



SmartPRO Programmer programs SillconLAB's EFM32ZG210F32

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V1.01nullDate: 2014/07/14

Product Application Notes

File information

Categories	Content
Keywords	SmartPRO 5000U-PLUS nullEFM32ZG210F32
picknullto	This article describes how to use SmartPRO 5000U-PLUS to burn writing SillconLAB chip

Revised history

Edition s	Date s	Reas on
V1.00	The 2014-7-8	Create a document
V1.01	The 2014-7-24	Change semiconductor company name, correct typos

Orders, null record

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1 Introduction to SmartPRO 5000U-PLUS Universal Programmer

SmartPRO 5000U-PLUS is known for its reliable burning, innovative engineering encryption technology, and ultra-fast programming. Win a good reputation in the industry. It supports off-line programming and cluster mass production, making it easier to create high efficiency. At the same time, it has an independent ICP download line interface, which can program the chip on the circuit board online, which is more convenient for engineers to debug on site. Humanized software interface and friendly visibility off-line programming control, it is more cordial. Below is a product reference image.



Figure 1. 1 SmartPRO 5000U Universal programmer picture

Product series: SmartPRO Series

Intelligent universal programmer

Model: SmartPRO 5000U-PLUS

Product features: Support "online" and "offline" two modes of work, with "offline mass production" and "remote control" functions.

Offline engineering storage media: internal FLASH electronic disk (4MByte), extended large capacity CF card.

For more and more complete information about SmartPRO 5000U-PLUS, please visit our company website:

<https://www.chinaobd2.com/wholesale/smartpro-5000u-plus-universal-usb-programmer-3059.html>

