

Notes and Points for LM3Sxxx Flash memory

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Revision History

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Contents

1	Introduction	5
2	Supported SLX(ZX) Versions	5
3	Advance Preparation	6
3.1	Protection	6
3.2	If Nothing is Recorded on the Built-in Flash Memory	6
3.3	MPU-Specific Settings	7
4	Setting the Memory Mapping	8
4.1	Setting up Flash Memory Mapping	8
4.2	Setting up User RAM for ICE	9
5	Download to Flash Memory	10
6	Software Break in Flash Memory.....	10

1 Introduction

This manual describes notes and points especially for writing to Flash memory.

For details of ICE operating instructions, see the microVIEW-PLUS User's Manual (Common Edition) and microVIEW-PLUS User's Manual (MPU-Specific Edition).

2 Supported SLX(ZX) Versions

SoC	Supported Versions	
	SLX600	ZX600
LM3Sxxx	1.00 or later	3.10 or later

3 Advance Preparation

3.1 Protection

Please disable any protection of flash memory.

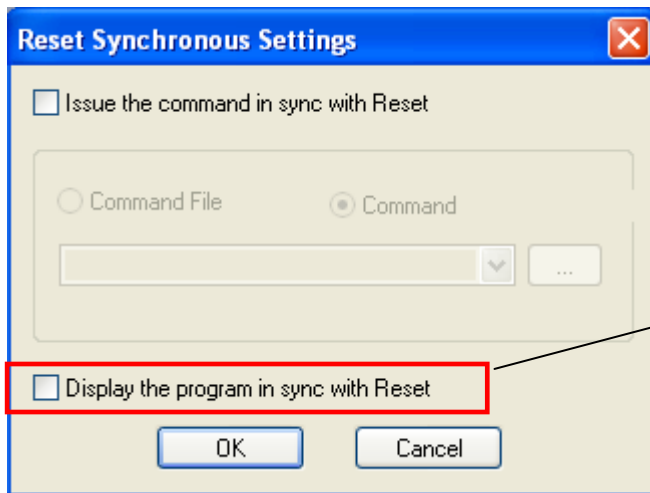
3.2 If Nothing is Recorded on the Built-in Flash Memory

microVIEW-PLUS dumps a reset vector area to display a program (disassemble display) after connecting by reset commands.

In case nothing is recorded in the built-in flash memory (a vector table is 0xFFFFFFFF), 0xFFFFFFFFE will be dumped and “ICE Error No.f58: Sticky error” may occur.

[Provision]

Right-click the Reset button on the toolbar, and then open the Reset Sync. Setting dialog box.



