

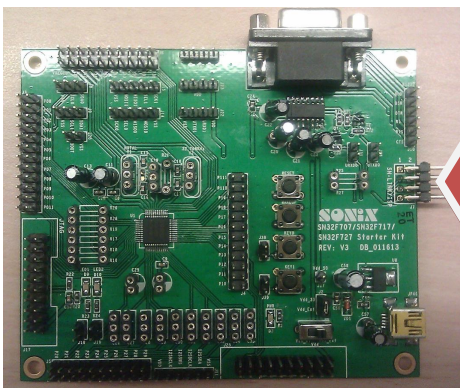
SONiX 32-bit MCU ISP User Guide

V1.3

1 OVERVIEW

SONiX 32-bit MCU ISP (In System Program) Tool which is provided by SONiX, and works with SN32F700 ISP Board to provide the users an easy platform to update the firmware of user ROM and set code option.

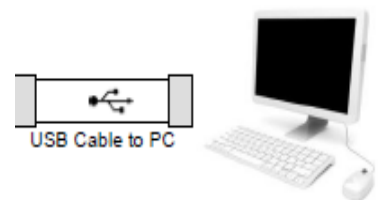
The OS supported by SN32F700 ISP Tool are WinXP, Vista, Win7.



SONiX 32-bit MCU Starter-Kit



SN32F700 ISP Board



