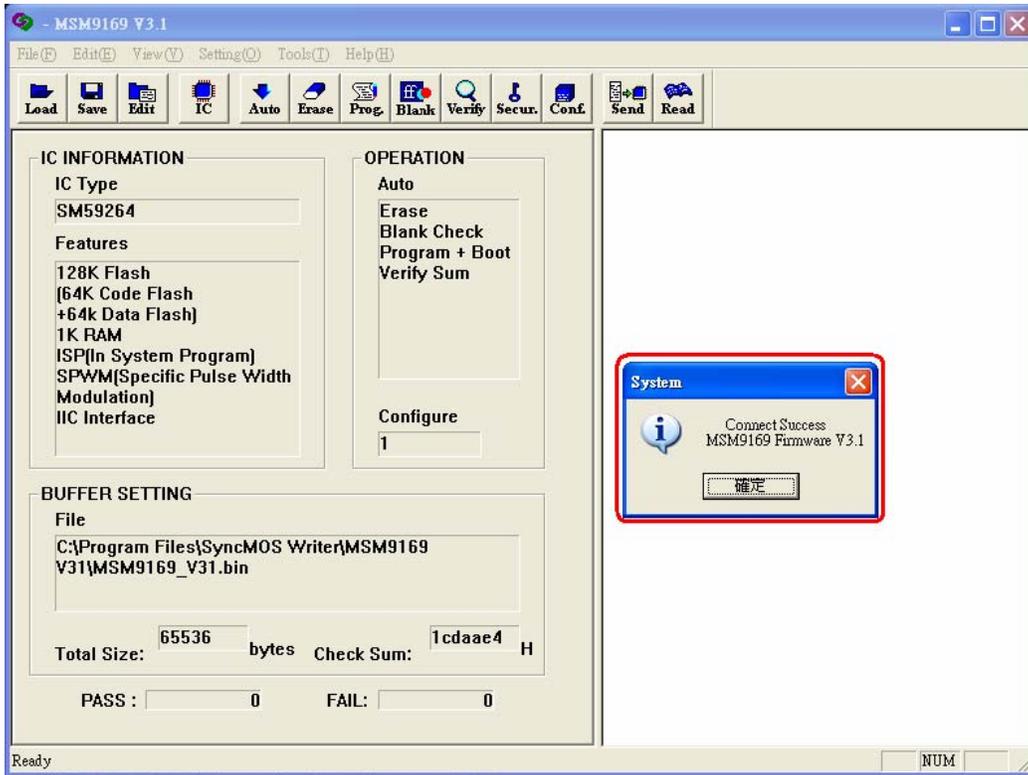






7. Connect :

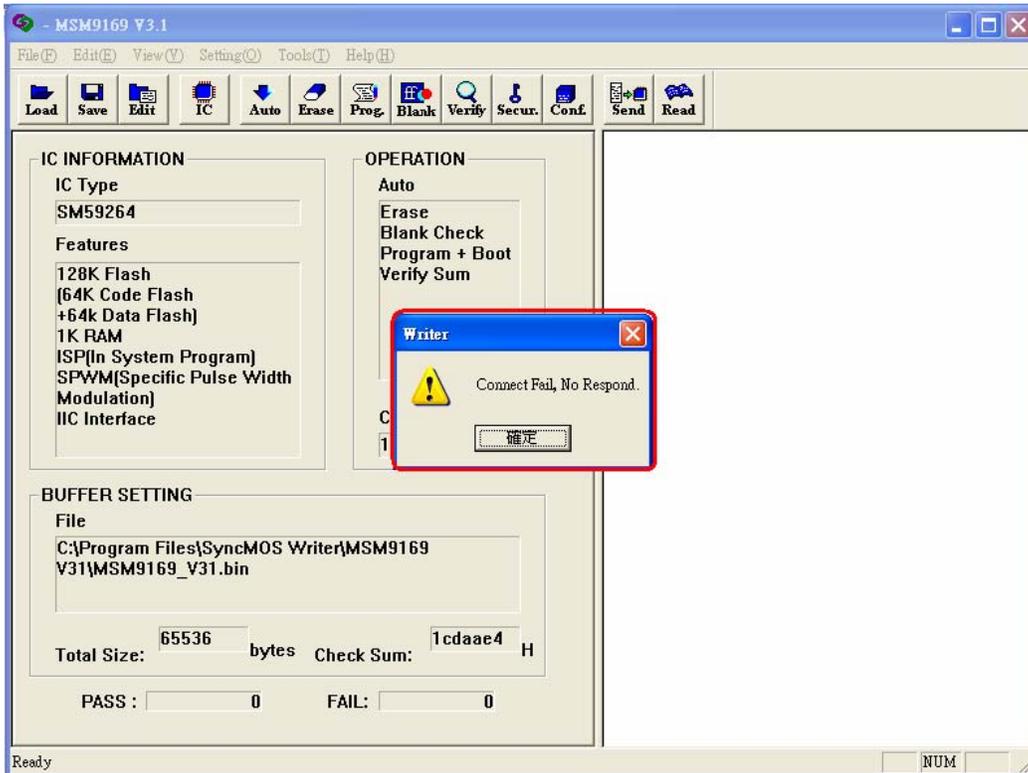
7.1 After MSM9169 V3.x running, system will check connection with PC. If the connection successful, a “Connect Success MSM9169 V3.x” message will pop-up.



