



DragonBall Operation

# Preliminary

## Application Note

### Methods of downloading code or data to flash

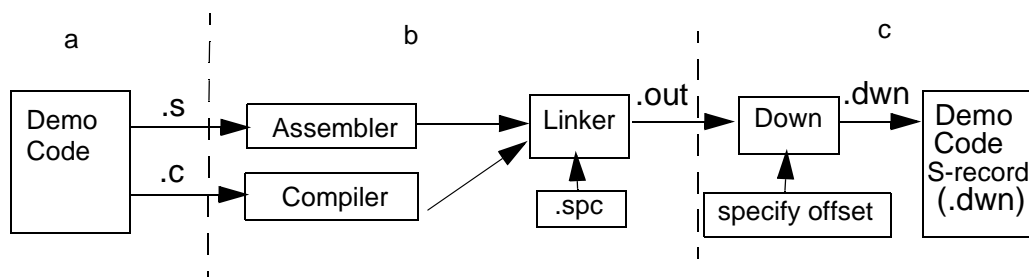


Figure 1. Changing code to s-record

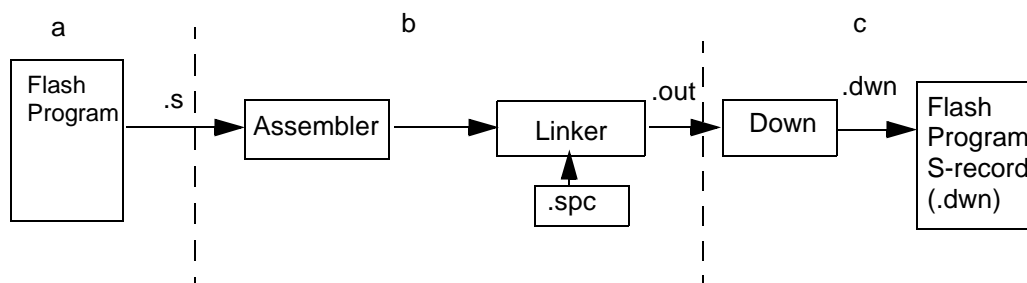


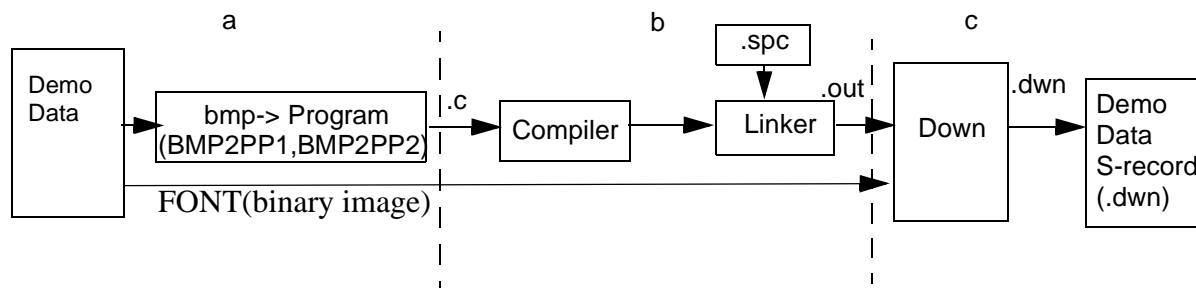
Figure 2. Changing flash program to s-record

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**Figure 3. Changing data to s-record**

## STAGE a

To convert bmp to s-record, we need to execute bmp2pp1.exe or bmp2pp2.exe.

- a) BMP2PP1.EXE - convert 16 gray colour bmp file to raw data which is 1 bit per pixel and it is output in C program format.
- b) BMP2PP1.EXE - convert 16 gray colour bmp file to raw data which is 2 bit per pixel and it is output in C program format.

Here is an example:

C:\BMP>**bmp2pps2**

This file convert a 4-bit BMP into 2 bit DC.b file

Pls enter binary file name to read:

**sample.bmp**

Pls enter text file to write:

**sample.c**

Pls enter binary file size in bytes :**310**

Please enter the code for WHITE, LIGHT GREY, DARK GREY and BLACK: **c840**

code is c840

Conversion Completed

*Note: Please refer to Graphic Conversion Tools User Manual for detailed description for getting the code*

## STAGE b

Compile and link sample.c to produce sample.out

## STAGE c

Use down.exe to generate a sample.dwn file

**down -d mot sample.out -w [offset]**

Then s- record (.dwn) obtained

Then next step is download the following s-record or b-record to the target system in bootstrap mode using bbug:

1. **lo ads\_init.b b**
2. **lo flash.dwn s**
3. **lo sample.dwn s**

Finally, go to the address to execute the flash program, for example, if the flash program is located in 0x4000. Then type:

**go 4000**

Then the downloaded program code will be copied to the flash as illustrated from the following diagram:

