

Mac HFS+ Disk Support Guide

Version 7.3



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chapter 1

Introduction

The Mac HFS+ Disk Support option lets you interchange sessions between Mac-based and Windows-based Pro Tools systems using local HFS+ (Mac OS Extended) formatted hard drives.

With the Mac HFS+ Disk Support option installed on a Windows computer, you can mount an HFS+ drive on a Windows-based Pro Tools system, and record and play back Pro Tools sessions directly on that drive as if it were natively formatted (for example, NTFS or FAT32) for Windows.

⚠ *When using the Mac HFS+ Disk Support option for recording and playback on a Windows-based system, the session file and all associated files (such as audio and MIDI files) must be stored on Mac-formatted drives. Recording and playback of a session from a mixture of Windows- and Mac-formatted drives is not supported.*

System Requirements

- ◆ A Digidesign-qualified Pro Tools|HD® system or Pro Tools LE™ system running Pro Tools 7.3 or higher on a Windows computer
- ◆ A qualified hard drive formatted on a Mac computer as HFS+ (Mac OS X Extended)

⚠ *If you use the Format Mac Disk command that is installed as part of the Mac HFS+ Disk Support option to initialize or partition a Mac-formatted drive, it will not be officially supported as a Playback/Record drive by Digidesign. Though Pro Tools may be able to play back and record to such a drive, only HFS+ disks formatted on a Mac using Apple Disk Utility are supported for playback and recording.*

⚠ *While the Mac HFS+ Disk Support option will allow your system to read/write HFS (Mac Standard format) disks, HFS drives are not supported for either record/playback or transfer.*


For complete system requirements, visit the Digidesign website (www.digidesign.com).

Installing the Mac HFS+ Disk Support Option

The Mac HFS+ Disk Support option is available as part of the Pro Tools HD or LE installation procedure. If you did not install it with Pro Tools, you can run the Pro Tools installer again.

To install the Mac HFS+ Disk Support option:

- 1 Insert the Pro Tools installer disc in your CD/DVD drive. Locate and open the Pro Tools Installer folder, and double-click the Setup icon.
- 2 Click Next to begin installation.
- 3 In the Installer Wizard, select Modify, and click Next.
- 4 Select the Mac HFS+ Disk Support option for installation, and click Next.
- 5 Follow the on-screen instructions to proceed with the installation.
- 6 When Installation is complete, click Finish.

 *The HFS+ Disk Support option only works on a computer that has a valid installation of the Pro Tools application. If you remove the Pro Tools application from your system, the HFS+ Disk Support option will also be removed.*

Removing the Mac HFS+ Disk Support Option

If you need to remove the Mac HFS+ Disk Support option from your computer, you can use the Add or Remove Programs command.

To remove the Mac HFS+ Disk Support Option from your computer:

- 1 Choose Start > Control Panel.
- 2 Launch Add or Remove Programs.
- 3 From the Currently Installed Programs list, select Digidesign HFS+ Disk Support.
- 4 Click Remove.
- 5 Follow the on-screen instructions to remove the option.

Media Compatibility

The Mac HFS+ Disk Support option enables Windows and other software running under Windows to access nearly any type of Mac disk. Windows, however, must be able to communicate with the drive to allow Mac HFS+ Disk Support to function.

If you are currently able to use your removable media drive with normal PC-formatted disks, you can be confident that Windows is successfully communicating with the drive, and that Mac HFS+ Disk Support will be able to recognize Mac disks when they are inserted.


If the disk device is new to your Windows system (as would be the case, for example, when plugging an external drive from a Mac OS system into your Windows PC FireWire adapter for the first time), it is likely that it will be recognized by Windows and work properly without requiring the installation of driver software from the drive or adapter manufacturer, but this is not guaranteed.


When attaching a removable media drive, if Windows presents no drive letter for the removable drive, the hardware may not be properly installed, or driver software may be necessary. When attaching a Mac external hard drive, Windows will not present a drive letter unless both the drive and the Mac HFS+ Disk Support option are properly installed.