Connection Success



7.2 If connection fail, a “Connect Fail, No Respond” message will pop-up.



Connect Fail



8. Tool Bar Explanation :

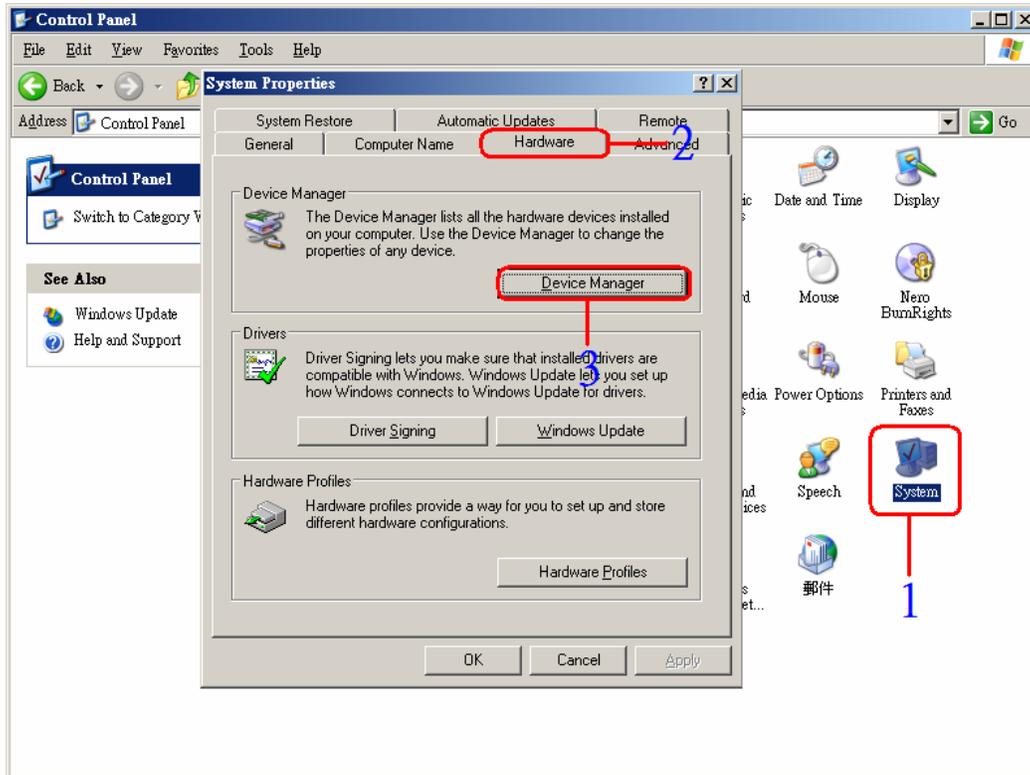


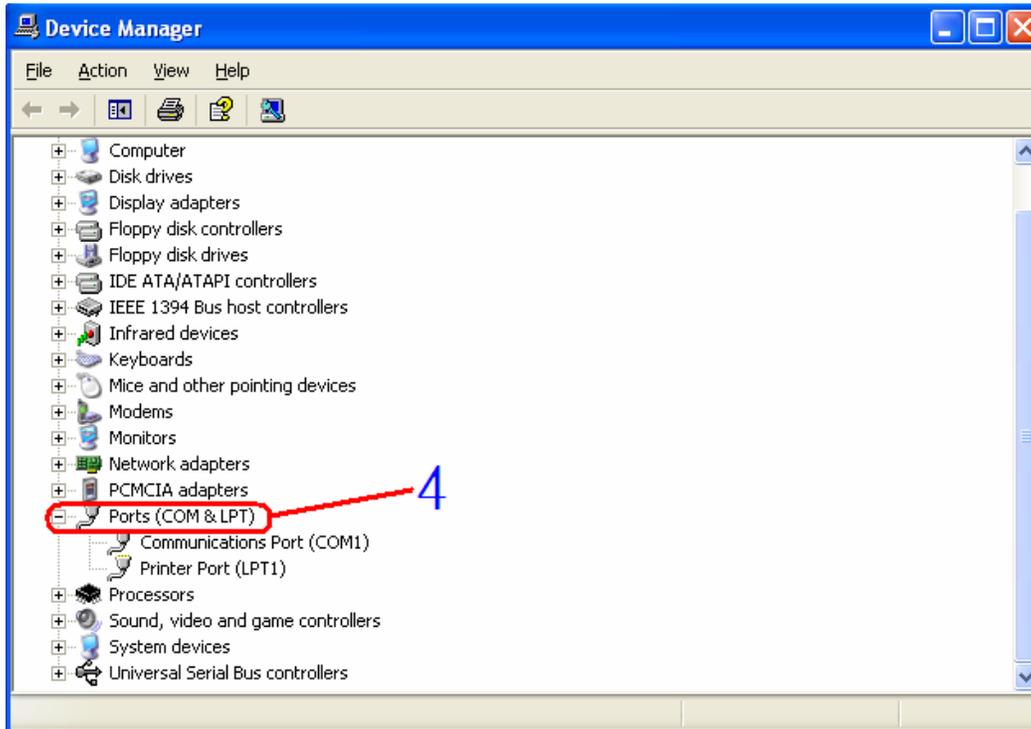
- 8.1  **Load:** Load file for programming.
- 8.2  **Save :** Save buffer data to BIN format.
- 8.3  **Edit :** Edit and view buffer .
- 8.4  **IC :** Select IC type.
- 8.5  **AUTO :** Run selected function automatically.
- 8.6  **Erase :** Erase target IC's Flash data.
- 8.7  **Program :** Write buffer data to target IC's Flash.
- 8.8  **Blank Check :** Check target IC's Flash being Erased or not.
- 8.9  **Verify :** Check target IC's Flash content against buffer data.
- 8.10  **Security :** Force all Flash data being read as "0".
- 8.11  **Configure :** Set ISP size(SM59xx only).
- 8.12  **Send :** Send data to MSM9169's on-board controller for offline programming.
- 8.13  **Read :** Read Target IC's Flash data to buffer.