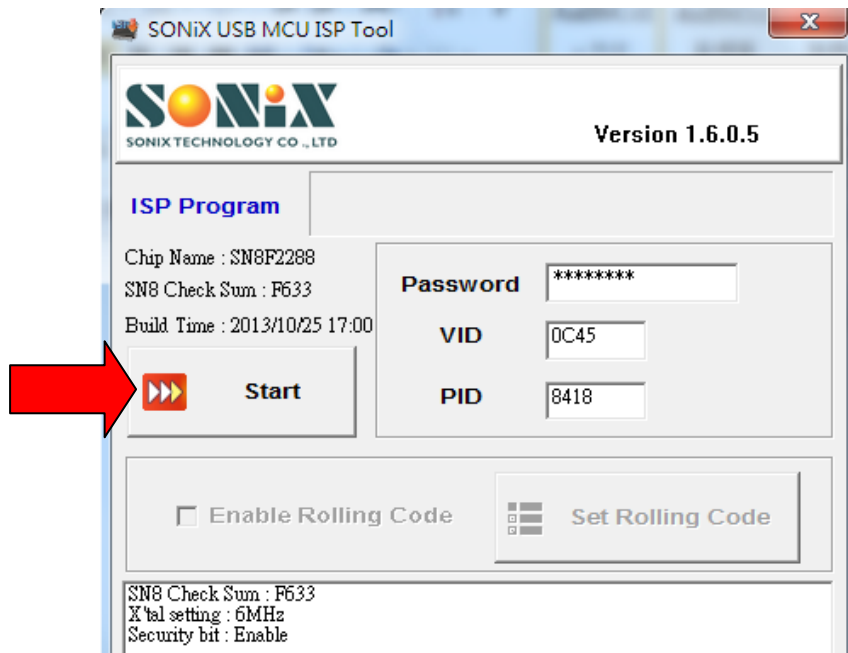
SONiX 32-bit MCU
ISP Tool

2 OPERATION

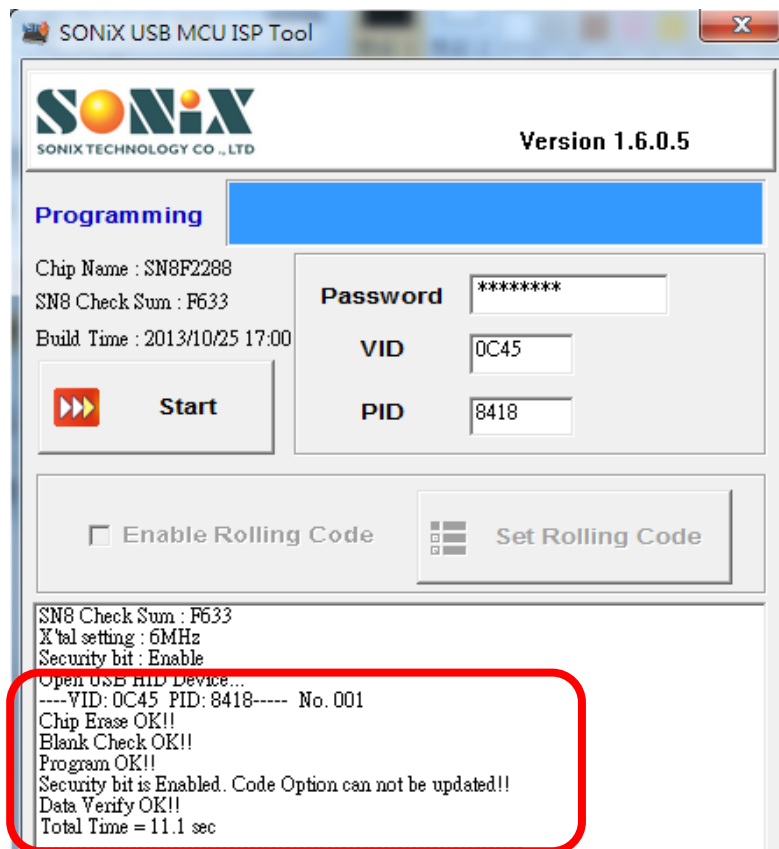
2.1 Update FW of ISP Board

STEP 1: Please connect ISP board to PC via USB cable, and make sure that the USB enumeration is done.

STEP 2: Double click "SN32_ISPTool_V1.20_Update" and click "Start" to update the firmware of ISP board.

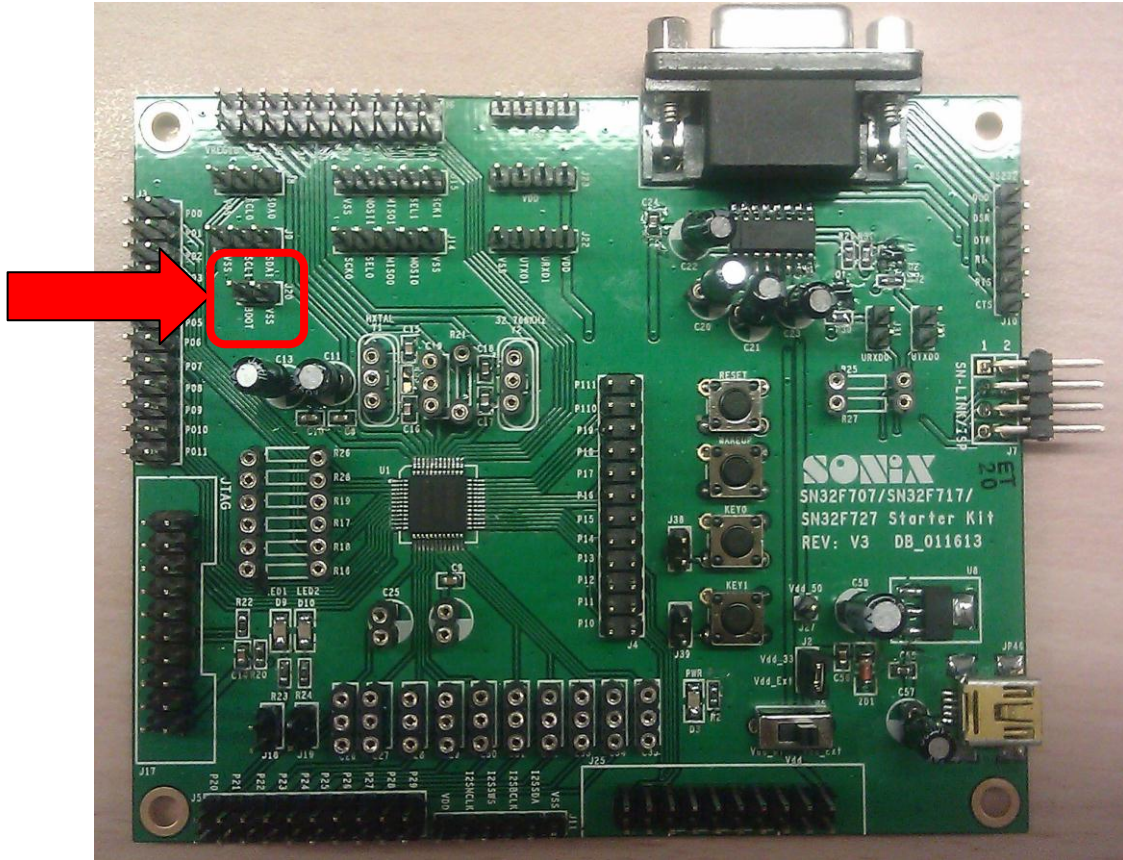


STEP 3: The following messages will show in the message box.