If you are using SCSI or Fibre Channel drives, you can watch for notification from the SCSI or Fibre Channel adapter during the boot process detailing detected drives. If a newly-attached SCSI drive is not detected, check for ID conflicts and proper termination. Regardless of the drive type, if it is not detected, look for faulty cables, check both drive and adapter configuration, and try PC-formatted disks in order to confirm whether the drive is working.

The Mac HFS+ Disk Support option works with the following:

- ◆ Zip, CD-ROM, CD-R/RW, DVD±RW/±R, Jaz, iPod, hard drives, SyQuest, MO, ORB and nearly any other disk device that works with Windows can be accessed.
- ◆ High-density (1.44MB) Mac floppies can be accessed on any Windows system with a 3½" floppy drive.
- ◆ Low-density (400KB and 800KB) Mac floppies cannot be accessed due to physical differences between the floppy drives in Mac OS systems and Windows PCs.

 *While it is possible to use the Mac HFS+ Support option with drives mounted as part of a Storage Area Network (SAN), DigiDesign has not qualified this configuration.*

 *Mac RAID disk volumes are not supported by the Mac HFS+ Disk Support option.*

Session Compatibility

The Mac HFS+ Disk Support option enables Windows to recognize Pro Tools sessions created on Mac-based Pro Tools 7 (.ptf) and Pro Tools 5.x - 6.x (.pts) systems.

Mac-based Pro Tools 5.x - 6.x sessions that reference audio files in Sound Designer II (SD II) format are not supported on Windows.

If your Mac-based Pro Tools session includes any audio files in SD II format, you will need return to the Mac-based Pro Tools system and re-save the session so that its audio files are Windows-compatible, then open it on your Windows system.

To save a Mac-based Pro Tools 5.x-6.x session with SD II files to be Windows compatible:

- 1** Open the session on the Mac-based Pro Tools system.
- 2** Choose File > Save Session Copy In.
- 3** In the Save Session Copy dialog, select Enforce Mac/PC Compatibility.
- 4** Choose the audio file type, sample rate, and bit depth for the session.
- 5** Choose a destination and enter a name for the new session.
- 6** Click Save.

You can then open the session on a Windows-based Pro Tools system.

chapter 2

Using Mac HFS+ Disk Support

Viewing Mac Drive and File Properties

When you view properties for a Mac-formatted drive or a file or folder on a Mac-formatted drive, you can view the Mac-specific properties of that drive, file or folder from its shortcut menu.

You can also display the Mac properties of files in the Windows Explorer Details view.

To view the properties of a Mac drive, file or folder:

- 1 Right-click the element whose properties you want to view, and choose Properties from the shortcut menu.

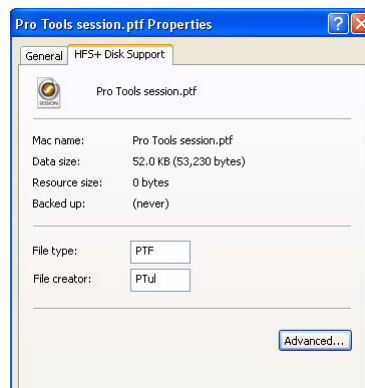


Viewing the Properties of a Mac drive

- 2 In the Properties window, click the HFS+ Disk Support tab.



Mac drive Properties window



Mac file Properties window

- 3 Click OK to close the Properties window.

The following information is displayed for the element, where applicable:

Mac name Displays the file's true Mac name as it exists on disk. This may be different from the name reported by Windows due to the fact that certain Mac filenames automatically have Windows file extensions added to them, and the necessity of changing some Macintosh file names slightly to conform to Windows file-naming rules.

Data size Displays the size of the file's data fork, where cross-platform data is usually stored.

Resource size Displays the size of the file's resource fork, where additional data, usually Mac-specific, is stored.

Backed up Displays the date that the file was last backed up, if ever.