9. Connect USB to COM Port :

9.1 When you connect USB to COM Port, you will get COM information form “Control Panel→System→Hardware→Device Manager”.



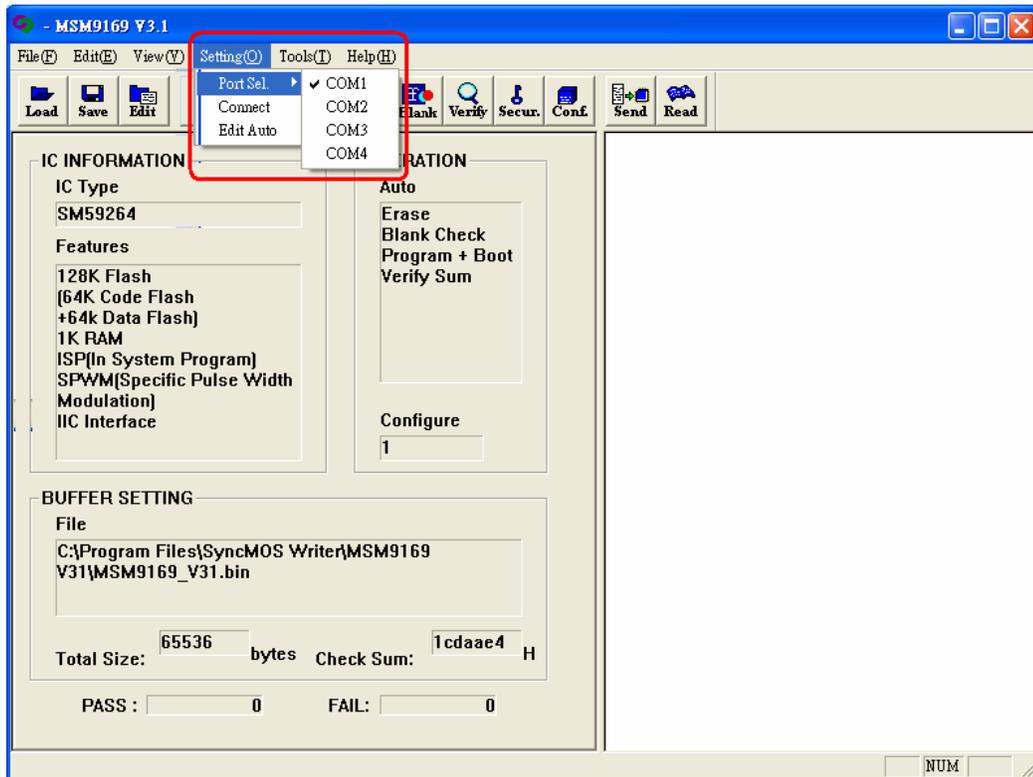




10. Re-connect with COM Port :

10.1 When connection has fail , please check connection of MSM9169 and PC. It may have been connected to an incorrect COM Port.

