FA93

SD Loader

Reference Guide

V1.0

Support Chips:

W55FA Series

Support Platforms:

Non-OS

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Table of Contents

1. General Description

FA93/VA93 Non-OS library consists of a sets of libraries. These libraries are built to access those on-chip functions such as VPOST, APU, SIC, USBH, USBD, GPIO, I2C, SPI and UART, as well as File System (NVTFAT), USB MassStorage devices (UMAS) and NAND Flash devices (GNAND). This document describes the basic function of SD Loader. With this introduction, user can quickly understand the SD Loader on FA93/VA93 micro processor.

2. SD Loader Overview

FA93/VA93 built-in 16K bytes IBR (Internal Booting ROM) where stored the boot loader to initial chip basically when power on, and then try to find out the next stage boot loader from different type of storage. It could be SD card, NAND, SPI Flash, or USB storage. The search sequence by IBR as below
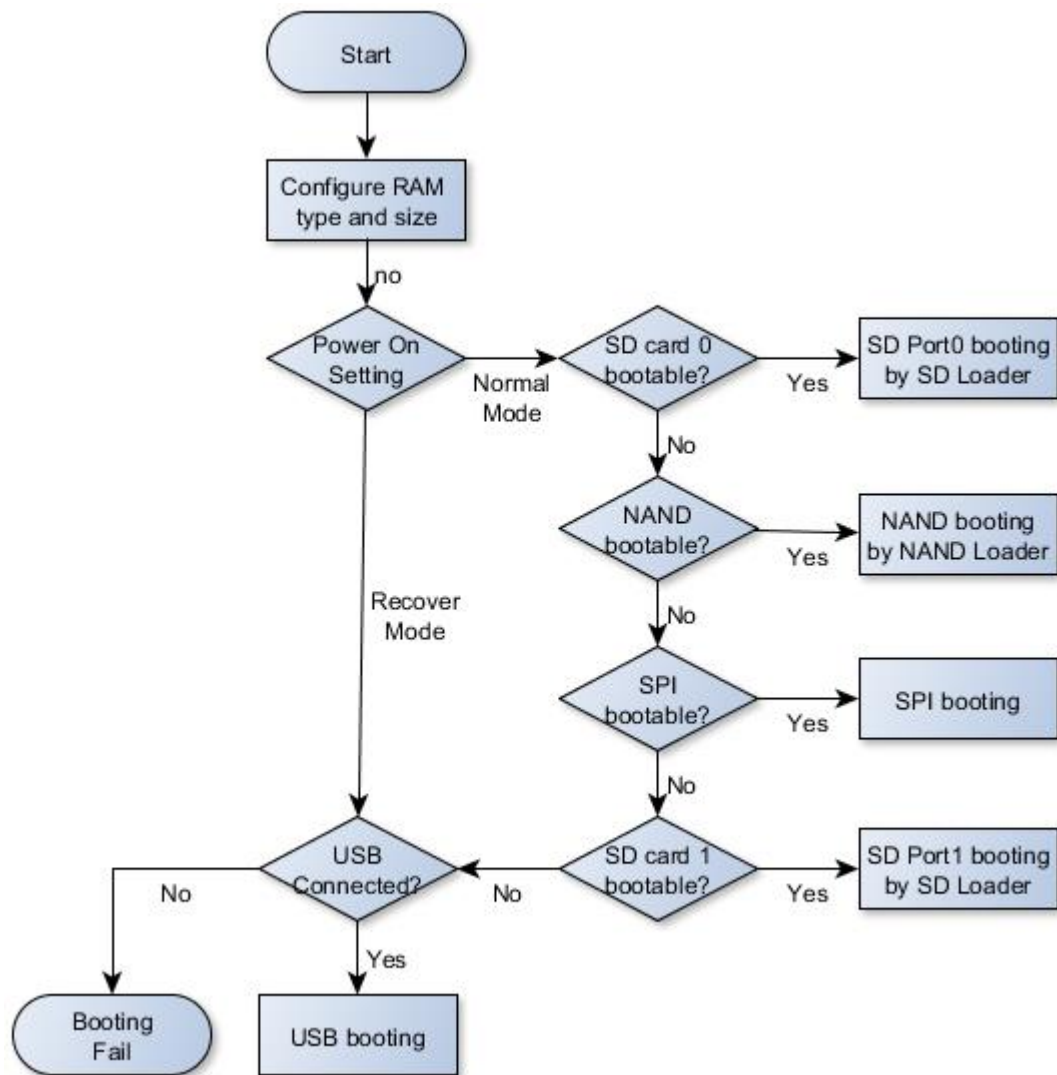
The boot loader in IBR will hand over the chip controlling to SD Loader on SD port 0 or port 1.SD Loader is a firmware stored at SD card.

