



OSBDM **Upgrade** **User Manual**

TRACOSBDMUM001

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Revision History

Revision	Date	Author	Description of change
1.00	2012-01-31	Owen Feng	Initial
1.01	2012-02-07	Owen Feng	change some notes
1.02	2012-02-07	Owen Feng	Add picture
1.03	2012-07-05	Owen Feng	1- add user cable check 2- add clock selection
1.04	2012-7-30	Owen feng	Add gv55/gv55lite mcu selection

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1. Introduction

USBDM is a debugger hardware interface for a range of Freescale microcontrollers. It is designed to work with Freescale's Codewarrior software under Windows and Linux. More recently basic support for Coldfire with Codesourcery Tool chain has been added (WIN only).

1.1. Reference

1.2. Terms and Abbreviations

2. Upgrade Flow

2.1. Download Software

<http://sourceforge.net/projects/usbdm/files/>



USBDM Beta by pgo-d

Summary Files Reviews Support Develop Forums Code

Looking for the latest version? [Download USBDM_4_8_0_Win.msi \(58.8 MB\)](#)

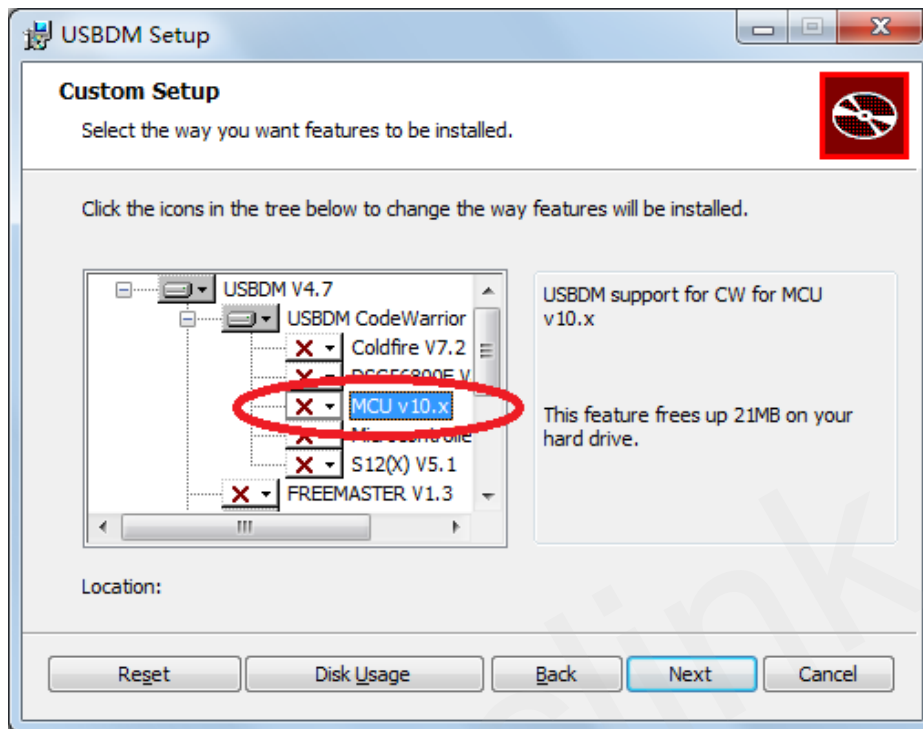
Home

Name	Modified	Size
Version 4.8	2011-12-30	
Version 4.7	2011-10-07	
Version 4.6	2011-07-06	
Version 4.5	2011-06-11	
Version 4.4	2011-02-18	

