Skip bad blocks User Manual

General Description and Name

Skip Bad Blocks. This scheme simply detects bad blocks in the device and skips past them to the next good block for all programming functions. For example, if block 3 of a device is bad, then block 3 of the image will be programmed in block 4 of the device.

Relevant User Options

The following special features on the special features tab apply to this scheme. The default values might work in some cases but please make sure to set the right value according to your system.
Please note only the below special feature items are related to this scheme and ignore any others. If any of below items doesn't exist, please check whether the right version has been installed or contact Data I/O for support by submitting Device Support Request through this address:
http://www.dataio.com/support/dsr.asp

Bad Block Handling Type =　　　　　　　"Skip bad blocks"

Spare area :　　　　　　　　　　　Please refer to "Description of common NAND special features.pdf". ***Normally set as "Enabled", "Disabled" or "ECC Linux" for this BBM***.[Default 'Disabled']

Spare area size in data file =　　　　　spare area data included in source file
This special feature is optional. If source file include part of the spare area data, the left part will be filled 0xFF. Default value is 0xFFFF, means this special feature not valid.
If this special feature is used, spare area should set ***Enabled***.

Special Notes
The spare area in this scheme can either be programmed with the customer's image file, or it can be ignored. ECC is not an option with this particular scheme. However, the bad block marks are always located in the spare area. (Byte 517 for x8 devices and Byte 512 and 513 or the first word for x16 devices)

The data file doesn't have to be arranged in any special way for this scheme. The binary that should be placed into the device is all that is needed. However, special care should be taken into account if the spare area option is set to "enabled". In that case, byte 517 of each page (the sixth byte of the spare area in each page) needs to be left at 0xFF. This is because byte 517 is used to identify bad blocks in the device. If you program one of these bytes to something other than 0xFF, there will be no way for anyone to distinguish a factory marked bad block from a block that has had byte 517 programmed by the programmer.

Revision History

V1.0   June 11, 2009
             Create this spec.

V1.1   April 2, 2014
             Add special feature spare area size in data file

Appendix

You can get the file "Description of common NAND special features.pdf" from
http://ftp.dataio.com/FCNotes/BBM/