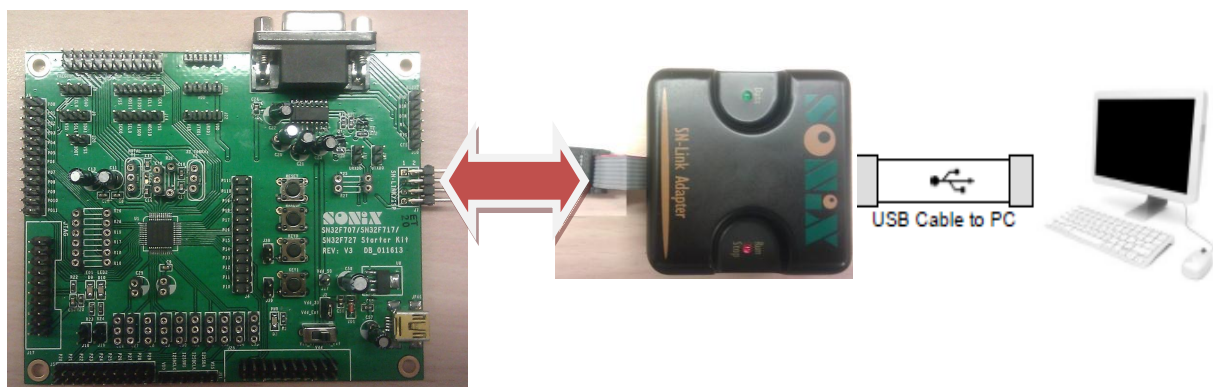


2.2 ISP Process

STEP 1: Please short BOOT pin of SONiX 32-bit MCU Starter-Kit to ground, and then power on. MCU will enter boot loader, and wait for commands from ISP tool.

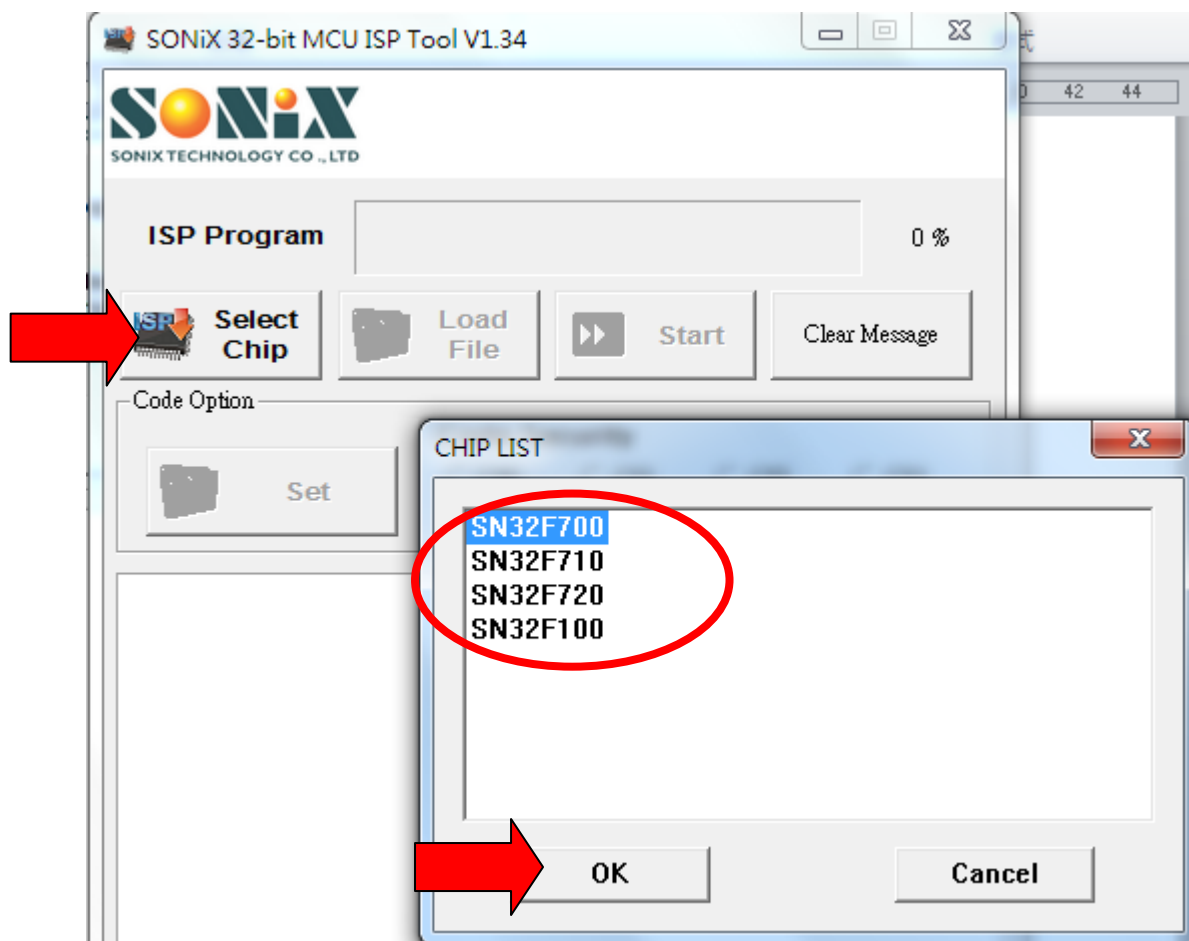


STEP 2: Please connect SN-LINK/ISP connector of SONiX 32-bit MCU Starter-Kit with the SN-LINK/ISP connector of SN32F700 ISP Board, and then connect SN32F700 ISP Board with PC via USB cable.

