NXP Semiconductor

Application Note

How to load a new firmware on LS boards for CMSIS-DAP

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1. Introduction

This document describes the steps required for updating to a new firmware on LS board for CMSIS-DAP.

This document includes the following sections:

- Get the CMSIS-DAP firmware.
- Prepare the LS board.
- Update CMSIS-DAP firmware.



2. Get the CMSIS-DAP firmware

Download the CMSIS-DAP firmware matching the target board from compass: http://compass.freescale.net/livelink/livelink?func=ll&objId=232410365&objAction=browse&viewTyp e=1. Location accessible from inside NXP network only.

Use the following table to find out which image fits the target board:

BOARD	CMSIS-DAP FIRMWARE		
LS1012A-RDB	k22fx512 if mbed.bin		
LS1012A-FRDM	k20dx128 if mbed.bin		
LS1021A-TWR	k20dx128 if mbed.bin		
LS1021A-IOT	k22fx512 if mbed.bin		
LS1043A-RDB	k22fx512 if mbed.bin		
LS1046A-RDB	k22fx512 if mbed.bin		

3. Prepare the LS board

Plug in power to LS board. Hold down Reset button while plugging the PC USB cable into the CSAM USB connector on the board.

On Windows, the board will be mapped as a Mass Storage Device under a volume labelled 'BOOTLOADER'.

LED for MBED status will blink in green on the board to acknowledge it is in bootloader mode.

4. Write CMSIS-DAP firmware on LS board

- 1. Copy the binary downloaded in Chapter 2, into this new volume, 'BOOTLOADER'
- 2. Wait the binary copy to finish; LED for MBED status will blink with higher rate on finish;
- 3. Unplug the USB cable from the board, then plug it back in to power cycle the module
- 4. You are now ready to connect to your board via CodeWarrior

5. Windows mbed USB driver

As specified in board Quick Start Guide, for Windows, please verify that mbed USB driver is installed. Use http://mbed.org/handbook/Windows-serial-configuration for references.

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