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Macintosh Operating System: Open File Limitations (2/93)

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Revised:        2/18/93
Security:       Everyone
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Article Created: 15 February 1993

TOPIC ---

Under the Macintosh operating system, there's a default limitation of 40
open files at any given time. I need to increase this number, and I
understand utilities like SilverLining can modify the boot blocks to effect
this. Please answer these questions for me:

1) What are the tradeoffs of increasing the number of open files possible?

2) How much additional memory is required by each open file?

3) How many open files does AppleShare 3.0 support?

4) Are there any limitations when the volume is a CD (HFS format)?

DISCUSSION --

Depending on what version of system software you're running, you
may not need to modify the boot blocks. Starting with System 7, the number
of open files possible became dynamic. System 7 now automatically
increases the number of open files possible as needs dictate. Thus,
modifying the boot blocks on a System 7 computer has no real effect.

Here are the answers to your questions. NOTE: Please keep in mind that
modifying the boot blocks to increase the number of open files possible
only makes sense in a System 6 environment. By the way, the value in the
boot blocks is multiplied by 4; default is $0A hex (10 decimal) -- 10 x 4
= 40.

1) As you increase the number of open files possible, you increase the
   amount of memory taken (if the files are actually opened). This leaves
   less room for the operating system and applications, and could cause

potential problems if memory becomes too scarce. The amount of room
taken by the actual FCBs (File Control Blocks) is minor: approximately
94 bytes in System 7, approximately 30 bytes in systems prior to System
7.

2) The amount of memory taken by each open file depends on the size
   and type of file it is.

3) Since AppleShare 3.0 runs on top of System 7, the number of open
   files possible is again dynamic. As far as a maximum number, it's the
   HFS limit -- 342.

4) No. The limitation is imposed by the operating system regardless of the
   size or type of volume(s).

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Tech Info Library Article Number:11558