Totals: 5 Items

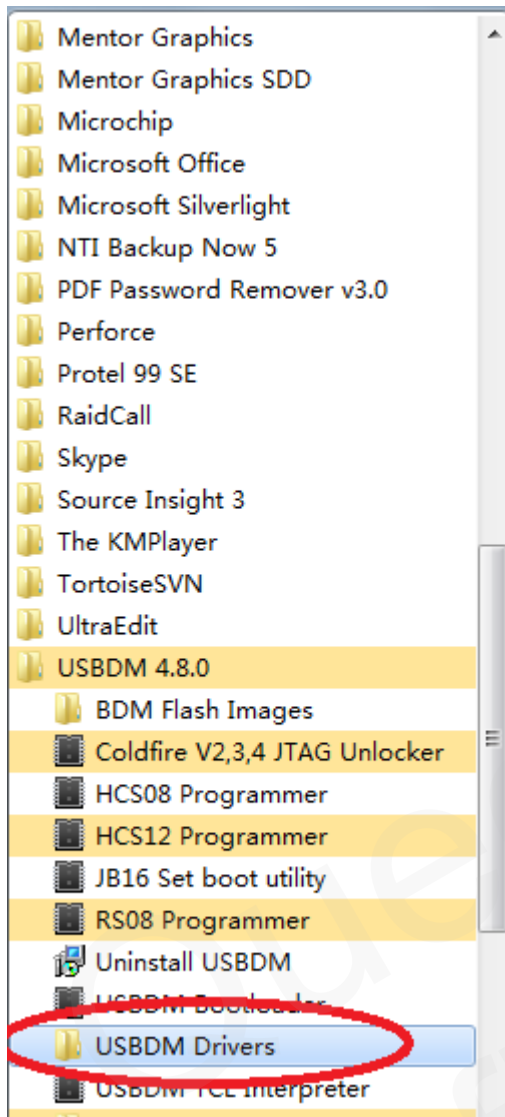
2.2. Install Software

Please exclude MCU V10.X in install option.

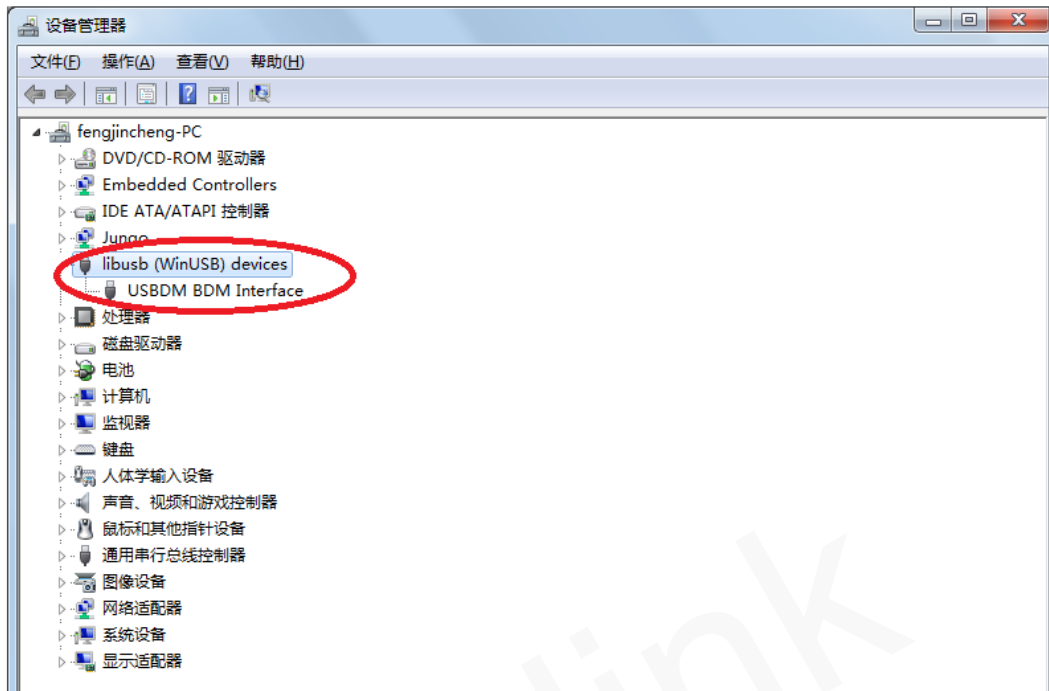


2.3. Install driver

Plug the USBDM cable in the computer, and then install the USB driver. USBDM USB driver path can get as click the menu.