2 Burn Perform the burn steps

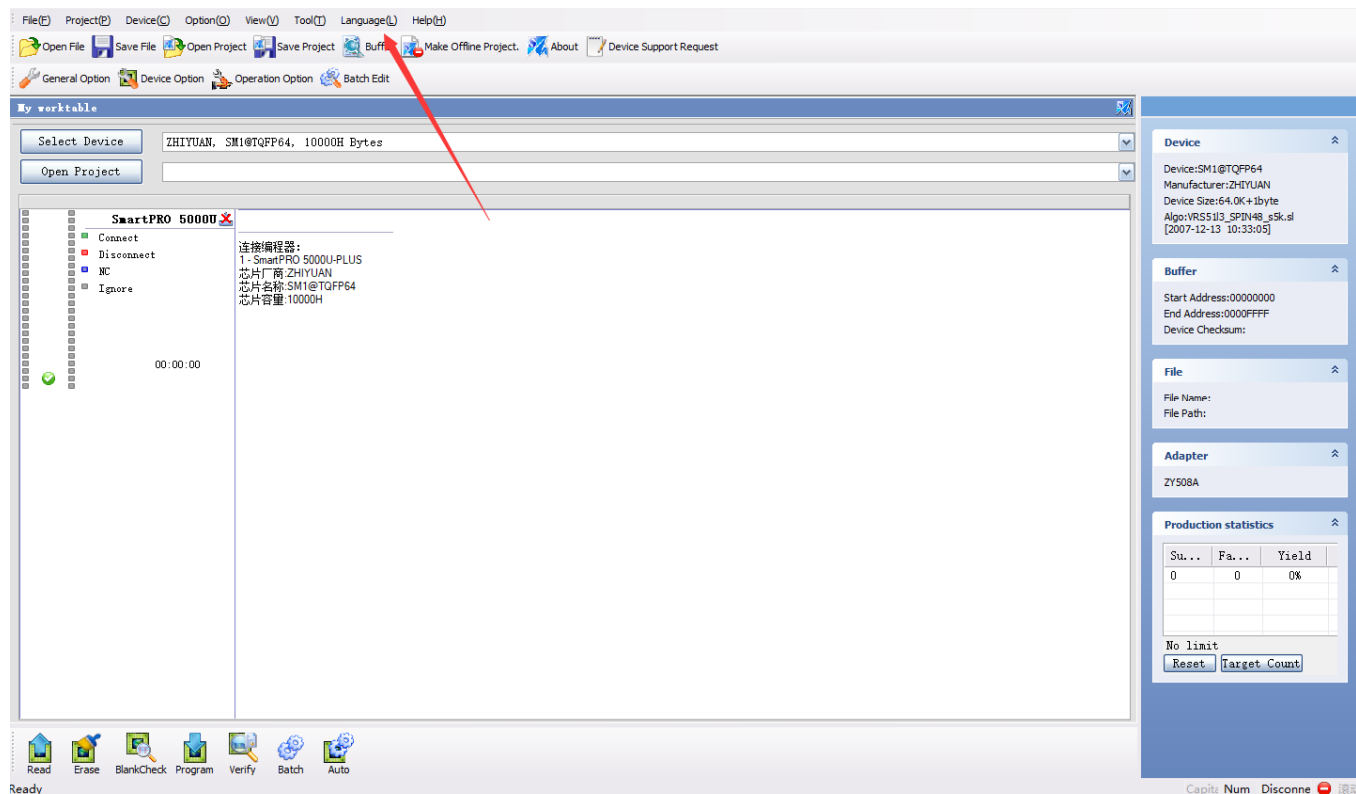
2.1 Run the software

Install the SmartPRO 2008 software, after confirming that the programmer power and USB cable are connected, double-click the desktop icon "SmartPRO 2008"



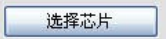
, open the programming software.

How to change the Language of SmartPro.



Click language, choose English. Smartpro only support Chinese and English.

2.2 Select the chip

Click on "Select Chip"  ;English version, click



Enter the chip model EFM32ZG210F32 in the device name input box;

Check EFM32ZG210F32@QFN32 in the "Devices" list and click "Select."

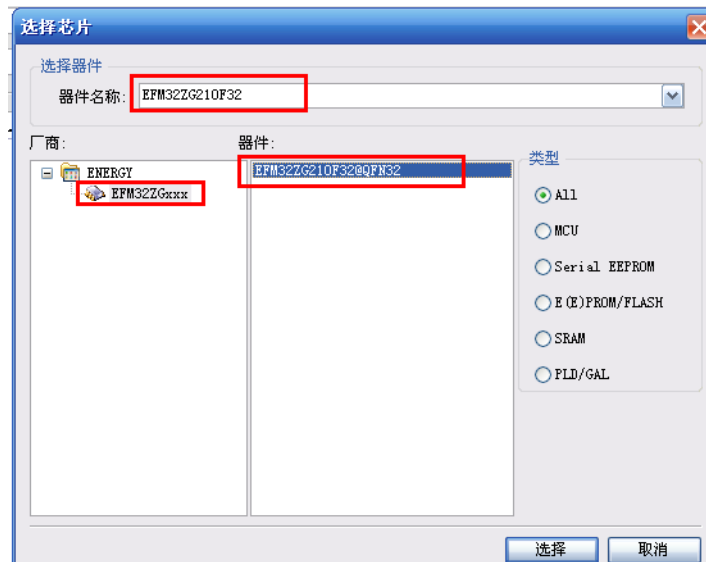
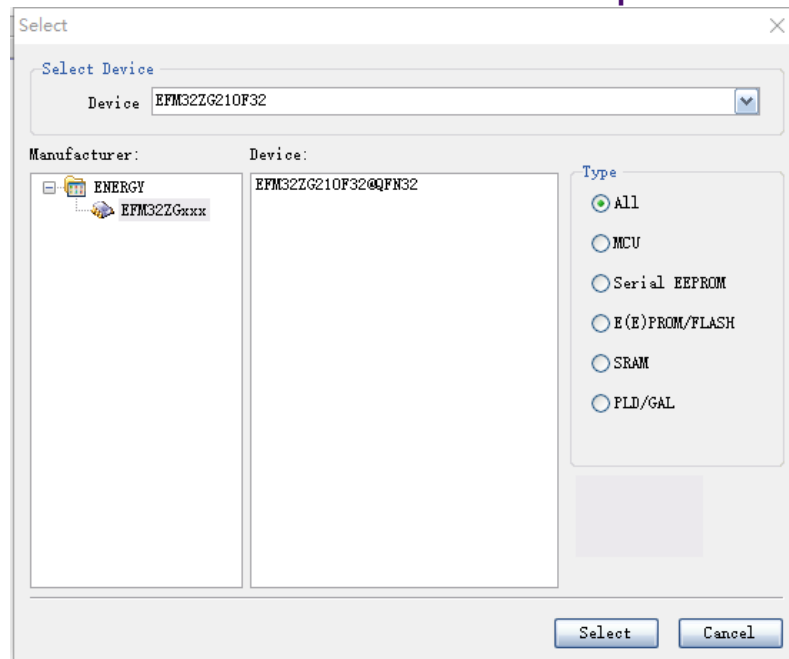
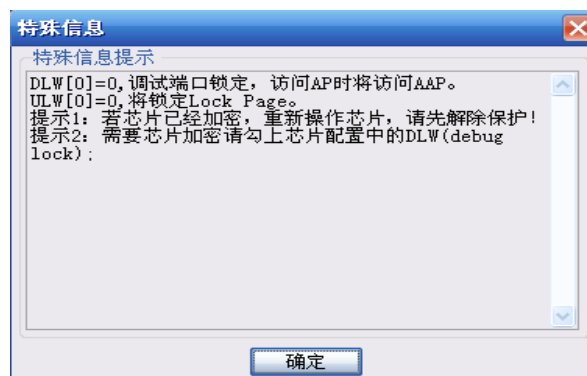


Figure 2.2. 1 Select the chip


d, pop up the chip "special information" dialog box, briefly introduce the chip when burning



precautions.

