

HP Media Vault

User's Guide





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Welcome to the HP Media Vault

» Get started topics

Start using your HP Media Vault quickly and efficiently.

» How to backup and restore

Learn how to use the HP Media Vault's suite of flexible backup and restore applications.

» How to configure your HP Media Vault

Explore the HP MediaVault's more advanced options, such as configuring hard disks, securing Shared Folders, and modifying system settings.

» Troubleshooting your HP Media Vault

Troubleshoot problems with installation, connections, printer setup, and media streaming.

» Glossary

Provides definitions for a better understanding of your HP Media Vault's features and capabilities.





Get started topics

» How to get started

Learn how to use Shared Folders for storing and sharing files and folders.

» How to change the time zone on your HP Media Vault

Learn how to set your HP Media Vault to your time zone.

» How to browse, access, and save your files

Learn how to save files to your HP Media Vault for quick and easy access.

» How to map drive letters to Shared Folders

Learn how to map drive letters to your Shared Folders.

» How to organize your files

Learn how to organize your folders and files on the Media Vault.

» How to secure your HP Media Vault from intruders

Learn how to keep intruders from accessing your HP Media Vault's files and folders.

» How to use the HP Media Vault to transfer files from an old PC to a new PC

Learn how to conveniently transfer files using your HP Media Vault.

» How to connect to the HP Media Vault from a Linux system

Learn how to access the Shared Folders and configuration screens on the HP Media Vault from a Linux system.

» How to connect to the HP Media Vault from a Macintosh

Learn how to set up a Macintosh computer to access the Shared Folders and configuration screens on the HP Media Vault.



How to get started

The HP Media Vault allows you to store all of your important documents, pictures, music, and video files in one location – on the media vault! After you install the media vault on your network, the PCs on your network are able to access the media vault's folders and files. You can also share a USB printer with the other computers on your network by connecting a printer to your media vault. (For more information on attaching printers, see <u>Install a printer</u>.)

Backup software and other applications are included with the media vault, but you can get started saving files to the media vault immediately after installation. (For more information on using the backup software, see <u>Backup and restore</u>.)

To help you get started saving and organizing your files, the media vault comes configured with three <u>Shared Folders</u>: FileShare, MediaShare and Backup. Shared Folders are special "top-level" folders where you store files and other folders (called <u>sub-folders</u>). As long as the media vault is powered on and connected to the network, the Shared Folders and all of their files and sub-folders can be accessed by network users.

The following table offers suggestions on which types of files to save to the media vault's Shared Folders.

Recommendations

Shared Folders	Recommended Files
FileShare	Use this folder to store any important files that you want to share across your network.
MediaShare	HP configured this folder to allow media streaming to home entertainment centers. HP does not recommend renaming or deleting this Shared Folder if you are considering using this feature now or at some point in the future to store your music, videos, movies, and digital pictures. (For more information, see Stream media to your entertainment center.)
Backup	NTI's DriveBackup! defaults to this Shared Folder to store PC system backup files. These are large files containing all of your hard drive's data. (For more information, see <u>Create a drive backup</u> .) In addition, HP Easy Backup also defaults to this Shared Folder to store folder and file backups. (For more information, see <u>Use Easy Backup</u> .) HP does not recommend renaming or deleting this Shared Folder if you plan on using HP Easy Backup or NTI's DriveBackup!

The media vault comes pre-configured with three <u>Shared Folders</u>, which are special "top-level" folders where you store files and other folders (called <u>sub-folders</u>). As long as the media vault is powered on and connected to the network, the Shared Folders and all of their files and sub-folders can be accessed by network users.

The three Shared Folders are named:

- FileShare
- MediaShare
- Backup

During the installation process, an HP drive mapping application gives you the opportunity to <u>map drive letters</u> to the Shared Folders on your media vault. Mapping drive letters means assigning "letters" to folder names. This makes it easier to manage files because you can save files and folders to mapped drive letters just as you can to other drive letters on your computer such as the C: and D: drives.

Let's say you mapped the letter "Z" to FileShare. In Windows XP, when you open **My Computer**, you will see this folder listed under **Network Drives** as **FileShare on 'HPMediaVault (Hpmediavault)' (Z:)**. In Window Vista, when you open **Computer**, you will see this folder listed under **Network Location** as **fileshare (\\HPMediaVault) (Z:)**.

If you're already familiar with networking, you might have used Shared Folders on a networked PC. Note that the term Shared Folders used in reference to the media vault are different folders from those stored on a networked PC. However, the term Shared Folders means the same in both cases: Folders that you set up on a network that are accessible to all network users.

If familiar with networking terms, you might also have heard the phrase "mapping a <u>Share</u>" rather than mapping a Shared Folder. A "Share" means the same as "Shared Folder," and you can use these terms interchangeably. A Share is a top-level folder that stores other folders within it. For example, File *Share* and Media *Share* can store other folders. For more information on how to organize your Shared Folders, see <u>Organize your files</u>.

For more information on mapping drive letters, see Map drive letters to Shared Folders.

For information on browsing, accessing, and saving files to the HP Media Vault, see <u>Browse</u>, access, and save your files.

Recommendations for using the **Backup** Shared Folder are found at the following links: <u>Organize your files</u>, Run automatic backups for important files, and Create a drive backup.



How to change the time zone on your HP Media Vault

The HP Media Vault is set to Mountain Standard Time (MST) (USA + Canada).

To access the System Settings screen:

- Double-click the HP Media Vault icon on your desktop.
- Click Customize your HP Media Vault's setting.
- If the Welcome Screen appears, click Configure Device.
- Click the System Settings tab.

To reset the time zone on your media vault:

- 1. Click Clock Settings.
- 2. Click the **Select Time Zone** drop-down list. Select a new time zone.
- If you don't live in a Daylight-Savings Time zone, click Automatically Adjust Clock for Daylight
 Savings Time to clear it. If you keep Automatically Adjust Clock for Daylight Savings
 Time selected, your media vault will automatically update its clock for the spring and autumn time
 changes.
- 4. If finished, click **Accept** or **Cancel.** (If you click **Cancel,** the changes that you made will not be accepted.)

For more information on changing your time and date settings, see Set the date and time.



How to browse, access, and save your files

On your PC, you browse your file system to find, open and save files to your hard drive. You can also use your PC to browse to the Shared Folders on your HP Media Vault. After browsing to your media vault's Shared Folders, you can save folders and files to them.

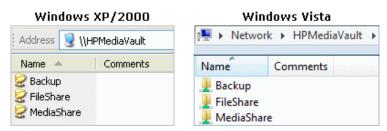
You can use several methods to browse to and access your media vault's Shared Folders.

Use HP software to browse:

- 1. On your desktop, double-click the **HP Media Vault** icon.
- 2. On the Main tab, click Start browsing your HP Media Vault.



3. A browser window opens showing you a list of your Shared Folders.



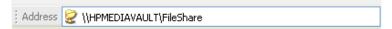
4. Double-click the name of a Shared Folder to open a screen showing you the files saved to the folder. (If you haven't saved any files to the Shared Folder, the folder will be empty.)

Use My Network Places in Windows XP or Windows 2000 to browse:

- 1. Click Start, My Computer, My Network Places.
- 2. In the Name column, locate the Shared Folder you want to open. For example, if opening FileShare,

Windows lists the name as FileShare on HPMediaVault (HPmediavault).

- 3. Click **FileShare on HPMediaVault (HPmediavault)** to open FileShare and see what files you have stored in this folder. (If you haven't yet saved any files to FileShare, the window that appears will be empty; otherwise you will see your saved files.)
- 4. After opening FileShare, look at the Windows **Address** bar. You will see the <u>network address</u> of your media vault, which is: **\\HPMediaVault\FileShare**.



Use Network in Windows Vista to browse:

- 1. Click Start menu, Network.
- 2. If network discovery is turned off, you will see a notification bar. Click this bar, and then click **Turn on network discovery and file sharing**.
- 3. Double-click the name of your media vault. For example:



Note: The Network window may also display the name of the HP Media Vault media server, as shown below. Be sure to click the media vault, not the media server.

HPMediaVault: Media Server

- 3. Double-click the name of a Shared Folder.
- 4. Click **FileShare** to open FileShare and see what files you have stored in this folder. (If you haven't yet saved any files to FileShare, the window that appears will be empty; otherwise you will see your saved files.)
- 5. After opening FileShare, look at the Windows **Address** bar. You will see the network path of your media vault.



Network addressing

Network addressing means that you can access resources on your network by entering their "addresses" in a browser's **Address** bar.

- 1. Delete the address in the **Address** bar, and in its place enter **\\HPMediaVault\MediaShare**.
 - A screen opens showing you the folders and files saved to the MediaShare folder on your media vault. (If you haven't saved anything to MediaShare, the screen will be empty.)
- 2. Close this window.
- 3. Open a standard browser window, such as Internet Explorer, Netscape, or Firefox.
- 4. Delete everything in the **Address** bar.
- 5. In the Address bar, enter **\\HPMediaVault\FileShare**, and then press **Enter**. You will see any saved files in the FileShare folder on your media vault.

Note: In Windows Vista, you can use this method from any window containing an Address bar.

Network addressing uses the <u>Uniform Naming Convention</u> (UNC) format. This format looks like the following: \\device name\share name. In this example, **HPMediaVault** is the device name, and **FileShare** is the Shared Folder or "share name." (For those more familiar with networking terms, the word "Share" is often used instead of "Shared Folder.")

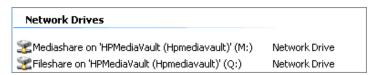
Note: The media vault comes pre-configured with the name: **HPMediaVault**. To change the name of your media vault, see Change the name of your HP Media Vault.

Use Windows Explorer to browse:

When you installed the media vault, you had the choice of mapping drive letters to FileShare, MediaShare and Backup. If you mapped drive letters to those Shared Folders, you can *browse* to those folders using Windows Explorer. (See Map drive letters to your Shared Folders.)

- 1. Click Start, All Programs, Accessories, Windows Explorer, My Computer.
- Double-click the name of the Shared Folder you want to open. The drive letter will be located at the end of the name. (If you haven't saved any files to your Shared Folders, the next screen that appears will be empty.)

In this example, MediaShare is mapped to drive letter "M." FileShare is mapped to drive letter "Q."



Use Windows Vista Explorer to browse:

When you installed the media vault, you had the choice of mapping drive letters to FileShare, MediaShare and Backup. If you mapped drive letters to those Shared Folders, you can *browse* to those folders using Windows Explorer. (See Map drive letters to your Shared Folders.)

- 1. Click Start, Computer.
- Double-click the name of the Shared Folder you want to open. The drive letter will be located at the end of the name. (If you haven't saved any files to your Shared Folders, the next screen that appears will be empty.)

In this example, MediaShare is mapped to drive letter "T." FileShare is mapped to drive letter "V."





How to map drive letters to Shared Folders

Mapping drive letters means assigning "letters" to the names of Shared Folders. Mapping drive letters is one of the easiest ways to manage files because you can save files and folders to mapped drive letters just as you can to other drive letters on your computer, such as the C and D drives. (For more information on browsing, accessing, and saving files to the media vault, see Browse, access, and save files.)

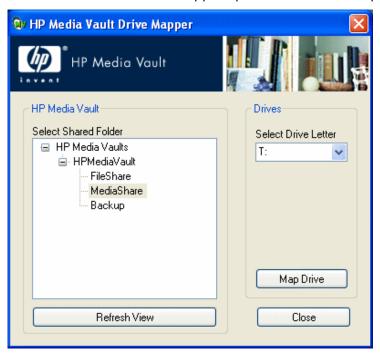
When you installed the HP Media Vault, you had the choice of mapping drive letters to FileShare, MediaShare and Backup. If you didn't map drive letters during installation, you can map letters by using one of the following methods:

To map a drive letter using HP software:

- 1. On your desktop, double-click the **HP Media Vault** icon.
- 2. On the Main tab, click Assign (map) a drive letter to Shared Folders.



3. The HP Media Vault Drive Mapper opens. Follow these steps to map a drive letter:



- a. Click a Shared Folder in the Select Shared Folder box.
- b. Select a drive letter from the **Select Drive Letter** drop-down list. (Mapping drives usually defaults to the letter **Z**:, but you can select any drive letter.)
- c. Click Map Drive.
- d. Click **Close** when you are finished mapping drive letters to Shared Folders.

Map a drive letter using Windows XP or Windows 2000:

- 1. Click Start, All Programs, Accessories, Windows Explorer, My Computer.
- 2. Click the Tools menu, Map Network Drive...
- 3. Mapping drives usually defaults to the letter **Z**:. but you can select another drive letter by following the next two steps:
 - a. To view a list of available drive letters, click the **Drive** drop-down list.
 - b. Click a drive letter to select it.
- 4. To enter the Shared Folder in the **Folder** box, you have two options:
 - Click the **Browse** button and then use Windows Explorer to locate the Shared Folder. After you find the folder, click to highlight it, and then click **OK**. The path to the folder will appear in the **Folder** box.
 - o In the Folder box, use the <u>Uniform Naming Convention</u> (UNC) to enter the path to the Shared Folder you want to map. For example: enter \\HPMediaVault\FileShare (HPMediaVault is the device name; FileShare is the name of the Shared Folder.)
- 5. Select **Reconnect at logon**. Windows will re-establish the mapped drive every time you start Windows.
- 6. Click Finish.

Special considerations when mapping a drive letter:

- If you change the name of your media vault, you will enter the new name instead of HPMediaVault in <u>step</u>
 4 above.
- When mapping drive letters to Shared Folders that are password protected, you must complete an
 additional step: You will have to enter the Shared Folder's password when prompted. (For more
 information on password protecting Shared Folders, see Enhance security on your Shared Folders.)
- If your media vault is configured for user-based security and you map drive letters to Shared Folders, you might have to enter a username and password. You will not have to enter a username and password if you have already logged onto your Windows PC with a username/password. (For more information on user-based mode, see Enhance security on your Shared Folders.)

If you mapped a drive letter, but now want to disconnect it:

- 1. Click Start, All Programs, Accessories, Windows Explorer, My Computer.
- 2. Right-click on the icon for the mapped drive.
- 3. Click Disconnect.

This only removes the drive letter; you can still access the resource from My Network Places.

Map a drive letter using Windows Vista

Before taking the following steps be sure that Network discovery is turned on. For more information, see <u>Ensure</u> that Network Discovery is turned on.

- 1. Click Start menu, Computer.
- 2. In the tool bar, click Alap network drive
- 3. Mapping drives usually defaults to the letter **Z**:, but you can select another drive letter by following the next two steps:
 - a. To view a list of available drive letters, click the **Drive** drop-down list.
 - b. Click a drive letter to select it.
- 4. To enter the Shared Folder in the **Folder** box, you have two options:
 - Click the **Browse** button and then use **Browse For Folder** to locate the Shared Folder. After you find the folder, click to highlight it, and then click **OK**. The path to the folder will appear in the **Folder** dialog box.
 - o In the Folder box, use the <u>Uniform Naming Convention</u> (UNC) to enter the path to the Shared Folder you want to map. For example: enter \\HPMediaVault\FileShare (HPMediaVault is the device name; FileShare is the name of the Shared Folder.)
- 5. Select **Reconnect at logon**. Windows will re-establish the mapped drive every time you start Windows.
- 6. Click Finish



How to organize your files

The HP Media Vault comes pre-configured with three Shared Folders: FileShare, MediaShare, and Backup. These folders are pre-named to help you get started saving and organizing your files for quick and easy access. Additionally, the names of these top-level folders are useful because the backup application that comes with the media vault and streaming media feature rely on the specific folder names.

You should consider creating other folders and saving them in the top-level folders: FileShare, MediaShare, and Backup. Folders beneath the top-level folders are called sub-folders. For example, MediaShare is enabled for media streaming. You could create sub-folders in MediaShare with names such as: "Photos" "Music" "Video" and "Movies." See the examples below under <u>Creating sub-folders</u>. (For more information on media streaming, see <u>Stream media to your entertainment center</u>.)

You can rename or delete FileShare, MediaShare, and Backup folders. Before doing so, please read the recommendations in the following table:

Recommendations

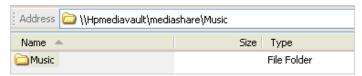
Shared Folders	Recommended Files
FileShare	Use this folder to store any important files that you want to share across your network.
MediaShare	HP configured this folder to allow media streaming to home entertainment centers. HP does not recommend renaming or deleting this Shared Folder if you are considering using this feature now or at some point in the future to store your music, videos, movies, and digital pictures. (For more information, see Stream media to your entertainment center.)
Backup	NTI's DriveBackup! defaults to this Shared Folder to store PC system backup files. These are large files containing all of your hard drive's data. (For more information, see <u>Create a drive backup</u> .) In addition, HP Easy Backup also defaults to this Shared Folder to store folder and file backups. (For more information, see <u>Use Easy Backup</u> .) HP does not recommend renaming or deleting this Shared Folder if you plan on using HP Easy Backup or NTI's DriveBackup!

Creating sub-folders

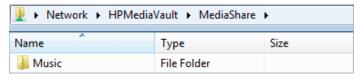
Creating folders on your PC and saving them to the MediaShare folder on your media vault provides an easy way to organize your media files. Follow the example below to learn how to create sub-folders and save them to the MediaShare.

In this example, you will create sub-folders in the MediaShare folder for storing your music files.

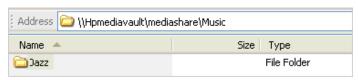
- 1. Create a sub-folder called Music:
 - a. On your PC, browse to MediaShare. (For information on how to browse to MediaShare, see <u>Browse</u>, <u>access</u>, and save files.
 - b. Do one of the following:
 - Windows XP or Windows 2000: Click the File menu, click New, Folder, and then enter Music in the highlighted box. Click somewhere else to clear the highlight.



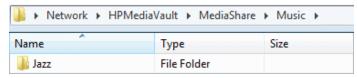
Windows Vista: Click the Organize menu, click New Folder, and then enter Music in the highlighted box. Click somewhere else to clear the highlight.



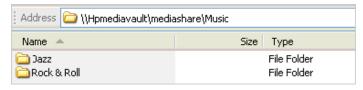
- 2. Create two separate sub-folders within your **Music** folder:
 - a. Double-click the **Music** folder to open it.
 - b. To create the first folder, do one of the following:
 - Windows XP or Windows 2000: Click the File menu, click New, Folder, and enter Jazz in the highlighted box. Click somewhere else to clear the highlight.



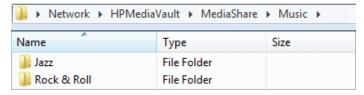
■ Windows Vista: Click the Organize menu, click New Folder, and enter Jazz in the highlighted box. Click somewhere else to clear the highlight.



- c. To create the second folder, do one of the following:
 - Windows XP or Windows 2000: Click the File menu, click New, Folder, and enter Rock & Roll in the highlighted box. Click somewhere else to clear the highlight.



Windows Vista: Click the Organize menu, click New Folder, and enter Rock & Roll in the highlighted box. Click somewhere else to clear the highlight.



You should now have two folders, Jazz and Rock & Roll, saved to your Music folder. All three folders are considered sub-folders to MediaShare.