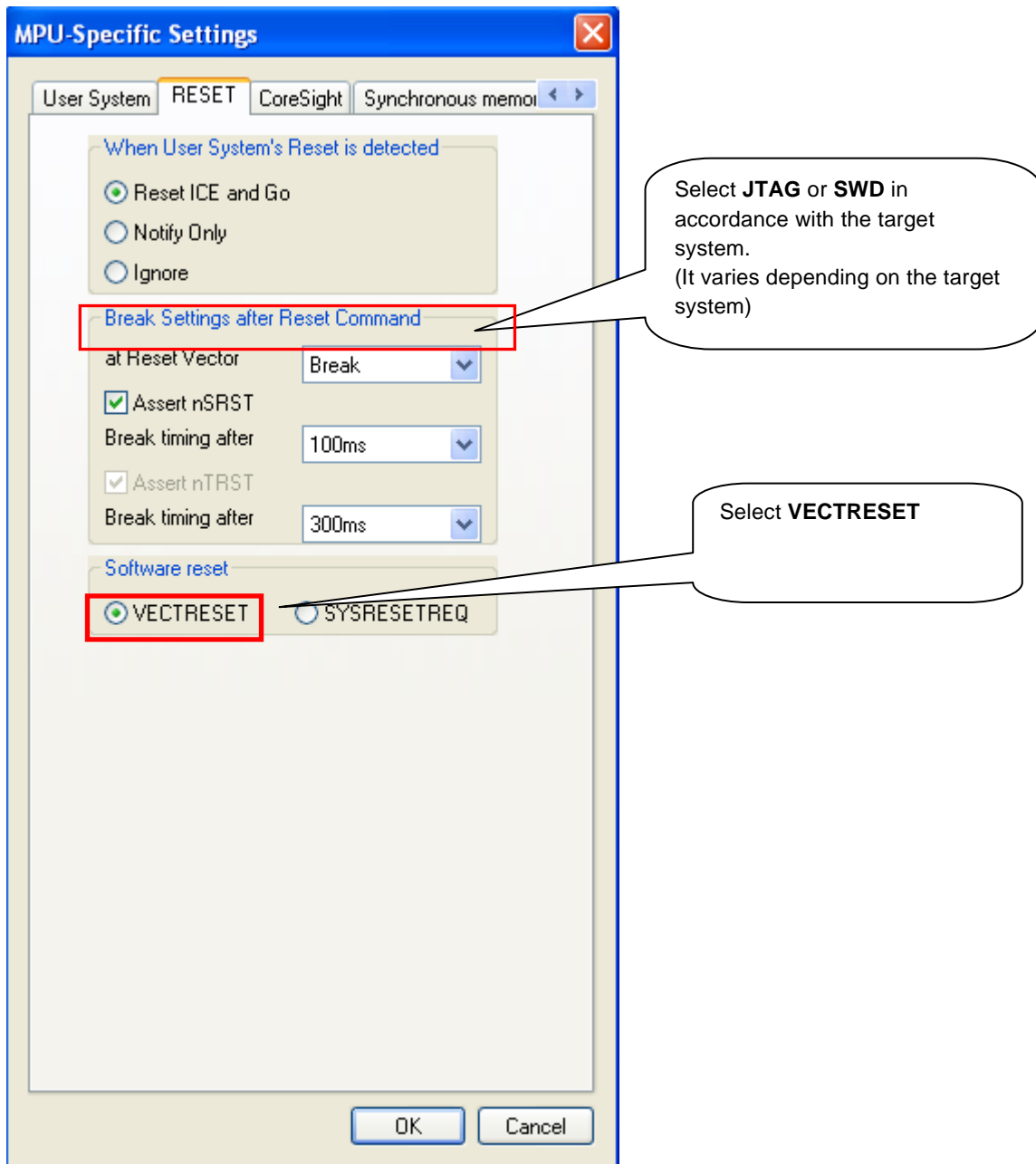
Clear the “Display the program in sync with Reset” check box.
(= does not dump by the reset command)

After downloading the program to the built-in flash memory (correct vector table values are written), select this check box again.

3.3 MPU-Specific Settings

Select **VECTRESET** for the reset type.

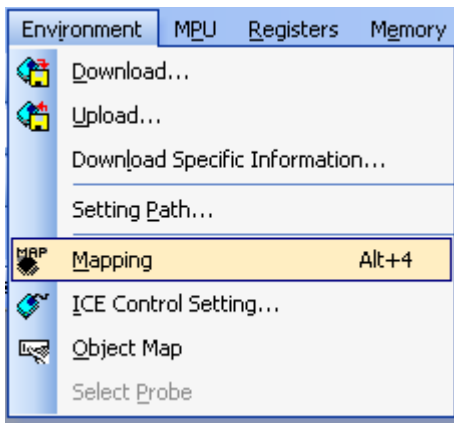
Notes and Points for when setting MPU-specific settings of [MPU] menu:



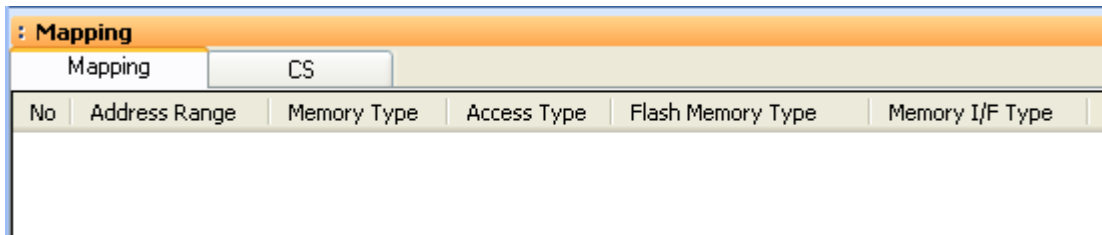
4 Setting the Memory Mapping

4.1 Setting up Flash Memory Mapping

Open the memory mapping window by clicking **Environments – Mapping**.

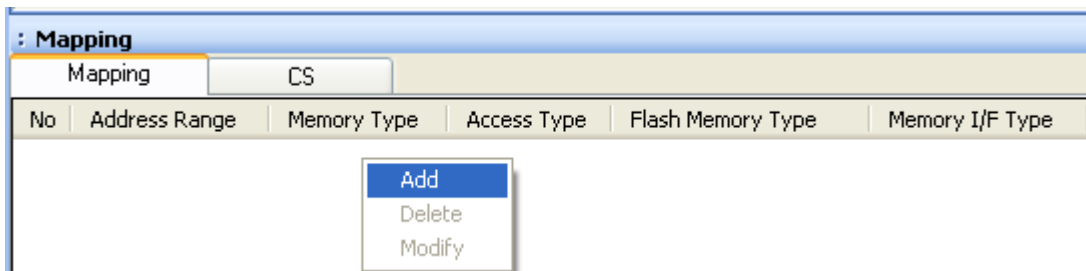


Memory map window as below is opened.