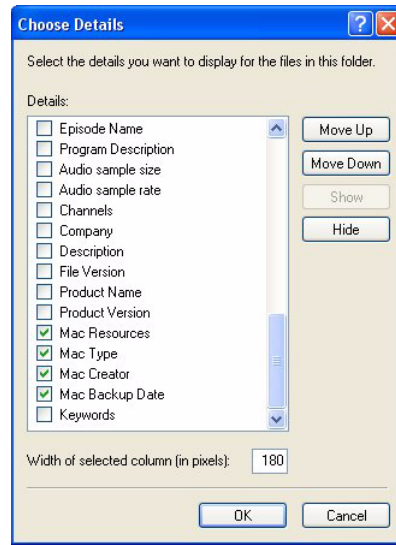
File type and File creator For files, displays the four-character codes stored by Mac OS that indicate the type of data contained in the file and the software that created the file.

Files on volume and Folders on volume For drives, displays the numbers of files and folders on the drive.

Advanced Opens a window with additional advanced attributes of the disk, folder or file. Only the Name Locked attribute can be changed in this window. The other attributes are shown only for your reference.

To view the properties of a Mac file in Windows Explorer:

1 In Windows Explorer, choose View > Choose Details.



Choose Details window

2 In the Choose Details window, select any of the following:

Mac Resources Displays information about the file's resource fork.

Mac Type Displays the four-character code that indicates the type of data contained in the file.

Mac Creator Displays the code that indicates the software that created the file.

Mac Backup Date Displays the date that the file was last backed up, if ever.

3 Click OK.

Columns for the selected properties appear in Windows Explorer when you choose View > Details.

Viewing Multisession and Dual-Format Discs

When you mount a Mac-formatted multisession CD or a dual-format CD, you can select view options for each from the disc shortcut menu.

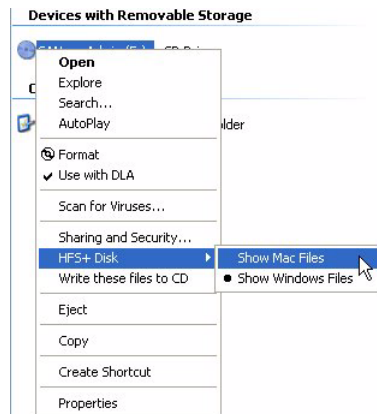
⚠ *On some computers, after choosing a new volume on a multisession CD-R or a new file set on a dual-format CD-ROM, the name of the disk as it appears under Windows Explorer may not be properly updated. Refer to the disc shortcut menu or its contents, rather than the name of the disc, to assure that the desired volume is available.*

Dual-Format Mac CD-ROMs

Some CD-ROMs have both Windows (ISO-9660) and Mac (HFS or HFS+) volumes on them. You can choose which volume to access from the disc shortcut menu. The effect is much like ejecting one disc and inserting another. Mac HFS+ Disk Support remembers which volume, Windows or Mac, you last used on a particular disc, and will return you to that setting if that disc is used again.

To switch display of a CD between Windows and Mac volumes:

- Right-click the disc whose display you want to change, and choose HFS+ Disk > Show Mac Files or Show Windows Files from the shortcut menu.



Choosing a volume of a dual-format CD

Multisession Mac CD-Rs


A list of available volumes appears in the disc shortcut menus of multisession CD-Rs. Selecting a new volume causes the current volume to disappear, and the new volume to appear in its place. The effect is much like ejecting one disc and inserting another. Mac HFS+ Disk Support remembers which session you last used on a particular disc, and will return you to that session if that disc is used again.

To choose which volume of a multisession CD to display:

- 1 Right-click the multisession disc whose display you want to change, and choose HFS+ Disk > Volumes from the shortcut menu.
- 2 Choose the name of the volume you want to display from the submenu.