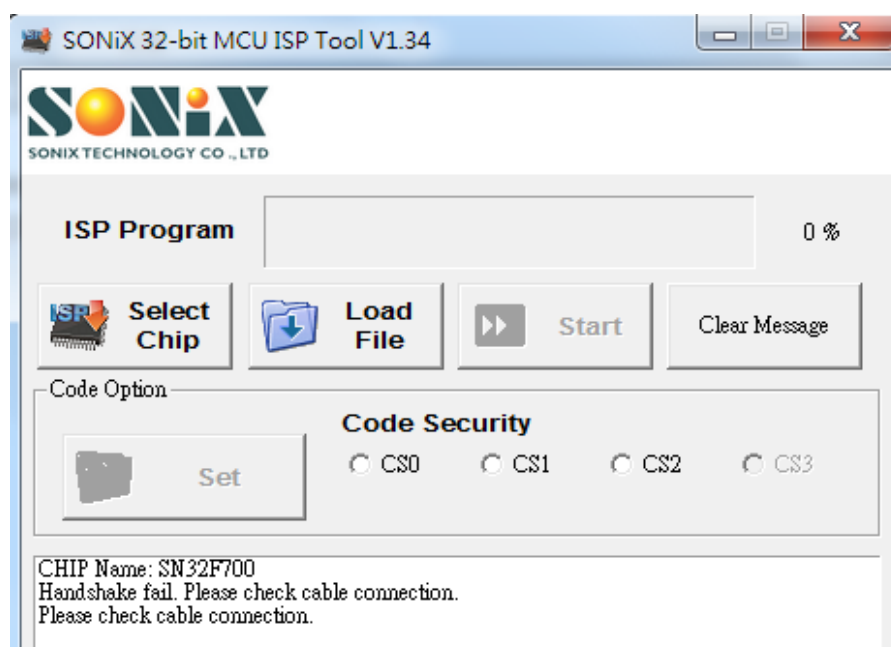


STEP 3: Please double click "SONiX 32-bit MCU ISP Tool" to execute.

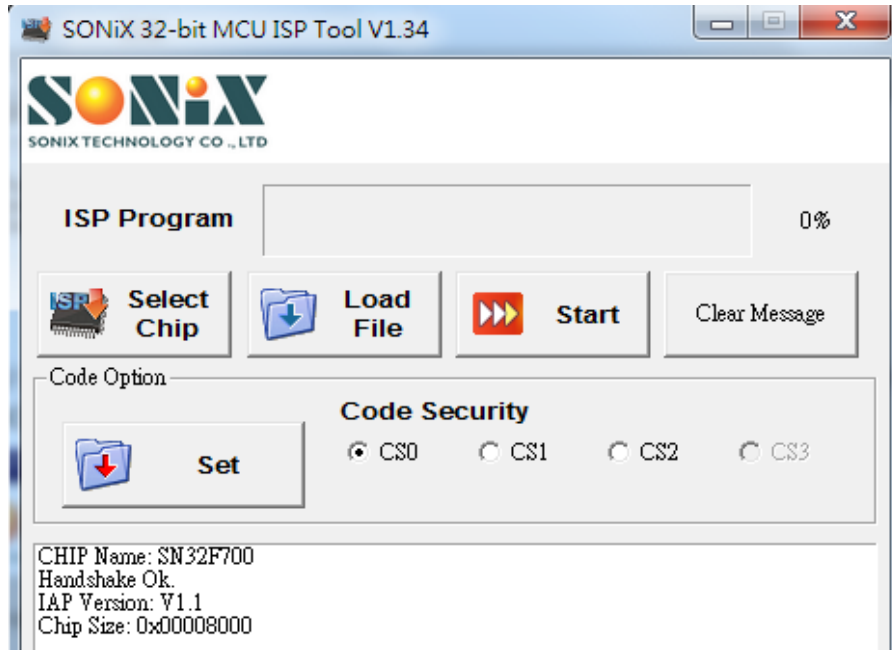
STEP 4: Please click "Select Chip" button, select the MCU number which is to be ISP from CHIP LIST, and then click "OK" button to get the information of MCU.



