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# **HP Data Vault User's Guide**

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# Chapter 1. Welcome to the HP Data Vault

The HP Data Vault protects and shares digital content—providing an easy-to-use, central repository for digital photos, music, videos, and documents. The HP Data Vault supports computers running Microsoft® Windows® and Apple® Mac® OS X, enabling a more protected and reliable way of managing media and files.

## The HP Data Vault Provides

- *Mac and Windows Supported Operating Systems*

Support for networks that have a mix of Microsoft Windows and Mac OS X 10.5 or later computers.

- *HP Photo Viewer and HP Photo Publisher*

A simple photo management and sharing tool that lets you share photos directly from the server or through popular photo sharing web sites like snapfish, facebook, flickr, and Picasa Web Albums.

Photo web site services are subject to change without notice and some services may not be available at the time of product purchase. The available service providers may vary in your country/region.

- *Media Collector*

Media Collector automatically collects photos, music, and video files from computers on the network and organizes them on the server.

- *Media Streaming and Remote Media Streaming*

Photos, videos, and music can be streamed to PCs or TVs on the network. Furthermore, you can enjoy your photos, music, and videos—while on the network or away—with remote media streaming to any Internet-connected computer.

- *PC Backup and Mac Backup*

An automatic backup process for Windows PCs and Apple Macs on your home network.

Automatic backup of computers running Microsoft Windows® Vista (32 & 64 bit), XP Home (SP2), XP Professional (SP2), Media Center Edition 2004 (SP2) or later, and Macs running Time Machine.

- *Remote Computer Access*

Remote access to media and files with an easy-to-use, browser-based interface. With proper authorization, a remote user can log into their network and perform functions as if they were sitting at their networked computer.

- *iTunes Music Server*



Any computer on the network that runs iTunes can access music on the server as an iTunes shared library.

- *Disk Duplication and Storage Expansion*

A way to transparently duplicate selected folders on separate disk drives to help protect against a hard disk failure. Plus, it's easy to add storage as needs grow.

Folder duplication requires at least two hard disks.



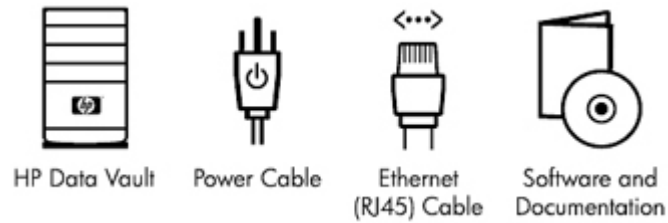
## Chapter 2. Set up and Installation

### WHAT'S IN THE BOX?

In the box you will find:

- HP Data Vault
- Power cord
- Ethernet (RJ-45) cable
- Software and Documentation

For warranty and support information, see the Warranty and Support Guide on the Software Installation Disc.



### THE SERVER AT A GLANCE

The following lights and symbols are found on the front and back of the HP Data Vault.



## The Front of the Server



**Light Bar.** There is one light bar for each internal **SATA** disk in the HP Data Vault. The server can hold up to four disks.



**Power Light.** The power light is solid aqua white when the server is turned on.



**Network Connection Light.** The network connection light is solid aqua white when the server is connected to the network via a **router** or switch.



**Health Light.** The health light is solid aqua white when the server is operating correctly.



**USB Port.** Plug up to four USB 2.0 or later disk drives into the USB ports to expand your storage space. There is one USB port on the front and three on the back of the server.

## The Back of the Server



**USB Port.** Plug up to four USB 2.0 or later disk drives into the USB ports to expand your storage space. There is one USB port on the front and three on the back of the server.



**eSATA Port.** Plug an eSATA (external SATA) hard drive into the eSATA port to expand your storage space.



**Ethernet Port.** Connect the HP Data Vault to your network using an Ethernet cable.



**Power Switch.** Press to turn the HP Data Vault on.



**Power Port.** Plug the included AC power cord into the HP Data Vault.

### Related Topics

HP Data Vault User's Guide

- [Health Indicator Codes](#)
- [Health Light is Red](#)
- [Hubs and Network Health Light](#)

- [Light-bar is Pulsating Aqua White](#)
- [Light-bar is Red](#)
- [Network Connection Light Blinking](#)
- [Network Connection Light off](#)
- [Power Indicator is Off](#)

## FIND A HOME FOR YOUR SERVER

### Server Location

Find a suitable place to locate your HP Data Vault before you install the software on your computers. The location you choose must have either an available wired network connection to your broadband **router** or a switch connected to your broadband router.

