

Apple II File Type Notes



Developer Technical Support

File Type: **\$B7 (183)**
Auxiliary Type: **All**

Full Name: ProDOS 16 or GS/OS Temporary Initialization File
Short Name: Temporary initialization file

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May 1992
September 1990

Files of this type contain initialization code that is unloaded immediately after executing.

Changes since September 1990: Added new information pertaining to System Software 6.0 and answered some commonly asked questions.

Files of type \$B7 contain temporary initialization code. Such files are often referred to as “inits”. They are loaded by GS/OS at boot time and are unloaded immediately after execution. The auxiliary type is **reserved** except for bit 15—if bit 15 is set, the initialization file is not loaded.

The structure of an init is similar to that of an application. The first byte of the loaded code image (inits are load files) is the entry point, and the init must end with an RTL instruction. When GS/OS transfers control to a temporary initialization file, the processor is in 16-bit native mode. The A register contains the init’s user ID, D points to the bottom of a 4K stack and direct-page area and S points to near the top of that area. (If the init has an OMF stack and direct page segment linked in, the D and S registers point to it instead.) The data bank register is not defined; you should save it, set it and restore it if you use absolute addressing.

All inits are loaded and executed entirely after the System Software is initialized; all of GS/OS is present and all of the tools are startable (although that’s not necessarily advised; see later in this Note). The contents of all prefixes are undefined, and you should save and restore any prefixes you use. An init that wants to find its own pathname can use the System Loader call `LGetPathname2`. The commonly-seen icons at the bottom of the graphics screen are only available to CDevs in System Software 5.0 through 5.0.4, unless you draw the icon yourself, but under 6.0 and later the Miscellaneous Tools call `ShowBootInfo` will display an icon on the graphics screen or a version line on the text screen like GS/OS components.

While all tools are available to be started, that doesn’t mean tools should necessarily be started. Inits can be loaded after boot time (such as with IR 2.0, DTS Sample Code for an Apple IIGS Finder Extension), and blindly attempting to start and shut down tools without first checking their status can be disastrous in such instances. In particular, inits should never call `TLStartUp` or `TLShutDown`, and should check for the presence of other tools through each tool’s status function before starting it up.

Inits that need to tell the difference between boot time and later loading times (for example, a RAM disk restoration init) can check the result of the GS/OS call `GetName`—if there is no name, the system’s currently being started up.

Temporary initialization files are shut down by GS/OS after they perform their RTL, so they are a good choice for transient purposes. Temporary inits are good for playing sounds during the boot process, loading pictures, and other instances where data is passed to other system routines. For example, a temporary init might read files from a disk and save them to a RAM disk. The init gets to set up the RAM disk, but after that's done it doesn't need to stick around and take up memory—and since it's a temporary init, GS/OS unloads it after its work is done.

Further Reference

- *GS/OS Reference*
- File Type Note for File Type \$B6, Permanent Initialization Files