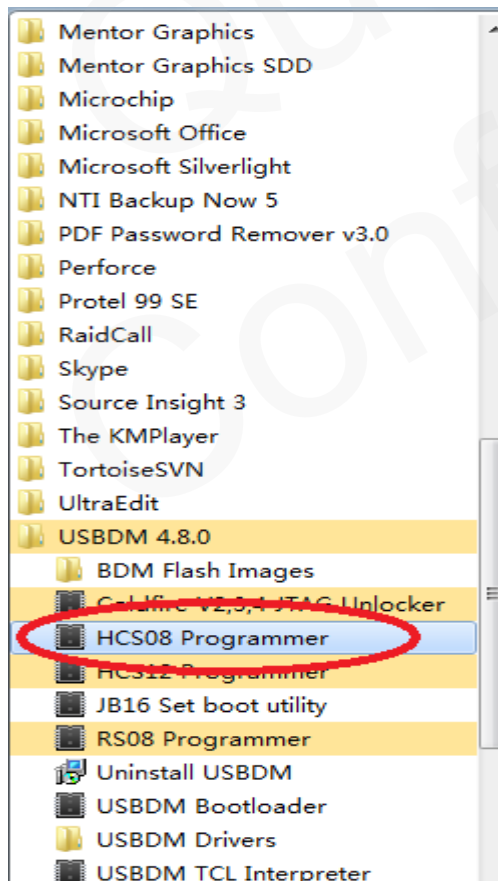


Then in the computer set management, a new set “libusb”(winusb) devices will appear.



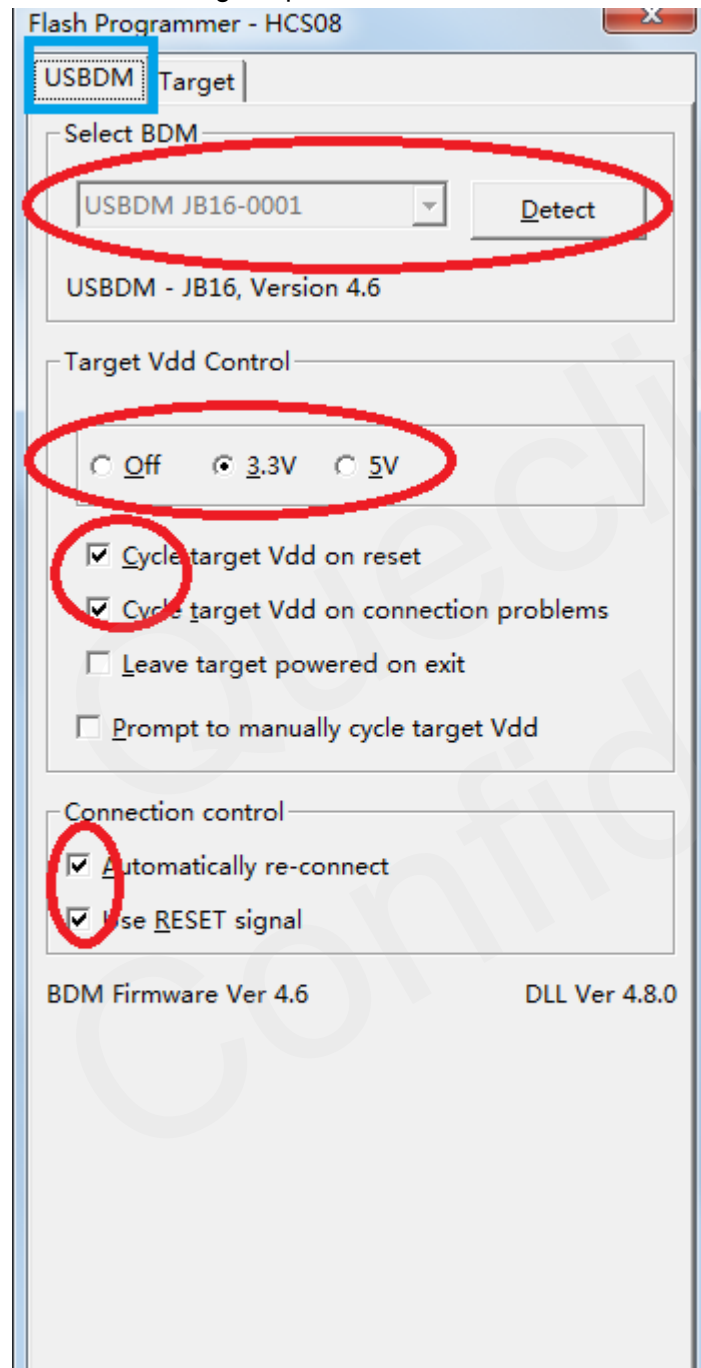
2.4. FLASH PROGRAMM(HCS08)