The server also requires adequate ventilation to ensure it does not get too hot:

- Do not locate the server in an unventilated space.
- Make sure that the server's front and back panels are not blocked.
- Check that the location of the server is not too hot. Maximum environmental temperature for operating the server is 35 °C (95 °F).

### Network Requirements

To successfully use the HP Data Vault , your network must meet the following requirements:

Network Requirements	
Requirement	Recommended
Server connection	100 Mbps to 1000 Mbps (Gigabit Ethernet) wired connection
Home computers	One or more computers running a supported operating system with a wired or wireless network connection. For a list of supported operating systems, see <a href="#">Supported Operating Systems</a> .  The first installation must be on a Windows computer. Subsequent installations can be on a Windows or Mac computer.
Internet connection	Broadband connection, such as DSL or cable, required for remote access functionality.

Network Requirements	
Requirement	Recommended
Internet browser	<p>An Internet browser is required to run the HP Data Vault software. Choose one from the following options.</p> <ul style="list-style-type: none"> <li>• Download Internet Explorer from <a href="http://www.microsoft.com/downloads">http://www.microsoft.com/downloads</a>.</li> <li>• Download Firefox from <a href="http://www.firefoxdownload.com/">http://www.firefoxdownload.com/</a>.</li> <li>• Download Safari from <a href="http://www.apple.com/safari/download/">http://www.apple.com/safari/download/</a>.</li> </ul>
Router	<p>An external Internet broadband router with 100 Mbps (or faster) Ethernet connection to the server for remote access functionality and wired or wireless connections to the computers on the network.</p> <p>Additionally, your router must have <b>DHCP</b> enabled to provide an automatic <b>IP</b> address to the server.</p>

## Supported Operating Systems

The following operating systems are supported to work with the HP Data Vault.

Supported Operating Systems			
Operating System	Automatic Backup of Computers Running...	File Sharing for Computers Running...	Remote Access to Computers Running...
Linux		X	
Mac OS X 10.5 or later	X	X	
Windows Vista Business 32-bit or 64-bit SP2	X	X	X
Windows Vista Business N 32-bit or 64-bit (European Union Only)	X	X	X
Windows Vista Enterprise 32-bit or 64-bit SP2	X	X	X
Windows Vista Home Basic 32-bit or 64-bit SP2	X	X	
Windows Vista Home N 32-bit or 64-bit (European Union Only)	X	X	

Supported Operating Systems			
Operating System	Automatic Backup of Computers Running...	File Sharing for Computers Running...	Remote Access to Computers Running...
Windows Vista Home Premium 32-bit or 64-bit SP2	X	X	
Windows Vista Ultimate 32-bit or 64-bit SP2	X	X	X
Windows XP Home SP3	X	X	
Windows XP Professional SP3	X	X	X
Windows XP Media Center Edition 2005 with SP2 and Rollup 2	X	X	

## Wireless Support

You must connect the HP Data Vault to your **router** (or switch) with an Ethernet cable. The server does not support wireless connection to your router. However, computers connected wirelessly to a wireless access point or router are supported.

## Turn on the Server

In this article...

- ↓ [The Server in Your Network](#)
- ↓ [Turn on the Server](#)
- ↓ [Check the Server Lights](#)

### The Server in Your Network

How you connect the HP Data Vault to your network depends on the network configuration.

This example shows a broadband **router** connecting the following:

- HP Data Vault (Requires wired connection to a router, and remote features require a broadband Internet connection.)
- Wired and wireless network devices such as notebooks, desk computers, TVs and gaming consoles
- Remote devices such as notebooks and iPhones