10.2 If you want to reconnect MSM9169 with PC, you can select “COM Port” from “Setting” item .

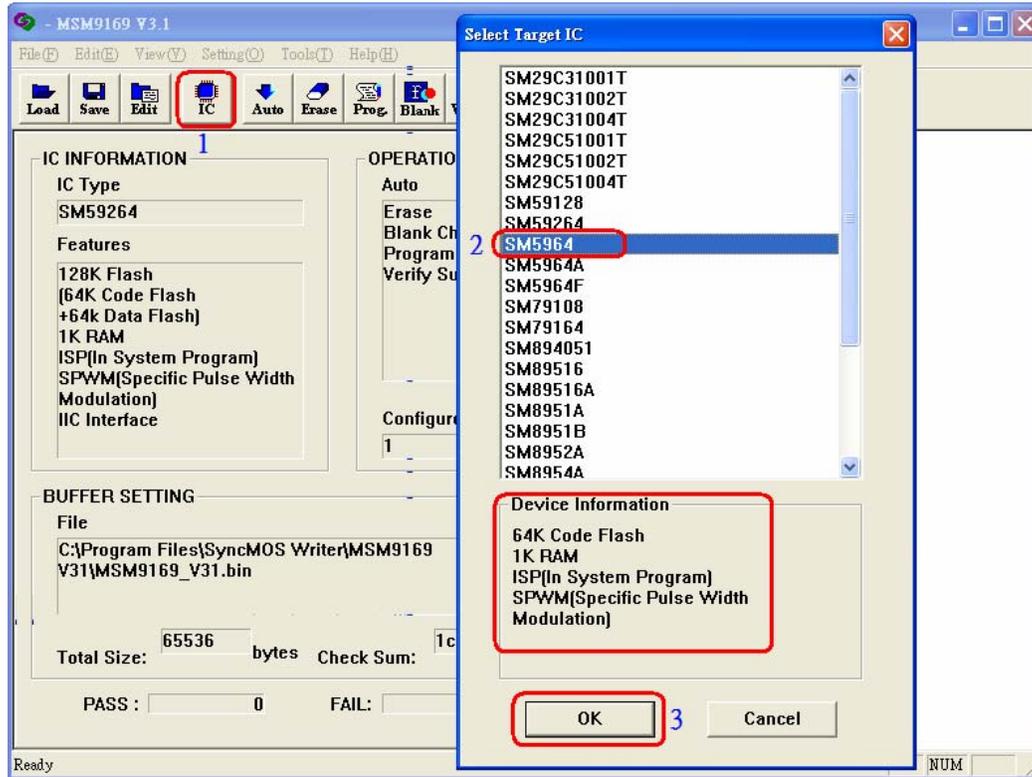


Reconnect COM Port



11. IC Type Selection :

You can select IC type for programming from tool bar.