Run HCS08 Programmer from menu.



2.5. Config USBDM

The first step is to config USBDM , that can let MCU enter BDM mode. Please config USBDM following the picture.



2.6. Connect PC and set

Connect PC and set by Queclink USB/BDM cable. For BDM supply power for MCU ,so the

set must be turned off firstly.

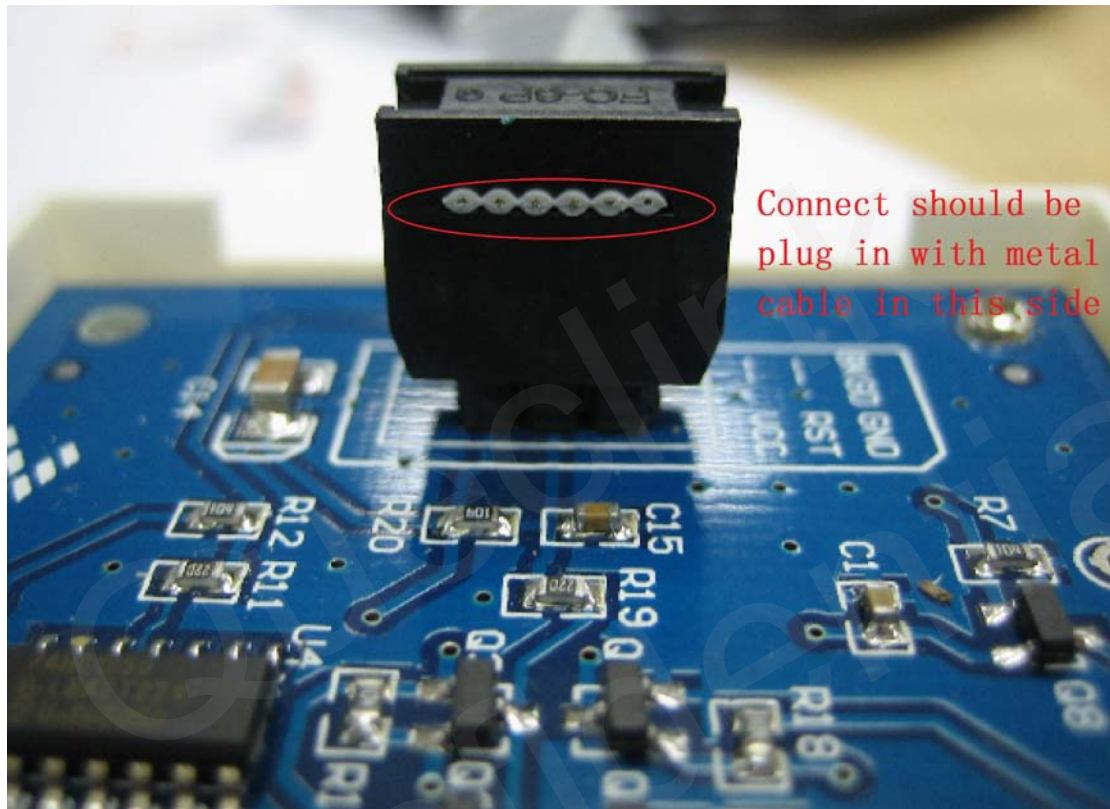
For GV300: turn off external power and switch the battery switcher to OFF position.

For GMT100: turn off external power and press reset button.

For GL500: remove the CR123 battery.