How to secure your HP Media Vault from intruders

The HP Media Vault is designed as an "always on" device, which comes in handy for accessing files any time your network users need or want them. But a network device that is set up for file sharing also presents certain security risks. Because the media vault can be used on a network that has both wireless and wired functionality, you'll want to ensure that unauthorized users can't access your media vault and your files stored on it.

If your network comes with wireless capability, it has a piece of equipment called a Wireless Access Point (WAP). A WAP can come within an all-in-one-gateway, router, or as a standalone unit. In many cases, an AP's security settings are toggled off by default and you must manually turn on the security settings. If the security settings are toggled off, anyone can get into your media vault as well as any computer or other devices on your network. Firewalls and anti-virus software do not keep intruders out of wireless networks.

Most wireless networking equipment supports two forms of data encryption as security features: Wired Equivalent Privacy or WEP and Wi-Fi Protected Access or WPA. For more information on how to configure the security for your wireless network, see the user's guide that came with your networking equipment.

Anti-virus software

You should install anti-virus software on one or more computers on your network, and configure the software to scan all the Shared Folders on your media vault. You might be required to assign (map) drive letters to all your Shared Folders to enable the anti-virus software to scan the media vault. (For information on how to map drive letters to your Shared Folders, see Map drive letters to Shared Folders.)



A Remember to keep your anti-virus definitions up-to-date.

Establishing an administrator username and password

Setting up an administrator username and password is one way to safeguard your folders and files. If you do set up a username and password, you will be prompted to enter this information each time you enter the Configuration screens. For information on setting up a username and password, see Change the administrator username and password. For information on entering the Configuration screens, see Access the configuration screens.

Securing the HP Media Vault's Shared Folders on your LAN

The media vault offers additional security options for your network users and specific Shared Folders. For more information on Shared Folder and user security on your local area network (LAN), see Enhance security on your Shared Folders.



How to use the HP Media Vault to transfer files from an old PC to a new PC

Your HP Media Vault can help you simplify transferring files and settings from an old computer to a new computer.

Using a feature found in the Windows XP and Windows 2000 operating systems called the **Files and Settings Transfer Wizard**, you can transfer files, folders, and settings for Internet Explorer and Outlook Express in addition to desktop and display settings, dial-up connections, and other types of settings to a file on your media vault. On the new computer, you access this file stored on your media vault and transfer the settings and files to your new computer.

The Windows **Files and Settings Transfer Wizard** must be available on the Windows operating system on both your old and new computers.

Windows Vista: A similar feature exists in Windows Vista called **Windows Easy Transfer**. Instructions for using this feature are in the Windows Vista help. Because Windows Easy Transfer copies files directly from the old computer, you do not need to use the media vault for this process.

Steps for Windows XP and Windows 2000:

On your old PC:

- 1. Click **Start, All Programs**, **Accessories**, **System Tools**, **Files & Settings Wizard**. The Wizard's first dialog box will appear.
- 2. Click Next.
- 3. Click **Old Computer**.
- Click Next.
- 5. Click Other.
- 6. Either **Browse** to a folder on your media vault, or use the <u>Uniform Naming Convention</u> (UNC) to type in the path. For example, to save your settings to FileShare, type in the **Folder or drive:** box: \\HPMediaVault\FileShare.

(HPMediaVault is the name of your media vault. To change the media vault's name, see <u>Change the name of your HP Media Vault.</u>)

 Other (for example, a removable drive or network drive) You can save files and settings to any disk drive or folder on 	your computer.
Folder or drive:	
\\HPMediaVault\FileShare	Bro <u>w</u> se

7. Click Next.

- 8. Click one of the following:
 - Settings only
 - o Files only
 - Both files and settings
 - Let me select a custom list of files and settings when I click Next (for advanced users.) If you click on this option, you will be asked to select specific Settings, Folders, Files and File Types that you wish to transfer.
- 9. Click Next.
- 10. Click **Next** after reading any messages that appear on this screen.
- 11. Wait while the wizard collects your files and settings. Depending on the size and type of the files you're saving, this could take several minutes. Click **Finish**.

On your new PC:

- 1. Follow steps 1-2 above to run the **Files & Settings Wizard** on your new PC.
- 2. Click New Computer.
- 3. Click I don't need the Wizard Disk, I have already collected my files and settings from my old computer.
- 4. Click Next.
- 5. Click **Other**. **Browse** to or type in the path that you entered in <u>step 6</u> above. This path directs the new computer to the Shared Folder on your media vault where you stored your files, folders and settings. If you used the example above, the path is the same: **\\HPMediaVault\FileShare**.
- 6. Click Next.
- 7. Wait while the wizard transfers your files and settings to your new PC. Depending on the size and type of the files you're transferring, this could take several minutes. Click **Finish**.



How to connect to the HP Media Vault from a Linux system

This topic provides general guidelines and instructions on how to access the Shared Folders and configuration screens on the HP Media Vault from a Linux system. The particular steps needed to configure a Linux system for connection to the media vault may vary depending on the particular Linux installation.

To connect to HP Media Vault using Samba

Samba provides a simple and secure way of connecting a Linux computer to the media vault using the SMB (Server Message Block) and CIFS (Common Internet File System) protocols. The SMB network protocol is the native file-sharing protocol for Windows. CIFS defines a standard remote file-system access protocol for use over a network.

To use Samba, the Linux system must have Samba installed. For information about how to install Samba, see the documentation or man pages included with the Linux distribution.

Using a Linux graphical interface to connect

Linux distributions have numerous versions and graphical interfaces. Consequently, it is not possible to provide specific steps when using a graphical interface to connect a Linux system to the media vault. General steps for connection include using a network browser to find the media vault.

Note: If a firewall is running, turn it off or configure the system to allow Samba to connect to the SMB Shares.

The path to the media vault is as follows:

- 1. **Domain** default, Windows Network
- 2. Workgroup default, MSHome
- 3. Machines default, HPMediaVault

If any of these default names have changed, use the new name.

Using an IP Address or NetBIOS name to access the HP Media Vault

Connecting to the media vault requires either the media vault's IP address or NetBIOS name. NetBIOS is an acronym for Network Basic Input/Output System. The advantage of using the NetBIOS name is that even if the media vault's IP address changes, the Linux system can find the media vault. The following two sections describe each method.

Obtaining the HP Media Vault's IP address

The IP address for the media vault can be found on the router's configuration screens, usually under **DHCP Client Table** or **Show Connected Devices**.

Using the NetBIOS name instead of the IP address

Some Linux installations, such as Ubuntu®, may not be able to find the media vault by name without additional configuration. The default NetBIOS name for the HP Media Vault is HPMediaVault. To use the NetBIOS name, take the following steps:

- 1. First, check if the Linux system can already resolve the NetBIOS name of the media vault.
 - a. Open a terminal session.
 - b. Enter ping hpmediavault
- 2. If pinging fails, edit the **nsswitch.conf** file, as follows:
 - a. Become root.
 - b. In a terminal session, edit the **/etc/nsswitch.conf** file.
 - c. In the **nsswitch.conf** file, add wins to the following line:

hosts: files dns

so it reads

hosts: wins files dns

- 3. Install **winbind**, which provides Name Service Switch capability.
- 4. To ensure that the installation works, ping the media vault: ping hpmediavault

It is now much easier to mount volumes or access configuration screens because the IP address does not have to be known.

Connecting to HP Media Vault using Samba command lines

The method described here is not persistent. To have the Linux system automatically connect to the media vault every time it is rebooted, see the documentation or man pages for the Linux distribution.

Take the following steps to connect a Linux system to the media vault:

- 1. Open a Terminal session.
- 2. Become root.
- 3. If necessary install the Samba plugin.
- 4. Create a directory for the shared files.

Example: mkdir /mnt/sharefiles

5. Mount the media vault Shared Folder to the Linux computer, using the following syntax: mount -t smbfs //hpmediavault/sharename /mountpoint/sharedirectory

NetBIOS name example: mount -t smbfs //hpmediavault/FileShare /mnt/sharefiles

IP address example: mount -t smbfs //192.168.1.102/FileShare /mnt/sharefiles

Note: FileShare is one of the default Shared Folders on the Media Vault.

Connecting to HP Media Vault using NFS

NFS (Network File System) is a file system that allows users to access files across a network and treat them as if they resided in a local file directory. NFS is native to all Linux distributions. Unlike, Samba, no installation is necessary. To use NFS, take the following steps:

- 1. Open a Terminal session.
- 2. Become root.
- 3. Create a directory for the shared files.

Example: mkdir /mnt/sharefiles

4. Mount the media vault Shared Folder to the Linux computer, using the following syntax: mount -t nfs hpmediavault:/shares/Volumename/Sharename/ mountpoint

NetBIOS name example: mount -t nfs hpmediavault:/shares/Volume1/FileShare/ mnt/fileshares

IP address example: mount -t nfs 192.168.1.102:/shares/Volume1/FileShare/ mnt/fileshares

Note: For information on using the NetBIOS name or obtaining the media vault's IP address, see <u>Using an</u> IP Address or NetBIOS name to access the HP Media Vault above.

- Be sure to include **shares** in the path as it is part of the absolute path to the Shared Folder on the media vault.
- Volume 1 is the default name for the media vault's internal hard drive. (To view the volume name, access the Disk Setting tab in the configuration screens. For information on how to access configuration screens, see Access the HP Media Vault's configuration screens.)
- o **FileShare** is the name of one of the default Shared Folders.

Access the HP Media Vault's configuration screens

To access the media vault's configuration screen, use a browser such as FireFox or Konqueror.

- 1. Open the web browser.
- 2. In the Location box, enter the IP address or name of the media vault.

IP address example: http://192.168.1.100

NetBIOS name example: http://hpmediavault

Note: If the web browser cannot find the media vault with the NetBIOS name, the firewall may be blocking the request. If the Linux system has just been configured to use the NetBIOS name, the web browser may require restarting.

Depending on the media vault settings, the web browser displays either The Welcome Page or the Shared Folders tab.



How to connect to the HP Media Vault from a Macintosh

You can configure a Macintosh computer to access the Shared Folders and configuration screens on the HP Media Vault. These instructions apply only to computers with the latest Macintosh OS X operating system.

To map Shared Folders from a Macintosh

- 1. In the Finder, click Go, Connect to Server.
- 2. In the Connect to Server dialog box, click **Browse**.
- 3. In the Network window, click Mshome, HPMediaVault.

Note: Mshome is the default name of the workgroup. If this name has been changed, use the new name.

- 4. In the panel that shows the available shares, click **Connect**.
- 5. In the drop-down list on the Shared Volume window, select a shared volume, then click **OK**.
- 6. In the SMB/CIFS File System Authentication window, do one of the following:
 - o If the shared folder is password protected, enter the appropriate password, then click **OK**.
 - o If the shared folder is not password protected, click **OK**.
- 7. Repeat steps 5 and 6 for each shared folder.

To access the HP Media Vault's configuration screens

- 1. Open a web browser, such as Safari or Firefox.
- 2. In the Location box, enter the IP address or name of the media vault.
- 3. IP address example: http://192.168.1.101
- 4. Name example: http://hpmediavault

Note: The IP address for the media vault can be found on your router's configuration screens, usually under **DHCP Client Table** or **Show Connected Devices**.

Depending on the media vault settings, the web browser displays either The Welcome Page or the Shared Folders tab.



How to backup and restore

» How to use HP Easy Backup

Quickly, easily, and automatically back up My Documents, My Pictures, My Music, My Videos, and My Desktop.

» How to run automatic backups for important files

Use NTI Shadow for more advanced backup capabilities.

» How to create a drive backup

Use NTI Backup to protect your system files and data by backing up an entire hard drive or partition.

» How to modify a backup job

Change the settings on previously created backup jobs, enable or disable jobs, and delete jobs.

» How to restore a drive backup

Restore the data that you have backed up using NTI Backup.

» How to use the PC Restore Disc

Use the PC Restore Disc to restore a system drive.



How to use HP Easy Backup

Using HP Easy Backup is a good way to get started in protecting your data. Easy Backup provides a way for you to easily back up the following folders (including their <u>sub-folders</u>):



⚠ HP Easy Backup will back up only the My Desktop, My Pictures, My Music, My Videos, and My Documents folders that are installed by Windows for each User Account.

After configuring Easy Backup, each file will be backed up every time you make a change to the file.

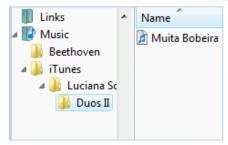
Additionally, Easy Backup creates one version of each file and places that file in a directory called **Revision**.

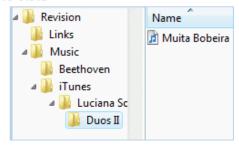
Windows XP/2000





Windows Vista





To back up your files using Easy Backup:

- 1. Start the software:
 - a. Double-click the **HP Media Vault** desktop icon.
 - b. Click the **Backup** tab.
 - c. Click Back up your important files.

2. If the **NTI Shadow** application appears, click **Switch to HP Easy Backup**, located in the lower-left corner of the screen. Otherwise, continue to the next step.

Note: To change whether Easy Backup or NTI Shadow is launched, see <u>To switch to NTI Shadow from</u> HP Easy Backup below.

- 3. In the Easy Backup screen, click **Simple Selection**.
- 4. Select one or more of the following options:

Note: Only the following folders and their sub-folders are backed up.

My Documents

The default folder for documents, graphics, and other personal files. Many programs automatically save data files to this folder.

My Music

The default folder for audio files, such as those you download from the Internet or save on your hard drive

My Pictures

The default folder for photographs. Many digital-camera and photo-editing software programs automatically create a sub-folder in this folder to which they save their pictures.

My Videos

The default folder for video clips, such as those you download from the Internet or saved on your hard drive.

My Desktop

All files and folders on the Desktop are backed up, including shortcuts. Note that backing up a shortcut does not backup the program that the shortcut opens.

Note: Any file stored in one of the above folders is backed up regardless of its type. For example, a document file stored in **My Music** will be backed up.

Click Start.

The backup process will start. Your first back up could take some time, depending on the amount of data.

Note: If you need more backup capability, see Run automatic backups for important files.

Switch between Simple (HP Easy Backup) or Custom (NTI Shadow) backup

To change whether HP Easy Backup or NTI Shadow is launched from the **Backup** tab:

To switch to HP Easy Backup from NTI Shadow:

- 1. From NTI Shadow, click Switch to HP Easy Backup, located in the lower-left corner of the screen.
- 2. In the **HP Easy Backup** screen, click the **Simple Selection** option.

Note: If you want Easy Backup to be launched each time you click **Back up your important files** from the HP Software, under **Custom Selection**, clear the checkbox labeled **Skip this screen in the future (always go directly to NTI Shadow software)**.

- 3. Select the folders you want to backup, as described.
- Click Start.

To switch to NTI Shadow from HP Easy Backup:

- 1. From HP Easy Backup, click Custom Selection.
- 2. Click Start.
- 3. For more information, see Run automatic backups for important files.

Note: If you want NTI Shadow to be launched each time you click **Back up your important files** from the HP Software, select the checkbox labeled **Skip this screen in the future (always go directly to NTI Shadow software)**.

» Contact HP	Search:	>
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How to run automatic backups for important files

Your HP Media Vault is bundled with NTI Shadow software. NTI Shadow is an easy-to-use application that lets you run automatic backups for the important files and folders on your PC. You can back up any data you want, including photo, music, video, and financial files. Using NTI Shadow will not disturb your computer use because it works transparently in the background.

Note: If you have already created a backup job and wish to modify it, see Modify a backup job.

You can either back up your files/folders every time they change or schedule a specific time for backups.

Note: If you wish to back up an entire drive, see Create a drive backup.

To back up important files/folders:

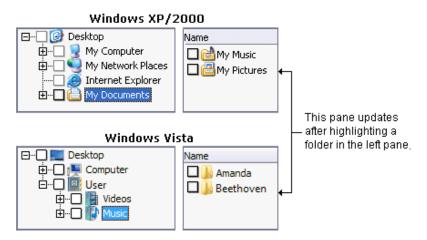
- 1. Start the software:
 - a. Double-click the **HP Media Vault** desktop icon.
 - b. Click the **Backup** tab.
 - c. Click Back up your important files.
- 2. If the **HP Easy Backup** screen appears, click **Custom Selection**, and then **Start**. Otherwise, continue to the next step.

Note: HP Easy Backup provides a way for you to easily backup commonly used folders such as **My Music**. For more information, see <u>Use HP Easy Backup</u>.

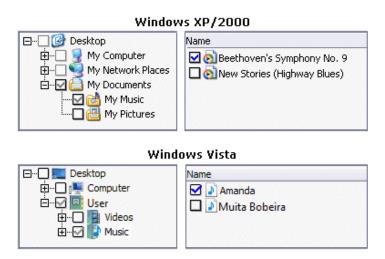
- 3. In the NTI Shadow screen, click Create Backup Job.
- 4. To back up an entire folder:
 - o In the **Backup job wizard**, click the checkbox next to the folder that you want to back up. A blue checkbox ☑ next to the folder indicates that you have selected to backup the entire contents of that folder.

To back up specific files:

a. In the left pane, select the folder that contains the files you want to back up.
 Selecting a folder opens the folder and displays its contents in the right pane.



In the right pane, select the files you want to back up.
 To select a file or folder, click its associated checkbox.



In the above illustration, notice that in the left column some of the checkboxes are gray \square . This indicates that only some of the files contained in the folder have been selected for backup.

⚠ If you add any new files to a folder that has a gray checkbox next to it, these files will not be included in future automatic backups.

Click Next.

- 5. Select your backup destination using either of the following methods:
 - Browse for the backup destination.
 - o Enter the network address using the <u>Uniform Naming Convention</u> (UNC) format. For example: \\HPMediaVault\Backup

Click **Next**.

- 6. Schedule your backup using one of the following options:
 - Save your folder/file to the HP Media Vault every time you save changes to your PC
 - o Save your folder/file changes every
 - Use the drop-down lists to select the time interval for your backup in Minutes, Hours, or Days.
 - o Save your folder/file changes every
 - Select one or more checkboxes for the days you want to schedule your backup
 - Select the Hours, Minutes, and AM or PM (for the 12-hour clock format)

Note: If you select a fixed schedule (specific day or time), to ensure optimum performance, choose a different time for each PC to back up its files. This avoids multiple backups to the media vault at the same time.

Click Next.

- 7. Select the number of previous file versions to save:
 - Save all the previous file versions
 Selecting this option will back up each version of your files. This options keeps all previous versions of your files
 - Save a limited number of previous file versions
 Selecting this option will back up the number you specify in the list box up to nine versions.
 - Do not save any previous file version
 Selecting this option will store only the latest version of the files.
 - Option button Allows you to delete the backup files/folders from your media vault when you delete the file from your computer. Select Delete the file on the HP Media Vault when the file is deleted on your PC, and then click OK.

Click **Next**.

- 8. Backup Job Summary:
 - Name this backup job box

NTI Shadow automatically names the file based on the computer name, date, and time. You can rename the backup if desired. You should use a unique name to identify the backup.

- o To show the progress of the backup, click **Show progress bar**.
- 9. Click **Finish** to start the backup.

The **Start Backup** dialog box appears asking whether you want to start the backup now.

- Select Yes to start the backup immediately.
- Select No to save the backup. If you chose this option, you can start the backup in the Modify Backup Job pane (see Modify a backup job).
- 10. If you have chosen to immediately start the backup, click **Yes** to start the backup.