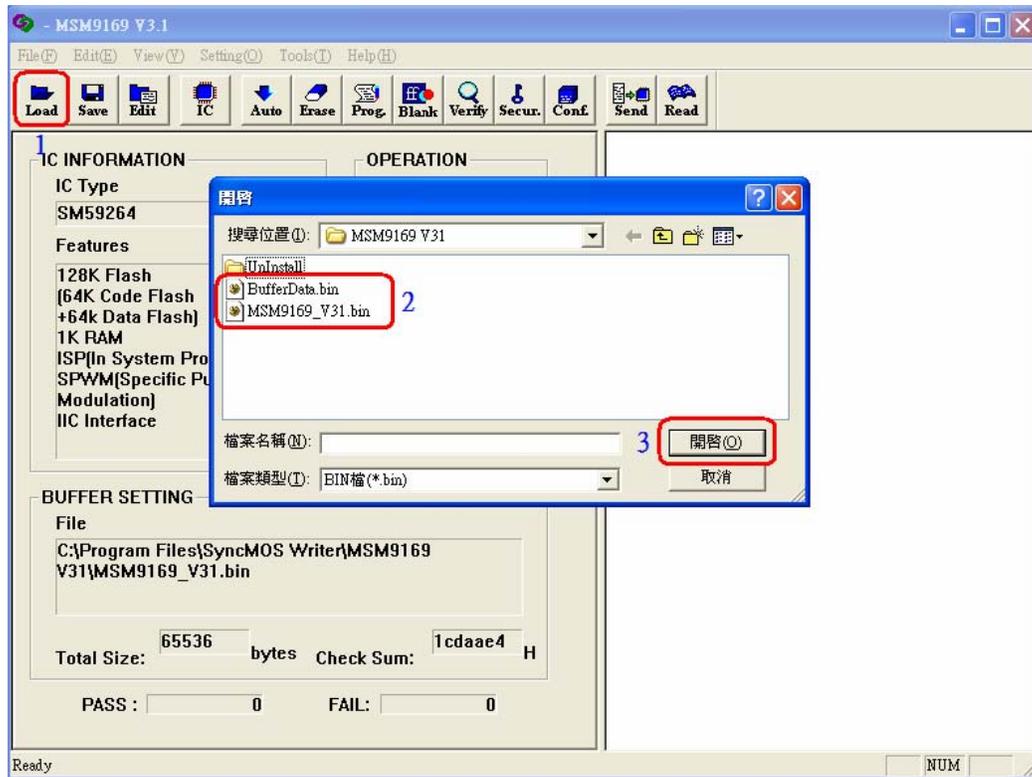
Finish Select IC



12. Load File for Programming:

12.1 Select File\ Open(Load) : Open file and load to Buffer.

12.2 If change IC type, please reload file.





Load & Buffer Setting

Target File Name: MSM9169_V31.bin

Form Buffer Address: 0x0000 H

Buffer Initial Data

- All Zero (0x00h)
- All Full (0xFFh)
- Don't Care

OK Cancel



13. Edit Auto Function :

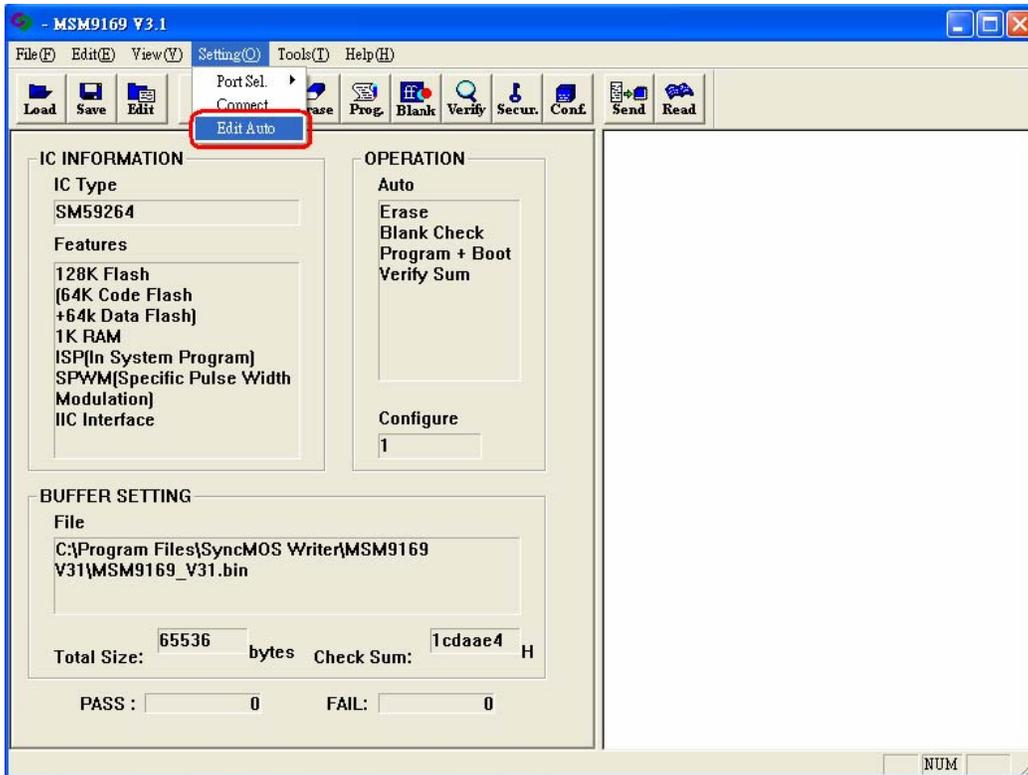
You can edit a sequence of functions to be executed with “Auto Function” button ◦

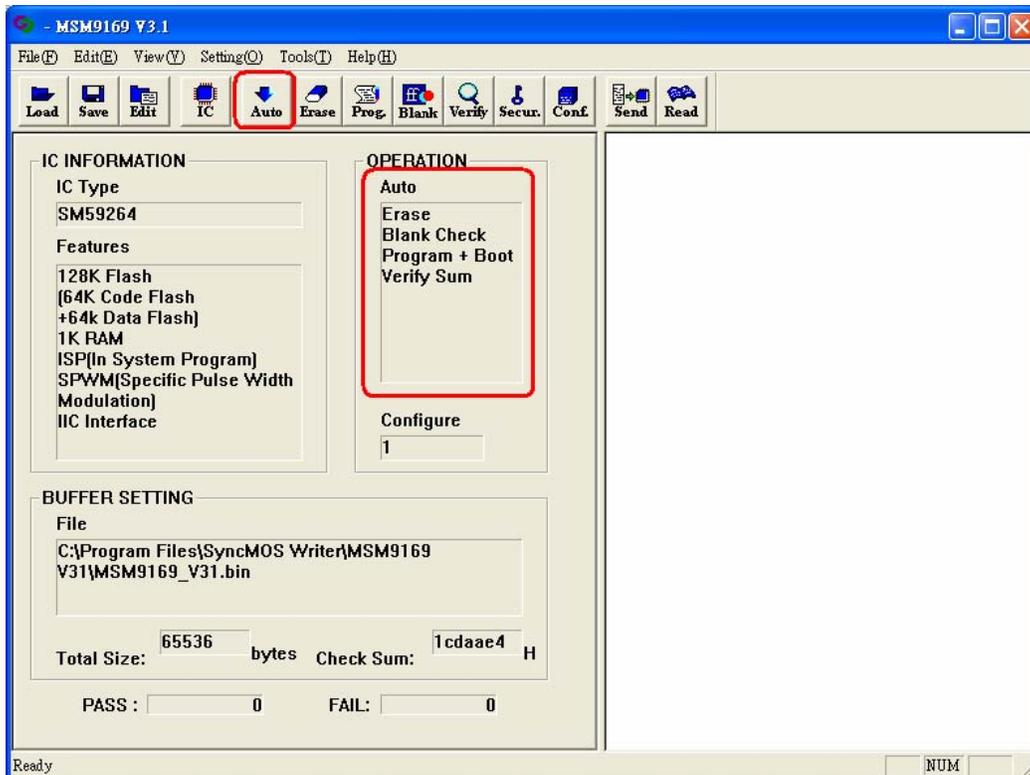
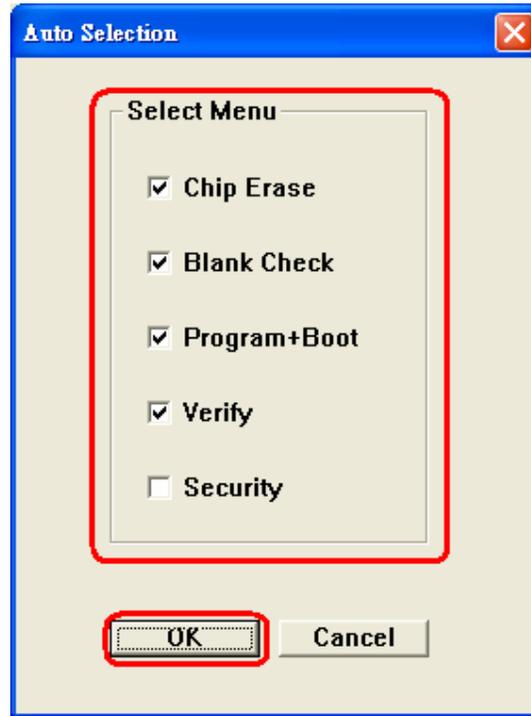
13.1 Select “Edit Auto” from “Setting” menu.