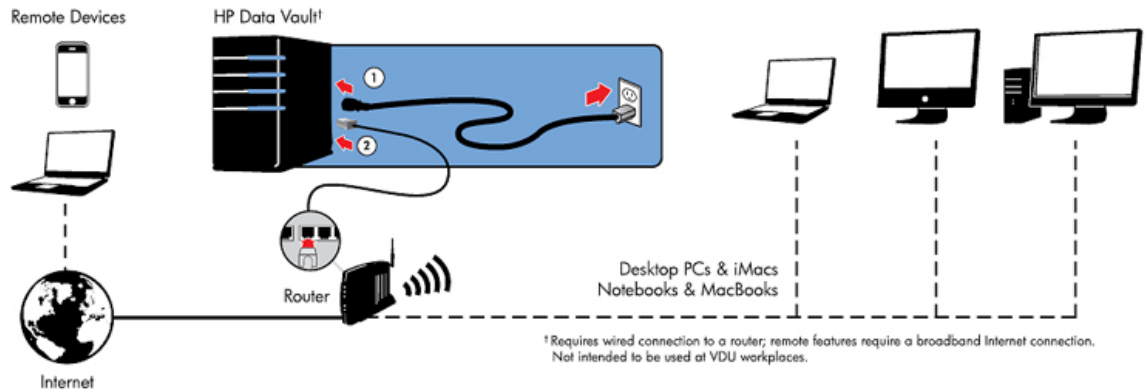
The server requires a **DHCP**-enabled router to get its **IP address**. By default, most routers include a DHCP server. For more information, check your router documentation.



#### **Caution**

If you have wireless functionality on your network, be sure to enable your router's security

settings, such as WPA or WEP, to protect your network. See the documentation that came with your router.



### Turn on the Server

1. **Plug in.** Plug one end of the power cord into the server's power receptacle and the other end into an electrical outlet.
2. **Connect.** Connect one end of the Ethernet cable to the server and the other end to an available Ethernet port on your router or to a switch that is connected to your router.
3. **Power on.** Press the Power button on the back of the server.  
The server takes approximately 60 seconds to start up. The indicator lights blink and change color throughout the startup process. Wait for all of the server lights to be pulsing before proceeding with the software installation.



#### **Important**

Do not attach USB devices to the HP Data Vault during initial setup. For additional information, see [Add and Remove an External USB Drive, eSATA Drive, or SATA Port Multiplier](#).

### Check the Server Lights

The lights on the front of the HP Data Vault indicate the status of the server. After the HP Data Vault startup completes but prior to the first software installation, the indicator lights show:

- **Hard drives**—breathing aqua white
- **Power**—breathing aqua white
- **Network**—breathing aqua white
- **Health**—breathing aqua white

After you complete the software installation, all lights should be solid aqua white.

Related Topics
HP Data Vault User's Guide
▪ <a href="#">Health Indicator Codes</a>
▪ <a href="#">Health Light is Red</a>
▪ <a href="#">Hubs and Network Health Light</a>
▪ <a href="#">Light-bar is Pulsating Aqua White</a>
▪ <a href="#">Light-bar is Red</a>
▪ <a href="#">Network Connection Light Blinking</a>
▪ <a href="#">Network Connection Light off</a>
▪ <a href="#">Power Indicator is Off</a>

## INSTALL THE SOFTWARE

### Update Your Firewall's Trusted Program List

The Software Installation Disc installs several programs that enable your computer to communicate with the HP Data Vault over your network. Software firewalls installed on your computer can block this communication and prevent the computer from locating the HP Data Vault on your network.



#### Note

If Media Collector is not collecting music, photos, or videos and you use a third party firewall, add a firewall exception for port 21 TCP/outbound within the local subnet. Consult your software's documentation for details on how to do this.

#### In this article...

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↓ [Set Your Firewall or Anti-Virus Programs to Automatically "Learn" New Programs](#)

↓ [Manually Add Programs to Your Firewall or Anti-Virus Program's Trusted List](#)

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### Set Your Firewall or Anti-Virus Programs to Automatically "Learn" New Programs

It is recommended that you set your firewall and anti-virus programs to "**Learn**" new programs before installing the HP Data Vault software. After the HP Data Vault software is installed, the firewall should prompt you to allow the installed programs to communicate with the server.

Allow the following HP Data Vault programs to communicate through your firewall or anti-virus program:

C:\Program Files\Windows Home Server\

- MountBackup.exe
- RestoreOffProc.exe
- WHSTrayApp.exe
- WHSConsoleClient.exe
- WHSConnector.exe
- BackupEngine.exe
- WHSOOBE.exe