Figure 2.2. 2 Pop-up chip "Special information" dialog box

2.3 Load file

a. Click on "Open File" in the toolbar 

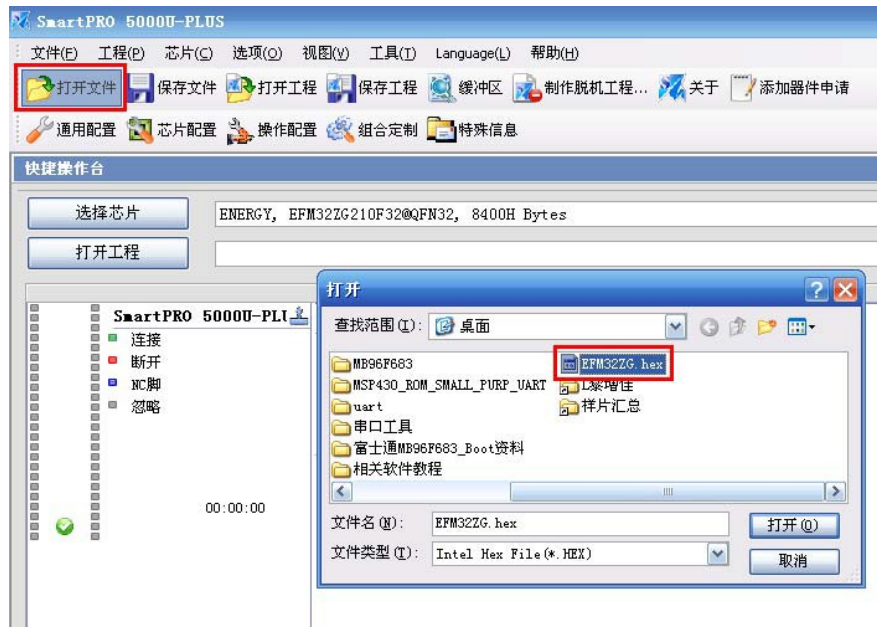


Figure 2.3. 1 Select the burned file

B. After the file is imported, the following information will be displayed in the main information bar

```

选择芯片
芯片厂商:ENERGY
芯片名称:EFM32ZG210F32@QFN32
芯片容量:8400H

打开文件
打开文件:
C:\Documents and Settings\lizengjia\桌面\EFM32ZG.hex
文件起始地址:00000000
文件调入长度:00008400
打开文件完毕!
  
```

of the software.

Figure 2.3. 2 After the file is opened, the information of the file is displayed

c. Check whether the file is correct can be verified by comparing the checksum of the software buffer.



Figure 2.3. 3 Prompts the check sum of the file to be called

At this point, the file import file is complete.