13.2 An Auto Selection message box will show up, then you can choose which function to execute ◦ Push OK button to complete.

13.3 Double check the window which displays the functions you selected.

13.4 Push AUTO button on tool bar, then it will execute the functions that you have selected.

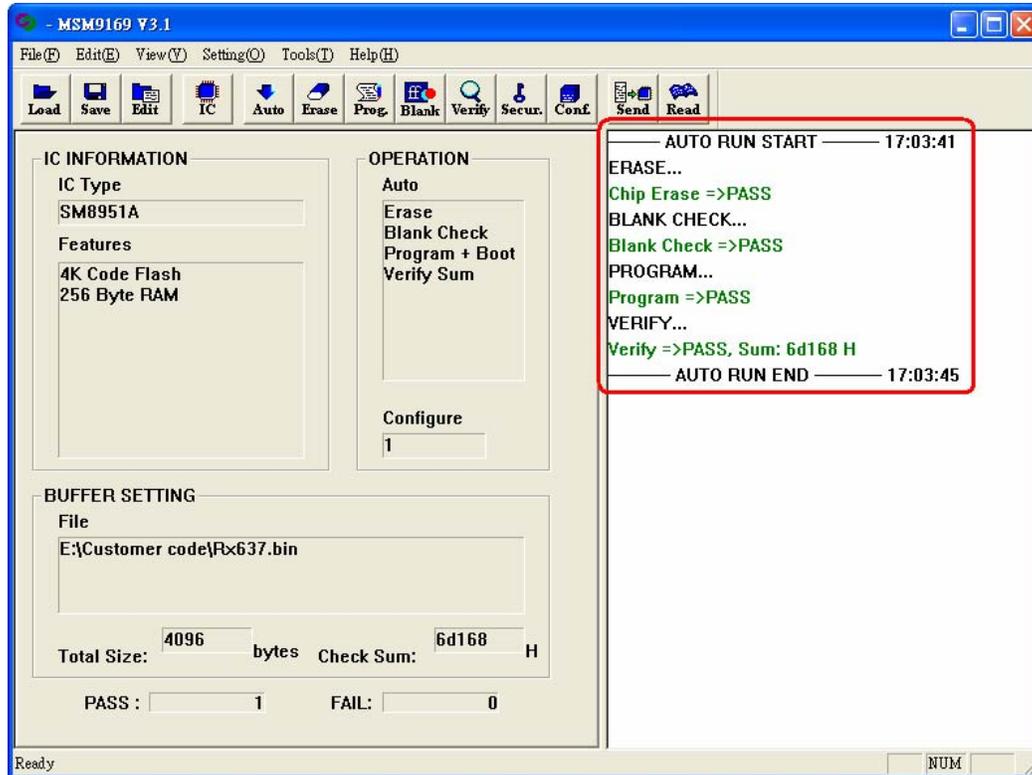




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14. Display Programming Status:



14.1 Programming OK :

After you push AUTO button, MSM9169 will execute functions which you selected. If the execution is successful, it will turn on green **PASS** light accompanied with a short buzz.

14.2 Programming Fail :

If the execution fail, it will turn on red **FAIL** light accompanied with a long buzz.

14.3 Program Timing :

After you push AUTO button, AUTO RUN START displays start time, AUTO RUN END displays end time (If only single function executed, it will not display time) .