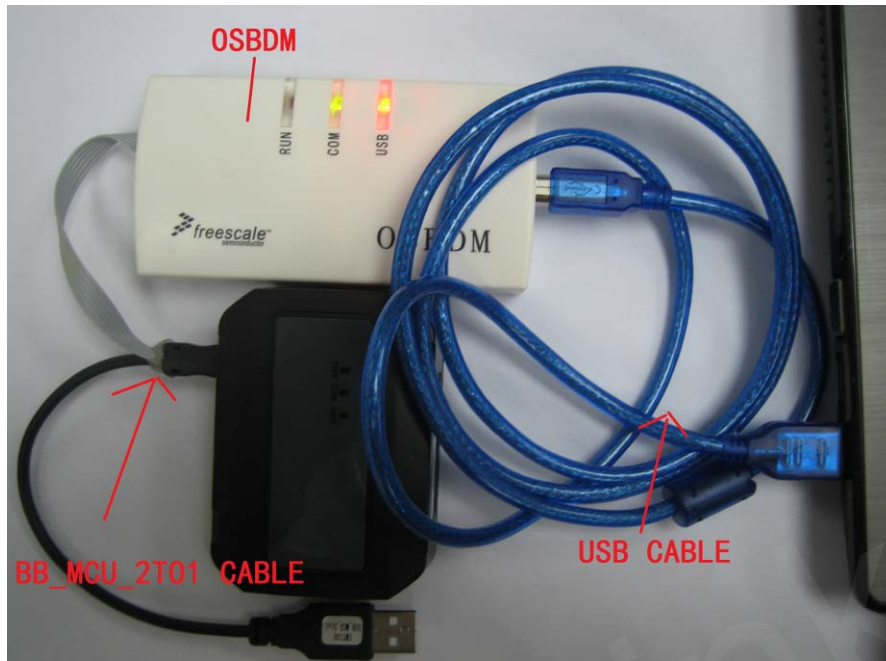
2.7. Config the Target

Check User cable connection:

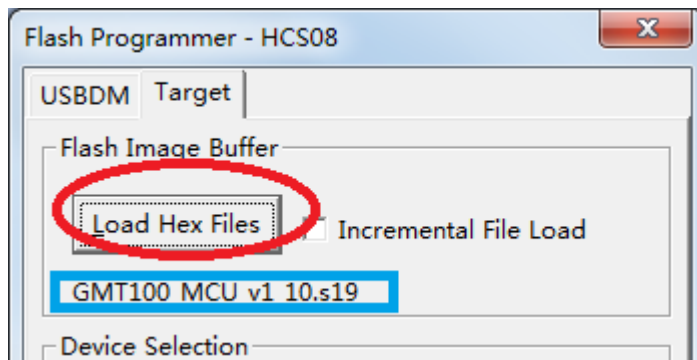


OSBDM user cable connection

Connect OSBDM with PC and Target(the example is GMT100).