C:\Program Files\Hewlett-Packard\HP MediaSmart Server\

- MediaCollectorClient.exe
- MSSConnectorService.exe
- ControlCenter.exe

C:\Program Files\HP\HP Software Update\

- HPWUCli.exe

### **Manually Add Programs to Your Firewall or Anti-Virus Program's Trusted List**

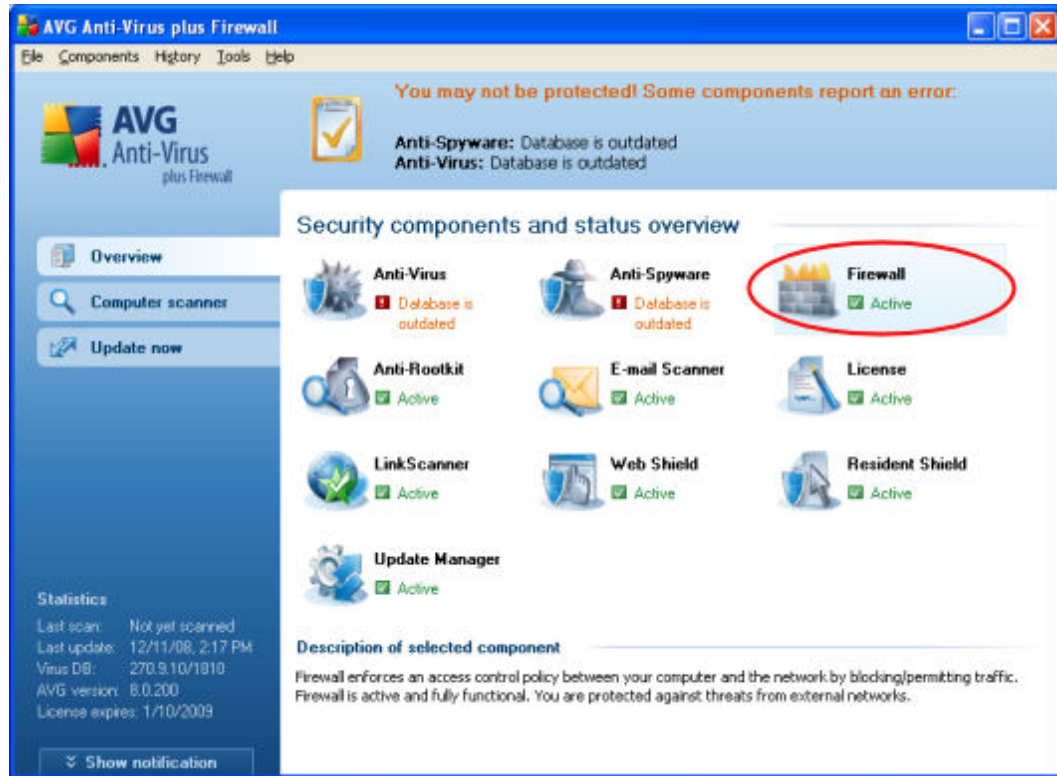
Some firewall or anti-virus programs may not automatically update their trusted programs list. Instructions for manually updating several common firewall and anti-virus programs are listed below. If your firewall or anti-virus program is not listed, please contact the vendor to find out how to manually add programs to the trusted programs list. Additionally, see the documentation that came with your firewall or anti-virus program for the latest information.

Click the vendor to expand and view the instructions on updating their trusted programs list. Click again to hide the instructions.

- *AVG*

Open the AVG Anti-Virus plus Firewall. Double-click the Firewall button to configure the Firewall. Add the programs listed at the of this page.