Note: The NTI Shadow icon 🛒 is displayed in the computer Task Bar whenever a backup job is

configured.

How to back up specific file types

NTI Shadow backs up all file types unless you specify that you want to back up only specific kinds of files for backup. For example, you can specify that only the audio files in a folder are backed up. You can select which files you want to back up either by including or excluding files types:

- Include option
 Backs up only the specified files types.
- **Exclude** option

 Backs up all files except those specified.

To select specific file types for backup, follow these steps:

- 1. In the Select Files/Folders screen of the Backup job wizard, click Option.
- 2. In Step 1, select one or more file types.
 If you select Custom types, you can enter the file extension for the type of file in the associated box.
 Enter " *.extension type", such as *.gif.
- 3. In Step 2, select Include or Exclude.
- 4. Click OK.

To reset the **Select File Types** dialog box to the default settings:

• Click **Restore Defaults**. The checkboxes are cleared and the **Include** option is selected. All files types will then be backed up.

Feedback about this guide

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How to create a drive backup

Your HP Media Vault is bundled with NTI DriveBackup!. NTI DriveBackup! is an easy-to-use application that lets you backup an entire disk drive or drive <u>partition</u> on your PC to ensure that all your data and programs are protected against disaster.

Note: You can also use DriveBackup! to restore a previous drive backup to your disk drive. For more information, see Restore a drive backup.

To create a drive backup, follow these steps:

- 1. Start the software:
 - a. Double-click the **HP Media Vault** desktop icon.
 - b. Click the **Backup** tab.
 - c. Click Back up your entire drive.
- 2. In **Step 1 Select Drive to Backup**, from the **Source drive** drop-down list, select the drive you want to backup.
 - ⚠ Note the amount of used space shown in this step and make sure that your media vault has enough storage capacity for the backup.
- 3. In **Step 2 Select Destination for Your Backup**, select where to store the backup either from the drop-down list or by browsing.
- 4. In **Step 3 Name Backup File**, NTI DriveBackup! automatically names the backup file using the computer name, date, and time. You can rename the backup if desired. You should use a unique name to identify the backup.
- 5. In **Step 4 Select Options**, select the desired backup options:
 - Data Compression

Selecting this option enables NTI DriveBackup! to reduce the size of the backup.

Note: The size reduction depends on the kind of data being compressed. Some kinds of audio and a video files are already compressed; subsequently, further compression is negligible.

- Backup Verification
 - If you select this option, NTI DriveBackup! performs a verification step to ensure that the correct files exist on the backup.
- o Password button.
 - Click **Enable Password Protection**, and then enter and confirm the passwords in the associated boxes.
- 6. To schedule your backup for a specific time, click **Schedule**, otherwise go to the next step.

Note: When selecting a schedule, to ensure optimum performance, choose a different time for each PC to back up its files. This avoids multiple backups to the media vault at the same time.

- a. In the **Scheduler Setup** dialog box, select the frequency of the backup: **Once**, **Weekly**, **Monthly**, or **Daily**.
- b. If you select **Daily**, you can specify the particular days of the week you want the backup to occur.
 - Click Which Days.
 - Select one or more days of the week, and then click **OK**.
- c. The **Start at** group changes according to the frequency you previously selected. Select the time for the backup as follows:
 - Once

Select the time, month, day, and year. For example: 12:00 AM, January, 20, 2007.

Weekly

Select the time and day of the week. For example: 15:15, Sunday.

Monthly

Select the time and day of the month. For example: 10:30 PM, 1. Because not every month has 31 days, we suggest that you use the first day of the month for monthly backups.

Daily

Select the time of day. For example: 21:33.

Note: To set the hour and minute of the time option, you can select each column (**Hours**, **Minutes**, and **AM** or **PM** (for the 12-hour clock format), and then either enter the time or use the **Up** and **Down** arrows.

7. To start the backup immediately, click **Start**.

The **Create Drive Image Backup** screen appears. This screen shows the details and progress of the backup process.

- 8. After the backup finishes, you can do the following:
 - o To view a report of the backup, click **View Report**.
 - o To close the Create Drive Image Backup screen, click Close.

DriveBackup! Menus

The DriveBackup! menus provide additional functionality for backing up your drive or drive partition.

. Job Menu

Provides the following standard file capabilities: New, Open, Save, Save As, Exit.

. Options Menu

Sets password protection as described in Password button above.

Reports Menu

Allows you to view or delete reports of all backup and restore operations. Every time a backup is created or restored, DriveBackup! creates a report file that contains information to help you to trace and diagnose problems that might occur. DriveBackup! will report all errors that have occurred in backup or restore process in these files.

View Backup Reports

Opens the **Backup Report** dialog box where you can **View** or **Remove** reports by highlighting the report and selecting the appropriate button.

o View Restore Reports

Opens the **Restore Report** dialog box where you can **View** or **Remove** reports by highlighting the report and selecting the appropriate button.

Help Menu

Provides the built-in NTI help and support.

NTI Schedule Viewer

The NTI Schedule Viewer is a backup monitoring program that you can use to delete, suspend, or resume already scheduled NTI DriveBackup! jobs.

To access the NTI Schedule Viewer:

Click Start, All Programs, NTI DriveBackup! 4, NTI Schedule Viewer.

All scheduled backup jobs can be viewed from the NTI Schedule Viewer window.

To delete a scheduled backup job:

- 1. In the NTI Schedule Viewer window, right-click the job you wish to delete, then click the Delete job.
- 2. In the confirmation dialog box, click **Yes**.

To suspend or resume a job:

1. In the **NTI Schedule Viewer** window, right-click the backup job you wish to suspend or resume. A context window appears.

Within the context window, a checkmark next to **Suspend job** indicates that the job is suspended. If no checkmark is visible, the job will be processed normally.

2. Click **Suspend job** to suspend or resume a job.



How to modify a backup job

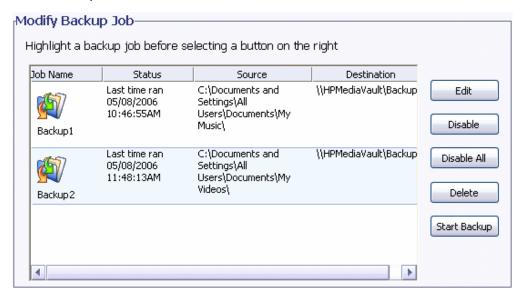
Your HP Media Vault is bundled with NTI Shadow software. NTI Shadow is an easy-to-use application that lets you modify any backup jobs you have previously created. You can change the settings of the job, enable or disable jobs, and delete jobs. (For information about creating a backup, see Run automatic backups for important folders or files.)

To modify a backup job, follow these steps:

- 1. Start the software.
 - a. Double-click the **HP Media Vault** desktop icon.
 - b. Click the **Backup** tab.
 - c. Click Back up your important files.
- If the Easy Backup screen appears, click Custom Selection, and then Start. Otherwise, the NTI Shadow screen appears.

Note: Easy Backup provides a way for you to easily backup commonly used folders such as **My Music**. For more information, see <u>Use Easy Backup</u>.

The **Modify Backup Job** list box shows the list of backup jobs that have been created. The list includes the name of the backup job, the last time the job ran, which folder/files were backed up, and the location of the backup folders.



- 3. You can modify a backup as follows:
 - o Edit

Opens the **Backup job wizard**, where you can modify the backup as described in <u>Run automatic</u> backups for important folders or files.

o Disable/Enable

Disables or enables the selected backup job. A disabled backup will not run until it is re-enabled.

o Disable All

Disables all backup jobs.

o Delete

Deletes the selected backup job.

Start Backup

Immediately starts the selected backup. The backup must be enabled to start.

4. You can also view the log file, complete the modification, and cancel some kinds of modifications:

o View Log File

Displays information about the backup process.

o Done

Closes the **NTI Shadow** screen. If a backup is running, it will continue to run. Changes to the enabling or disabling of any backup jobs are saved.



How to restore a drive backup

Your HP Media Vault is bundled with NTI DriveBackup!. NTI DriveBackup! is an easy-to-use application lets you restore an entire disk drive or drive partition on your PC that you have previously backed up using NTI DriveBackup!.(For information about creating a backup, see Create a drive backup.)

If you wish to restore the system drive, you must use the PC Restore Disc. A system drive cannot be restored from the Windows operating system because it would have to write over itself.

About restoring a drive backup

Keep the following in mind when restoring from NTI DriveBackup!:



⚠ When restoring a disk drive, any content that exists on the target hard drive or drive partition will be erased.

- Restored NTFS partitions cause the Windows **chkdsk** utility to run when the system is rebooted. This utility creates and displays a status report for a disk based on the file system. Windows 2000 SP4 or Windows XP will run the verification process and then restart. The restored drive should be fully operational after the computer restarts.
- You cannot select a partition that is smaller than the amount of data on the original partition. However, you may select a larger partition. In some cases, you may need to select a target partition that is the same size as the original partition.
- When you select a drive to restore, you must pay attention to the compatibility of the file systems between the source backup and the target drive. The following table lists all compatible combinations of source and target file systems and the resulting partition format.

Compatible Combinations

Source Partition		Resulting Partition
NTFS	NTFS	NTFS
NTFS	FAT16	NTFS
NTFS	FAT32	NTFS
FAT16	FAT16	FAT16
FAT32	FAT32	FAT32
Any other combinations are not supported.		

To restore a drive backup, follow these steps:

- 1. Start the software:
 - a. Double-click the **HP Media Vault** desktop icon.

- b. Click the **Backup** tab.
- c. Click Restore your entire drive.
- 2. In **Step 1**, from the drop-down list, select the location of the backup file you want to restore.
- 3. Click **Browse** to find and select the specific backup file to restore. DriveBackup! files have a **.npf** file extension.

The selected file appears in the box below the list box and **Browse** button.

- 4. In **Step 2**, from the drop-down list, select the hard drive you want to restore.
- 5. Click Start.

The time it takes to restore the drive or drive partition depends on the size of the backup file.

DriveBackup! Menus

The DriveBackup! menus provide additional functionality for backing up your drive or drive partition.

Job Menu

This menu provides the following standard file capabilities: New, Open, Save, Save As, Exit.

• Options Menu

Sets password protection.

. Reports Menu

Allows you to view or delete reports of all backup and restore operations. Every time a backup is created or restored, DriveBackup! creates a report file that contains information to help you to trace and diagnose problems that might occur. DriveBackup! will report all errors that have occurred in backup or restore process in these files. By default, all report files are located in the Report Files directory found in the installation directory for your DriveBackup! software.

View Backup Reports

Opens the Backup Report dialog box where you can view or remove reports by highlighting the report and selecting the appropriate button.

View Restore Reports

Opens the Restore Report dialog box where you can view or remove reports by highlighting the report and selecting the appropriate button.

. Help Menu

Provides the built-in NTI help and support.

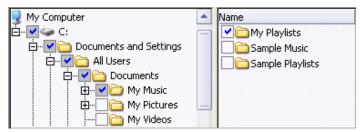
NTI Image Explorer

The NTI Image Explore allows you to restore individual folders and files from a DriveBackup! file. DriveBackup! files have an **.npf** extension. To restore an entire drive or partition, see Restore a drive backup.

To restore individual folders or files from an **.npf** file, follow these steps:

- 1. Start NTI Image Explorer:
 - a. Click Start, All Programs, NTI DriveBackup! 4, NTI Image Explorer.
 - b. In the EasySteps 1: What to restore? screen, select the location of the backup file you want to restore from the drop-down list.

- c. Click **Browse** to find and select the particular backup file you want to restore.
 - The selected file appears in the box below the list box and **Browse** button. The backup files contained in the DriveBackup! file appear in the selection panes in the bottom part of the screen.
- d. In the left pane, navigate to the folder that contains the files that you want to restore. (The selection of folders and files is identical to that described in <u>Run automatic backups for important files</u>.)
- e. In the right pane, select the folder or files that you want to restore.



- 2. Click EasySteps 2.
- 3. Select one of the following options to restore the files:
 - o To restore the files to their original location, select **Original**.
 - o To restore the files to a different location, select **Other** and then **Browse**.
- 4. Click EasySteps 3.
- 5. Select the overwrite options of the restore:
 - Never replace a file with its backup copy
 - o Replace a file only if its backup copy has a newer file date and time
 - Always replace a file with its backup copy
- 6. Click Start.
- 7. In the Operation Finished dialog box, click **Close;** or if you want to view a report of the restore, click **View Report**.



How to use the PC Restore Disc

To help you recover your system and data in the event of a disaster, HP Media Vault includes a PC Restore Disc.

Important: To ensure that you have the latest version of the PC Restore Disc, consult the HP support web site at www.hp.com/support.

To use the PC Restore Disc, you must have previously created a drive backup with DriveBackup!, you can use this disc for the following:

- To restore the system drive.
- If you cannot use the Windows operating system to restore the system files.
- The operating system will not start (boot).

For information about creating a drive backup, see Create a drive backup.

The Microsoft® Windows® Preinstallation Environment software included with this computer or software may be used for boot, diagnostic, setup, restoration, installation, configuration, test or disaster recovery purposes only. NOTE: THIS SOFTWARE CONTAINS A SECURITY FEATURE THAT WILL CAUSE END USER CUSTOMER'S SYSTEM TO REBOOT WITHOUT PRIOR NOTIFICATION TO THE END USER CUSTOMER AFTER 24 HOURS OF CONTINUOUS USE.

To recover your system and data using the bootable disc:

Note: The PC Restore Disc does not support wireless networking. To restore your computer, you must connect it to your router via a wired-LAN.

1. Insert the **PC Restore Disc** into your CD/DVD drive.

Note: If the PC Restore Disc is not recognized by your computer, you may have to configure the computer's BIOS to recognize your CD/DVD drive as a bootable device. For more information, see your computer's documentation.

⚠ After inserting the **PC Restore Disc**, it may take several minutes for the NTI DriveBackup! application to appear. Please be patient.

Note: If the following error message appears: Failed to install network adapter--check **WINBOM**, your network adapter is not supported by the **PC Restore Disc**.

- 2. When the Language Selection dialog box appears, select the language you want to use from the drop-down list, and then click **OK**.
- 3. In **Step 1**, select the drive/partition that you want to restore.
 - a. Restore the C: partition

Use this option when you have only one drive partition.

b. Restore the C: and D: partition

Use this option when you have only two drive partitions.

Note: If you have more than two partitions, refer to the Microsoft documentation for <u>Disk</u> Management.

 In Step 2, select the backup file from the list or Browse for the backup file. Drive backup files have a .npf file extension.

Note: The backup file may be split into multiple files. Select the file with 001 in the name.

```
hp-0b343d9aeba9_C_Drive_01-04-2207_12-54-27PM.NPF
hp-0b343d9aeba9_C_Drive_01-04-2207_12-54-27PM_001.NPF
hp-0b343d9aeba9_C_Drive_01-04-2207_12-54-27PM_002.NPF
```

5. In **Step 3**, select the drive you want to restore.

⚠ When restoring a hard drive, any content that exists on the target hard drive or drive partition will be erased.

Note: To exit NTI DriveBackup! before starting your restore, click Job, Exit.

6. Click Start.

Note: If you want to exit the restore after clicking start, click the **Cancel** button.

To verify proper disk operation, NTI DriveBackup! runs the Windows chkdisk utility when the system is rebooted on restored drives with NTSF files system.

The target partition may be larger than the original partition where desired. You cannot select a partition that is smaller than the amount of data on the original partition. In some cases, such as Windows 2000, Service Pack 2, you may need select a target partition that is the same size as the original partition.



How to configure the HP Media Vault

» Configuration screens

Access the configuration screens to change settings on your HP Media Vault.

» How to expand your storage

Install or remove an internal hard drive from your HP Media Vault; install and remove an external USB drive.

» Manage Shared Folders and users

Manage your network user and Shared Folders on your HP Media Vault.

» How to stream media to your entertainment center

Enable media files stored on your HP Media Vault to play on your entertainment center.

» Monitor and configure the HP Media Vault's hard drives

Monitor and configure your HP Media Vault's hard drives.

» Advanced network setting

Change your HP Media Vault's network security mode and network settings.

» How to install a printer

Connect a printer to your HP Media Vault.



Configuration screens

» How to access the configuration screens

Learn different ways to access HP Media Vault's configuration screens.

» The Welcome Screen

Use the Welcome screen to access the configurations screens.

» System Settings

Change the HP Media Vault's default settings.



How to access the configuration screens

The HP Media Vault's configuration screens contain settings for a number of activities beyond saving files to the media vault. For example, the configuration screens let you create new Shared Folders, set privilege levels on folders and files, stream media, add or reformat a hard drive, and add a printer. The configuration screens appear in a standard <u>browser window</u>, such as Microsoft Internet Explorer. (Most standard browsers installed on PCs today will work with the media vault's configuration screens.)

To access the configuration screens from the HP Media Vault desktop icon:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's settings.
- If the Welcome Screen appears, click Configure Device.

To access the configuration screens from the Start menu:

Click Start, All Programs, HP Media Vault, Customize your HP Media Vault's settings,
 Configure Device.

To access the configuration screens from an Internet browser:

- 1. Open your Internet browser.
- 2. Highlight the address line of the browser window up to http://:
- 3. Press the **Delete** key.
- 4. Enter **HPMediaVault** (or, if you've changed the media vault's name, enter the new name).
- 5. Press the **Enter** key.

After using one of these methods, your default web browser will open and you will see the Shared Folders screen, which provides basic information on your Shared Folders. This screen also allows you to create new Shared Folders and make changes to your Shared Folders. For more information on Shared Folders, see Manage Shared Folders.



The Welcome Screen



The **Welcome Screen** allows you to select **Browse Shared Folders** or **Configure Device**. The Welcome Screen opens only if you have selected to allow Web Browser Access for one or more Shared Folders. Your media vault defaults to **No Access** for Web Browser access, so you must change this setting to enable this method for accessing your files. You can change to Web Browser Access on the <u>Create a new Shared Folder</u> screen or on the <u>Modify an Existing Shared Folder</u>. On both screens, the **Web Browser Access** option appears under **Permit Access to this Folder from**.

Web Browser Access refers to <u>HTTP access</u>. HTTP access lets you access folders and files on your media vault in a browser window. You should use HTTP access cautiously because HTTP access also lets you use a browser to access media vault files on computers outside of your <u>local area network</u> (LAN). To keep your files secure, you should only enable HTTP access if you understand network security.

Browse Shared Folders

Click to browse the contents of your media vault using a web browser window.

Configure Device

Click to access the configuration pages, which lets you modify settings on the media vault. When you select this option, the first screen titled **Shared Folders** opens. (See <u>How to use the Shared Folders screen</u>.)



System Settings

Select a topic

- » What are the factory default settings?
- » How to change the administrator username and password
- » How to change the name of your HP Media Vault
- » How to set the date and time
- » How to turn off the alert beep
- » How to make a language selection
- » How to update the firmware
- » How to enable the power-saving mode
- » How to display the system event log
- » How to restart and reset the HP Media Vault



What are the factory default settings?

What is the default network name given to the HP Media Vault?

- HPMediaVault
- If you have more than one media vault, the second is called HPMediaVault01, the third is called HPMediaVault02, and so on.

