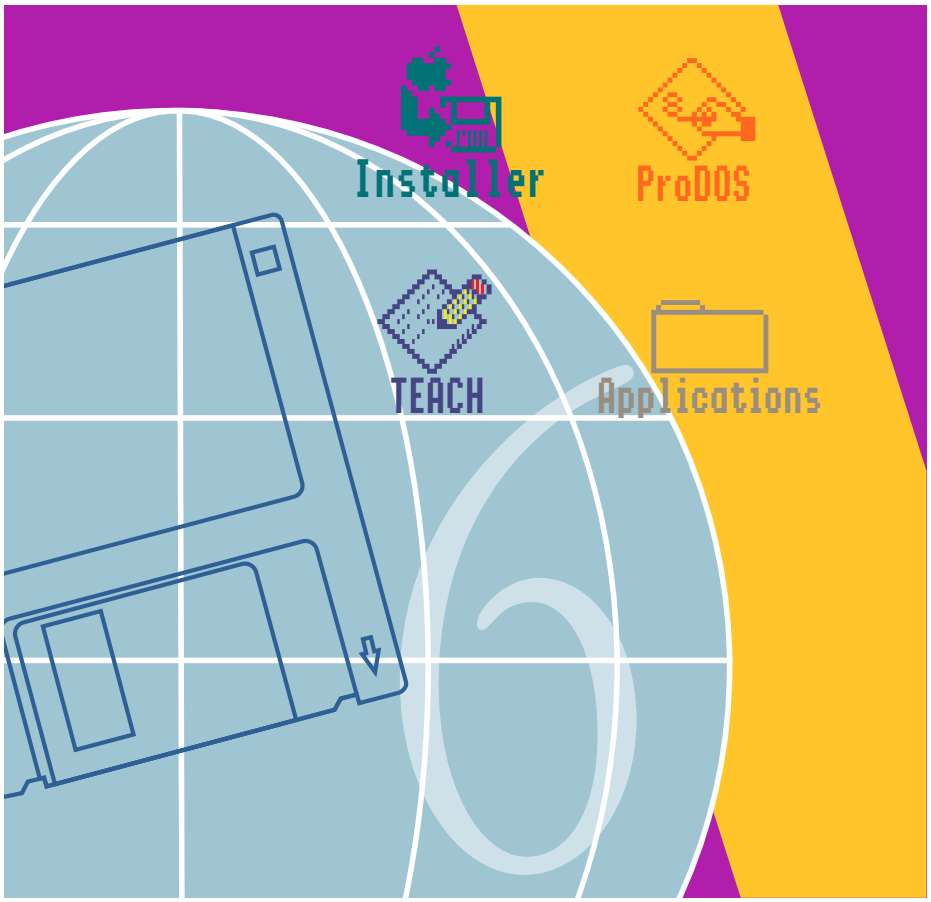
Pascal File System Translator External ERS

Version 1.00 a03



System 6 IIGS

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External ERS v1.00 a03

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Introduction

The Pascal File System Translator (PFST) is the code segment within the IIGS Operating System (GS/OS) which, through Class 0 and Class 1 system calls, provides an interface to volumes created under the Pascal filing system.

The PFST is a read only implementation; it is provided for use as a migration tool to allow users of the Apple II Pascal Filing System to transport their files into the GS/OS environment. Any calls made which attempt to create or alter data on a Pascal volume will usually return with error $2B, disk write protected. The following is a list of the system calls supported by the PFST; all calls in BOLD will always return with an error:

The "select files" window supports the following button key equivalents:

Call#	Name	Call#	Name
$01	Create	$15	Flush
$02	Destroy	$16	Set Mark
$04	Change Path	$17	Get Mark
$05	Set File Info	$18	Set EOF
$06	Get File Info	$19	Get EOF
$08	Volume	$1C	Get Dir Entry
$0B	Clear Backup Bit	$20	Get Dev Num
$10	Open	$24	Format
$12	Read	$25	Erase
$13	Write	$33	FST Specific
$14	Close		

Compatibility

The PFST does not internally support any type of volume partitioning. The reason for this being that partitions are handled on the device driver level within GS/OS, and the types of "partitioning" used in the Apple II Pascal Filing System (namely the Pascal Profile Manager and the partitioning scheme described in Apple II Pascal 1.3 Tech Note #16) required the driver to have a knowledge of the file systems on the device. To access the files on any but the first partition of a volume, you must use the Pascal Filing System to copy the files to the first volume in the set, or to another volume entirely. If your partition is setup using the Pascal Profile Manager, you will have use the Pascal Filing System to copy the files to another Pascal volume.