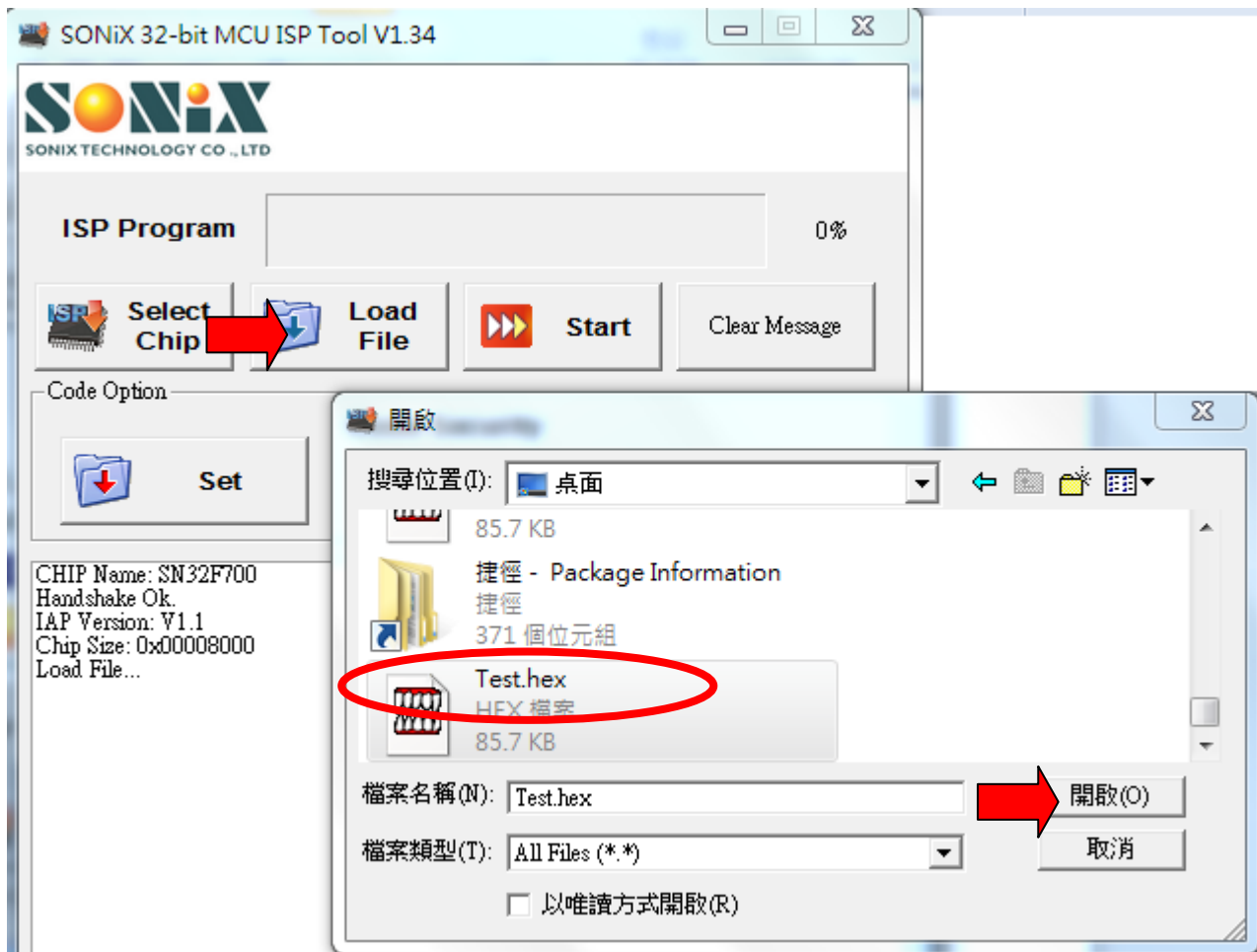
STEP 5: Please confirm the information of MCU from the message. If error messages ("Handshake fail", "Chip ID doesn't match", and so on), please retry from Step 1.



STEP 6: If the information of MCU is correct, the Code Option status of MU will also be updated.