2.4 Burn write chip

- a. Operate the configuration and select the chip burn area

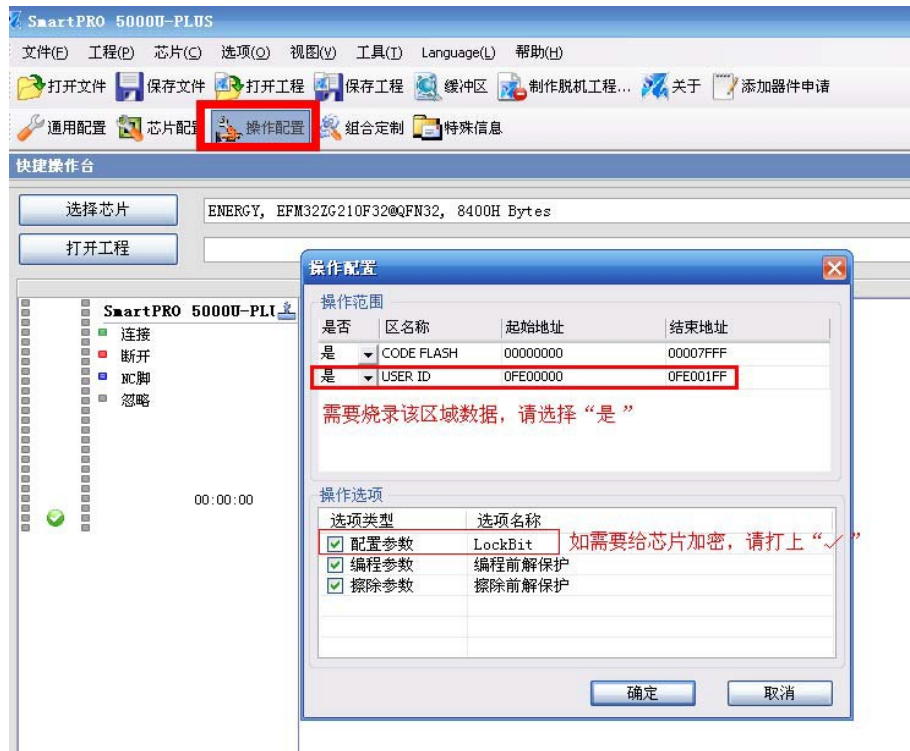


Figure 2.4. 2 User "Operation Configuration"

- b. chip configuration, configure encryption to the chip:

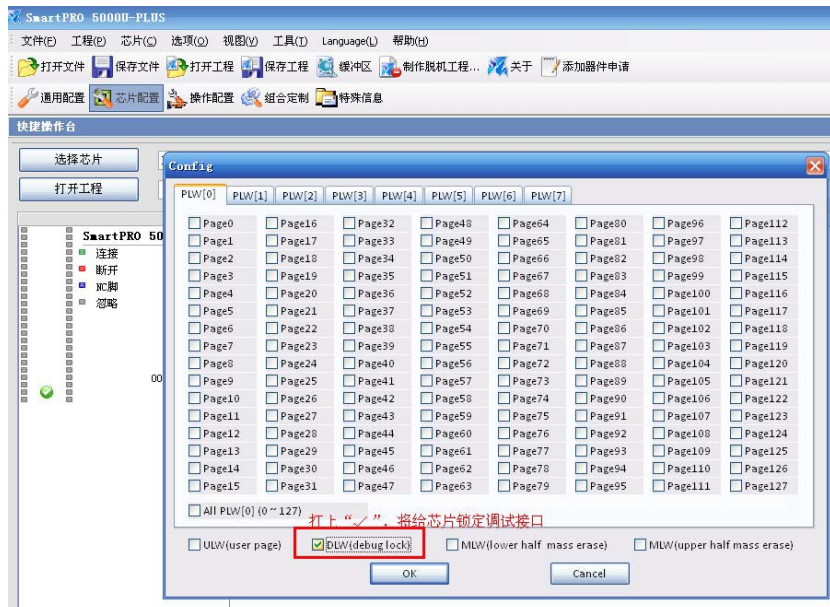
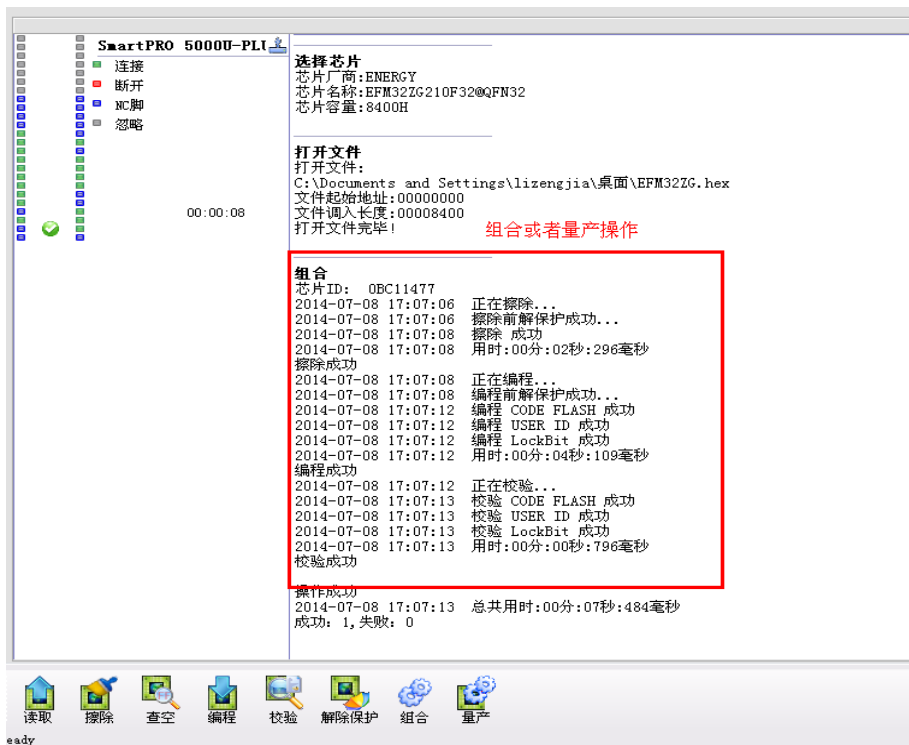