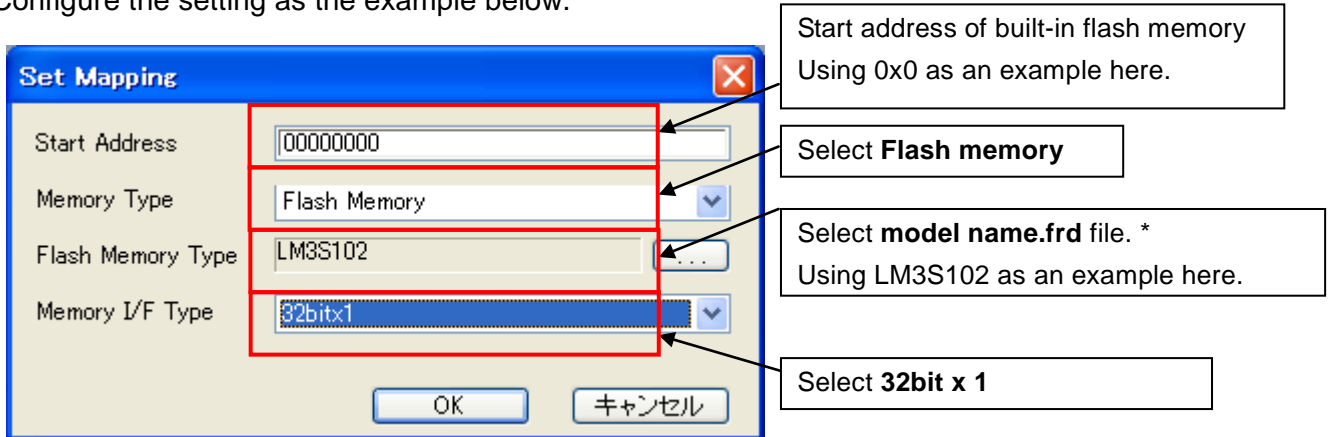


Set the mapping.

Right-click on the memory mapping window, and then select **Add**.



Configure the setting as the example below.



4.2 Setting up User RAM for ICE

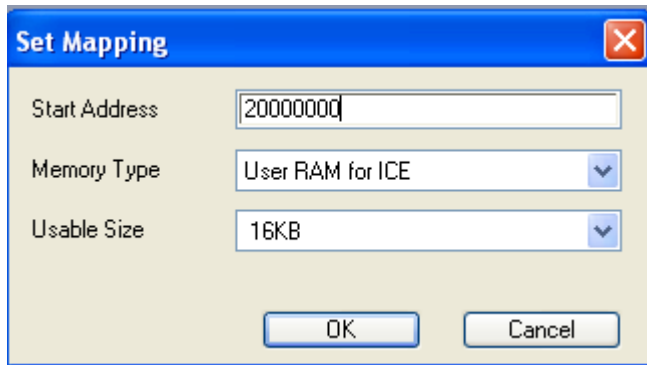
You can increase a download speed for flash memory by mapping a user RAM for ICE.

You can download to flash memory without the mapping setting though.

For User RAM for ICE, specify an area where ICE can occupy.

The following example is for when setting 16KB from 0x20000000.

For the actual settings, refer to the Soc memory map of yours.



5 Download to Flash Memory

For details, see the microVIEW-PLUS User's Manual (MPU-Specific Edition).

Details of memory mapping settings are described on this manual. Please refer to microVIEW-PLUS User's Manual (MPU-Specific Edition) for other contents.

6 Software Break in Flash Memory

For details, see the microVIEW-PLUS User's Manual (MPU-Specific Edition).

Details of memory mapping settings are described on this manual. Please refer to microVIEW-PLUS User's Manual (MPU-Specific Edition) for other contents.

You are not allowed to set up software break for flash memory in the initial state. In case you try to set up software break for flash memory in the disabled status, it results in "ICE Error No. 8c4: Set Software Break Verify Error".

To enable software break setting for flash memory, check Enable for S/W Break in Flash Memory on the Others tab of the MPU-Specific Settings dialog box.