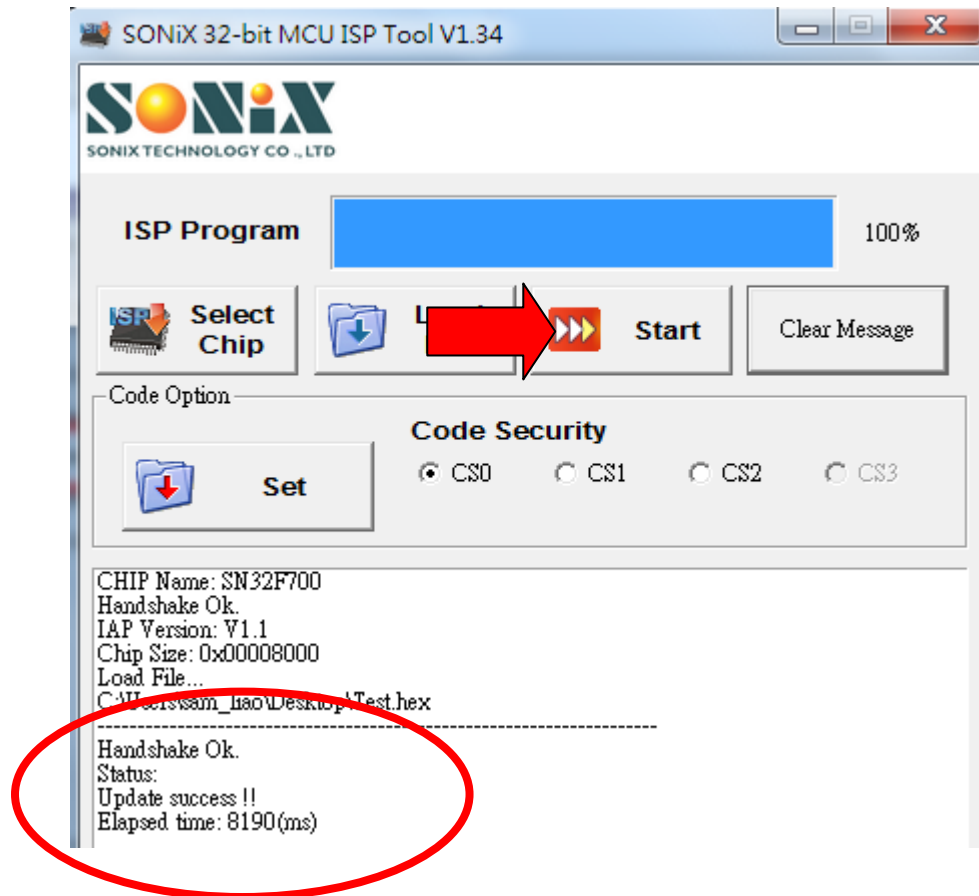


STEP 7: In order to update the firmware of user ROM, please click "Load File" button, select the desired HEX file of firmware, and then click "OPEN (O)".

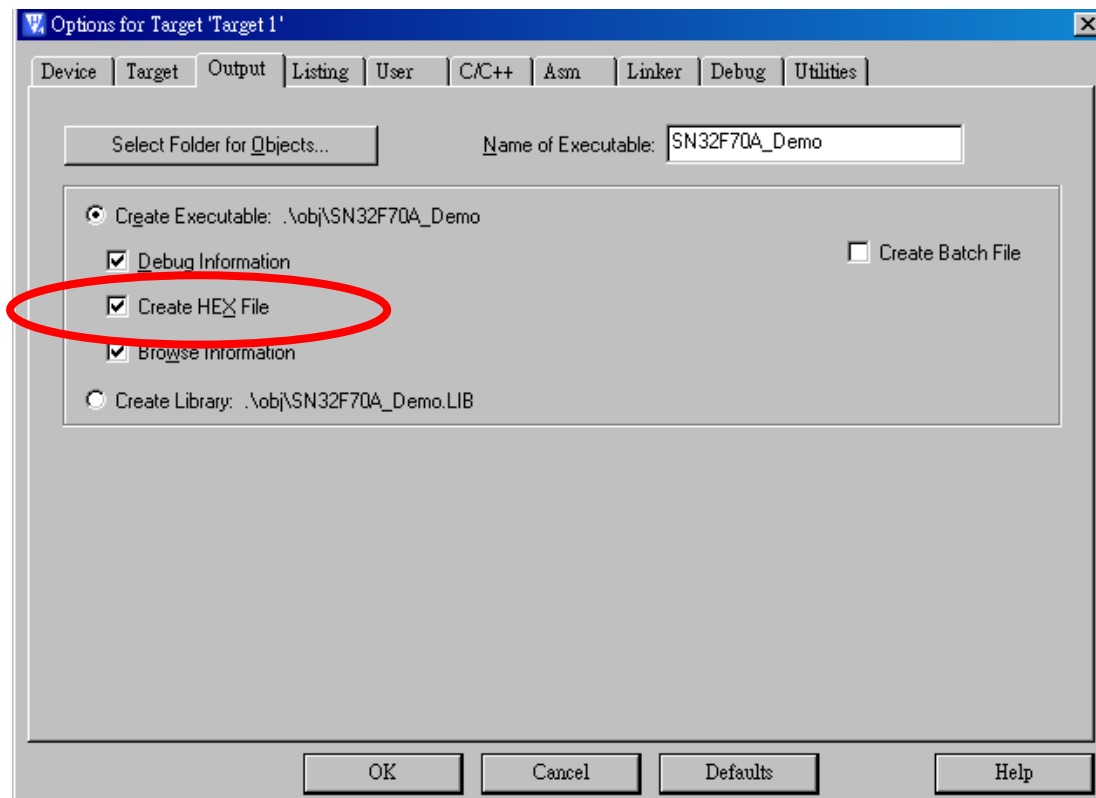


STEP 8: Please click "Start" button to start updating firmware. During the ISP period, the status bar will be updated, and the following message will appear after ISP

completes. ISP tool will set command to MCU to exit boot loader and execute the firmware which is just updated.

