Application Note

![FUJITSU]

FLASHFV360

Flashprogramming of MB91FV360

History

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Overview

The MB91FV360 has 512kB Flash connected to the F-Bus. The used memory area is 0x80000..0xFFFFF. The Flash can be programmed in a debugging session with procedure files. The main procedure file 'FLASH.PRC' calls other procedure files and loads also binary code to the RAM at F-Bus. The program code is loaded (in binary format) via the emulation memory (0x180000..0x1FFFFF) to Flash (0x80000..0xFFFFF). Afterwards the debug information is loaded.

Preparation of download File
(Generation of binary file)
The program code has to be converted to binary format to be used by this procedure. To generate a unique code size an additional converter can be started to build a constant file size (project independent).

Using the object file converter m2ms to specify the address range:

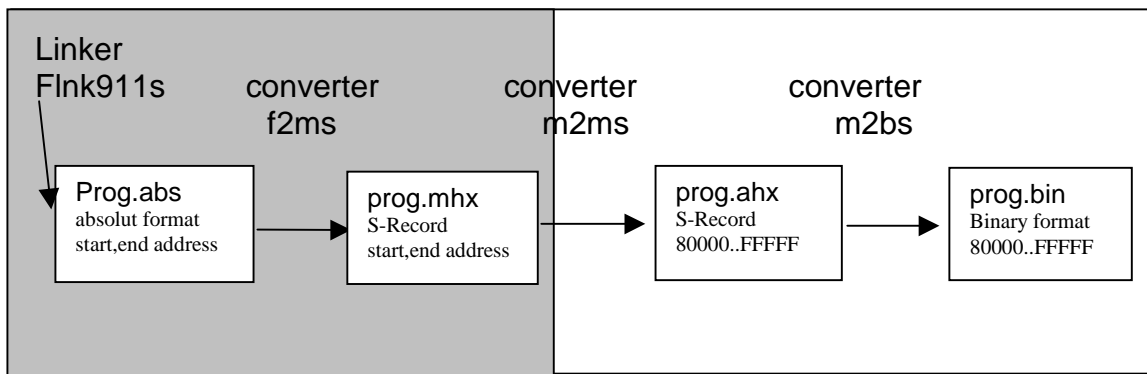m2ms -p <fill pattern> -ran <startaddress>,<endaddress> <filename>
Example: m2ms -p 0xFF -ran 0x80000,0xffff7 prog.mhx

Using the object format converter m2bs to generate binary format:

m2bs -ran <startaddress>,<endaddress> <filename>
Example: m2bs -ran 0x80000,0xfffff prog.ahx

You can find Information of these converters in our Softune Workbench Help.

Convert by Softune Workbench (linker, converter)

Starting Procedure File

All Procedure files and loaded binary modules by this procedure file have to be located in the subfolder 'PRC' of the project directory. The main procedure file, which has to be started is 'FLASH.PRC'. Two parameters are required by this procedure file :
   1: filename without extension and
   2: start address of flash to be programmed.
Close all debugging window which are pointing to flash memory! During flash programming no access to flash is allowed.

Example: batch prc\flash.prc,prog,0x80000

Required Files
RUN_FLASH.PRC
FASTCS1.PRC
FLASH.PRC
BLANK.PRC
BLANK.BIN
CHIPERA.BIN
PROGAREA.BIN
VERIFY.BIN

Short summery
1. adapt makebin.bat to your project   (see example below)
2. Run makebin.bat from dos environment
3. adapt run_flash.prc to your project   (see example below)
4. Run run_flash.prc from debug environment

Example for makebin.bat and run_flash.prc:

makebin.bat:
        m2ms -p 0xFF -ran *0x80000,0xffff7* *prog*.mhx
        m2bs -ran *0x80000,0xffff7* *prog*.ahx

run_flash.prc:
        batch prc\flash.prc,*prog,0x80000*