File Types

The file type returned for any given file is determined by whether the PFST is in ASCII Text Mode or Pascal Native Mode. The PFST can be toggled between these two modes by using the FST_Specific ($33) call.

Pascal file types and their translations under GS/OS by the Pascal FST in each mode:

Pascal Volume	ASCII Model	Native Mode
$00 untyped	$00 unknown	$00 unknown
$01 xdsk file	$00 unknown	$00 unknown
$02 code file	$02 pascal code file	$02 pascal code file
$03 text file	$04 text file	$03 pascal text file
$04 info file	$00 unknown	$00 unknown
$05 data file	$05 pascal data file	$05 pascal data file
$06 graf file	$00 unknown	$00 unknown
$07 foto file	$00 unknown	$00 unknown

When in ASCII Mode, the PFST will strip off the leading 1k header used by the text editor in the Pascal Filing System on text files, expand all DLE blank compressions, and skip all NULL characters, thus returning only ASCII text.

When in Native Mode, the PFST will return Pascal file types $02, $03, and $05 as GS/OS file types $02, $03, and $05, respectively.

◆ **Note** By default, the PFST is in ASCII Text Mode. ◆

System Calls

This section describes the system calls supported by the PFST.

Unless otherwise noted, all calls may return with one of the following errors:

Code	Error	Code	Error
$04	Invalid Pcount	$10	Device Not Found
$11	Invalid Device Number	$27	I/O Error
$2B	Write protected	$2E	Disk Switched
$40	Invalid Pathname Syntax	$43	Invalid Ref Num
$44	Path Not Found	$45	Volume Not Found
$46	File Not Found	$4A	Version Error
$4C	End of File	$4D	Out of Range
$4E	Invalid Access	$4F	Buffer Too Small
$50	File Busy	$51	Directory Error
$53	Parameter out of Range	$54	Out of Memory
$57	Duplicate Volume	$58	Not a Block Device
$5A	Damaged Bitmap	$5B	Bad Path Names
$61	End of Directory	$62	Invalid Class
$63	Resource Not Found	$65	Invalid FST Operation
$66	Proceed with Caution		

These calls will always return with one of the error codes:

Code	Error	Code	Error
($01)	Create	($05)	Set File Info
($02)	Destroy	($0B)	Clear Backup Bit
($04)	Change Path		

These calls will always return with error code $2B, disk write protected:

Code	Error	Code	Error
($13)	Write	($24)	Format
($18)	Set EOF	($25)	Erase

These calls operate as described in the GS/OS System Calls ERS, with a small exeption in the Open call. When a text file is opened, the data read from the file will continue to be in the mode in which the file was opened (ASCII or Native).

For example: If you open a text file while in Native mode, then set the PFST to ASCII Mode, any data read from the file will be read as if the FST was in Native Mode.

Code	Error	Code	Error
($06)	Get File Info	($17)	Get Mark
($08)	Volume	($19)	Get EOF
($10)	Open	($1C)	Get Dir Entry
($14)	Close	($20)	Get Dev Num

These calls operate as described in the GS/OS System Calls ERS with the exception that they are not permitted on directories; if the user attempts to perform these calls on a directory, an invalid access error will be returned.

Code	Error	Code	Error
($12)	Read	($16)	Set Mark

This call normally writes out all buffered information which has not been written to the disk, however this call performs no function in the PFST and will always return with $00, call successful.

Code	Error
($15)	Flush

This call toggles the PFST between ASCII Text Mode and Pascal Native Mode. It will also return the current mode of the FST. Please refer to the section "File Types" in this ERS for more information.

Code	Error
($33)	FST Specific

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Class 0 Format

There is no class 0 version of this call.

Class 1 Format

Offset	Label	Description
$00-$01	pcount	Input word value indicating the number of parameters to be used in the call. Always set to $03.
$02-$03	file_sys_id	Input word value indicating which FST to send this command to. Always $04, Apple II Pascal.
$04-$05	command_num	Input word value indicating the command number to execute. $0001 set current fst mode. $8001 get current fst mode.
$06-$07	fst_mode	Word value can be input or output, depending on 'command_num'. Indicates which mode to place the PFST in if command_num = $0001, or will indicate the current fst mode if command_num = $8001. $0000 ASCII Text Mode. $0001 Pascal Native Mode.