Figure 2.4. 2 Chip configuration, hit the "√" on DLW(debug lock), will be encrypted to the chip"

c, complete the operation configuration and chip configuration, and perform the combination or mass



production operation

Figure 2.4. 3 Combined or mass production operations

d, the encrypted chip, read data will be all 0x00, to prevent user application leakage

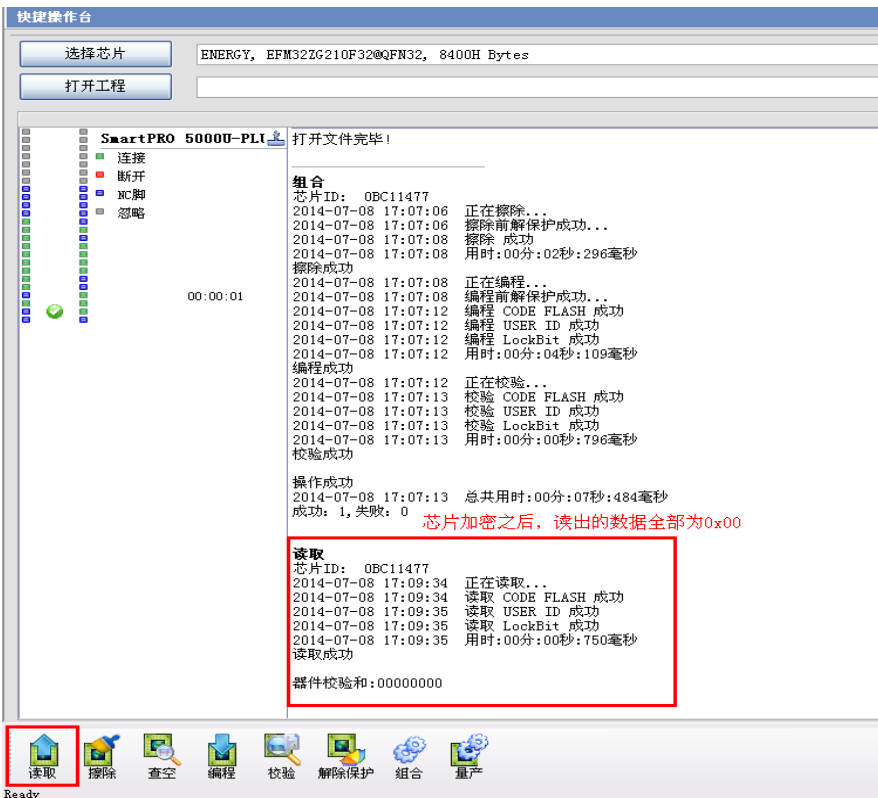


Figure 2.4. 4 After the chip is encrypted and the data is read, all zeros will be cleared

