New Technical Notes

Macintosh

®

Developer Support

Boot Blocks
Devices   M.DV.BootBlocks

Revised by:	March 1988
Written by: Bob Johnson	March 1987

There are two undocumented features of the Boot Blocks. This note will describe how they currently work.

Warning: The format and functionality of the Boot Blocks will change in the future; dependence on this information may cause your program to fail on future hardware or with future System software.

The first two sectors of a bootable Macintosh disk are used to store information on how to start up the computer. The blocks contain various parameters that the system uses to startup such as the name of the system file, the name of the Finder, the first application to run at boot time, the number of events to allow, etc.

Changing System Heap Size
The boot blocks dictate what size the system heap will be after booting. Any common sector editing program will allow you to change the data in the boot blocks. Changing the system heap size is accomplished by changing two parameters in the boot blocks: the long word value at location $86 in Block 0 indicates the size of the system heap; the word value at location $6 is the version number of the boot blocks. Changing the version number to be greater than $14 ($15 is recommended) tells the ROM to use the value at $86 for the system heap size, otherwise the value at $86 is ignored. The $86 location only applies to computers with more than 128K of RAM.

Secondary Sound and Video Pages
Another occasionally useful feature of the boot blocks is the ability to specify that the secondary sound and video pages be allocated at boot time. This is done before a debugger is loaded, so the debugger will load below the alternate screen. This is useful for debugging software that uses the alternate video page, like page-flipping demos or games. To allocate the second video and sound buffers, change the two bytes starting at location $8 in the boot blocks. Change the value (normally 0) to a negative number ($FFFF) to allocate both video and sound buffers. Change the value to a positive number ($0001) to allocate only the secondary sound buffer.

Warning: MacsBug may not work properly if you allocate additional pages for sound and video.

Further Reference:
- The Segment Loader