(See Change the name of your HP Media Vault.)

What is the default hard drive name of the HP Media Vault?

SYSTEM

(See Hard drive settings.)

What is the default hard drive volume name?

Volume 1

(See Hard drive settings.)

What default time zone does the media vault use?

• Mountain Standard Time (MST)

(See Change the time zone on your HP Media Vault.)

What are the names of the three default shares configured on the HP Media Vault?

- FileShare
- MediaShare
- Backup

(See Get started.)

What is the default security mode of the HP Media Vault?

Workgroup mode

(See Enhance security on your Shared Folders.)

What are the three allowable user-privilege levels for Shared Folders?

- Full access
- Read-only access
- No access

(See Enhance security on your Shared Folders.)



How to change the administrator username and password

The HP Media Vault does not come pre-set with an administrator username and password, which means that anyone on your network can work as "administrator." This simplifies getting started, but the lack of an administrator username and password also gives access to all your folders and files by every network users. To make the data stored on your media vault more secure, you can assign an administrator username and password.

To access the User Settings screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's setting.
- If the Welcome Screen appears, click Configure Device.
- Click the User Settings tab.

To change the administrator username and password:

In **Administrator Settings**, complete the following:

- 1. Enter a username in the **Administrator Username** box.
- 2. Enter a password in the **Password** box.
- 3. Re-enter the password in the **Confirm Password** box.
- 4. Click **Accept** or **Cancel**. (If you click **Cancel**, the username and password will not be accepted.)



How to change the name of your HP Media Vault

You can change the name of the HP Media Vault. This is useful if you have more than one media vault on the same network. The default network name is HPMediaVault.

Keep in mind that renaming a media vault forces all your network computers to remap their shared network resources, such as Shared Files and Shared Printers. Change the name of the media vault only when necessary.

To access the Network Settings screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's settings.
- If the Welcome Screen appears, click Configure Device.
- Click the Network Settings tab.

To change the name:

- 1. In the **Device Name** box, enter the new name for the media vault. Do not include spaces in the name. Only 15 alphanumeric characters are allowed.
- 2. Click **Accept** or **Cancel**. If you click **Cancel**, you media vault will not be renamed.

Two or more HP Media Vaults:

If you have more than one media vault, the second is called HPMediaVault01, the third is called HPMediaVault02, and so on.



How to set the date and time

To access a Clock Settings:

- 1. Double-click the **HP Media Vault** icon on your desktop.
- 2. Click Customize your HP Media Vault's setting.
- 3. If the Welcome Screen appears, click Configure Device.
- 4. Click the System Settings tab.
- 5. Click Clock Settings.

You can make one or more date and time changes on the **Clock Settings** screen.

Synchronizing the date and time

If you have Internet access on your network, the HP Media vault automatically synchronizes its date and time with an Internet public Network Time Protocol (NTP) server. This synchronization feature called **Automatically Set Clock from Internet (NTP) Server** is set at the factory. The checkbox for this feature is located in the upper-left corner of the screen.

By default, the media vault connects to the first available NTP Server. Under normal circumstances, you should not have to modify the addresses of the three pre-set NTP Servers.

If you want to set the clock manually, you should clear **Automatically Set Clock from Internet (NTP) Server** check box. If you set the clock manually without clearing this feature, the next time the media vault checks its time against the NTP sever, the NTP Server will change your manual settings.

Setting the clock manually

- 1. Enter the appropriate **Year**, **Month**, and **Day**.
- 2. Enter the Hours, Minutes, and Seconds.
- 3. If you have set the **Time Display Format** to use a 12 Hour Clock, click either **AM** or **PM**. (See the second bullet item in Other clock settings below.)
- 4. Click Set Clock Manually.

Other clock settings

If you do not want your media vault to automatically adjust for Daylight Saving Time, click the **Automatically Adjust Clock for Daylight Savings Time** checkbox to clear it. If you live in a daylight-savings time zone, and keep this box selected, your media vault will automatically update its clock for the Spring and Autumn time changes.

- To select a new time zone, click the **Select Time Zone** drop-down list. If finished making changes, click **Accept** or **Cancel**. If you click **Cancel**, the changes that you make will not be accepted.
- To switch from a 24-hour clock to a 12-hour clock, click **12 Hour Clock (AM, PM)** under the **Time Display Format**. The 12-hour clock starts at 0 hours at 12 a.m. and resets the hours to 1 p.m. after 12 p.m. The 24-hour clock starts at 0 hours at 12 a.m. and continues for 23 hours. If finished making changes, click **Accept** or **Cancel**. If you click **Cancel**, the changes that you make will not be accepted.
- To change the date format, click the appropriate **Date Display Format**. If finished making changes, click **Accept** or **Cancel**. (If you click **Cancel**, the changes that you make will not be accepted.)
- To set the media vault's time to the PC's clock running your browser, click **Set Clock from Browser**. (You do not have to click **Accept** for this change to be accepted.)



How to turn off the alert beep

Your HP Media Vault comes enabled with an alert beep. The alert beep notifies you of certain activities taking place on the media vault. You will hear beeps for routine functions, such as the media vault powering up or down. However other beeps may signal potential critical problems with your media vault, such as an internal hard drive error.

If you have installed the HP software from the Software Installation Disc, you can check the media vault icon located in your system tray for messages when you hear the alert beep.

To access the System Settings screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's setting.
- If the Welcome Screen appears, click Configure Device.
- Click the **System Setting** tab.

To turn off the alert beep:

- 1. Click Disable Audio Alarm.
- 2. When you are finished making changes, click **Accept** or **Cancel**. (If you click **Cancel**, the change you made will not be accepted.)



How to make a language selection

To access the System Settings screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's setting.
- If the Welcome Screen appears, click Configure Device.
- Click the System Settings tab.

To change the language:

- 1. Click the **Language** drop-down list located in the upper-right corner of the screen.
- 2. Select a language. (You do not have to click Accept.)



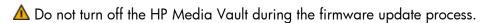
How to update the firmware

To access the System Settings screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's setting.
- If the Welcome Screen appears, click Configure Device.
- Click the **System Settings** tab.

To update the firmware:

- 1. In the **Select Firmware Update Package** box, enter the path to the firmware file that you've downloaded to your local PC, or click **Browse** to locate the file.
- 2. Click Apply Firmware Update.
- 3. The upgrade process will take a few moments as your media vault automatically reboots to initialize the new firmware.





How to enable the power-saving mode

Your HP Media Vault comes with power-saving mode enabled. After one-hour of inactivity, your media vault's internal hard disk spins down. When activity on your network again accesses the media vault's hard drive, the hard disk automatically spins up.

When you use power-saving mode, you lower power consumption, and your media vault's internal hard drive experiences less wear and tear.

To access the System Settings screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's setting.
- If the Welcome Screen appears, click Configure Device.
- Click the System Settings tab.

To make changes to the power-saving mode:

- To change the default time settings, click the **Hours** and **Minutes** drop-down lists.
- To turn off power-saving mode, clear the **Enable Power Saving Mode** checkbox.

When you are finished making changes, click **Accept**, or **Cancel**. (If you click **Cancel**, any changes that you made will not be accepted.)



How to display the system event log

To access system event log:

- 1. Double-click the **HP Media Vault** icon on your desktop.
- 2. Click Customize your HP Media Vault's setting.
- 3. If the Welcome Screen appears, click Configure Device.
- 4. Click the System Settings tab.
- 5. Click Display System Event Log.

This screen will show you a record of activity that has taken place on the HP Media Vault. Each activity will have a time and date associated with it, a description of the activity that took place, and an activity importance level also called a critical alert.

For example, mounting a new hard drive will be listed with a relatively minor importance, or alert, but a hard drive failure would be listed with a critical alert. You can clear the log by clicking **Clear System Event Log**.



How to restart and reset the HP Media Vault

To restart the HP Media Vault:

- 1. Double-click the **HP Media Vault** icon on your desktop.
- 2. Click Customize your HP Media Vault's setting.
- 3. If the Welcome Screen appears, click Configure Device.
- 4. Click the System Settings tab.
- 5. Click **Restart Device**. Restarting the media vault simply turns it off and on as if you unplugged and plugged it back in. You will not lose any of your current settings.

Note: You can also **Restart** the media vault by pressing the power button on the front of the media vault, or pressing the restart/reset button on the back of the media vault. If you use the button located on the back of your media vault, do not press the button for more than four to five seconds. Pressing this button for longer than five seconds will completely **Reset** your media vault. (See <u>Troubleshooting</u>.)

To reset the HP Media Vault:

- 1. Double-click the **HP Media Vault** icon on your desktop.
- 2. Click Customize your HP Media Vault's setting.
- 3. If the Welcome Screen appears, click Configure Device.
- Click the System Settings tab.
- 5. Click Reset Device to Factory Default. Only select this option if you have a media vault that is failing to respond to normal commands. Many of the settings you might have changed through the media vault's configuration screens will be reset to their factory default settings. For example usernames and passwords established in user-based mode are deleted. However, the reset device button does not alter your Shared Folders or any file content.

Note: You can also **Reset** the media vault by pressing the restart/reset button on the back of the media vault. To achieve a complete reset, you must press and hold in the button for at least 10 seconds. Pressing this button for less than 10 seconds will only **Restart** your media vault. (See <u>Troubleshooting</u>.)



How to expand your storage

Select a topic

- » How to install an internal hard drive in your HP Media Vault
- » How to install and remove an external USB hard drive



How to install and remove internal hard drive from your HP Media Vault

The HP Media Vault's primary system hard disk uses the Serial ATA (SATA) interface. The internal expansion bay will accommodate a second SATA disk. (The media vault does not support adding Integrated Drive Electronics (IDE) disks.)



⚠ You cannot remove or add a hard disk to the media vault while it is powered on and running.

To add a SATA disk into the expansion slot:

1. Power down the media vault by pressing the power button on the front of the media vault and wait until it completely shuts down.



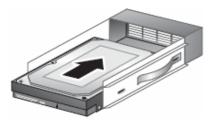
- 2. Open the front left door of the media vault.
- 3. Turn the security knob on the hard drive tray counter-clockwise.



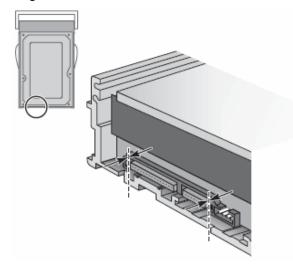
4. Lift the drive tray handle out and gently pull the hard drive tray out of the expansion bay.



5. Slide the hard drive into the tray.



6. Align the hard drive connector with the notch on the back of the tray.



7. Use a screwdriver to attach the four screws, which secures the SATA drive to the tray. Make sure that the hard drive connector is still aligned with the notch on the back of the tray after tightening the screws.



8. Slide the tray with the inserted hard drive into the expansion bay.



9. Turn the security knob clockwise to secure the drive tray into place.

10. Power up the system.



You can now use the additional hard drive. (For information on formatting the hard disk, see <u>Format a</u> disk.)

To remove an internal expansion:

- 1. Power down the media vault by pressing the power button on the front of the unit and wait until it completely shuts off.
- 2. Turn the security knob counter-clockwise.
- 3. Lift the drive tray handle out and gently pull the hard drive tray out of the expansion bay.
- 4. Use a screwdriver to unscrew the four screws.
- 5. Remove the hard drive from the tray. To prevent losing the tray, insert the empty tray back into the media vault.
- 6. Power the system back up to use the single internal drive.

A Removing hard disks can cause unexpected and undesirable behaviors. If the media vault has volumes that span across multiple disks, removing any one of the disks will make the whole volume unusable (at least until the disk is reconnected).



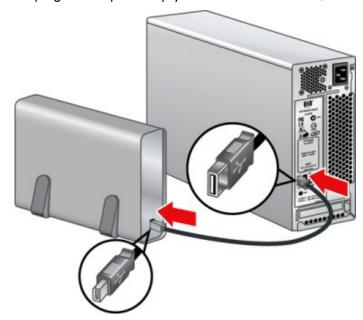
How to install and remove an external **USB** hard drive

You can add external USB disks to any of the HP Media Vault's three USB ports (two on the back and one on the front). Small USB disks, such as key disks and jump drives, also can be attached. Portable devices, such as cameras and phones, can be attached if your system detects those devices as USB storage devices. If you have any questions, check with the USB manufacturer to verify that the device is classified as a USB storage device.

⚠ The total amount of storage space connected to the media vault, for all disks, cannot exceed 1.2 terabytes.

To connect an external USB disk:

- Plug in the USB cable into one of the USB ports on your media vault.
- To plug in and power up your external USB drive, see the documentation that came with your USB drive.



⚠ The addition of multiple USB disks through an external USB hub is neither recommended nor supported.

To access the Disk setting screen:

- 1. Double-click the **HP Media Vault** icon on your desktop.
- 2. Click Customize your HP Media Vault's settings.
- 3. If the Welcome Screen appears, click Configure Device.
- 4. Click the Disk Settings tab.

To remove an external USB disk:

- 1. Select a hard disk by clicking the **Select a Disk** drop-down list.
- 2. Click Safely Disconnect Disk.
- 3. When the media vault is ready, you will receive a message telling you that it's okay to physically disconnect the disk from the system. Click **OK**.
- 4. Disconnect the disk from the media vault.



Manage Shared Folders and users

» Enhance security on your Shared Folders

Control who has access to your HP Media Vault files.

» How to manage Shared Folders

Create, modify, and delete Shared Folders.

» How to manage users

Create, modify, and delete HP Media Vault users.



Enhance security on your Shared Folders

The HP Media Vault comes with different options for securing folders and files saved to the media vault. You can permit everyone on your network access to all your media vault's files, or you can set the access levels on individual folders that contain sensitive information so that only you have access to those files.

The media vault's two primary security modes are:

- . Workgroup mode
- User-based mode

Workgroup mode

The media vault's default security mode is workgroup mode, which is the lowest level of security for your Shared Folders. In workgroup mode, everyone on your network has equal access to all your folders. However, you can add one level of security in workgroup mode by password protecting your Shared Folders. With password protection enabled, network users must enter appropriate passwords before gaining access to the folders.

A Password protection in workgroup mode is problematic in Vista; the behavior is inconsistent.

Therefore, if you want to password protect a Shared Folder, you should switch to User-based mode.

To password protect Shared Folders, see Modify a Shared Folder in workgroup mode.

User-based mode

User-based mode is a more restrictive security level because you grant "access privileges" for each defined network user on each Shared Folder.

To select user-based mode:

- 1. Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's setting.
- 3. If the Welcome Screen appears, click Configure Device.
- 4. Click the **Network Settings** tab.
- 5. Click User-based mode.
- 6. Click **Accept** or **Cancel**. (If you click **Cancel**, the change from workgroup mode to user-based mode will not be accepted.)

As administrator, you must create usernames for each user. You must also assign one of the following three privilege levels for every user, for every Shared Folder on the media vault:

- Full access
- Read-only access
- No access

You can switch out of this mode by going to the **Network Settings** tab and selecting another mode.

Why switch to user-based mode?

Let's say you store all your financial files on the media vault. All your network users store their music files to the media vault so that they can download songs only once from the Internet. But you don't want all your network users to have access to your financial files. In this case, you would create separate usernames for each user giving them "Full access" to the Shared Folders containing music. You would then assign "No access" to these users on Shared Folders that contain financial files. (See Organize your files.)



⚠ User-based mode requires a more thorough understanding of the media vault's networking features, and occasional maintenance of changes. Before deciding to enable User-based access mode, make sure that you understand the configuration screens. Before enabling this mode, read through each topic in the Configure your HP Media Vault section.



How to manage Shared Folders

Select a topic

- » How to use the Shared Folder screen
- » How to create a Shared Folder in workgroup mode
- » How to create a Shared Folder in user-based mode
- » How to modify a Shared Folder in workgroup mode
- » How to modify a Shared Folder in user-based mode
- » How to delete a Shared Folder



How to use the Shared Folders screen

The Shared Folders screen is the opening page of the configuration screens. Shared Folders are the HP Media Vault's primary resources shared on your network. Similar to folders on your computer, you can set up Shared Folders to store and share files or to restrict access to certain network users.

To access the Shared Folder screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's setting.
- If the Welcome Screen appears, click Configure Device.
- Click the Shared Folders tab.

The first time you enter the configuration screens and before you've created other Shared Folders, you see the three pre-configured folders.

Shared Folders table

This table contains the following:

Shared Folder Name

The media vault comes pre-configured with three Shared Folders:

- FileShare
- MediaShare
- Backup

. Volume Name

The volume name identifies the volume on your hard disk where a Shared Folder resides.

Folder is Accessible from

The access level for Network Computers, Web Browsers, and FTP Clients and their associated protocols is listed below for each type of protocol.

Supported protocols:

CIFS and NFS (Network Computers)

Network computer access includes the CIFS (<u>Common Internet File System</u>) and NFS (<u>Network File System</u>) protocols. Your media vault automatically defaults to Full Access, which enables CIFS and NFS. These two protocols allow users access to media vault files from Windows, Mac or Linux computers.

○ HTTP (Web Browsers)

Web Browsers use the HTTP (<u>HyperText Transfer Protocol</u>) protocol. Your media vault defaults to No Access for Web browser access, so you must change this setting to enable this method for accessing your files. HTTP file access lets you access folders and files on your media vault using a web

browser. HTTP access also lets you use a browser to access media vault files on computers outside of your <u>local area network</u> (LAN). To keep your files secure, you should only enable HTTP access if you understand how firewalls operate.

o FTP (FTP Clients)

FTP clients use the FTP (File Transfer Protocol) protocol. Your media vault defaults to No Access for FTP access so you must change this setting to enable this method for accessing your files. FTP file access lets you access files on your media vault within your LAN and on computers outside of your LAN. To keep your files secure, you should only enable FTP access if you understand how firewalls operate.

This screen also lets you:

- Modify Selected Folder (See Modify a Shared Folder in workgroup mode.)
- Delete Selected Folder (See Delete a Shared Folder.)
- Create New Shared Folder (See Create a Shared Folder in workgroup mode.)



How to create a Shared Folder in workgroup mode

To access the Shared Folder screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's setting.
- If the Welcome Screen appears, click Configure Device.
- Click the Shared Folders tab.

To create a Shared Folder in workgroup mode:

- 1. Click Create New Shared Folder.
- 2. In the **New Shared Folder Name** box, enter a descriptive name.
- 3. From the **Volume** drop-down list, choose the disk volume on which the new Shared Folder will reside. (For more information on disk volumes, see Hard drive settings.)
 - Before changing the default access mode from Network Computers, see <u>Supported Protocols</u> at <u>How to use</u> the Shared Folders screen.
- 4. Complete one or more of the following steps:
 - Click <u>Network Computers</u> (<u>CIFS</u>). Select either **Read-only** access or **Full Access**. Your media vault automatically defaults to Full Access.
 - Click <u>Network Computers</u> (<u>NFS</u>). Select either **Read-only** access or **Full Access**. Your media vault automatically defaults to Full Access.
 - Click <u>Web Browser</u>. Select either **Read-only** access or **Full Access**.
 - o Click FTP. Select either **Read-only** access or **Full Access**.
- 5. Select a user from the **Select Username** drop-down list.
- 6. To secure the <u>Shared Folder</u> so that users must use a password to access it, click **Password Protect** this folder. (See <u>Enhance security on your Shared Folders</u>.)