e, need to update the chip program, need to decrypt the chip first

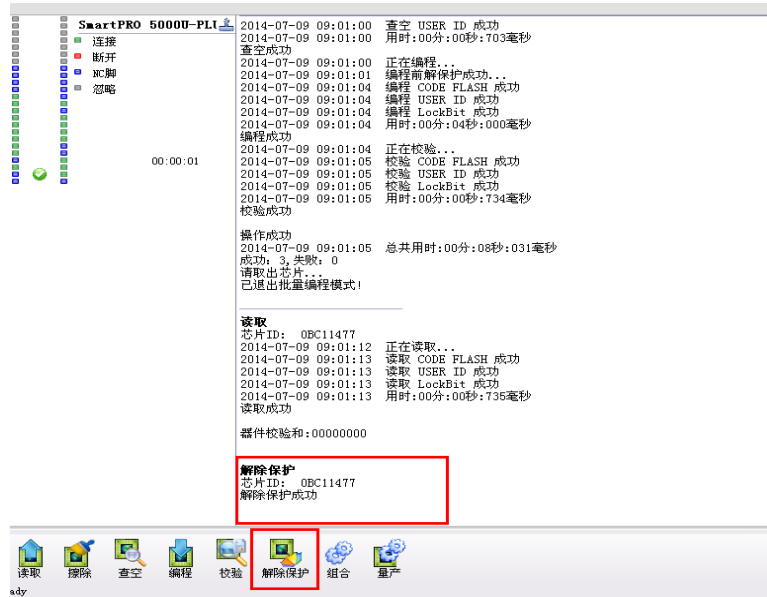
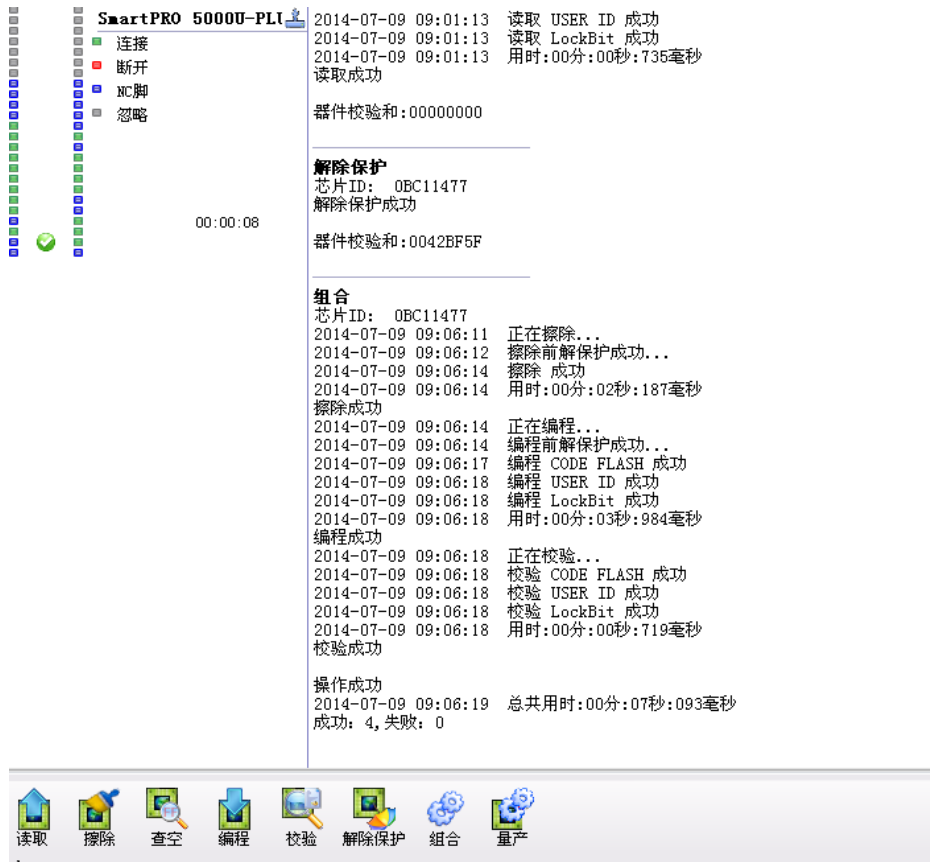


Figure 2.4. 5 Update chip program, need to decrypt the operation first

f, after decryption, re-import the user burn file, you can re-execute the chip erase, programming,



verification

Figure 2.4. 6 After decryption of the chip, you can continue to burn the program to the chip

2.5 Note on burning


A. Before mass production, be sure to confirm that the Settings are correct, put the first chip burned in the mass production system for testing, and then mass produce and burn other chips to avoid unnecessary losses.

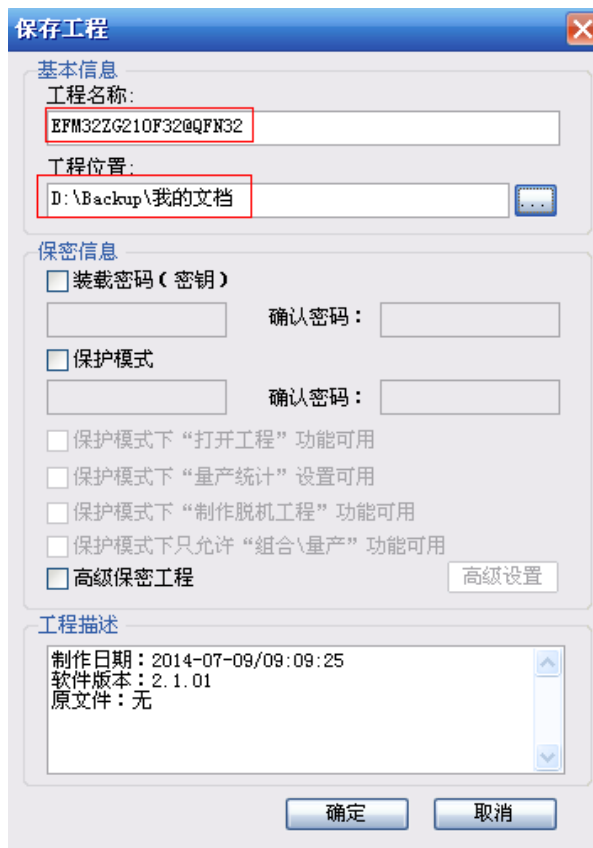
b, when encrypting the chip, only need to encrypt DLW(debug lock), you can achieve encryption effect.