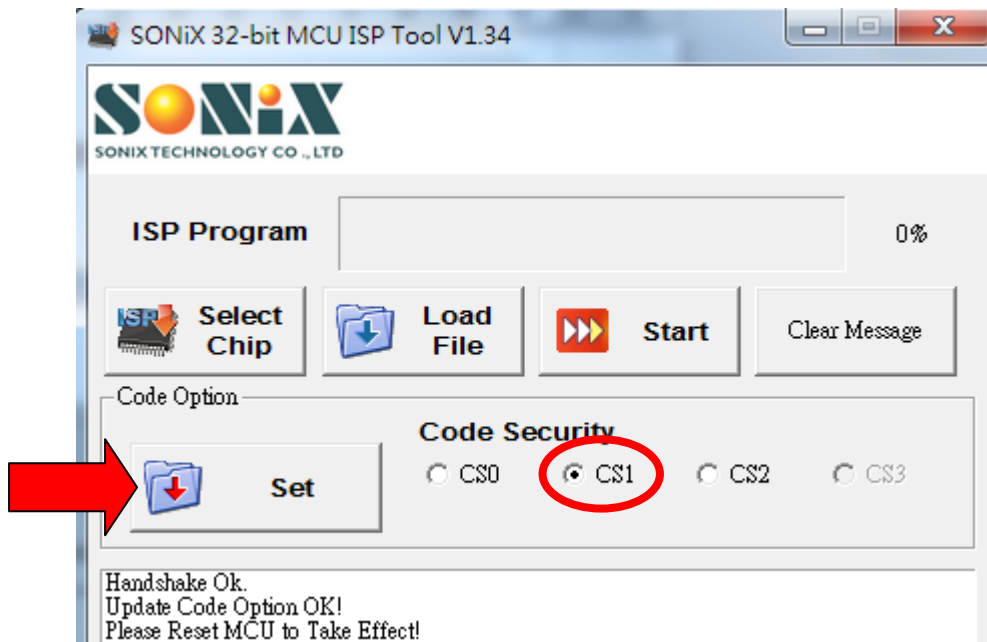


NOTE ISP tool only supports HEX file which is generated by KEIL, please check "Create HEX File" option in KEIL.