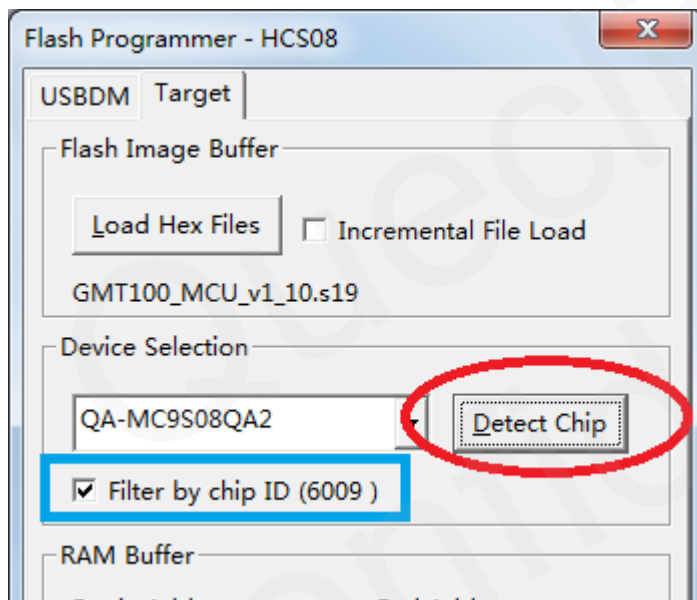


2.7.1. Step 1: select the software

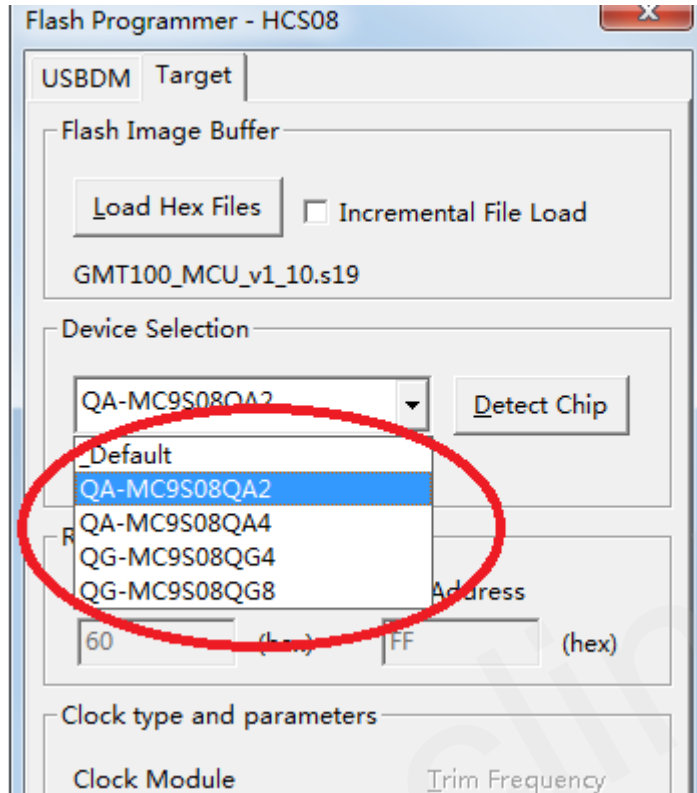


The selected software filename will be shown as in the figure. Sometimes it will appear file open fail, this is a software compatible problem, move the file to root.

2.7.2. Step2: Select the Chip Type



Click the button “**detect chip**”, then chip id such as “**6009**” will be shown. If chip ID can not be seen, there is connection problem. Please reconnect and try again.



In the Dropdown menu, select the right chip.

GMT100 must select QG-MC9S08QG8

GV300 must select QG-MC9S08QG4

GL500 must select QG-MC9S08QG8

GV55 must select QG-MC9S08QG8

GV55Lite must select QG-MC9S08QG4

2.7.3. Step3 Clock type and parameters

Select Trim frequency:

Flash Programmer - HCS08 [X]

USBDM | Target

Flash Image Buffer

Incremental File Load

No File Loaded

Device Selection

Filter by chip ID (6009)

RAM Buffer

Begin Address (hex) End Address (hex)

Clock type and parameters

Clock Module Trim Frequency kHz

Clock Module Address (hex) NVTRIM Address (hex)

Security

Image Secured Unsecured

Device Operations

Erase Options Trim Value: -

Enable Sounds

2.7.4. Step4 Set erase option

The screenshot shows a software configuration window with several sections:

- Begin Address**: 60 (hex)
- End Address**: 15F (hex)
- Clock type and parameters**:
 - Clock Module**: S08ICSV1
 - Trim Frequency**: 0.00 kHz
 - Clock Module Address**: 38 (hex)
 - NVTRIM Address**: FFAE (hex)
- Security**:
 - Image
 - Secured
 - Unsecured
- Device Operations**:
 -
 -
 - EraseOptions**: A dropdown menu with "EraseMass" selected and highlighted by a red circle.
 - Trim Value**: -
 - Enable Sounds
- Close** button at the bottom right.

In the dropdown menu, please check "EraseMass" option in this menu.