Note: NFS does not allow password protection.

- a. Enter a password in the **Password** box.
- b. Re-enter the password in the **Confirm Password** box.
- Click Accept or Cancel. (If you select Cancel, everything that you entered on this screen will not be accepted.)



How to create a Shared Folder in user-based mode

To access the Shared Folder screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's setting.
- If the Welcome Screen appears, click Configure Device.
- Click the Shared Folders tab.

To create a Shared Folder in user-based mode:

- 1. Click Create New Shared Folder.
- 2. In the New Shared Folder Name box, enter a descriptive name.
- 3. From the **Volume** drop-down list, choose the disk volume on which the new Shared Folder will reside. (For more information on disk volumes, see <u>Hard drive settings</u>.)
 - Before changing the default access mode from Network Computers, see <u>Supported Protocols</u> at <u>How to use</u> the Shared Folders screen.
- 4. Complete one or more of the following steps:
 - Click <u>Network Computers</u> (<u>CIFS</u>). Select either **Read-only** access or **Full Access**. Your media vault automatically defaults to Full Access.
 - Click <u>Network Computers</u> (<u>NFS</u>). Select either **Read-only** access or **Full Access**. Your media vault automatically defaults to Full Access.
 - Click <u>Web Browser</u>. Select either **Read-only** access or **Full Access**.
 - o Click FTP. Select either **Read-only** access or **Full Access**.

The screen's lower section contains an information box that lists your currently defined users and their <u>privilege levels</u>. Each defined user must have a privilege level for every <u>Shared Folder</u> you create. To assign privilege levels for each user:

- 5. Select a user from the **Select Username** drop-down list.
- 6. Select a privilege level from the **Select Privilege Level** drop-down list.
- 7. Click **Add**.
- 8. Repeat steps 5 through 7 for each defined user.
- Click Accept or Cancel. (If you select Cancel, everything that you entered on this screen will not be accepted.)



How to modify a Shared Folder in workgroup mode

To access the Shared Folder screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's setting.
- If the Welcome Screen appears, click Configure Device.
- Click the Shared Folders tab.

To select a Shared Folder to modify:

- 1. From the **Select a Shared Folder** drop-down list, select a Shared Folder to modify.
- 2. Click Modify Selected Folder.

The **Modify an Existing Shared Folder** screen provides you with different ways to make changes to your <u>Shared Folders</u>. For example, you can change the name of a Shared Folder, change file access settings, and apply a password to a Shared Folder.

To change the name of the Shared Folder:

- 1. Highlight the folder's current name in the **New Shared Folder Name** box.
- 2. Enter a new name.
- 3. If you're finished modifying Shared Folders, click **Accept** or **Cancel**. Otherwise continue to the next section. (If you click **Cancel**, your changes will not be accepted.)

To change file access settings:

Before changing the default access mode from Network Computers, see <u>Supported protocols</u> in <u>How to use the</u> Shared Folders screen.

- 1. Complete one or more of the following steps:
 - Click <u>Network Computers</u> (<u>CIFS</u>). Select either **Read-only** access or **Full Access**. Your media vault automatically defaults to Full Access.
 - Click <u>Network Computers</u> (<u>NFS</u>). Select either **Read-only** access or **Full Access**. Your media vault automatically defaults to Full Access.
 - o Click <u>Web Browser</u>. Select either **Read-only access** or **Full Access**.
 - o Click FTP. Select either **Read-only access** or **Full Access**.

2. If you're finished modifying Shared Folders, click **Accept** or **Cancel**. Otherwise continue with the next section. (If you click **Cancel**, your changes will not be accepted.)

Note: In workgroup mode, if password protection is enabled on a folder that you have granted Web Browser or FTP access, use the name of the shared folder for the user name. For example, if the name of the Share Folder is **FileShare**, enter "**fileshare**" for the user name in the authentication dialog box.

To apply or change the password on the Shared Folder:

By enabling this option, users must use a password to access a Shared Folder. (See Enhance security on your Shared Folders.)

A Password protection in workgroup mode is problematic in Vista; the behavior is inconsistent. Therefore, if you want to password protect a Shared Folder, you should switch to User-based mode.

Note: NFS does not allow password protection.

- 1. Click Password Protect this folder.
- 2. Enter a password in the **Password** box.
- 3. Re-enter the password in the **Confirm Password** box.
- 4. Click **Accept** or **Cancel**. (If you click **Cancel**, your changes will not be accepted.)



How to modify a Shared Folder in user-based mode

To access a Shared Folder:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's setting.
- If the Welcome Screen appears, click Configure Device.
- Click the Shared Folders tab.

To select a Shared Folder to modify:

- 1. Select a Shared Folder from the **Select a Shared Folder** drop-down list.
- 2. Click Modify Selected Folder.

About modifying a Shared Folder

The **Modify an Existing Shared Folder** screen provides you with different ways to modify <u>Shared Folders</u>. For example, you can change the name of a Shared Folder, change file access settings, and change a user's access privileges on a specific Shared Folder.

To change the name of the Shared Folder:

- 1. Highlight the folder's current name in the **New Shared Folder Name** box.
- 2. Enter a new name.
- 3. If you're finished modifying Shared Folders, click **Accept** or **Cancel**. Otherwise continue with the next section. (If you click **Cancel**, your changes will not be accepted.)

To change file access settings:

Before changing the default access mode from Network Computers, see <u>Supported protocols</u> in <u>How to use the</u> Shared Folders screen.

- 1. Complete one or more of the following steps:
 - Click <u>Network Computers</u> (<u>CIFS</u>). Select either **Read-only** access or **Full Access**. Your media vault automatically defaults to Full Access.
 - Click <u>Network Computers</u> (<u>NFS</u>). Select either **Read-only** access or **Full Access**. Your media vault automatically defaults to Full Access.
 - Click Web Browser. Select either Read-only access or Full Access.

- o Click FTP. Select either **Read-only** access or **Full Access**.
- 2. If you're finished modifying Shared Folders, click **Accept** or **Cancel**. Otherwise continue with the next section. (If you click **Cancel**, your changes will not be accepted.)

To modify a user's access privileges:

- 1. Select a user from the **Select Username** drop-down list.
- 2. Select a <u>privilege level</u> from the **Select Privilege Level** drop-down list.
- 3. Click Add.
- 4. Repeat steps 1 through 3 for each username and privilege level you want to modify.
- 5. If you're finished modifying Shared Folders, click **Accept** or **Cancel**. Otherwise continue with the next section. (If you click **Cancel**, your changes will not be accepted.)

To create new users

- 1. Click Create New User
 - When you click **Create New User**, you are taken to the **User Settings** page.
- Enter the username in the User's Name dialog box.
- 3. Enter a password name in the **Password** dialog box. All users must have a password.
- 4. In **Confirm Password**, re-enter the password to confirm it was entered correctly.

Each defined user must have a privilege level for every Shared Folder on your HP Media Vault.

To assign Shared Folder privilege levels for the new user:

- 1. Select a Shared Folder from the **Select Shared Folder** drop-down list.
- Select a privilege level from the Select Privilege Level drop-down list.
- 3. Click the **Add** button.
- 4. Repeat steps 4 through 6 for each Shared Folder on your media vault.
- 5. Click **Accept** or **Cancel**. (If you click **Cancel**, your changes will not be accepted.)



How to delete a Shared Folder

The **Delete an Existing Shared Folder** screen provides you with information on the folder you are about to delete, such as the total amount of files and folders saved to this <u>Shared Folder</u>, and the amount of hard disk spaced used by the Shared Folder.

To access the Shared Folder screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's setting.
- If the Welcome Screen appears, click Configure Device.
- Click the Shared Folders tab.

To delete a Shared Folder:

- 1. Click the Shared Folders tab.
- 2. Select a Shared Folder to delete from the **Select a Shared Folder** drop-down list.
- 3. Click Delete Selected Folder.
 - ⚠ Deleting a Shared Folder automatically deletes all of the sub-folders and files stored in that Shared Folder.
- 4. As a safety measure, you must enter the name of the Shared Folder you intend to delete in the blank box.
- 5. Click **Accept** or **Cancel**. (If you click **Cancel**, the selected Shared Folder will not be deleted.)



How to manage users

Select a topic

- » How to create a new user
- » How to modify a user
- » How to delete a user



How to create a new user

To access the User Settings screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's setting.
- If the Welcome Screen appears, click Configure Device.
- Click the User Settings tab.

Important: To create new users, you must be in user-based mode. (For more information on switching from workgroup to user-based mode, see Enhance security on your Shared Folders.)

To create a new user:

- 1. In the User Settings tab, click Create New User.
- 2. Enter the username in the **User's Name** box.
- 3. Enter a password in the **Password** box. All users must have a password.
- 4. Re-enter the password in **Confirm Password**.

Privilege level

Each user you define must have a privilege level for every <u>Shared Folder</u> on your HP Media Vault. The media vault automatically assigns each user <u>Full-Access</u> for each existing Shared Folder and any new folders you create. Users keep their **Full Access** privileges until you change the **User's Default Privilege Level**.

To change the User's Default Privilege Level:

- 1. Select either Read-Only Access or No Access.
 - You can also change a user's access (<u>privilege</u>) level on a specific Shared Folder. For example, you could keep a user's default privilege level to full access on all Shared Folders except for one folder where you have saved financial or other personal data.
- 2. If you want to make specific privilege level changes, proceed to the next section. Otherwise, click **Accept** or **Cancel**. (If you click **Cancel**, your changes will not be accepted.)

To assign a different access (privilege) level to a specific Shared Folder

- 1. Select the Shared Folder from the **Select Shared Folder** drop-down list.
- 2. Select the privilege level from the **Select Privilege Level** drop-down list.

- 3. Click the **Add** button.
- 4. Repeat steps 1 through 3 for changing the default privilege level for each Shared Folder on your media vault.
- 5. Click **Accept** or **Cancel**. (If you click **Cancel**, everything that you entered on this screen will not be accepted.)



How to modify a user

To access the User Settings screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's setting.
- If the Welcome Screen appears, click Configure Device.
- Click the User Settings tab.

To modify a user:

- 1. Select a username from the **Select User Name** drop-down list.
- 2. Click Modify Selected User.
 - a. To change the username, highlight the name in the **New Name** box and enter the new name.
 - b. To change the password, highlight the password in the **Password** box and enter the new password. All users must have a password.
 - c. Re-enter the password in **Confirm Password**.

Each user you define must have a privilege level for every Shared Folder on your HP Media Vault. The media vault automatically assigns each user **Full-Access** for each existing Shared Folder and any new folders you create. Users keep their **Full Access** privileges until you change the **User's Default Privilege Level.** You can also change access levels on specific Shared Folders.

To change the User's Default Privilege Level

- 1. Select either Read-Only or No Access under User's Default Privilege Level.
 - You can also change a user's access (privilege) level on a specific Shared Folder. For example, you could keep a user's default privilege level to full access on all Shared Folders except for one folder where you have saved financial or other personal data.
- 2. If you want to make privilege level changes on a specific Shared Folder, proceed to the next section. Otherwise, click **Accept** or **Cancel**. (If you click **Cancel**, your changes will not be accepted.)

To assign a different access (privilege) level for a user on a specific Shared Folder:

- 1. Select the Shared Folder from the **Select Shared Folder** drop-down list.
- 2. Select the privilege level from the Select Privilege Level drop-down list.
- Click the Add button.

- 4. Repeat steps 1 through 3 for changing the default access level for each Shared Folder on your media vault.
- 5. Click Accept or Cancel. (If you click Cancel, your changes will not be accepted.)



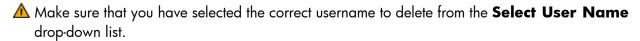
How to delete a user

To access the User Settings screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's setting.
- If the Welcome Screen appears, click Configure Device.
- Click the User Settings tab.

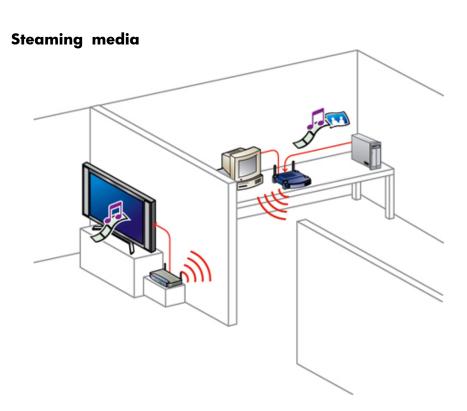
To delete a user:

- 1. Select the username you want to delete from the **Select User Name** drop-down list.
- 2. Click Delete Selected User.





How to stream media to your entertainment center



If you have a <u>Digital Media Adapter</u> (DMA) attached to your television and/or stereo, you can enable the media files you store on your media vault to play on these entertainment devices. The DMA accesses your stored media files and coordinates the streaming process between your media vault and the entertainment device. The media vault's media server will work with both wired or wireless DMAs. Your network must have wireless functionality to use a wireless DMA.

Two conditions are required for media streaming with the media vault:

- 1. Your DMA must use <u>Universal Plug and Play</u> (UPnP) A/V streaming. (See <u>UPnP A/V streaming</u> explained below.)
- 2. Only the media files are available for <u>media streaming</u>. The types of files that are considered "media" are: photographs, music (audio), and video. Non-media files, such as Microsoft Word documents, are not available for streaming.

To access the Media Streaming screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's setting.

- If the Welcome Screen appears, click Configure Device.
- Click the Media Streaming tab.

To configure a Shared Folder for streaming:

- 1. Select a Shared Folder from the **Select a Shared Folder** drop-down list.
- 2. Click Enable Media Streaming for Selected Folder.
- After configuring a Shared Folder for streaming, a "Yes" will appear next to the selected folder in the table. When a Shared Folder is made available or unavailable for streaming, all of its <u>sub-folders</u> are similarly enabled or disabled.

Note: It can take a long period of time for files that you copy to a Shared Folder to appear on your DMA – even if the Shared Folder has been enabled for media streaming.

To disable a Shared Folder's streaming configuration:

- 1. Select the Shared Folder from the **Select a Shared Folder** drop-down list.
- 2. Click Disable Media Streaming for Selected Folder.
- 3. After disabling the streaming, a "No" will appear next to the selected folder in the Shared Folders table located in the table.

Reset media streaming

The media vault's media server scans your stored media files to gather information, such as artist names, song titles, video names, and so on, to create a database. The **Reset media streaming** button deletes this database and rebuilds it. (Your data will not be deleted.) Resetting may take a long time depending on the number of multimedia files.

UPnP A/V streaming

<u>UPnP</u> is a set of network <u>protocols</u> that allow networked devices to communicate seamlessly in a homenetworking environment. The UPnP A/V streaming method currently only supports the streaming of unprotected media files. Some files may be protected by a <u>Digital Rights Management</u> system, which may prevent the streaming of those files. Media files purchased and downloaded from an online Internet store are most likely protected.



Monitor and configure the HP Media Vault's hard drives

Select a topic

- » Hard drive settings
 - » How to rename a disk
 - » How to format a disk
 - » How to erase a disk
 - » How to create a new volume
 - » How to create a mirror
 - » How to remove a mirror
 - » How to modify an existing volume
 - » How to delete an existing volume



Hard drive settings

To access the Disk Settings screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's settings.
- If the Welcome Screen appears, click Configure Device.
- Click the Disk Settings tab.

You can manually monitor and configure your HP Media Vault's hard drives. (The terms hard drives and hard disks are used interchangeably.)

The <u>Physical Disks</u> section of the **Disk Settings** screen displays horizontal bar-graphs for each hard drive connected to your media vault. The graphs are color-coded representing available space on the disk drives, and the cross-hatched areas represent used hard disk space.

The media vault comes with one primary hard disk named SYSTEM, and one <u>logical volume</u> named Volume 1. To store and access data on your media vault's hard disk, you must assign logical volumes to the connected hard disks. The **Logical Volumes** section of the **Disk Settings** page contains a table that shows all volumes currently defined on the media vault's hard drives. The volumes are color-coded to match their corresponding hard disks displayed in the horizontal bar graph(s) at the top of the screen.

Available hard disk space can be used to create more than one volume. (See Logical Volumes below.)

To configure or change hard disk settings:

- 1. To select a hard disk, click the **Select a Disk** drop-down list.
- 2. Click one of following options:

Note: If an option is dimmed, that option is not available for the selected disk.

Option	Description
Rename Disk	This option opens a screen that lets you assign a new name to the selected hard disk. Assigning your hard disks unique names can help you monitor your system when you have more than one hard disk connected to your media vault. (You cannot rename the SYSTEM disk.) For instructions on using the Rename Disk screen, see Rename a disk.
Format Disk	This option opens a screen that lets you format a new internal hard disk or an external USB hard drive. (You cannot format the SYSTEM disk.) For instructions on using Format Disk screen, see Format a disk. Also see Understanding file systems for formatting hard disks.
Erase Disk	This option opens a screen that lets you erase all content and logical volumes from a selected hard disk. (You cannot erase the SYSTEM disk.) For instructions on using the Erase Disk screen, see Erase a disk .
Safely Disconnect Disk	Select this option to safely disconnect a USB disk. If you installed the HP software from the Software Installation Disc, and you unplug a USB disk from the media vault without safely disconnecting it, you will see a warning alert in your computer's system tray.

Logical Volumes

To configure or change volume settings:

- 1. To select a volume, click the **Select a Volume** drop-down list.
- 2. Click one of following options:

Note: If an option is dimmed, that option is not available for the volume.

Option	Description
Create	This option opens a screen that lets you create a new volume from available hard
New Volume	disk space. For instructions on using the Create New Volume screen, see <u>Create a new volume</u> .
Create a Mirror	This option opens a screen that lets you create a mirror of a selected volume. For instructions on using the Create a Mirror screen, see <u>Create a mirror</u> . Also see <u>Understanding disk mirrors and concatenated disks</u> .
Remove Mirror	This option opens a dialog box from which you can remove a mirror. For instructions on using the Remove a Mirror screen, see Remove a mirror.
Modify Volume	This option opens a screen that lets you change the name and/or size of the selected volume. For instructions on using the Modify an Existing Volume screen, see Modify an Existing Volume.
Delete Volume	This option opens a screen that lets you delete the selected volume. For instructions on using the Delete an Existing Volume screen, see <u>Delete an Existing Volume</u> . Men you delete a volume all Shared Folders and all files on the
	volume are permanently destroyed.



How to rename a disk

This option allows you to assign names to your hard disks. Assigning your hard disks unique names can help you monitor your system when you have more than one disk connected to your HP Media Vault. (You cannot rename the SYSTEM disk.)

To access the Disk Settings screen:

- Double-click the HP Media Vault icon on your desktop.
- Click Customize your HP Media Vault's settings.
- If the Welcome Screen appears, click Configure Device.
- Click the **Disk Settings** tab.

To rename a disk:

- 1. Select a hard disk by clicking the **Select a Disk** drop-down list.
- 2. Click Rename Disk.

A screen opens that permits you to rename the hard disk.

- To select a different disk from the one displayed, click the Old Disk Name drop-down list. Otherwise go to the next step.
- 4. Enter the new disk name in the **New Disk Name** box.
- 5. Click Accept or Cancel. If you click Cancel, your changes will not be accepted.