2.6 Engineering mode operation

For the convenience of operation, we can save the operation environment such as the loaded files and the customized Settings of the combined operation


The form of the process. The next time you need to burn, directly open the project can be, do not choose the chip, do not load the file, do not set the combination of custom operations. Directly click "Mass production" to burn. Here's how to do it:

- Click in the toolbar ;
- Click "OK" after entering the project name and selecting the location where the project is saved; (For the setting of "Confidential information", please refer to the



content of "Help" in the menu bar of our software SmartPRO 2008);

Figure 2.5. 1 Save the project

- c. Next time you burn, click "Open Project"  in the toolbar null.

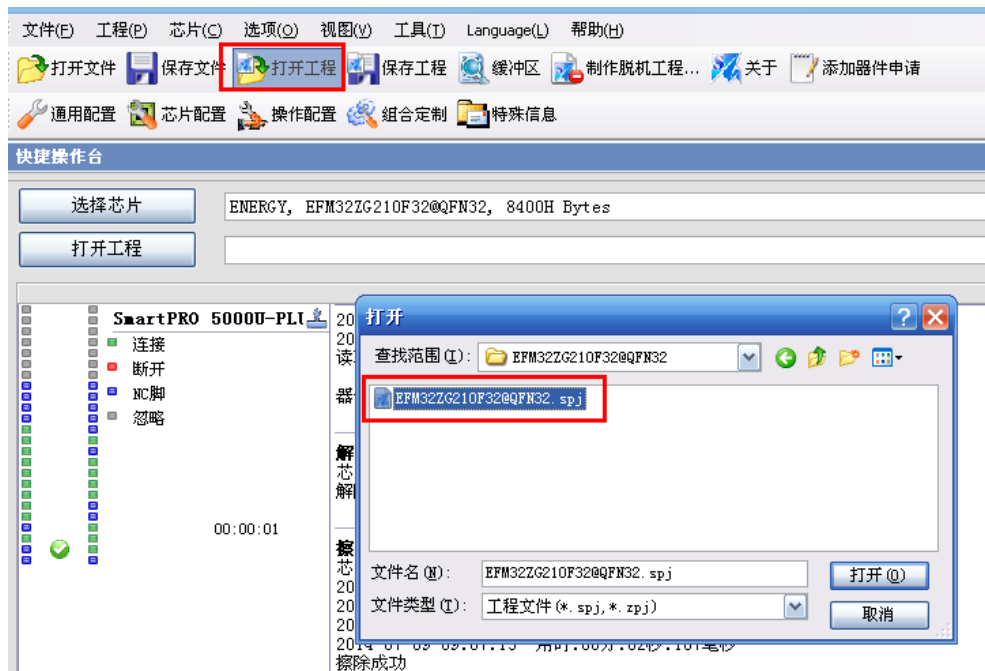



Figure 2.5. 2 Open project

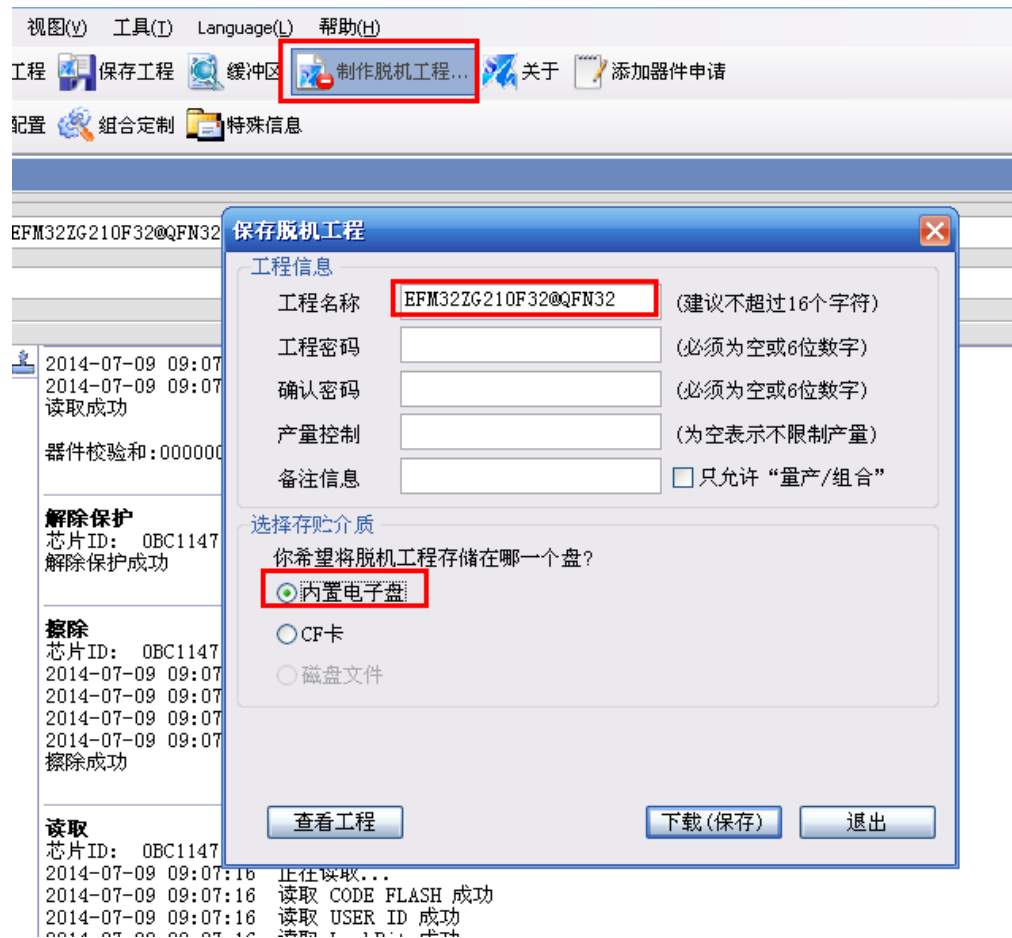
- d. Once the project file is open, click on "Mass Production" , you can burn the chip according to the operation steps set in the combination customization, without any setting.

2.7 Off-line programming

Offline is to download the file to the programmer, key operation;

- a. Click "Make offline project" in the toolbar ;

- b. Fill in the relevant information, click download to download the project to the



programmer.

Figure 2.6. 1 Making the offline function

- c. After the download is complete, power off the programmer, unplug the USB cable, and restart the programmer. When the programmer enters the offline state, the standby screen is displayed, as shown in Figure 2.7.2.