2.7.5. Setp5 Program the device

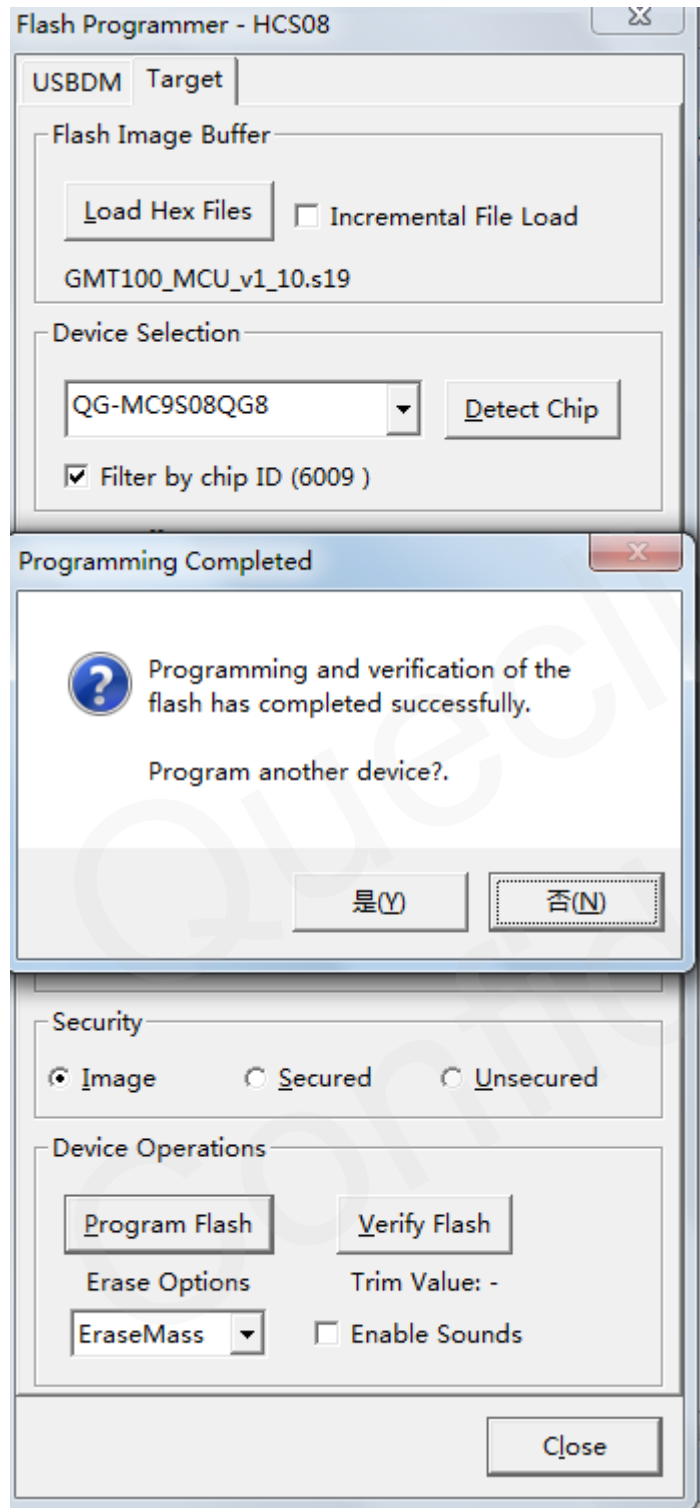
The screenshot shows a software window with the following sections:

- Begin Address**: 60 (hex)
- End Address**: 25F (hex)
- Clock type and parameters**:
 - Clock Module**: S081CSV1
 - Trim Frequency**: 0.00 kHz
 - Clock Module Address**: 38 (hex)
 - NVTRIM Address**: FFAE (hex)
- Security**:
 - Image
 - Secured
 - Unsecured
- Device Operations**:
 - Program Flash** (highlighted with a red circle)
 - Verify Flash**
 - Erase Options**: EraseMass
 - Trim Value**: -
 - Enable Sounds

A **Close** button is located at the bottom right of the window.

Then a process bar appears.

2.8. End of Program



2.9. Reset the set

For MCU will stay at upgrade mode when the set removed from the PC, please reset

the set according the set user manual.

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