How to format a disk

This option allows you to:

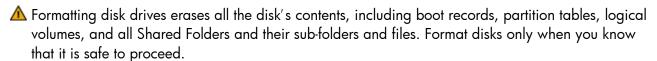
- Name the hard disk.
- Name a logical volume on the hard disk.
- Format the disk for use on the media vault.

To access the Disk Settings screen:

- 1. Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's settings.
- 3. If the Welcome Screen appears, click Configure Device.
- 4. Click the **Disk Settings** tab.

To format a hard disk:

- 1. Select a hard disk by clicking the **Select a Disk** drop-down list.
- 2. Click Format Disk.



Do not format a new disk if you want to <u>concatenate</u> (also known as <u>JBOD</u>) the hard disk's capacity with an existing volume. For more information on disk concatenation, see <u>Understanding disk mirrors</u> concatenated disks and Create a mirror.

Name the hard disk and volume:

- 1. Enter the hard disk's name in the **New Disk Name** box.
- 2. Enter the volume's name in the **New Volume Name** box.

Select one of the following format types:

• Disk is dedicated for permanent use on this device. Format for best performance (Reiser). This option will format the disk into a proprietary Linux file system (a modified form of ReiserFS). Formatting the disk using this file system does not allow the disk to be disconnected from the media vault and used on another computer—even a Linux computer. See Understanding file systems for formatting hard disks.

- Disk may be disconnected from NAS and connected to a computer. Format for maximum portability (FAT32). This option will format the disk using the FAT32 file system. Formatting the disk using this file system will allow you to disconnect the hard drive from the media vault and use it on another computer. See Understanding file systems for formatting hard disks.
- Click **Accept** or **Cancel**. If you click **Cancel**, your changes will not be accepted.



How to erase a disk

This option allows you to erase a hard disk currently connected to the HP Media Vault.

To access the Disk Settings screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's settings.
- If the Welcome Screen appears, click Configure Device.
- Click the **Disk Settings** tab.

To erase a hard disk:

- 1. Select a hard disk by clicking the **Select a Disk** drop-down list.
- 2. Click Erase Disk.

A screen opens that lets you erase all content and logical volumes from a selected hard disk. (You cannot erase the SYSTEM disk.)



⚠ Erasing disk drives erases all the disk's contents, including boot records, partition tables, logical volumes, and all Shared Folders and their folders and files. Erase disks only when you know that it is safe to proceed.

- 3. If you are certain you want to erase a hard disk, enter Yes, destroy everything on this disk. in the
- 4. Click **Accept** to begin the disk erase. Click **Cancel** to return to the Disk Settings page without erasing the disk.



Understanding file systems for formatting hard disks

Reiser

The HP Media Vault comes with a primary hard disk called SYSTEM. The SYSTEM disk is formatted into a proprietary <u>Linux file system</u> (a modified form of <u>ReiserFS</u>).

Formatting a second internal hard disk into the proprietary Linux file system gives you the best read/write performance. However, a Linux-formatted hard disk on the media vault cannot be disconnected and used in a different computer—even a Linux computer. You can only read and write data to the media vault's hard drive when its connected to the media vault.

FAT32

The <u>FAT32</u> file system allows you to read and write to the hard disk. Microsoft used this file system for Windows versions 95, 98, 98SE and ME. Files on FAT32 disks cannot be larger than 4 GB. If you format a media vault hard disk in FAT32, you can disconnect the disk and use it on Windows, Macintosh and Linux computers. However, you cannot store files larger than 4GB on FAT32 file systems.

NTFS

You cannot format a media vault hard disk in the New Technology File System (NTFS) format. Microsoft replaced the FAT32 file system with NTFS for Windows NT, 2000, XP, Windows Server 2003, and Windows Vista. If you import a hard drive formatted in NTFS to the media vault, you will only be able to read content from the disk, not write to it.



How to create a new volume

This option creates a new volume from the unallocated space on one or more disks. A volume is a portion of one or more hard disks configured to store data on the HP Media Vault. Volumes can be a defined as part of a disk or an entire disk. You configure the size of a volume.

To create a new volume on a hard disk that has all of its space already allocated to a volume, you must first resize the established volume to create unallocated space. (To resize volumes, see <u>Modify an existing volume</u>.)

To access the Disk Settings screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's settings.
- If the Welcome Screen appears, click Configure Device.
- Click the Disk Settings tab.

To create a new volume:

- 1. Click Create New Volume.
- 2. Enter the new volume's name in the **New Volume Name** box.

Note: If the next two options are dimmed, the hard disk is already formatted and you can proceed to <u>step</u> 4.

- 3. Select one of the following format types:
 - Disk is dedicated for permanent use on this device. Format for best performance (Reiser). This option will format the disk into a proprietary Linux file system (a modified form of ReiserFS). Formatting the disk using this file system does not allow the disk to be disconnected from the media vault and used on another computer—even a Linux computer. See Understanding file systems for formatting hard disks.
 - Disk may be disconnected from NAS and connected to a computer. Format for maximum portability (FAT32). This option will format the disk using the FAT32 file system. Formatting the disk using this file system will allow you to disconnect the hard drive from the media vault and use it on another computer. See <u>Understanding file systems for formatting hard disks</u>.
- 4. Assign a size to the new volume by completing one of the following:
 - Use the slider arrows to resize the volume.
 - o Enter a new size in the GB Assigned box.
 - Click Assign All Available Space to this Volume.
- 5. Click Accept or Cancel. If you click Cancel, your new volume will not be created.

- 6. A screen shows you that a volume has been successfully created. To continue, select one of the next options:
 - $_{\circ}$ To return to the Disk Settings screen, click **Disk Management**.
 - o To create a new Shared Folder on your new volume, click **Create Share**.



How to create a mirror

This option creates a mirror of an existing volume or source volume on the HP Media Vault. A volume is a portion of one or more hard disks configured to store data. A mirror duplicates the source volume on another hard disk. For more information on mirroring, see Understanding disk mirrors and concatenated disks.

When you save files to a mirrored volume, your files are saved to both hard disks. The end result is that half the total amount of space is available to store your files. For example, two 200GB drives mirrored together result in a mirrored volume of 200GB, not 400GB.

Note: When creating a mirror, you must use a blank hard disk or unallocated space on a hard disk that is the same size or larger than the source volume you want to mirror. If any there is not enough unallocated space on the expansion disk, you can do one of the following: erase the disk, or resize or delete one or more volumes on the disk. For information on how to do these procedures, see Erase a disk, Modify a volume, and Delete a volume.



🛕 Data on a mirror volume is safe unless both disks fail at the same time. If one hard disk fails, the media vault will administer a warning. The failed hard disk should be replaced immediately.

To access the Disk Settings screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's settings.
- If the Welcome Screen appears, click Configure Device.
- Click the **Disk Settings** tab.

To create a mirror:

- 1. Select the volume you want to mirror by clicking the **Select a Volume** drop-down list.
- Click Create a Mirror.

Note: If the expansion disk is not blank or does not have enough unallocated space, the Create Mirror button is dimmed. For information on how to increase unallocated space, see the Note above.

A screen opens displaying the volume you have chosen. For example: You have chosen Volume1 to mirror.

- 3. In the **Disk Assignment** drop-down list, select the disk to become the mirror of the selected volume.
- 4. Click **Accept** or **Cancel**. If you click **Cancel**, a mirror will not be created.

This process may take several hours before the volume is completely mirrored. You can continue to use the media vault during this time.

⚠ The media vault does not automatically show the progress of the mirroring. To view the progress,

click Refresh or Reload on on the Disk Settings screen.	your browser.	The progress s	status is ir	ndicated under	Logical Vo	olumes



How to remove a mirror

This option removes a mirror of an existing volume on one of the HP Media Vault's hard disks.

Removing a mirror erases all of your duplicated content saved to a mirrored volume. When you remove a mirror, you create unallocated storage space; however, you also lose a duplicate copy of a volume.

To access the Disk Settings screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's settings.
- If the Welcome Screen appears, click Configure Device.
- Click the **Disk Settings** tab.

To remove a mirror:

- 1. Select the mirrored volume you want to remove by clicking the **Select a Volume** drop-down list.
- 2. Click Remove Mirror.
- 3. A screen shows you which mirrored volume you selected to remove. To select a different volume, click the **Remove mirrored volume** drop-down list.
- 4. Checkboxes display the hard disks that contain the source and mirrored volumes. Click on the hard disk from which you want to remove the mirrored volume.



How to modify an existing volume

This option modifies the name and/or size of an existing volume. A volume is a portion of one or more hard disks configured to store data on the HP Media Vault. Volumes can be a defined as part of a disk or an entire disk. You configure the volume's size.



⚠ You will not be able to shrink the volume's size below the size required to store all of the volume's current files and folders.

To access the Disk Settings screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's settings.
- If the Welcome Screen opens, click Configure Device.
- Click the Disk Settings tab.

To select the volume to modify:

- 1. Select a volume by clicking the **Select a Volume** drop-down list.
- 2. Click Modify Volume.

To change the volume's name:

- 1. Enter the volume's new name in the **New Name** box.
- 2. If you are finished, click **Accept** or **Cancel**. (If you click **Cancel**, your changes will not be accepted.) Otherwise continue with the next section.

To resize the volume:

- 1. Complete one of the following:
 - O Use the slider arrows to resize the volume.
 - o Enter a new size in the GB Assigned box.
 - Click Assign All Available Space to this Volume.
- 2. Click **Accept** or **Cancel**. If you click **Cancel**, your changes will not be accepted.



How to delete an existing volume

This option deletes an entire volume. A volume is a portion of one or more hard disks configured to store data on the HP Media Vault. Volumes can be a defined as part of a disk or an entire disk.



⚠ Deleting a volume will permanently destroy all Shared Folders on the volume, including all the folders and files saved to the Shared Folders.

To access the Disk Settings screen:

- Double-click the HP Media Vault icon on your desktop.
- Click Customize your HP Media Vault's settings.
- If the Welcome Screen opens, click Configure Device.
- Click the Disk Settings tab.

To delete a volume:

- 1. Select a volume by clicking the **Select a Volume** drop-down list.
- 2. Click Delete Volume.
- 3. Read the **Warning** statement on the screen.
- 4. If you still want to continue, enter the volume's name in the box.
- 5. Click **Accept** or **Cancel**. If you click **Cancel**, the selected volume will not be deleted.



Understanding disk mirrors and concatenated disks

Mirroring

The type of <u>mirroring</u> supported on the media vault is called <u>Redundant Array of Independent Disks</u> (RAID) RAID-1.

In RAID-1 mirroring, an identical copy of data written to a volume on one hard disk is written to a volume on a second hard disk. Mirroring volumes reduces your total hard disk storage capacity by half. The advantage is that if one hard disk fails, you have a copy of your data on the second hard disk.

Disk Concatenation

Disk <u>concatenation</u> (also called <u>JBOD</u>) is another type of advanced storage configuration. This type of configuration combines the available space from two or more hard disks into one large <u>logical volume</u>.



Advanced network settings

The HP Media Vault Network Settings screen contains settings to view or change the following:

- HP Media Vault name
- MAC address
- Network security mode
- Network protocol settings

To access the Network Settings screen:

- Double-click the **HP Media Vault** icon on your desktop.
- Click Customize your HP Media Vault's settings.
- If the Welcome Screen appears, click Configure Device.
- Click the Network Settings tab.

Change the HP Media Vault name

To change the name of the HP Media Vault, see Change the name of your HP Media Vault.

MAC Address

This displays the MAC (Media Access Control Address) address, which is located on the back of your media vault.

Network security mode

To change the security mode, see Enhance security on your Shared Folders.

Network protocol settings

Use these settings to configure IP protocol settings for the media vault. In most cases, the default network settings will work without any changes. The following options are available:

Auto-Configure IP Settings

This is the default setting for the media vault. When this option is selected:

- The media vault automatically acquires its IP address and IP settings from the DHCP (<u>Dynamic Host Configuration Protocol</u>) server on your network.
- o Renew DHCP will automatically renew itself.
- The values of the <u>IP Address</u>, <u>Gateway Server</u>, <u>Subnet Mask</u>, <u>Domain Extension</u>, <u>DNS Servers</u>, and <u>WINS Servers</u> set by the DHCP server are displayed.

. Manually Configuring IP Settings

If you use a static IP address, you may want to manually configure the IP settings on the media vault.

⚠ This should be done only by experienced network administrators.

To manually configure the settings

- 1. Obtain the DNS server information from your internet service provider or use an existing IP address.
- 2. In the **IP Address** box, enter a unique IP address.
- 3. In the **Gateway Server** box, enter the IP address of your Gateway/Router.
- 4. In the **Subnet Mask** box, enter the same subnet used in your other network devices.
- 5. In the **Domain Extension** box, enter your domain extension.
- 6. In the **DNS Server** boxes, enter the IP addresses.

Note: Entering two DNS servers is recommended for stability.

- 7. If required by your network configuration, in the **WINS Server** boxes, enter the IP address.
- 8. Click **Accept** or **Cancel**. (If you click **Cancel**, your changes will not be accepted.)

Network security considerations

Network security depends not only on the security setting of the Media Vault, but on the settings and capabilities of all hardware and software on your LAN (Local Area Network). For more information, see Secure your HP Media Vault from intruders.



How to install a printer

You can share a USB printer with other computers on your network by connecting the printer to your HP Media Vault.



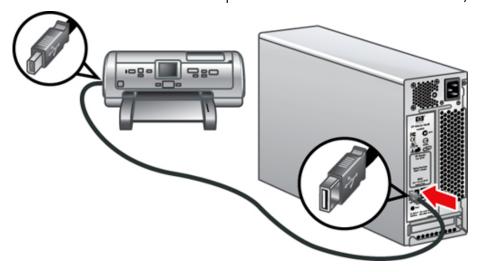
⚠ Some printers, such as host printers, are not network compatible. Please check the documentation that came with your printer before setting up a shared printer.

Some printer tools, such as ink-level notification, will not work when you configure your printer on a network.

If you set up an all-in-one or multifunction printer on your media vault, you will not be able to use its scanning or faxing features.

Attaching a printer to the HP Media Vault

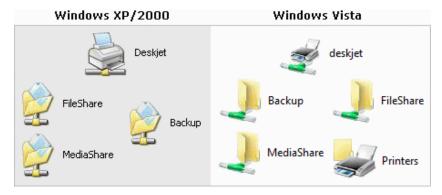
 Plug one end of the printer's USB cord into the printer and the other end into the media vault. (The HP Media Vault comes with one USB port on the front and two on the back.)



Installing a printer on a Windows PC

- 1. Access the new printer:
 - a. On your desktop, double-click the **HP Media Vault** icon.
 - b. On the Main tab, click Start browsing your HP Media Vault.

c. A window opens showing you a list of your Shared Folders and the printer that you connected to the media vault.



2. Configure the printer driver:

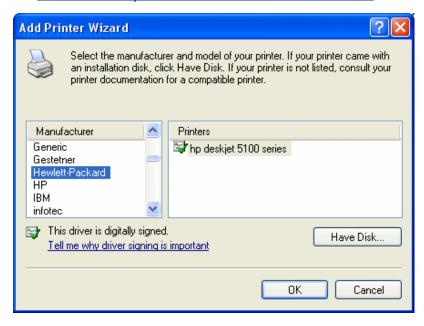
- a. Right-click your printer, then select **Connect**.
- b. You may see a dialog box that informs you that you are about to connect to a printer. Click Yes.
- c. Typically you will see a dialog box containing the following text that lets you know that you need to install a printer driver.

Connect to Printer

The server for the printer does not have the correct printer driver installed. If you want to search for the proper driver, click OK. Otherwise, click Cancel and contact your network administrator or original equipment manufacturer for the correct printer driver.

- d. Click OK.
- e. Select your printer manufacturer and model number from the list, then click **OK**.

Note: If the exact model is not listed, you can use a close match. For example, if your printer is an **HP Deskjet 5150**, choose **hp deskjet 5100 series** from the list. If a close match is not listed, see Troubleshoot a printer attached to the HP Media Vault.



- 3. If desired, set the printer as the default printer:
 - a. Double-click the printer icon.
 - b. In the Printer dialog box, click **Printer**.
 - c. Select **Set As Default Printer**.

After you install the printer, you can print to it by selecting its name from the print dialog box.



Troubleshooting

Select a topic

- » Your network cannot find the HP Media Vault
- » You receive Microsoft Vista permission messages
- » You receive firewall blocking messages
- » You're unable to stream media to your entertainment center
- » You prefer to set static IP Addresses
- » Restoring a mirrored volume
- » Troubleshoot a printer attached to the HP Media Vault
- » Troubleshoot User's Guide

Note: If your problem is not listed, consult the HP support web site at www.hp.com/support.

Your network cannot find the HP Media Vault

Check all cords, cables and outlets

- 1. Make sure all devices on your network are correctly installed and the cables are connected to the proper ports.
- 2. Check the voltage switch on the back of the media vault to ensure that it is set correctly.
- 3. Make sure you press in the power button until you feel the button "click." Failure to press in the button far enough can cause the media vault to automatically power itself off after starting.
- 4. Make sure your router has power.
- 5. Restart your router (or unplug and plug it back in).
- 6. Restart all the devices on your network, including your computers and the media vault.
- 7. If you're using your own Ethernet cable, try using the Ethernet cable that came with the media vault.

Check the LED lights on the front of the HP Media Vault

- The OK LED light should be green.
- The Link LED 🏶 should be green.
- The Warning LED should be off (no color).

If the Link LED is not green and/or the Warning LED is yellow **(4)** or red **(4)**, ensure that you have gone through <u>steps 1-7</u> above. If you are still experiencing problems, use the following guidelines to help you troubleshoot the problem.

Ensure that your router is correctly configured for DHCP

Your HP Media Vault comes automatically set to use a <u>Dynamic Host Configuration Protocol</u> (DHCP) server to dynamically assign IP addresses. Your router usually comes with a built in DHCP server.

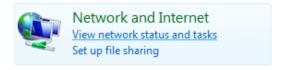
• Ensure that your router has the DHCP server correctly enabled. Check the documentation that came with your router for instructions on proper DHCP server configuration.

Windows XP and Windows 2000: Ensure your network is set up properly for TCP/IP

- 1. Click Start, Control Panel.
- 2. Double-click Network and Internet Connections.
- 3. Double-click Network Connections.
- 4. Right-click **Local Area Connection** (LAN) if your PC is connected via Ethernet cable to your network or right-click **Wireless Network Connection** if you are using a wireless network.
- 5. Click **Properties**. In the dialog box that opens, check to ensure that TCP/IP is listed and selected.
 - If TCP/IP is not listed, click Install, Protocol, Add. In the dialog box that appears, select Internet Protocol (TCP/IP).
 - If TCP/IP is listed and checked, highlight it and click Properties, then select Obtain IP address automatically and Obtain DNS server address automatically.
- Check all the computers on your network to ensure that Obtain IP address automatically and Obtain DNS server address automatically are selected. (All computers should be set identically.)

Windows Vista: Ensure that Network Discovery is turned on.

- 1. Click Start menu, Control Panel.
- 2. In the Control Panel, click **View network status and tasks**.