Figure 2.7. 2 Offline interface

- d. Press any key on the control panel to enter the main menu as shown in Figure 2.7.3:



Figure 2.7. 3 Operation interface

- e. Load a project before performing any chip-related operations. Method: Press the up and down arrow keys to move the cursor to "Load Project", then press the "OK" key, the system prompts you for the source of the project you want to load, as shown in 2.7.4.

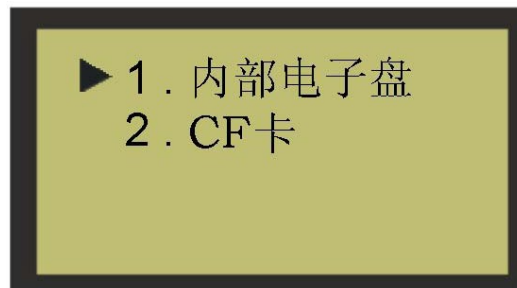


Figure 2.7. 4 Load project

- f. Enter the internal electronic disk or CF card, select the corresponding project file, and press "OK" to load the project. After loading, press ESC to return to the main menu. When the project is successfully loaded, the chip operation is ready. Move the cursor to "Chip Operation" and press "OK" to enter.
- g. The programmer supports batch burning of chips and is suitable for mass production. Move your cursor to "Mass Production" and press "OK" to enter mass production mode.
- h. When a chip is programmed, the display will prompt you to remove the chip, at which point you can remove the chip. After the chip is removed, the system prompts you to insert the next chip. When you need to exit "mass production" after finishing the last chip, you can press "ESC". At this time, the system will send a confirmation message, asking you whether you are sure to exit "mass production", press "OK" to confirm the exit, and press "ESC" to return to "mass production" mode.

3.null Disclaimer

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