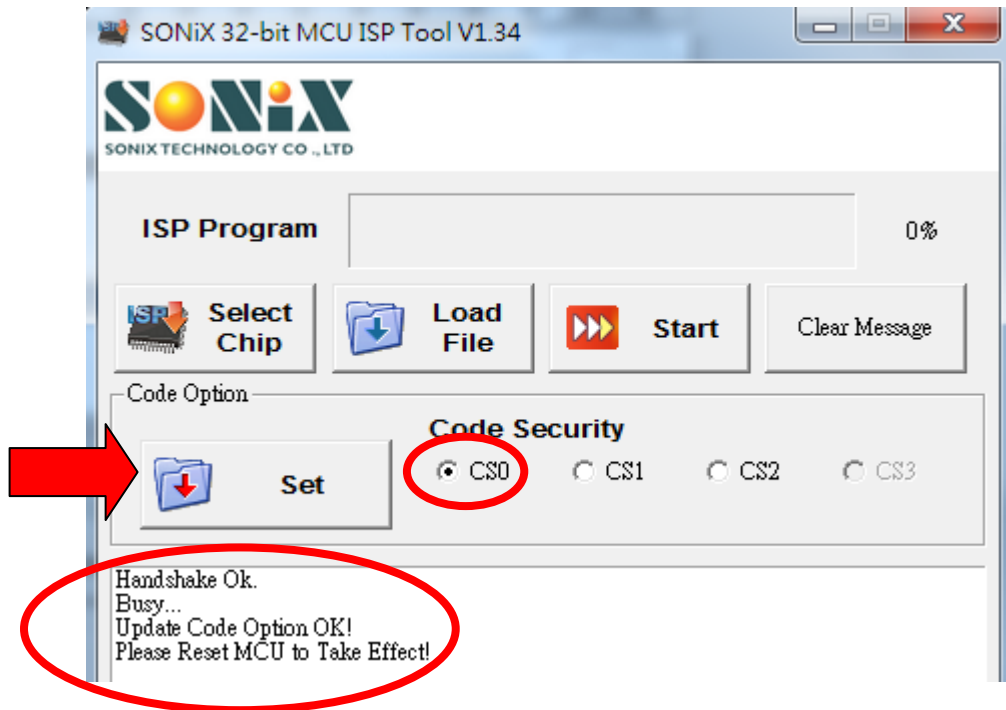
2.3 SET CODE OPTION

STEP 9: In order to set Code Security to CS1, please click CS, and then click "Set" button. The messages "Update Code Option OK!" and "Please Reset MCU to Take Effect!" will appear after the setting completes.



* NOTE * Please reset MCU to make the new code option settings take effect after updating.

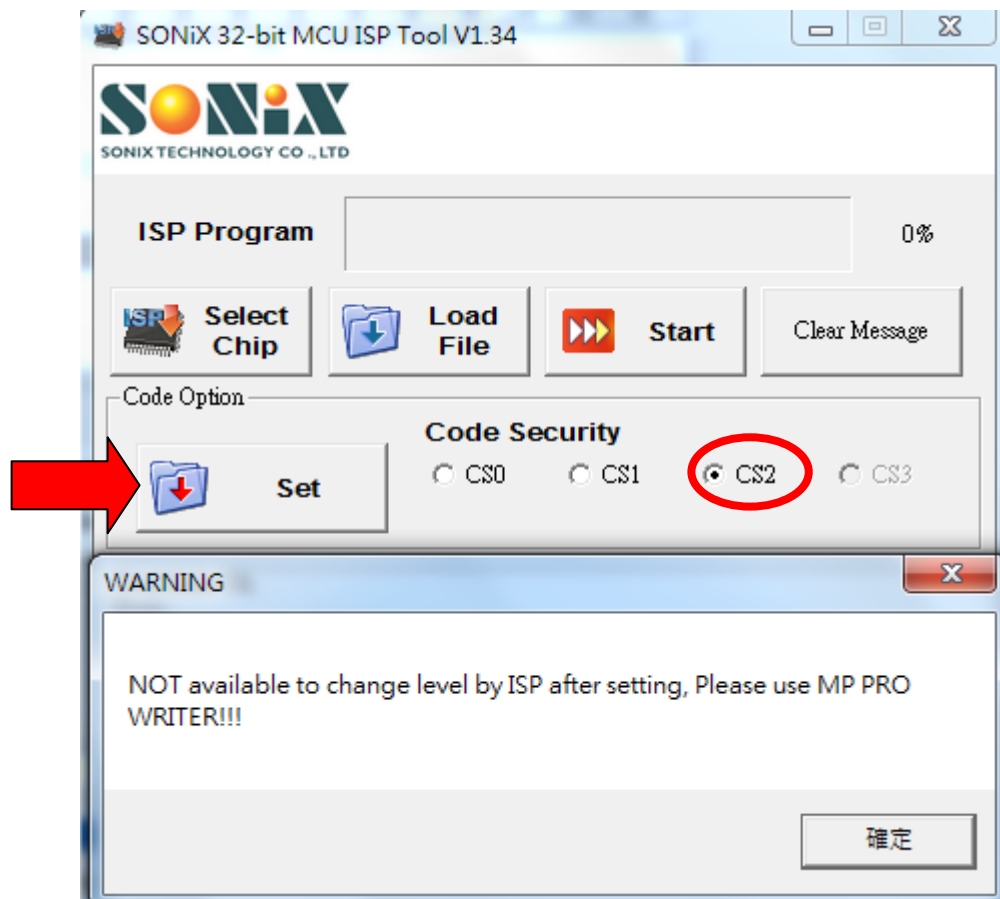
STEP 10: In order to set Code Security to CS0 from CS1, please click CS0, and then click "Set" button. The messages "Update Code Option OK!" and "Please Reset MCU to Take Effect!" will appear after the setting completes. Since this procedure is equal to disable the code security, the firmware of user ROM will be erased automatically by MCU itself, so the message "Busy..." will appear during erasing period.



* NOTE * Please reset MCU to make the new code option settings take effect after updating.

STEP 11: In order to set Code Security to CS2/CS3, please click CS2/CS3, and then the WARNING message will appear to inform the user that ISP tool will not able to disable code security any more, the user shall use SONiX MP PRO WRITER to disable security. If the user really wants to set Code Security to CS2/CS3, please execute step 12.

STEP 12: Click "Set" button. The message "Update Code Option OK!" and "Please Reset MCU to Take Effect!" will appear after the setting completes.



* NOTE * Please reset MCU to make the new code option settings take effect after updating.

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