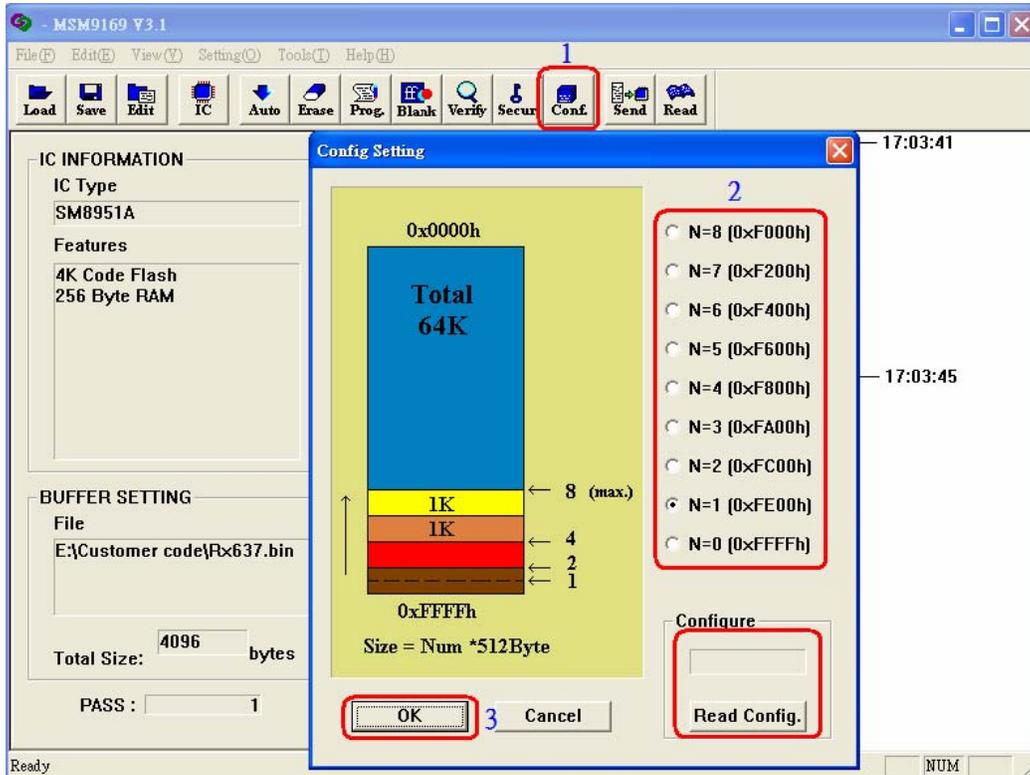


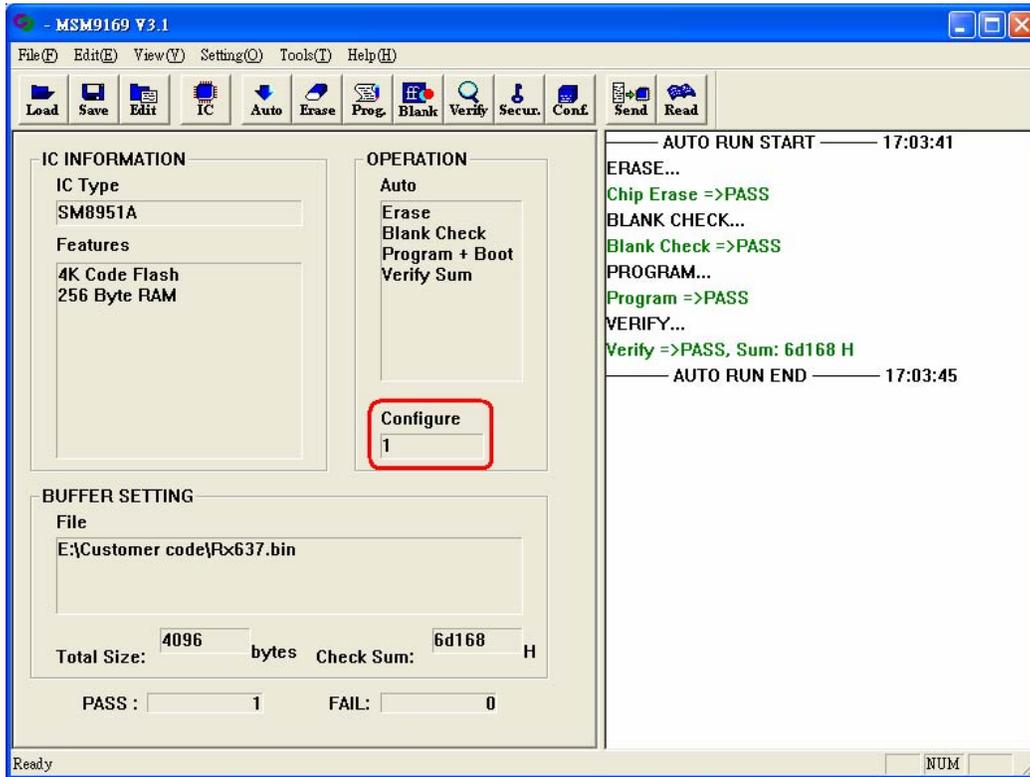
15. Configure Setting :

Set ISP size for SM59xx.