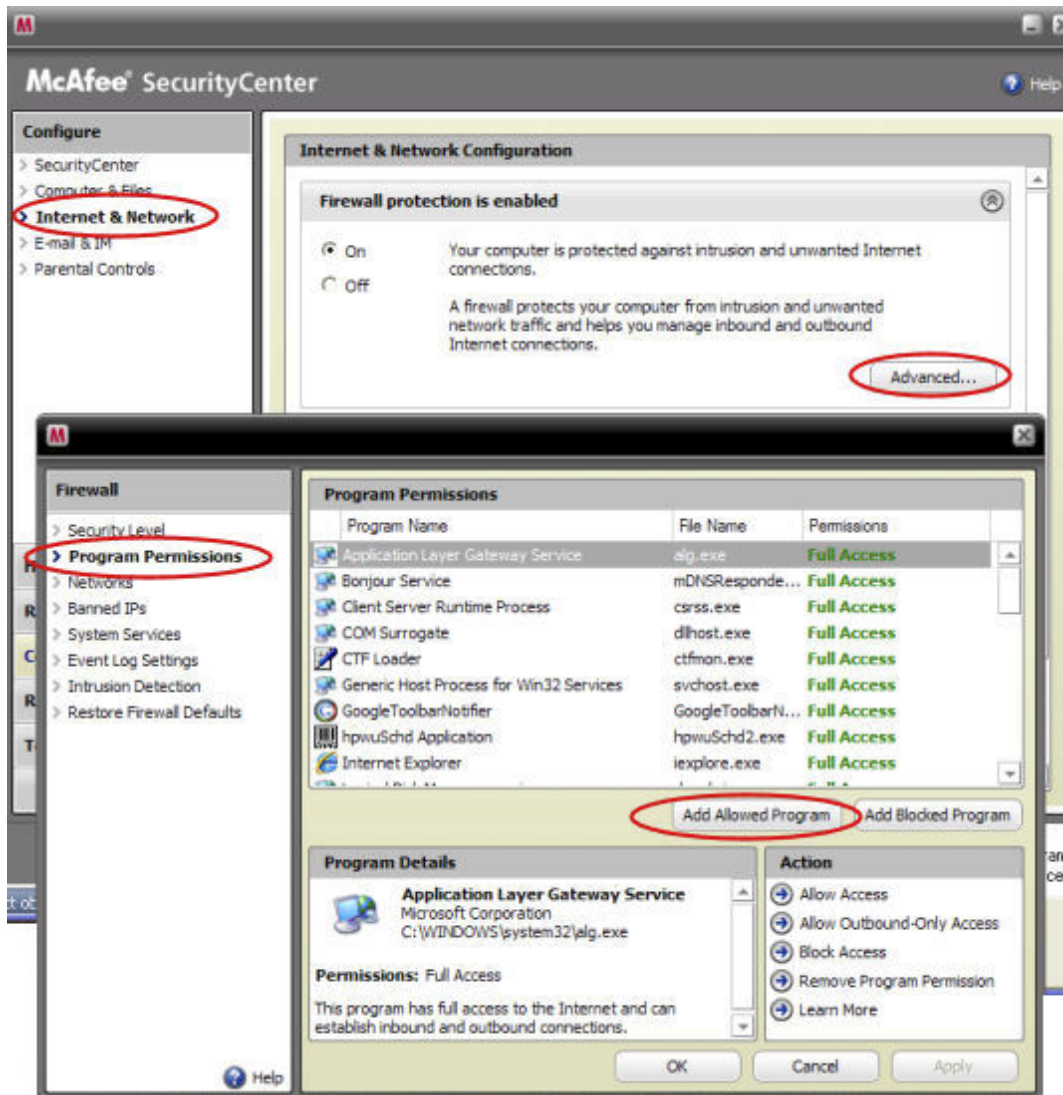
- *McAfee*

Open your McAfee Security Center, click **Internet and Network**, and then click the **Advanced** button in the firewall section. Click **Program Permissions**, then click **Add Allowed Program**. Add the programs listed at the of this page.



#### Note

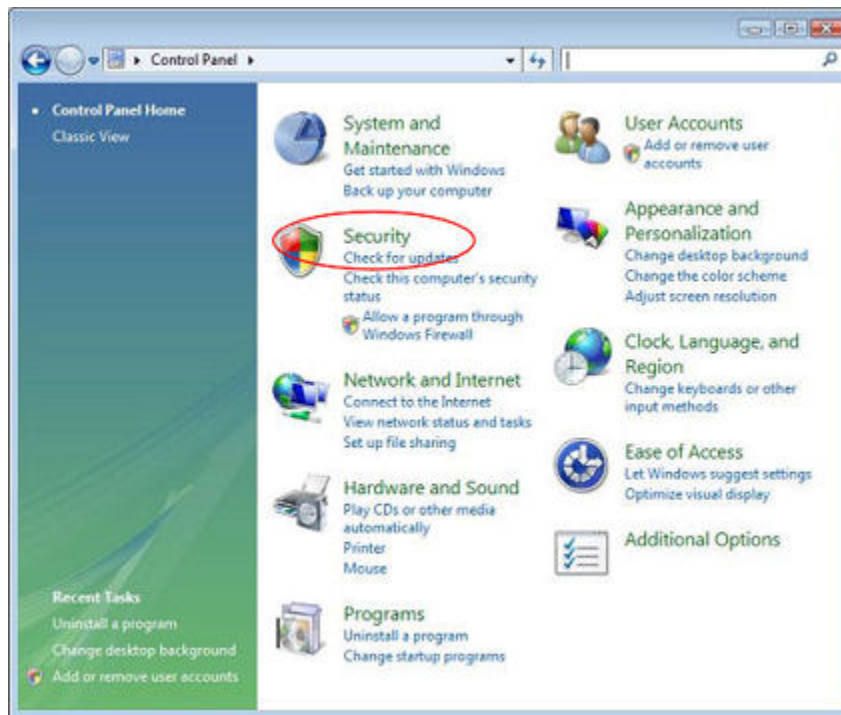
McAfee's firewall automatically disables Windows Firewall and sets itself as your default firewall.