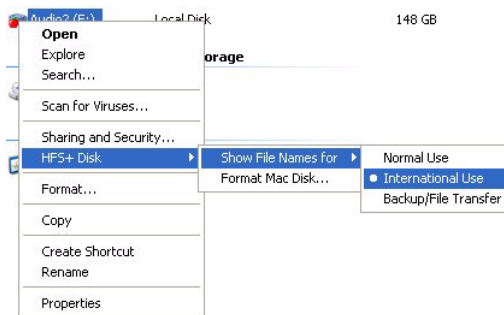
Setting the File Naming Mode

When you view files on a Mac-formatted drive, you can change the way the filenames are displayed for that drive from the shortcut menu.

 *Mac HFS+ Disk Support does not change the names of files on the Mac-formatted drive, it only affects the way they are displayed in Windows. Similarly, setting the File Naming Mode does not affect filenames on disk, it only changes the way they are displayed in Windows.*

To set the file naming mode for a Mac drive:

1 Right-click the drive whose file naming mode you want to change, and choose HFS+ Disk > Show File Names For from the shortcut menu.



Choosing a file naming mode

2 Choose one of the following from the submenu:


Normal Use This mode maximizes compatibility with a wide range of software, and preserves international characters where possible.

International Use This mode is appropriate for a disk containing files named using international Unicode characters, in cases where preservation of those characters is important, but compatibility with a wide range of software is less important. This is the default setting.

Backup/File Transfer This mode is appropriate for tape backups of Mac disks, or transfers of files from one Mac disk to another, including between a true Mac disk and an NTFS volume storing a Services for Macintosh network share. This mode preserves Unicode characters, but, unlike the other two modes above, does not append artificial file name extensions for software-compatibility purposes.

Partitioning Mac Drives

HFS+ Disk Manager is a wizard that gives you the ability to create and delete partitions on Mac-formatted hard drives.

 *If you use this command to partition a Mac-formatted drive, it will not be officially supported as a Playback/Record drive by Digidesign. Though Pro Tools may be able to play back and record to such a drive, only HFS+ disks formatted on a Mac using Apple Disk Utility are supported for playback and recording*

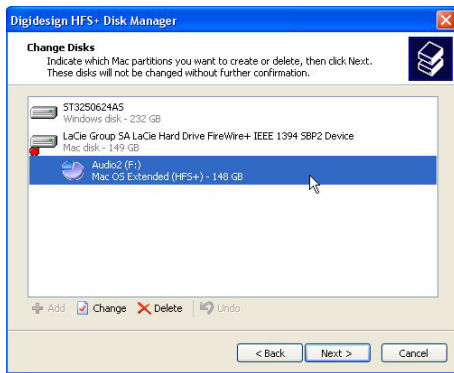
When using HFS+ Disk Manager, make sure to note the following:

- While you can leave part of a disk unused (called Unallocated space by HFS+ Disk Manager), you will not be able to make a PC partition or volume (FAT, FAT32, NTFS, or otherwise) in the unallocated space. The only thing you can do with unallocated space is to make additional Mac partitions in it in the future, or simply leave it unused.
- You cannot use HFS+ Disk Manager to add a Mac partition to a PC-partitioned disk. Using Mac HFS+ Disk Manager on a PC-partitioned disk will destroy all PC partitions.

- You cannot use Mac HFS+ Disk Manager to resize a partition and retain its contents. The only way to resize a partition is to delete and recreate it at a different size, which will result in the loss of any files in the original partition.
- Mac HFS+ Disk Manager works only with fixed hard drives; it cannot be used to partition removable disks.

To partition a Mac drive:

- 1 Make sure Pro Tools is not running.
- 2 Click the Start menu and choose Programs > Digidesign > HFS+ Disk Support > Create or Change Mac Hard Disks.
- 3 In the HFS+ Disk Manager Wizard, click Next.
- 4 In the Change Disks window, Mac-formatted drives appear with a small red apple icon next to them.
- 5 Double-click a Mac-formatted drive to display its partitions.



Displaying partitions on a Mac drive

6 To add a partition where unallocated space is available, select the drive or the unallocated space and do the following;

- Click Add.
- Enter a name for the new partition.
- Set the size of the partition by entering it in the Size box or by adjusting the slider.

