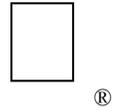


New Technical Notes

Macintosh



Developer Support

TB 9 - Finder Flags Toolbox

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November 1993
March 1988
June 1986

Changes since March 1988: This version updates the meanings of several of the bits which changed in System 7 and System 7 Pro.

The Finder keeps and uses a series of file information flags for each file. These flags are located in the `fdFlags` field (a word at offset \$28 into an `HParamBlockRec`) of the `ioFlFndrInfo` record of a parameter block. For directories, the flags are located in the `frFlags` field of the `ioDrUsrWds` record of a parameter block (also offset \$28). They may change with newer versions of the Finder. Finder 7.1.1 assigns the following meanings to the flags:

Bit	Meaning
0	Reserved in System 7; set to 0. (previously set if file/folder is on the desktop)
1	Color information.
2	Color information.
3	Color information.
4	Reserved in System 7; set to 0. (previously never <code>SwitchLaunch</code> prior to System 7)
5	Reserved in System 7; set to 0. (previously always <code>SwitchLaunch</code> prior to System 7)
6	<code>isShared</code> bit. Set if file is a shareable application. Set to 0 for non-applications.
7	<code>hasNoINITS</code> bit. Set if the file contains no 'INIT' resources; set to 0. Reserved for directories; set to 0.
8	<code>hasBeenInited</code> bit. Set once the Finder has recorded information from the file's bundle resource into the desktop database and given the file or folder a position on the desktop. Clear for newly created files.
9	<code>isLetter</code> bit. Set if the file is an AOCE letter under System 7 Pro and later. Formerly the <code>Changed</code> bit. Set to 0 for non-letters.
10	<code>hasCustomIcon</code> bit. Set if the file or folder has a custom icon. (previously the <code>Busy</code> bit prior to System 7)
11	<code>isStationery</code> bit. Set if the file is a stationery pad under System 7 and later. Reserved for directories, in which

- case set to 0. (previously NoCopy or BOZO bit, not used in 5.0 and later)
- 12 nameLocked bit. If set, the file or directory can't be renamed from the Finder and the icon can't be changed. (previously called the System bit)
- 13 hasBundle bit. The file contains a bundle resource. Reserved for directories, in which case set to 0
- 14 invisible bit. The file or directory is invisible from the Finder and from the Standard File dialogs.
- 15 isAlias bit. The file is an alias file. Reserved for directories— in which case set to 0. (previously the Locked bit prior to System 7)
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NOTE: The MacBinary II specification instructs downloading applications to clear bits 0, 1, 8, 9, and 10 when downloading a file in MacBinary II format. Downloading applications should actually clear only bits 0 and 8, (the former onDesk bit, and the hasBeenInitiated bit). Clearing bits 1, 9, or 10 will result in the file being interpreted incorrectly, since bit 1 is now used to store color information, bit 9 tells the system if the file is a letter, and bit 10 informs the Finder if the file has a custom icon.

Further Reference:

- *Inside Macintosh*, Macintosh Toolbox Essentials
- *Inside Macintosh*, Volume VI, The Finder Interface