The SD Loader has the following features:

- Initial more modules such as VPOST and so on.
- Check, load, and display Logo image if it existed at SD card.
- Check and load next firmware if it existed at SD card.
- Hand over chip controlling to next firmware. Normally, it should be NVT Loader.

All image files have to located at top of SD card with correct parameters. You can add or modify them by TurboWrite utility. Please follow the configuration below to make sure the SD Loader work fine.

	SD Loader	Logo Image	Next Firmware
Image No.	0	1	2
Image Name	*File name for SD Loader on host*	*File name for Logo image on host*	*File name for next firmware on host*
Image Type	System Image	Logo	Execute
Image execute address	*Default value*	*Default value*	**800000**
Image start sector	*Default value*	*Behind SD Loader and MUST > 0x21*	*Behind Logo Image*

If your SD card is first time to use on FA93/VA93 system, maybe you need a extra step to reserve some sectors for SD Loader used as below.
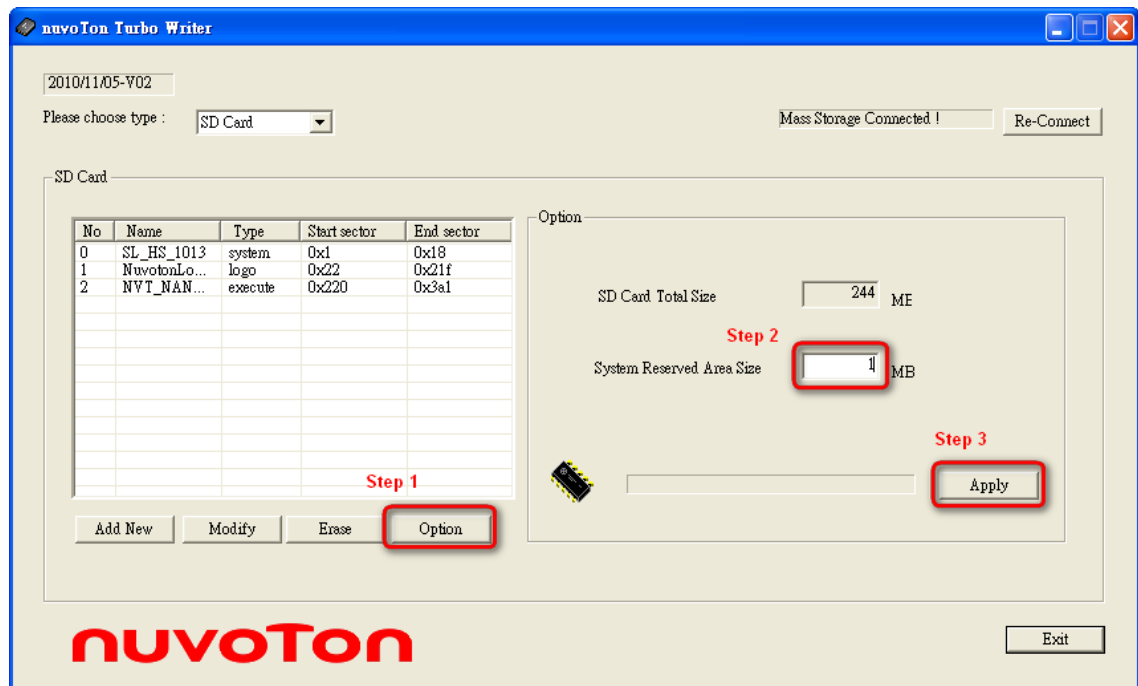
And then, you can upload SD Loader and other image files to SD card.
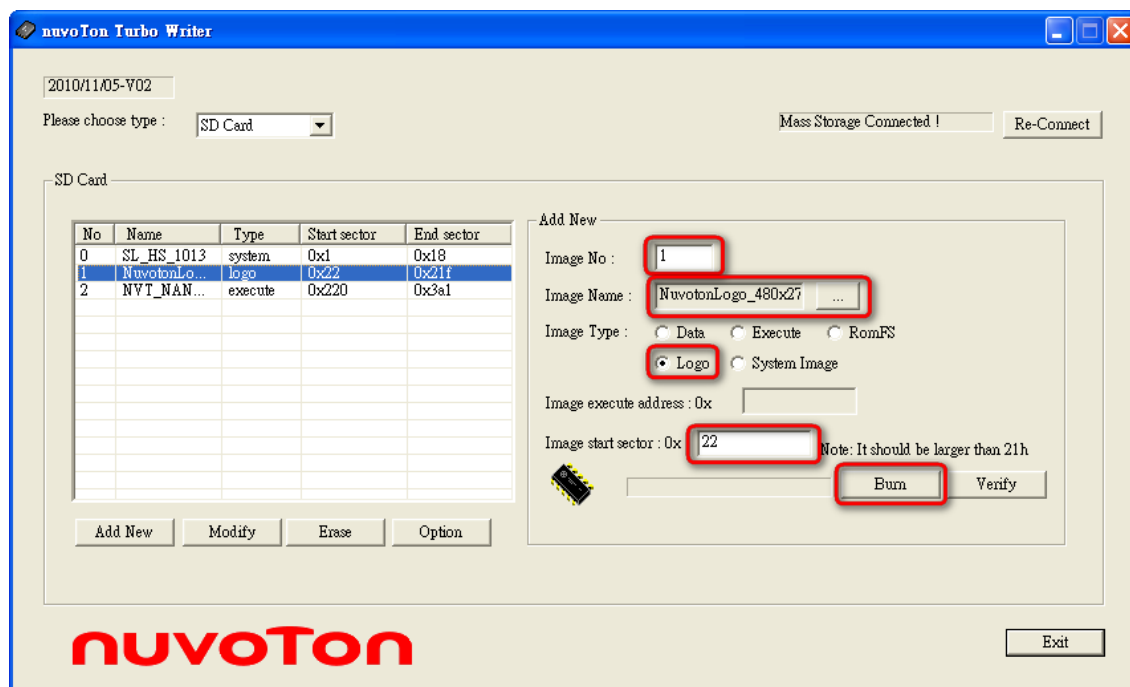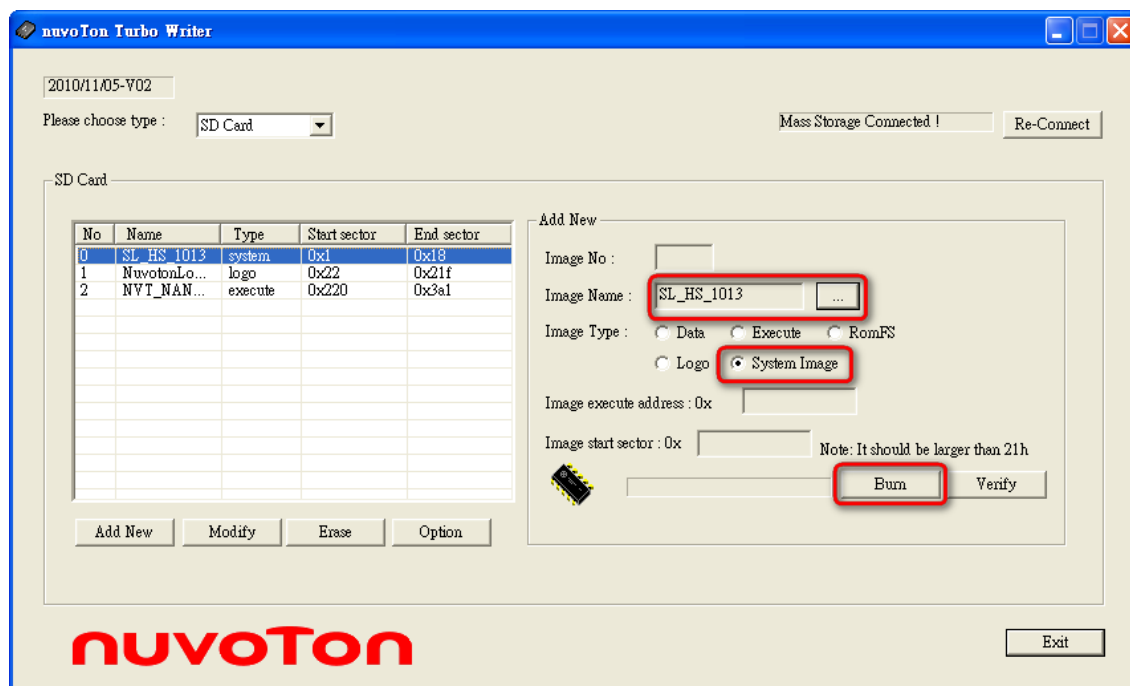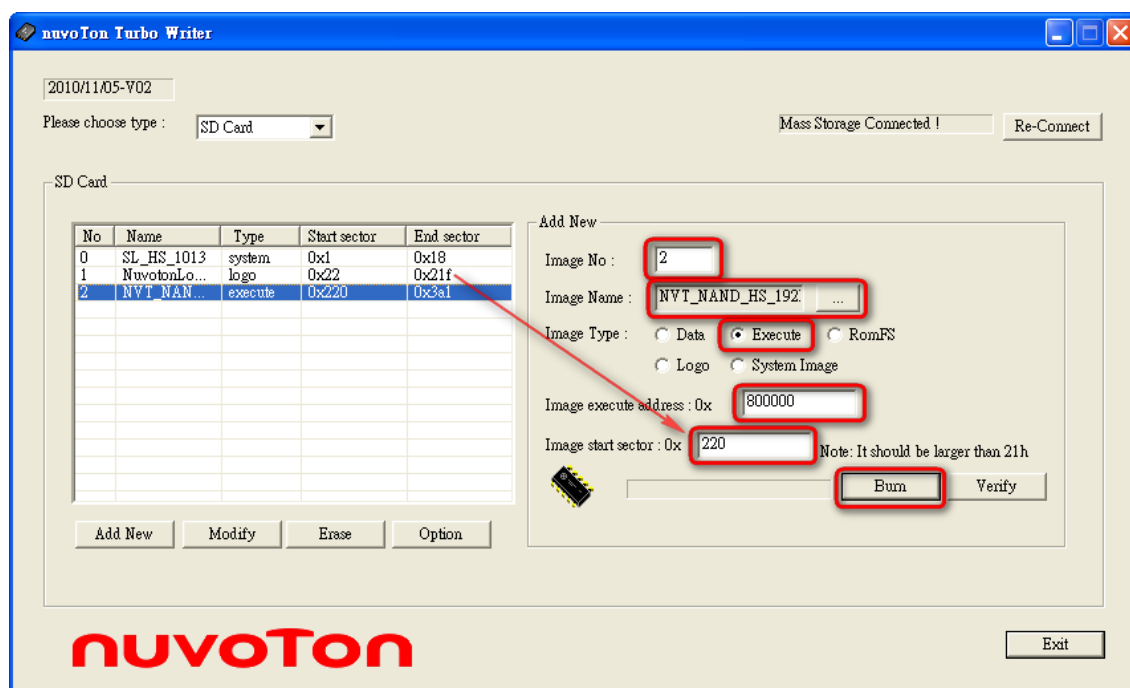
3.   Revision History

Version	Date	Description
V1.0	Feb. 24, 2011	● Created

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