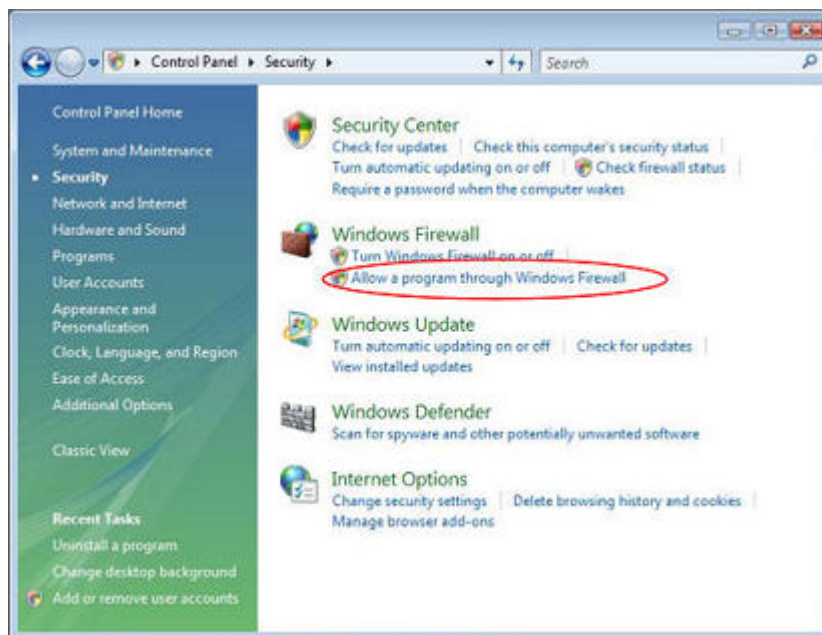
- *Microsoft Windows Vista*

To add exceptions to your firewall using Windows Vista, perform the following steps:

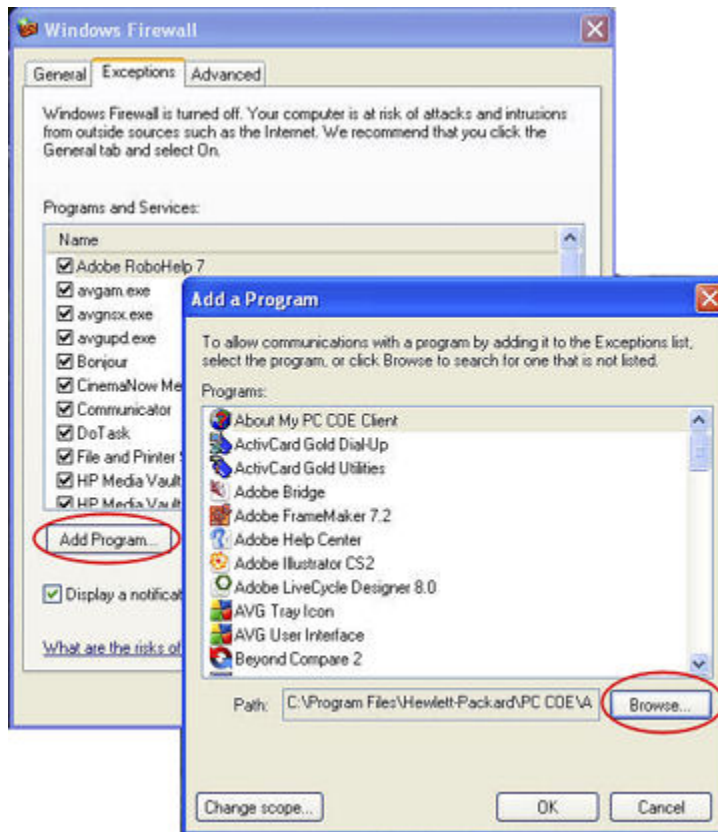
1. Click **Start**, **Control Panel**, and then **Security Center**.