3. In the Network and Sharing Center, make sure that Network Discovery is on.



4. If Network discovery is off, click ♥, Turn on network discovery, Apply.

Windows Vista: Ensure your network is set up properly for TCP/IP

- 1. Click Start, Control Panel.
- 2. Click View network status and tasks under Network and Internet.
- 3. In the left pane, click Manage Network Connections.
- 4. Right-click Local Area Connection (LAN) if your PC is connected via Ethernet cable to your

- network or right-click **Wireless Network Connection** if you are using a wireless network.
- 5. Click **Properties**. In the dialog box that opens, check to ensure that Internet Protocol Version 4 (TCP/IPv4) is listed and selected.
 - If TCP/IP is not listed, click Install, Protocol, Add. In the dialog box that appears, select Internet Protocol (TCP/IP).
 - o If TCP/IP is listed and checked, highlight it and click **Properties**, then select **Obtain IP** address automatically and **Obtain DNS** server address automatically.
- Check all the computers on your network to ensure that Obtain IP address automatically and Obtain DNS server address automatically are selected. (All computers should be set identically.)

Ensure your network has the correct NetBIOS set up

- 1. Click Start, Control Panel.
- Double-click Network connections.
- 3. Double-click your default network connection. (For example, **Local Area Connection** for wired networks and **Wireless** for wireless connections.)
- 4. Click Properties.
- 5. Highlight Internet Protocol (TCP/IP).
- 6. Click Properties.
- 7. Click Advanced.
- 8. Click the WINS tab.
- 9. NetBIOS settings are found at the bottom of the dialog box. Make sure that the **NetBIOS** setting is NOT set to **Disable NetBIOS** over **TCP/IP**.

Windows Vista: Ensure your network is set up properly for TCP/IP

- 1. Click Start, Control Panel.
- 2. Click View network status and tasks under Network and Internet.
- 3. In the left pane, click Manage Network Connections.
- 4. Right-click **Local Area Connection** (LAN) if your PC is connected via Ethernet cable to your network or right-click **Wireless Network Connection** if you are using a wireless network.
- 5. Click Properties.
- Highlight Internet Protocol Version 4 (TCP/IPv4).
- 7. Click **Properties**.
- 8. Click Advanced.
- 9. Click the WINS tab.
- NetBIOS settings are found at the bottom of the dialog box. Make sure that the NetBIOS setting is NOT set to Disable NetBIOS over TCP/IP.

Ensure that you have connected the HP Media Vault to the correct network adapter

• Do you have multiple network adapters connected to different physical networks? If so, enable the network adapter on the network that you have attached the media vault, and disable the other network adapters. On laptops you can typically turn off the wireless network radio to disable that adapter.

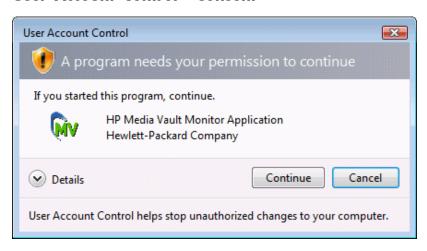
You receive Microsoft Vista permission messages

As part of its enhanced security, the Microsoft Vista operating system may display User Account Control dialog boxes. These dialog boxes help stop unauthorized changes to your computer and require permission to continue with the action.

🔼 Always check that the action needing your permission is one that you intended. The source of the action is displayed in the middle band of the dialog box.

A list of the media vault's applications that may require permission is located below the following User Account Control dialog boxes:

User Account Control - Consent



User Account Control - Administrator Password



The following media vault applications may require permission to continue:

- HPMVTray.exe HP Media Vault System Tray utility
- Cddib32.exe NTI DriveBackup!
- Shadow.exe NTI Shadow
- HPEZBKUP.exe HP Easy Backup
- HPMVCheck.exe Firmware check utility

You receive firewall blocking messages

If you update Windows XP to the most recent software and service packs, it is likely that you've installed the Windows Firewall. You might also have another firewall program installed on your PC. Firewalls block certain types of communications between various network devices. This helps protect your data from hackers, viruses, spyware, and Trojan-horse software.

The media vault comes with software applications that must communicate over the network, but sometimes these programs are blocked, by default, by a firewall. When this happens, security alerts pop up on your screen. Security alert dialog boxes usually have a list of possible options. For example, the dialog box might ask you the following three questions:

- 1. Click **Keep Blocking**.
- 2. Click Unblock.
- 3. Defer the choice and be reminded later.

If you see a security alert dialog for an HP Media Vault application or an NTI backup application, you

should unblock the communication to permit the application to run. You are safe to unblock the communications because you are not enabling any connection or communication with the Internet, only between the media vault and its software applications.

The following list comprises the software applications that need to communicate with the media vault:

- HPMVTray.exe HP Media Vault System Tray utility
- NASSelector.exe HP Media Vault Browse utility
- NASDriveMapper.exe HP Media Vault Drive Mapping utility
- Cddib32.exe NTI DriveBackup!
- Shadow.exe NTI Shadow
- HPEZBKUP.exe HP Easy Backup
- HPMVCheck.exe Firmware check utility

If any software is reinstalled, moved to a new disk location, or if the application is deleted from the exception list using the Security Center control panel, communications between that software and the media vault may once again be blocked by the firewall.

You're unable to stream media to your entertainment center

- 1. Make sure that your HP Media Vault is powered up and working before you power up your <u>Digital</u> <u>Media Adapter</u> (DMA).
- 2. Check to make sure that your DMA supports the <u>DLNA/UPnP</u> protocols, which are the <u>protocols</u> supported by the media vault. Some DMAs use proprietary protocols that do not operate with the media vault's media server. For a list of compatible DMAs, consult the HP support web site at www.hp.com/support.
- 3. Ensure that your DMA is using the latest firmware revision. Consult your DMA documentation for more information on updating its firmware.
- 4. The media vault's media server supports the playback of the following file types:

```
Video: .mpg | .wmv | .mp4 | .avi | .asf | .mov | .vob | .mpe | .ts | .dvr-ms
| .m2v | .mpeg | .m2p | .divx | .xvid | .dat | .m1v | .m4v
Music: .mp3 | .ogg | .wav | .1pcm | .pcm | .wma | .mp2 | .ac3 | .m4a | .aac | .mpa | .mp1 | .aif
```

```
Photo: .jpg | .jpeg | .png | .tif | .tiff | .bmp | .gif
```

Note: Some DMAs have playback restrictions for certain types of multimedia files. Check your DMA documentation for supported and unsupported file types.

- 5. New multimedia files can take a considerable amount of time to show up on your DMA. The streaming process requires the media vault's media server to scan through new multimedia files to gather information, such as artist names, song titles, video names, and so on. This process often takes a long time—especially if there are a large number of files. Once the scanning process completes, you will see the files on your DMA.
- 6. Reset the media streaming database. For more information, see Reset media streaming.

You prefer to set static IP Addresses

If you have a router with a DHCP server properly configured, the DHCP server automatically (dynamically) assigns an IP address to the media vault. When you install the media vault, it waits for your router to automatically assign it an IP address. If the router fails to assign an IP address, the media vault automatically uses the following IP address and subnet mask:

Auto IP address: 169.254.xxx.xxx

• Subnet mask: 255.255.0.0

You may prefer to assign static IP addresses. To assign the media vault a static IP address:

- 1. Turn on the DHCP server in your router. Consult your router documentation for more information.
- 2. Ensure that the IP addresses assigned by your router are within the same subnet as your other network devices.
- 3. Restart your router and the media vault.
- 4. Double-click the **HP Media Vault** icon on your desktop.
- 5. Click Customize your HP Media Vault's settings.
- 6. If the Welcome screen appears, click Configure Device.
- 7. Click the **Network Settings** tab.
- 8. Click the Manually Configure IP Settings option.
- 9. In the **IP Address** box, enter a unique IP address.
- 10. Click Accept.
- 11. In the **Subnet Mask** box, enter the subnet.
- 12. Reconfigure your router back to its original settings.
- 13. Restart your media vault.

Restoring a mirrored volume

A mirrored volume is a volume that protects sensitive data by keeping two copies of your data on separated physical hard disks. This insures that if a hard disk failure occurs, all the data on the volume is still intact and the volume is still available for reading and writing. But your data will no longer be protected by a redundant copy.

When one half of a mirrored volume is missing from the device, or has failed, you should restore the missing or failed disk as soon as possible.

Removing a mirror

Removing a mirror does not destroy the entire volume, but only one of the redundant copies.

To remove a mirrored volume that you no longer want or need, see Remove a Mirror.

Mirror rebuilding when one of the disks has been removed, then reconnected

If one disk containing a volume mirror is disconnected, mirroring is interrupted. Reconnecting the same disk causes the mirror to completely rebuild. Once that same disk is reconnected to the media vault, a mirrored volume will automatically begin rebuilding. You do not need to take any action to force the rebuild to occur. However, please be aware that while this rebuilding operation is taking place, your data is not protected with a redundant copy. Also be aware that the mirror rebuild may take many hours.

Mirror restoration when a disk (other than the SYSTEM disk) has failed

When a disk (other than the SYSTEM disk) for a mirrored volume fails, the media vault will raise a system tray alert that warns you of the loss of data redundancy. To restore the device to the same level of protection, you must remove the failed hard disk and replace it with a new, working disk. However, the device will not presume that the new disk was attached to recreate the missing half. To re-establish a mirror, you must first remove the mirror from the hard disk that failed (see Remove a Mirror). Ensure that you do not remove the "good" half of the mirrored volume. Only remove the mirror from the failed disk.

You must now go through the process of creating a new mirror using the new hard disk. (See <u>Create a Mirror</u>.)

Troubleshoot a printer attached to the HP Media Vault

Problems with installing a printer to media vault —Printer driver not listed

This troubleshooting solution describes what to do if you are trying to configure a network printer and your printer is not listed in the Windows **Add a Printer** dialog box, as described in the instructions for <u>Installing</u> a printer.

If your printer is not listed in the **Add a Printer** dialog box, visit the HP Customer Care Support Web site at www.hp.com/support. The HP Media Vault support section includes a comprehensive list of the printers that have been tested with the media vault. This list is constantly being updated.

If your printer has been found to support networking, you can locate its printer driver in the following ways:

- From your computer's system files.
- From the installation disc that came with your printer.
- From the printer manufacturer's support web site.

Installing a printer driver from your computer's system files:

These instructions continue from Step 2: Configure the printer driver in Install a printer.

- 1. In the Add Printer Wizard dialog box, click Have Disk....
- 2. In the Install From Disk dialog box, click Browse....
- 3. Locate the .inf file for your printer. For example: C: printer_manufacturer\drivers\your_printer.inf.
- 4. Select the appropriate .inf file, and then click Open.

Note: If you select the wrong file, a message box appears saying that the specified location does not

contain information about your hardware.

- 5. In the **Install From Disk** dialog box, click **OK**.
- 6. Your printer should be listed in the **Printer** pane of the **Add Printer** dialog box. Click **Next**.
- 7. To complete the installation, follow the instructions in the dialog boxes that appear.

Installing a printer driver from the printer installation disc:

These instructions continue from step 2: Configure the printer driver in Install a printer.

- 1. If the Add Printer Wizard is open, close it.
- 2. Insert the printer disc into your computer's CD/DVD drive.
- 3. Follow the instructions that appear on your screen to install the printer software.
- 4. After the printer software is installed, go to <u>Install a printer</u> for instructions on attaching your printer to the media vault.

Installing a printer driver from the support area of your printer manufacturer:

These instructions continue from step 2: Configure the printer driver in Install a printer.

- 1. If the Add Printer Wizard is open, close it.
- 2. Open a web browser and navigate to your printer manufacturer's support web site. For example http://www.hp.com/support.
- 3. Find the driver for the model of your printer and operating system, such as Windows XP.
- 4. Follow the instructions that the printer manufacture provides. Depending on the manufacturer, you can install the printer software directly from the support site or download an installation file.
- 5. After the printer software is installed, go to <u>Install a printer</u> for instructions on attaching your printer to the media vault.

Troubleshoot User's Guide

What are the minimum browser requirement needed by the online User's Guide?

For best results, use the latest version of browser with JavaScript enabled. See instructions below:

The navigation menu does not appear in the browser window

JavaScript is not enabled in your web browser.

To enable JavaScript in Internet Explorer 6.0 or 7.0:

Internet Explorer 6.0 or later is required for this product.

- 1. Go to Tools, Internet Options.
- 2. Click the **Security** tab.
- 3. Click **Default Level**. This sets the level to Medium and enables javascript.

- 4. To enable only javascript:
 - a. Click Custom Level.
 - b. In the **Security Setting**s window scroll down until you get to the section called Scripting (near the bottom).
 - c. In the category **Active scripting**, select **Enable**.
 - d. In the Security Settings window, click OK.
- 5. In the Internet Options window, click OK.

To enable Javascript in Firefox:

These instructions apply to Firefox 1.5 and above.

• Go to Tools, Options, and then select Enable Javascript.

To enable Javascript in Netscape:

These instructions apply to Netscape 8.1.

- 1. Go to Tools, Options.
- 2. In the Options window, click Site Controls.
- 3. In the Master Settings pane, click I trust this Site.
- 4. Click OK.

To enable JavaScript in Safari:

These instructions apply to Safari 1.2.

- 1. Go to Safari, Preferences.
- 2. Click the **Security** icon.
- 3. In the **Web Content** pane, click the **Enable JavaScript** checkbox.
- 4. Close the window.

The menu appears garbled after resizing the text

Refresh the screen.



Glossary

This glossary defines terms that are used in the HP Media Vault. For easy access, click a letter in the glossary index.

-A-

All-in-one-gateway

A device that provides multiple network features such as a router, modem, <u>LAN</u> switch, firewall, and/or a wireless access point.

Anti-virus software

Software that checks a hard drive for viruses (harmful computer code) that may infect a computer.

-B-

Browser window

A browser window is used to display web pages either on a web site or stored locally such as the HP Media Vault User's Guide.

-C-

Common Internet File System (CIFS)

A protocol for how a computer requests files from other computers on the network. This is the public version of the Server Message Block protocol by IBM and modified by Microsoft.

Concatenate

Combines disk space on multiple disk drives into one logical volume.

-D-

Digital Living Network Alliance (DLNA)

An alliance of leading companies in consumer electronics. Its purpose is to create industry standards that will allow products from all companies to be compatible with each other and to enable a network of electronic devices in the home.

Digital Media Adapter (DMA)
Digital Media Receiver (DMR)

Digital Media Player (DMP)

A consumer electronic device that communicates with the HP Media Vault and brings digital media streams—such as photos, music, or video—to your entertainment center.

Digital Rights Management

Technology built into digital media, such as music and movies, that allows companies in charge of their copyrights to decide how and where media can be used.

Domain Name System (DNS)

A server that associates network names with IP addresses.

Domain Extension

A domain extension is an optional part of a network name used to <u>logically</u> divide a large network into smaller networks.

Drive partition

A <u>logical</u> division of a hard disk that create the appearance of having separate hard drives for file management, multiple users, or other purposes.

Dynamic Host Configuration Protocol (DHCP)

The <u>Protocol</u> used to assign <u>IP addresses</u> to network devices, such as computers. DHCP automatically assigns IP addresses to network devices; the assigned address can change over time. Also see <u>Static IP Address</u>.

-E-

No terms begin with the letter E.

-F-

FAT32

The 32-bit version of the "File Allocation Table" file system developed by Microsoft, common to older versions of the Windows operating systems. Also see <u>NTFS</u>.

File system

A way for files to be organized and stored in a computer. Some examples of file systems are <u>Reiser</u>, <u>FAT32</u>, and NTFS.

File Transfer Protocol (FTP)

A protocol to exchange files and information through the internet, usually used for downloading information.

Full access

Users have access to all Shared Folders and drives on a network

-G-

Gateway server

A network device that connects one network to another network.

-H-

Host-based printer

The print page is rendered on the PC rather than on the printer.

HTTP Access

Allows you to access folders and files on your media vault in a browser window.

HyperText Transfer Protocol (HTTP)

The format used to transfer and send web page information across networks, on the internet, and in help systems. Also see protocol.

-1-

IP Address

An IP (Internet Protocol) address is a number that uniquely identifies devices, such as computers, on a network.

-J-

JBOD

See concatenate.

-K-

No terms begin with the letter K.

-L-

Linux

An operating system based on UNIX.

Local area network (LAN)

A small number of computers that are connected together in a small area, usually in the same building.

Logical

Logical volume

A device, such as a <u>drive partition</u> named by the logic of a software system, regardless of its physical relationship to the system. For example, a computer with a single <u>physical hard drive</u> that contains two logical drives, **C:** and **D:**. Another example is an HP Media Vault with two hard drives that contains a single logical volume spanning both drives.

Map drive letters

Map

Mapping drive letters means assigning a letter on a PC to a Shared Folder on the HP Media Vault.

Media Access Control (MAC) Address

A unique number assigned by the manufacturer to all devices, such as computers, that can connect to a network. Also known as a physical address.

Media streaming

Media streaming sends media—music, photos and video files—from the Media Vault to other devices that can play the media. The HP Media Vault includes functionality that allows media to stream to a <u>Digital Media</u> Adapter (DMA).

Mirror

The automatic copying of data on two separate physical disks that creates two separate copies of the same material. If one disk fails, a copy of the material will be available on the other disk.

-N-

Network address

A numeric value that uniquely identifies a device on a network.

Network File System (NFS)

A file system commonly used in Linux systems. NFS allows users to access files on other <u>network computers</u> as if they were stored locally on their own computer.

Network computer

A computer that is connected to other computers, creating a network..

No access

A setting that does not allow a user to access files and folders on the shared network.

NTFS (New Technology File System)

Current standard file system for Windows. NTFS replaced Microsoft's previous <u>FAT32</u> file system, and improves performance, reliability, disk space, and security.

NTP Server

NTP stands for Network Time Protocol, which allows the HP Media Vault to update its internal date and time automatically.

-0-

No terms begin with the letter O.

Partition

A <u>logical</u> division of a physical hard disk. A partition divides a physical disk into separate units, which can be formatted independently.

Physical disks

Physical hard drive

The actual hard disk(s) located in a device that stores files and data.

Protocol

The standard(s) of how computers communicate data with each other.

Privilege level

A level assigned by the user that decides what access levels are available to other users...

-Q-

No terms begin with the letter Q.

-R-

RAID

RAID-1

RAID stands for redundant array of independent disks. RAID is a system which uses multiple hard drives to share or replicate data among the drives. RAID-1 creates an exact copy or <u>mirror</u> of a set of data on two or more disks.

Read only

A setting that does not allow the user to write data. The user is only able to read information.

Reiser FS

Reiser

A computer file system used in the Linux operating system. HP Media Vault uses a modified form of Reiser FS.

Router

A device connected to your computer that joins two or more networks. For example, a router connects your local network to the internet.

-S-

Serial ATA (SATA)

Serial Advanced Technology Attachment is an interface standard that moves information to and from a storage device, such as a hard disk.

Share

Shared Folder

A "Share" means the same as "Shared Folder," and you can use these terms interchangeably: A Share is a top-level folder that stores other folders within it. For example, FileShare and MediaShare can store other folders (called sub-folders).

Static IP Address

A number assigned to a device, such as a computer, on a network to be its permanent <u>IP address</u>. Also see DHCP.

Sub-folders

A folder within a folder or a Shared Folder.

