System 7.x: Limitations on Use of 400k Disks (8/96)

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TOPIC ---

1) What is meant by MFS disks?

2) What are HFS disks?

3) With the introduction of HFS disks was it still possible to format disks as MFS?

4) How did the introduction of System 7 affect the ability to read and write to MFS disks?

DISCUSSION ---

1) Question: What is meant by MFS disks?

Answer: The first Macintosh computers used only 400k single-sided disks, formatted as MFS (Macintosh File System) volumes which used a flat file structure, and no subdirectories (folders in Macintosh vocabulary). Although you could create and place documents and folders into folders, they existed only in the Finder's view of the disk.

2) Question: What are HFS disks?

Answer: With the introduction of HFS (hierarchical file system) and 800k, double-sided disks, the concept of subdirectories (folders) came to the Macintosh.

3) Question: With the introduction of HFS disks was it still possible to format disks as MFS?

Answer: Yes. The default format for a single-sided disk was MFS. Although by holding down the Option key when selecting the Erase option you could create a 400k HFS volume. In systems prior to System 7, when viewing the window of a volume in Icon view, an HFS volume would have one black pixel at the far left-hand side of the double horizontal lines that appear below the title bar.

4) Question: How did the introduction of System 7 affect the ability to read and write to MFS disks?

With the introduction of System 7, the ability to read and write files to MFS volumes was retained to maintain compatibility. However, there are some limitations:

* You can still create an MFS volume on a single-sided disk by holding down the Option key (and keeping it held down until the formatting is complete) when selecting Erase Disk under some versions of System 7, including System 7.0x and System 7.1. However, you cannot create an MFS disk under System 7.5.

* With the PC Exchange control panel or ProDOS extension installed, you cannot format disks as single-sided disks. Although you can still write to and read from single-sided disks, both MFS and HFS. So, you must disable this control panel and/or extension if you want to format 400k disks.

* Folders that you see on MFS disks under pre-System 7 systems are no longer visible because the Finder in System 7.x ignores folders created by older versions of the Finder on an MFS disk. A file in such a folder appears in the root level of the disk, but has the same relative position in the window that it has in the MFS folder.

* All the files appear at the root level.

* You cannot rename existing MFS volumes.

* You cannot create new folders on these volumes.

* The Finder does not use or save window position or size information about files located on an MFS disk.

* If you select the single-sided option when formatting a disk, it will be formatted as an MFS volume.

* MFS disks cannot have comments. However, files located within MFS disks can have comments.

* You cannot create an alias for an MFS volume. More generally, Alias Manager functions and the FSMakeFSSpec function do not work if their target is an MFS volume. You can, however, create aliases for files on an MFS volume. Similarly, you can use the new File Manager functions that use FSSpec records on files on an MFS volume.

* You should not call the File Manager function PBGetFCBInfo on MFS volumes.

* The Process Manager's GetProcessInformation function may not return correct results about the location of the application file if the application file resides on an MFS volume.
*If you rename an edition located on an MFS volume, the Edition Manager may not be able to find that edition for any document that publishes to or subscribes to

it. Also, if you open an edition in the Finder that is located on an MFS volume
and updates the edition, the Finder window closes.

Note: Many of these limitations listed here are documented in Inside Macintosh
VI, chapter 25, page 25-9:

Article Change History:
27 Aug 1996 - Updated technical information.
15 Feb 1995 - Reviewed for technical accuracy.
11 Jan 1995 - Noted that System 7.x won't format a 400k disk.

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