2. Click **Allow a program through Windows Firewall**.



3. Select the **Exceptions** tab and then click **Add Program**.

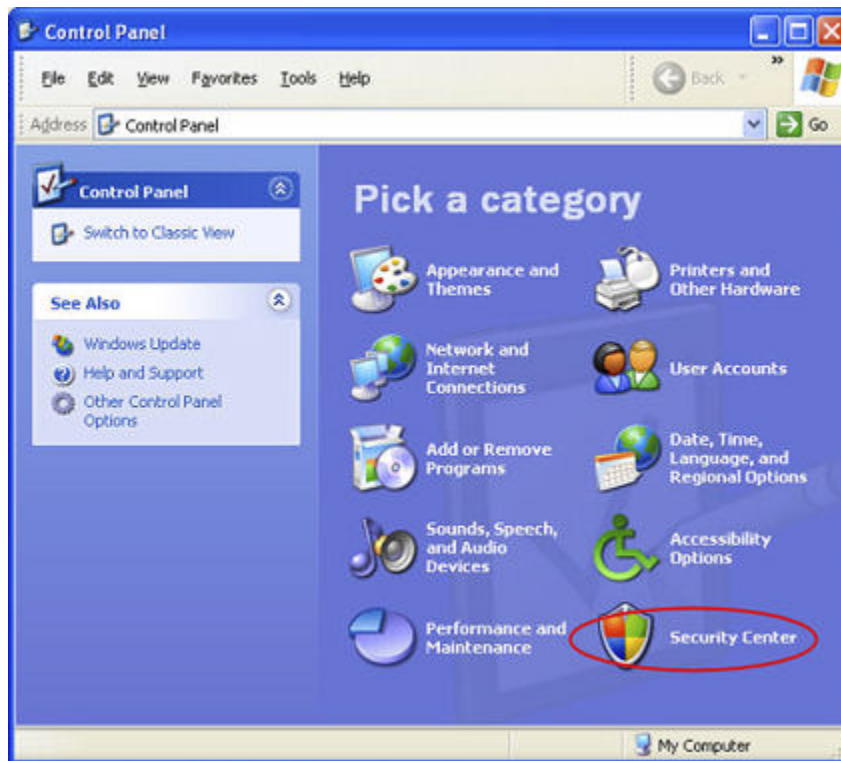


4. In the **Add a Program** dialog box, click **Browse**. Add the programs listed at the of this page.
5. Click **OK**.

- *Microsoft Windows XP*

To add exceptions to your firewall using Windows XP, preform the following steps:

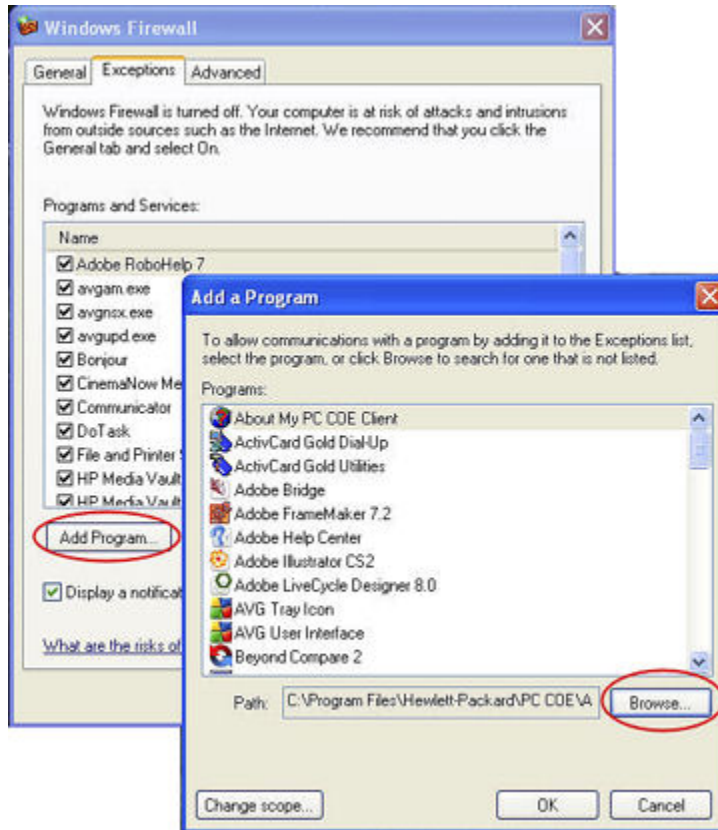
1. Click **Start**, **Control Panel**, and then **Security Center**.



2. Click **Windows Firewall**.



3. Select the **Exceptions** tab and then click **Add Program**.
4. In the **Add a Program** dialog box, click **Browse**. Add the programs listed at the of this page.