Subnet Mask

Identifies the portion of the network IP address that can be used for subnetworks.

System drive

The hard drive (or drive partition) containing the operating system.

-T-

TCP/IP (Transmission Control Protocol/Internet Protocol)

A set of communications protocols used to transmit data over networks. TCP provides for the establishment of connections and exchanges streams of data. IP specifies the format of the data. Also see IP Address. TCP/IPv4 is the standard protocol in use today. TCP/IPv6 is the standard protocol used by Windows Vista. IPv6 main advantage is the increase in number of available addresses.

Terabyte

Refers to a data storage capacity equal to approximately 1000 gigabytes.

-U-

Uniform Naming Convention (UNC)

UNC identifies shared network devices, such as the HP Media Vault. It is a format for specifying the location of resources on a local-area network (LAN). It identifies each shared resource with a unique address.

\\mediavault -name\sharedfolder -name

For example: \\HPMediaVault\FileShare

UPnP

Universal Plug and Play (UPnP) is a networking <u>protocol</u> that allows for many different types of devices to interact with one another. UPnP is the protocol used by media streaming.

-V-

Version

One copy of a file. A version is created when a file is modified and the original copy is kept. When configuring

the backup option, the NTI Shadow software allows you to save multiple versions of a file. The backup versions would be named as follows: **mydocument(00).doc** (the initial version), **mydocument(01).doc** (the first version), and so on.

Volume

A partition formatted with a specific file system, such as Reiser or Fat32. Also see logical volume.

Volume name

A name given to a logical volume designated on a hard drive.

-W-

Web browser

An application used to access information on networks, on the internet, and in help systems. Common web browsers include Internet Explorer, Netscape, Firefox, and Safari.

Wi-Fi Protected Access (WPA)

A technology that allows for increased security with wireless networks.

WINS Server

WINS (Windows Internet Naming Service) is a server that converts NetBIOS network names to IP addresses.

Wireless Access Point (WAP)

A device, such as a wireless router, that connects wireless communication devices together to form a wireless network. A WAP often connects to a wired network, and can relay data between wireless devices and wired devices.

Wired Equivalent Privacy (WEP)

A protocol that encrypts data on a wireless system for security.

-X-

No terms begin with the letter X.

-Y-

No terms begin with the letter Y.

-Z-

No terms begin with the letter Z.



Product specifications

Minimum system requirements

Your computer should meet or exceed these requirements:

System requirements

500MHz Intel Pentium III processor or equivalent with 128MB RAM

Operating system

File and Drive backup: Microsoft Windows XP, 2000 Professional SP4

File sharing: Windows 2000 (SP4), Windows XP, ME, 98SE, MAC OS 10, Linux

Hard drive

150 MB free for included software installation

Other requirements

CD-ROM Drive

Home Network

Internet connectivity recommended for software updates

Browser

Internet Explorer 6.0 or greater, Netscape 7.0 or greater; Firefox 1.0 or greater; Safari 2.0.1 or greater

Security (access levels)

Group

Folder

User

Internal drive storage

300 GB (MV2010) 500 GB (MV2020)

Drive expandability

1 Serial ATA expansion bay

3 USB 2.0 ports

Maximum storage space: 1.2 TB

Dimensions

Height: 330mm (13") Width: 240mm (9.4") Depth: 110mm (4.3")

Weight: MV2010: 5.03 kg (11.1 lb), MV2020: 5.13 kg (11.3 lb)

Networking

Supported network standards

IEEE 802.3 IEEE 802.3u UPnP™ AV 2.0

Network speed

10/100/1000 Mbps

Access method (methods used to record data)

CSMA/CD

Connector type

1x RJ45

Encoding method

100BASE-TX: 4B5B,

MLT-3 10BASE-T: Manchester coding

Maximum transmission distance

100 meters

Other

Print server

Default network ID

HPMediaVault

Environmental

Temperature

Operating: 5° to 35° C (41° to 95° F)

Nonoperating: -30° to 60° C (-22° to 140° F)

Humidity (no condensation allowed)

Operating: 10% to 80% RH Nonoperating: 10% to 95% RH

Shock

Operating: 15 G Nonoperating: 200 G

Vibration

Operating: 0.5 Grms Nonoperating: 2.0 Grms

Electrical ratings

AC INPUT $100-127V \sim 3.0A$ or $200-240V \sim 2.0A$, 50/60Hz

Power consumption

26W single drive, 36W dual drive

Safety

IEC 950-compliant
USA – UL, CDRH Radiation Control Standards 21
CFR 1010 and 1020-1 0.50
Canada – CSA or CUL
Europe – LVD 73/23/EEC 93/68/EC
IEC 60950 plus amendments,
EN60825 plus amendments,
EMCD 89/336/EEC plus amendments



Regulatory statements

	DECLARATION OF CONFORMITY
	according to ISO/IEC Guide 22 and EN 45014
Manufacturer's Name:	Hewlett-Packard Company
Manufacturer's Address:	Hewlett-Packard Company 3404 E Harmony Rd Fort Collins, CO 80528
declares that the produ	uct(s):
Product:	HP Media Vault
Model Number(s):	MV2010, MV2020
Product Options:	All, (including refurbish)
conforms to the follow	ing product specifications:
Safety:	IEC60950-1:2001 EN60950-1:2001 GB4943: 2001
EMC:	CISPR 22: 1997 / EN 55022: 1998 +A1 Class B CISPR 24: 1997 / EN 55024: 1998 IEC 61000-3-2:2000 / EN 61000-3-2: 2000 IEC 61000-3-3:1994 + A1: 2001 / EN 61000-3-3: 1995 + A1: 2001 GB9254: 1998 FCC Title 47 CFR, Part 15 Class B / ICES-002, issue 2

Supplementary Information:

The product herewith complies with the requirements of the Low Voltage Directive 73/23/EEC, the EMC Directive 89/336/EEC and the R&TTE Directive 1999/5/EC and carries "CE Marking" accordingly.

This Device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Fort Collins, CO USA July, 2006

For regulatory compliance information only

European contact: Hewlett-Packard GmbH, HQ-TRE, Herrenberger Straße 140, 71034 Böblingen, Germany (FAX: +49-7031-14-3143).

North America Contact: Hardware Quality Eng. Manager, PSB, 3404 E Harmony Rd, Fort Collins, CO

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If you acquired this EULA in Canada, this EULA is governed by the laws of the Province of Ontario, Canada. Each of the parties hereto irrevocably attorns to the jurisdiction of the courts of the Province of Ontario and further agrees to commence any litigation which may arise hereunder in the courts located in the Judicial District of York, Province of Ontario.

If this EULA was acquired outside the United States, then local law may apply.

Should you have any questions concerning this EULA, please contact the Manufacturer of your SYSTEM.



Feedback about this guide

If you find an error in this guide or just have a suggestion for it, send e-mail to manuals@hp.com. The information you send will be used only to help us develop future revisions of this manual. You will not get a response to your e-mail.

If you require customer support instead, see the *HP Media Vault Support Guide* or go to the website www.hp.com/support.



Limited Warranty and Technical Support Statement

HP Media Vault Limited Warranty

Duration

Hardware: 1 year Limited Warranty

Software: 90 days Technical Support

General Terms

This HP Hardware Limited Warranty gives you, the customer, express limited warranty rights from HP, the manufacturer. Please refer to HP's Web site for an extensive description of your limited warranty entitlements. In addition, you may also have other legal rights under applicable local law or special written agreement with HP.

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THE LIMITED WARRANTY TERMS CONTAINED IN THIS STATEMENT, EXCEPT TO THE EXTENT LAWFULLY PERMITTED, DO NOT EXCLUDE, RESTRICT, OR MODIFY BUT ARE IN ADDITION TO THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE SALE OF THIS PRODUCT TO YOU.

This Limited Warranty is applicable in all countries/regions and may be enforced in any country/region where HP or its authorized service providers offer warranty service for the same product model number subject to the terms and conditions set forth in this Limited Warranty.

Under the HP Global Limited Warranty program, products purchased in one country/region may be transferred to another country/region, where HP or its authorized service providers offer warranty service for the same product model number, without voiding the warranty. Warranty terms, service availability, and service response times may vary from country/region to country/region. Standard warranty service response time is subject to change due to local parts availability. If so, your HP authorized service provider can provide you with details.

HP is not responsible for any tariffs or duties that may be incurred in transferring the products. Transfer of the products may be covered by export controls issued by the United States or other governments.

This Limited Warranty applies only to HP-branded and Compaq-branded hardware products (collectively referred to in this Limited Warranty as "HP Hardware Products") sold by or leased from Hewlett-Packard Company, its worldwide subsidiaries, affiliates, authorized resellers, or country/region distributors (collectively referred to in this Limited Warranty as "HP") with this Limited Warranty. The term "HP Hardware Product" is limited to the hardware components and required firmware. The term "HP Hardware Product" DOES NOT include any software applications or programs; non-HP products or non-HP branded peripherals. All non-HP products or non-HP branded peripherals external to the HP Hardware Product — such as external storage subsystems, displays, printers, and other peripherals — are provided "AS IS" without HP warranty. However, non-HP manufacturers and suppliers, or publishers may provide their own warranties directly to you.

HP warrants that the HP Hardware Products that you have purchased or leased from HP are free from defects in materials or workmanship under normal use during the Limited Warranty Period. The Limited Warranty Period starts on the date of purchase or lease from HP or from the date HP completes installation. Your dated sales or delivery receipt, showing the date of purchase or lease of the product, is your proof of the purchase or lease date. You may be required to provide proof of purchase or lease as a condition of receiving warranty service. You are entitled to hardware warranty service according to the terms and conditions of this document if a repair to your HP Hardware Product is required within the Limited Warranty Period.

Unless otherwise stated, and to the extent permitted by local law, new HP Hardware Products may be manufactured using new materials or new and used materials equivalent to new in performance and reliability. HP may repair or replace HP Hardware Products (a) with new or previously used products or parts equivalent to new in performance and reliability or (b) with equivalent products to an original product that has been discontinued. Replacement parts are warranted to be free from defects in material or workmanship for ninety (90) days or, for the remainder of the Limited Warranty Period of the HP Hardware Product they are replacing or in which they are installed, whichever is longer.

During the Limited Warranty Period, HP will, at its discretion, repair or replace any defective component. All component parts or hardware products removed under this Limited Warranty become the property of HP. In the unlikely event that your HP Hardware Product has recurring failures, HP, at its sole discretion, may elect to provide you with (a) a replacement unit of HP's choosing that is the same or equivalent to your HP Hardware Product in performance or (b) to give you a refund of your purchase price or lease payments (less interest) instead of a replacement. This is your exclusive remedy for defective products.

Exclusions

HP does not warrant that the operation of this product will be uninterrupted or error-free. HP is not responsible for damage that occurs as a result of your failure to follow the instructions intended for the HP Hardware Product.

This Limited Warranty does not apply to expendable or consumable parts and does not extend to any product from which the serial number has been removed or that has been damaged or rendered defective (a) as a result of accident, misuse, abuse, contamination, improper or inadequate maintenance or calibration, or other external causes; (b) by operation outside the usage parameters stated in the user documentation that shipped with the product (c) by software, interfacing, parts, or supplies not supplied by HP; (d) by improper site preparation or maintenance; (e) by virus infection; (f) from loss or damage in transit; (g) by modification or service by anyone other than (i) HP, (ii) an HP authorized service provider, or (iii) your own installation of end-user-replaceable HP or HP-approved parts if available for your product in the servicing country/region.

YOU SHOULD MAKE PERIODIC BACKUP COPIES OF THE DATA STORED ON YOUR HARD DRIVE OR OTHER STORAGE DEVICES AS A PRECAUTION AGAINST POSSIBLE FAILURES, ALTERATION, OR LOSS OF THE DATA. BEFORE RETURNING ANY UNIT FOR SERVICE, BE

SURE TO BACK UP DATA AND REMOVE ANY CONFIDENTIAL, PROPRIETARY, OR PERSONAL INFORMATION. HP IS NOT RESPONSIBLE FOR DAMAGE TO OR LOSS OF ANY PROGRAMS, DATA, OR REMOVABLE STORAGE MEDIA. HP IS NOT RESPONSIBLE FOR THE RESTORATION OR REINSTALLATION OF ANY PROGRAMS OR DATA OTHER THAN SOFTWARE INSTALLED BY HP WHEN THE PRODUCT IS MANUFACTURED. UNITS SENT IN FOR SERVICE MAY HAVE THE DATA ERASED FROM THE HARD DRIVE AND THE PROGRAMS RESTORED TO THEIR ORIGINAL STATE.

Exclusive Remedy

TO THE EXTENT ALLOWED BY APPLICABLE LOCAL LAW, THESE TERMS AND CONDITIONS CONSTITUTE THE COMPLETE AND EXCLUSIVE WARRANTY AGREEMENT BETWEEN YOU AND HP REGARDING THE HP HARDWARE PRODUCT YOU HAVE PURCHASED OR LEASED. THESE TERMS AND CONDITIONS SUPERSEDE ANY PRIOR AGREEMENTS OR REPRESENTATIONS — INCLUDING REPRESENTATIONS MADE IN HP SALES LITERATURE OR ADVICE GIVEN TO YOU BY HP OR AN AGENT OR EMPLOYEE OF HP — THAT MAY HAVE BEEN MADE IN CONNECTION WITH YOUR PURCHASE OR LEASE OF THE HP HARDWARE PRODUCT. No change to the conditions of this Limited Warranty is valid unless it is made in writing and signed by an authorized representative of HP.

Limitation of Liability

IF YOUR HP HARDWARE PRODUCT FAILS TO WORK AS WARRANTED ABOVE, HP'S MAXIMUM LIABILITY UNDER THIS LIMITED WARRANTY IS EXPRESSLY LIMITED TO THE LESSER OF THE PRICE YOU HAVE PAID FOR THE PRODUCT OR THE COST OF REPAIR OR REPLACEMENT OF ANY HARDWARE COMPONENTS THAT MALFUNCTION IN CONDITIONS OF NORMAL USE.

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THIS LIMITATION OF LIABILITY APPLIES WHETHER DAMAGES ARE SOUGHT, OR A CLAIM MADE, UNDER THIS LIMITED WARRANTY OR AS A TORT CLAIM (INCLUDING NEGLIGENCE AND STRICT PRODUCT LIABILITY), A CONTRACT CLAIM, OR ANY OTHER CLAIM. THIS LIMITATION OF LIABILITY CANNOT BE WAIVED OR AMENDED BY ANY PERSON. THIS LIMITATION OF LIABILITY WILL BE EFFECTIVE EVEN IF YOU HAVE ADVISED HP OR AN AUTHORIZED REPRESENTATIVE OF HP OF THE POSSIBILITY OF ANY SUCH DAMAGES. THIS LIMITATION OF LIABILITY, HOWEVER, WILL NOT APPLY TO CLAIMS FOR PERSONAL INJURY.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS THAT MAY VARY FROM STATE TO STATE OR FROM COUNTRY/REGION TO COUNTRY/REGION. YOU ARE ADVISED TO CONSULT APPLICABLE STATE OR COUNTRY/REGION LAWS FOR A FULL DETERMINATION OF YOUR RIGHTS.

Limited Warranty Period

The Limited Warranty Period for an HP Hardware Product is a specified, fixed period commencing on the date of purchase. The date on your sales receipt is the date of purchase unless HP or your reseller informs you otherwise in writing.

Types of Warranty Service

To enable HP to provide the best possible support and service during the Limited Warranty Period, you may be directed by HP to verify configurations, load most recent firmware, install software patches, run HP diagnostics tests, or use HP remote support solutions where applicable.

HP strongly encourages you to accept the use of or to employ available support technologies provided by HP. If you choose not to deploy available remote support capabilities, you may incur additional costs due to increased support resource requirements. Listed below are the types of warranty support service that may be applicable to the HP Hardware Product you have purchased.

Customer Self Repair Warranty Service

In countries/regions where it is available, your HP Limited Warranty may include a customer self repair warranty service. If applicable, HP will determine in its sole discretion that customer self repair is the appropriate method of warranty service. If so, HP will ship approved replacement parts directly to you to fulfill your HP Hardware Product warranty service. This will save considerable repair time. After you contact the HP Technical Support Center and the fault diagnosis identifies that the problem can be fixed using one of these parts, a replaceable part can be sent directly to you. Once the part arrives, replace the defective part pursuant to the provided instructions and documentation. If further assistance is required, call the HP Technical Support Center, and a technician will assist you over the phone. In cases where the replacement part must be returned to HP, you must ship the defective part back to HP within a defined period of time, normally thirty (30) days. The defective part must be returned with the associated documentation in the provided shipping material. Failure to return the defective product may result in HP billing you for the replacement.

With a customer self repair, HP will pay all shipping and part return costs and determine the courier/carrier to be used. If customer self repair applies to you, please refer to your specific HP Hardware Product announcement. You can also obtain information on this warranty service on the HP Web site at:

http://www.hp.com/support

Pickup and Return Warranty Service

Your HP Limited Warranty may include a pickup and return warranty service. Under the terms of pickup and return service, HP will pick up the defective unit from your location, repair it, and return it back to your location. HP will incur all repair, logistics, and insurance costs in this process.

Carry-in Warranty Service

Under the terms of carry-in service, you will be required to deliver your HP Hardware Product to an authorized service location for warranty repair. You must prepay any shipping charges, taxes, or duties associated with transportation of the product to and from the service location. In addition, you are responsible for insuring any product shipped or returned to an authorized service location and assume risk of loss during shipping.

Service Upgrades

HP has a range of additional support and service coverage for your product that can be purchased locally. However, some support and related products may not be available in all countries/regions. For information on availability of service upgrades and the cost for these service upgrades, refer to the HP Web site at:

http://www.hp.com/support

Options Limited Warranty, Software and Digital Content

Your Options Limited Warranty is a one (1) year (HP Options Limited Warranty Period) parts replacement warranty on any HP branded or Compaq-branded options (HP Options). If your HP Options are installed in an HP Hardware Product, HP may provide warranty service either for the HP Options Limited Warranty Period or the remaining Limited Warranty Period of the HP Hardware Product in which the HP Options are being installed, whichever period is the longer but not to exceed three (3) years from the date you purchased the HP Options. The HP Options Limited Warranty Period starts on your date of purchase. Your dated sales or delivery receipt, showing the date of purchase, is your start date. Non-HP options are provided "AS IS". Non-HP manufacturers and suppliers may provide warranties directly to you. EXCEPT AS PROVIDED IN ANY SOFTWARE END-USER LICENSE OR PROGRAM LICENSE AGREEMENT, OR IF OTHERWISE REQUIRED BY LOCAL LAW, SOFTWARE AND THIRD PARTY DIGITAL CONTENT, INCLUDING THE OPERATING SYSTEM OR ANY SOFTWARE OR THIRD PARTY DIGITAL CONTENT PREINSTALLED BY HP ARE PROVIDED "AS IS". EXCEPT AS SPECIFICALLY PROVIDED IN THIS LIMITED WARRANTY, IN NO EVENT WILL HP BE LIABLE FOR ANY DAMAGES CAUSED BY OR ARISING FROM ANY THIRD PARTY DIGITAL CONTENT PREINSTALLED ON YOUR HP HARDWARE PRODUCT.