You can click Undo to reverse any of these operations.

7 To change or remove a partition, select the partition and do any of the following:

- Click Change to rename or change the format of the partition.
- Click Delete to remove the partition.

You can click Undo to reverse any of these operations.

8 When you have finished configuring the partitions, click Next.

9 Do one of the following:

- Click Next to accept the changes.
- Click Cancel to discard the changes and leave the drive unchanged.

Initializing Mac Drives

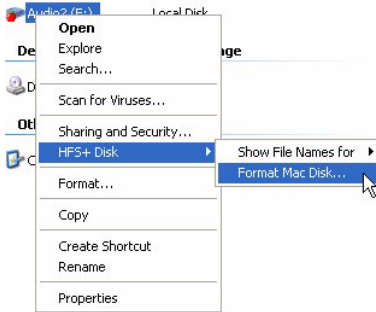
The Format Mac Disk command is available under the HFS+ Disk shortcut menu for any Mac-formatted drive connected to the system. This option lets you initialize the drive in HFS+ format.

This process will erase any data on the drive.

⚠ *All formatting and maintenance of HFS+ drives for Pro Tools should be carried out when the drives are connected to a Mac, using Apple Disk Utility. If you use this command to initialize a Mac-formatted drive, the drive will be qualified only as a Transfer drive in Pro Tools.*

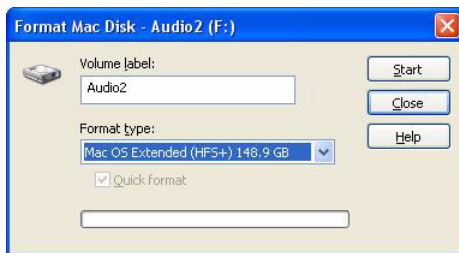
To initialize a Mac-formatted drive:

- 1 Make sure Pro Tools is not running.
- 2 Right-click the drive you want to initialize, and choose HFS+ Disk > Format Mac Disk from the shortcut menu.



Formatting a Mac disk

- 3 Type a name for the drive volume.



Format Mac Disk window

- 4 Choose “Mac OS Extended (HFS+)” from the Format Type pop-up menu.
- 5 Select Quick format.
- 6 Click Start.
- 7 When formatting is complete, click OK.

Copying Mac Disks

You can make a copy of a Mac-formatted removable disk with the Copy Mac Disk command. A disk can be copied only to another disk of identical type and capacity.

Only one drive is required, as the full contents of the disk being copied are stored on your system hard drive before being written to the destination disk. Your system hard drive must have enough free space to temporarily hold the contents of the disk to be copied. Mac HFS+ Disk Support will alert you if there is not enough free space available.

To copy a Mac-formatted removable disk:

- 1 Insert the disk in the drive on your Windows computer.
- 2 Right-click the disk and choose HFS+ Disk > Copy Mac Disk from the shortcut menu.
- 3 Choose the number of copies you want to make from the pop-up menu.
- 4 Click Start to begin the copy process.
- 5 When prompted, insert the destination disk.

If Number of Copies is greater than one, you will then be prompted to insert additional destination disks, until all desired copies have been made.

The Format destination disk(s) option is available only when copying floppy disks. If this option is selected, each destination floppy will be formatted before the disk is copied. This is typically necessary only when copying to new, unformatted floppy disks.

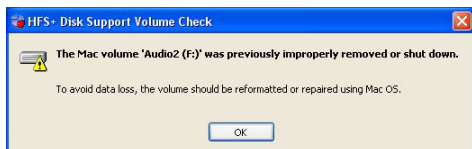
6 When copying is complete, click Close.

Mac HFS+ Disk Support Warnings

Volume Check

Whenever a disk is mounted, Mac HFS+ Disk Support checks the disk to see if it was properly unmounted the last time it was used.

If there are signs that it wasn't unmounted correctly, Mac HFS+ Disk Support displays a warning so that you will know there is a risk that the disk was improperly unmounted.



