NXP Semiconductors
Release Notes

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i.MX RT1050 Flashloader v1.1.0 Release Notes

Contents

1. Overview

These are the release notes for the i.MX RT1050 Flashloader v1.1.0. For additional information and getting started instructions, check Getting Started section of this document.

The i.MX RT1050 Flashloader is an application that is loaded into the internal RAM of a i.MX RT1050 device. The Flashloader is designed to work as a second stage of bootloader for i.MX RT1050 device. It detects communication traffic on one of the supported peripherals (USB-HID and UART), download a user application, and write the application to external serial NOR or serial NAND flash device. The Flashloader is loaded by MfgTool at first stage and work with MfgTool to do Flash programming at second stage.

The release includes the PC-hosted MfgTool application. This application is used for downloading application to Flash device in both development and production phase. This release also includes elftosb command-line application. It is used to generate bootable image for i.MX RT1050 ROM and generate programable image supported by Flashloader.

2. Development Tools

The i.MX RT1050 Flashloader v1.1.0 was compiled and tested with these development tools.

Firmware projects:

- IAR Embedded Workbench for ARM® v7.80.2
- KEIL MDK 5.40.2

Host projects:

- Microsoft Visual Studio® Professional 2015 for Windows® OS Desktop
- Microsoft Visual Studio C++ Redistributable for Visual Studio 2015 (vcredist_x86.exe)

3. System Requirements

System requirements are based on the requirements for the development tools and the MfgTool application. The recommended PC configuration is 2GHz processor, 2GB RAM, and 2GB free disk space.

Windows OS applications like MfgTool require installation of Visual C++ redistributable 2013 or greater.

4. Target Requirements

This release of K32H844P Flashloader supports the following platforms:

- MIMXRT1050-EVK

There are no specific requirements for the hardware other than what the board requires to operate.

5. Release Contents

This table describes the release contents

Table 1. Release contents

Deliverable	Location
Host binaries and utilities	<install_dir>/Tools example BD files are under <install_dir>/Tools/bd_file folder blhost application is under <install_dir>/Tools/blhost folder elftosb application is under <install_dir>/Tools/elftosb folder MfgTool application is under <install_dir>/Tools/mfgtools-rel folder
Documentation	<install_dir>/doc
Flashloader release	<install_dir>/Flashloader
Demo Application	<install_dir>/apps

6. Getting started

Refer to the *i.MX MCU Manufacturing User's Guide* (document IMXMCUMFUUG) under <install_dir>/doc directory to understand the steps required to use the i.MX RT1050 Flashloader and corresponding host tools to generate a user application boot image and load it to external flash device.

7. Features

The i.MX RT1050 Flashloader supports the following communication interfaces for downloading an application.

- USB-HID
- LPUART0

It also supports configuring and programming the external flash device in a user-friendly manner. Refer to *MCUX Flashloader Reference Manual* under <install_dir>/doc folder for further details.

8. Host tools

The bootloader release contains the binaries for the following PC-based host tools:

- MfgTool2.exe: GUI application to download and program an application image into the external flash device
- Elftosb.exe: command line tool to convert ELF/SREC formatted application image into bootable image format (or SB format)
- Blhost.exe: command line debug tool called by MfgTool to perform application programming

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