15.1 Select the “Conf.” button on tool bar.

15.2 Set Configure size.





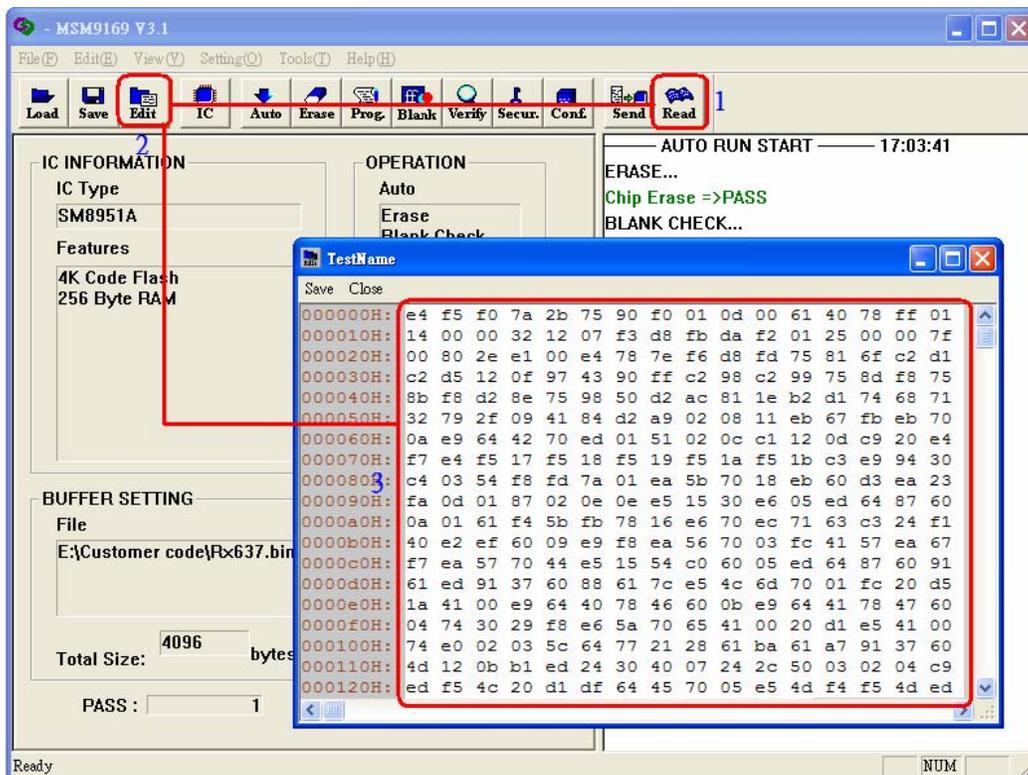


16. Read : Read Target IC Data

16.1 First click “Read” button, which will read Flash data from Target IC.

16.2 Click “Edit” to show data with a window.

16.3 In case of target IC being protected, all data will show “ 0 ” .





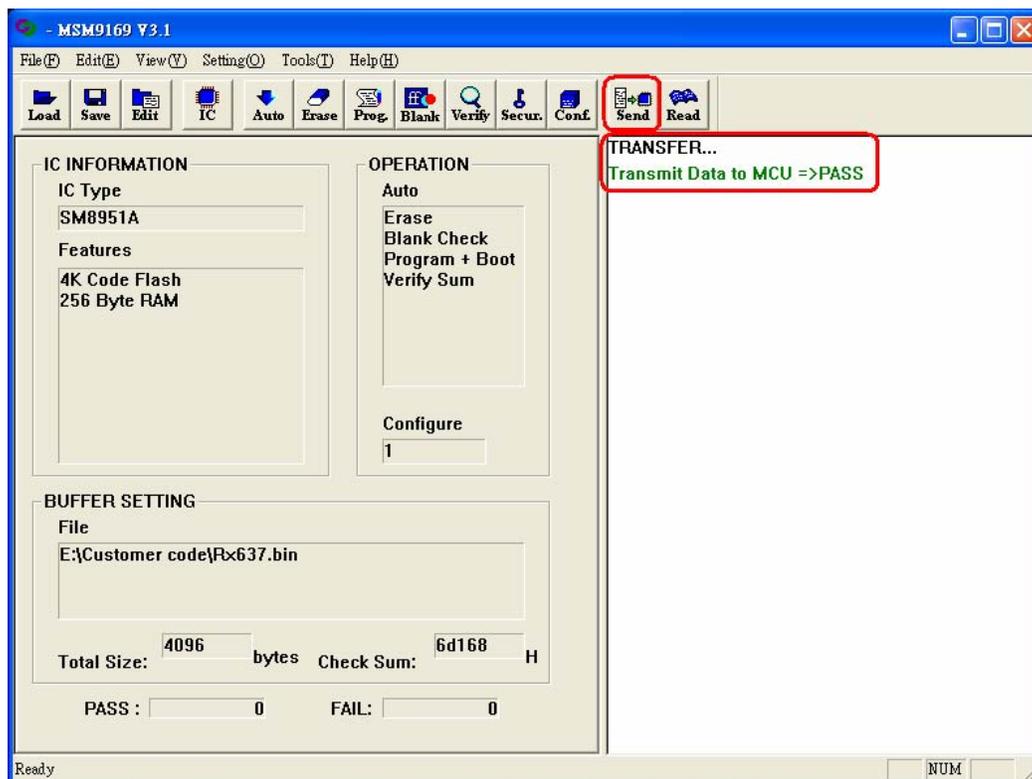
17. Send : (for Offline Programming)

MSM9169 support off-line programming, as below:

17.1 Push “Send” button, after you selected IC type and loaded file to buffer.

17.2 Then PC will download data to MSM9169 Controller MCU. MSM9169 board’s busy LED(**Yellow**) will lighted ◦ After finish loading that the green LED will lighted and a message of “**Transmit Data to MCU => PASS**” will show on the message field, while the busy LED will turn off.

17.3 Push MSM9169 AUTO button, to start offline programming.





18. Notice:

- 18.1 Please don't replace or remove any component from MSM9169 writer .
- 18.2 If it stops abnormally, please close MSM9169 V3.X Utility and reset board.
Then re-start MSM9169.
- 18.3 Make sure the target IC is place correctly, otherwise IC could be permanently damaged.
- 18.4 If MSM9169 programming OK, it will show "PASS" message and a short buzz ◦ Meanwhile GOOD LED will light. If MSM9169 programming fail , it will show "FAIL" message and a long buzz ◦ Also, FAIL LED will light.
- 18.5 Please reload file for programming, after you change IC type.
- 18.6 If you want to install a new MSM9169 Utility, please uninstall the old version first .