Volume Check warning

Mac HFS+ Disk Support will only mount such a drive in Read-Only state, so it cannot be used to record in Pro Tools.

If Mac HFS+ Disk Support displays this warning, it does not mean that the disk has been judged to be corrupt; it merely means that there is a significant risk, and that the disk should be re-mounted and then correctly unmounted on a Mac system before reconnecting it to a Windows system.

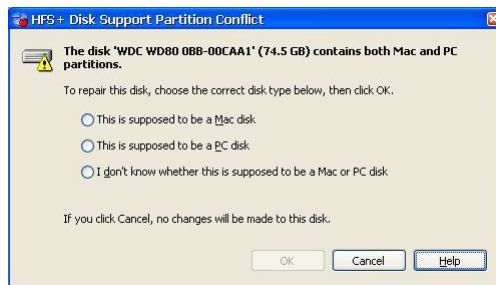
If the problem persists, the disk should either be repaired or reformatted (using Mac OS X Disk Utility) in order to avoid future problems.

Partition Conflict

Whenever a disk is mounted, Mac HFS+ Disk Support checks the disk to see if it is properly and clearly either Mac-partitioned or using the PC partitioning scheme.

In some cases where disks have been repartitioned from Mac to PC, or vice-versa, a situation arises where invalid remnants of the old partitioning is left on the disk. In many of these cases, it is impossible for Mac HFS+ Disk Support to tell whether it is the Mac partitions or the PC partitions that should be considered valid.

In such a case, Mac HFS+ Disk Support will display a warning and ask if you want to commit the disk to being Mac-partitioned or PC-partitioned, or if you don't know how to properly classify the disk.



Partition Conflict warning

Be sure you know if the disk was last Mac- or PC-partitioned before making your choice.

To choose the disk classification:

- 1 Do one of the following:
 - If you are sure it was last Mac-partitioned, choose “This is supposed to be a Mac disk.”
 - If you are sure it was last partitioned using Windows or other non-Mac software, choose “This is supposed to be a PC disk.”
 - If you do not know which is correct, you can choose “I don't know,” in which case you will be asked again later.
- 2 Click OK.

If you choose improperly, there is a way you can attempt to change your decision, but it is only likely to work if the disk hasn't been modified in any other way since initially making your choice.

To get the Partition Conflict window to appear again for all applicable disks:

- Click Start > Run, and then type in the following (including the quotation marks):

```
“SystemDrive\Program Files\Mediafour\  
MacDrive\MDDiskProtect.exe”/restore
```

You can then choose the appropriate disk classification.

Technical Note

The Mac HFS+ Disk Support option judges a disk to contain PC partitioning if bytes 510–511 contain the hexadecimal signature 55aa, and judges a disk to contain Mac partitioning if bytes 512–513 contain the ASCII signature “PM” or if bytes 1024–1025 contain the ASCII signature “BD” or “H+.”

If a non-system disk is found to contain both PC and Mac signatures, the Partition Conflict window is displayed. If a decision to repair the disk is made, the high bit of the undesired signature

is turned on in order to invalidate the signature. The disk is then remounted, and the invalidated signature is ignored by both Windows and Mac HFS+ Disk Support.

Disk Protection

Whenever an attempt is made to change the partitioning on Mac disk by any Windows software other than HFS+ Disk Manager, Mac HFS+ Disk Support steps in to mediate the situation.

This is done because if Windows software other than HFS+ Disk Manager makes changes to the partitioning on a Mac disk, the disk will no longer be Mac-partitioned or Mac-formatted, and all contents of the Mac disk will be lost.

Sometimes this is a desirable outcome, if a Mac disk is no longer needed, and you want to repartition and reformat it for use exclusively with Windows. In this case, you should select the Erase the Mac disk entirely option.

At other times, however, Mac HFS+ Disk Support steps in and protects a Mac disk from accidental damage. In that case, you should choose the Do not change the Mac disk option.

If you decide that you really do want to change partitions on the Mac disk, but want it to remain a Mac disk when you are done, you should choose the Modify Mac Partitions option.



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