5. Click **OK**.

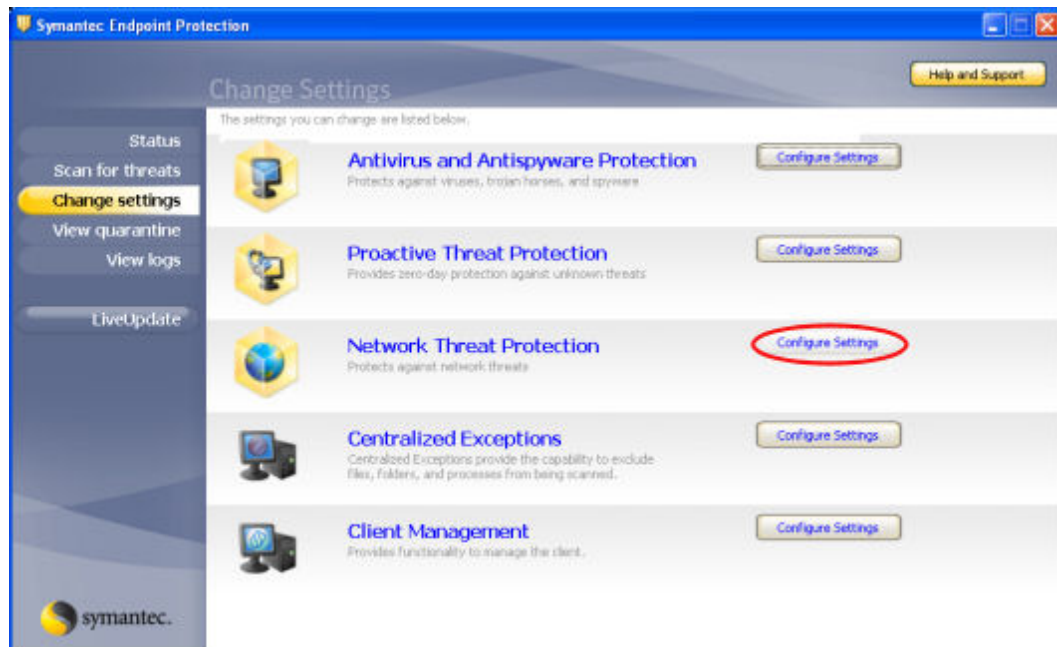
- *Norton*

Click **Options** in Norton to change the firewall settings. Add the programs listed at the of this page.



- *Symantec*

Open Symantec Endpoint Protection, click **Change Settings**, and then click **Configure Settings** for Network Threat Protection. Add the programs listed at the of this page.

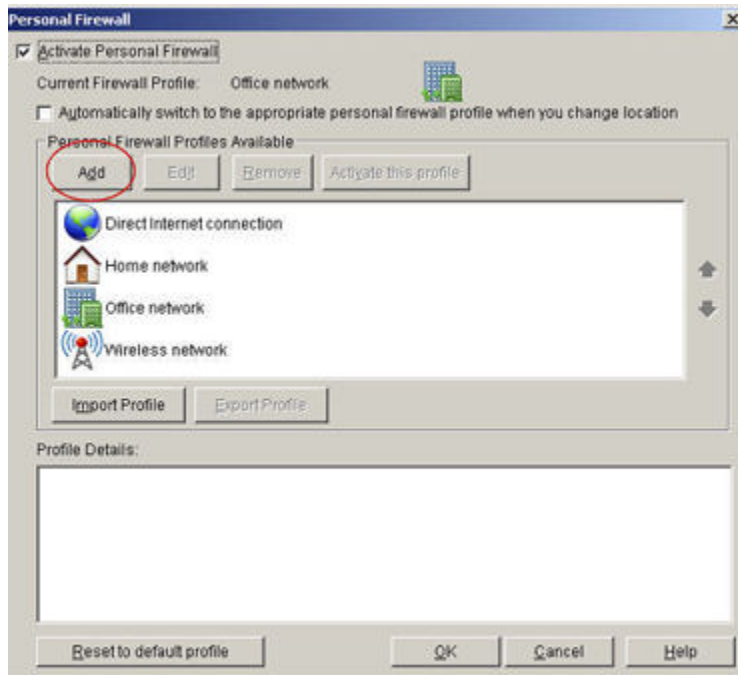


- *Trend Micro*

1. Open the Trend Micro **Main Console**, select the **Personal Network and Firewall Controls** tab, and then click **Settings**.

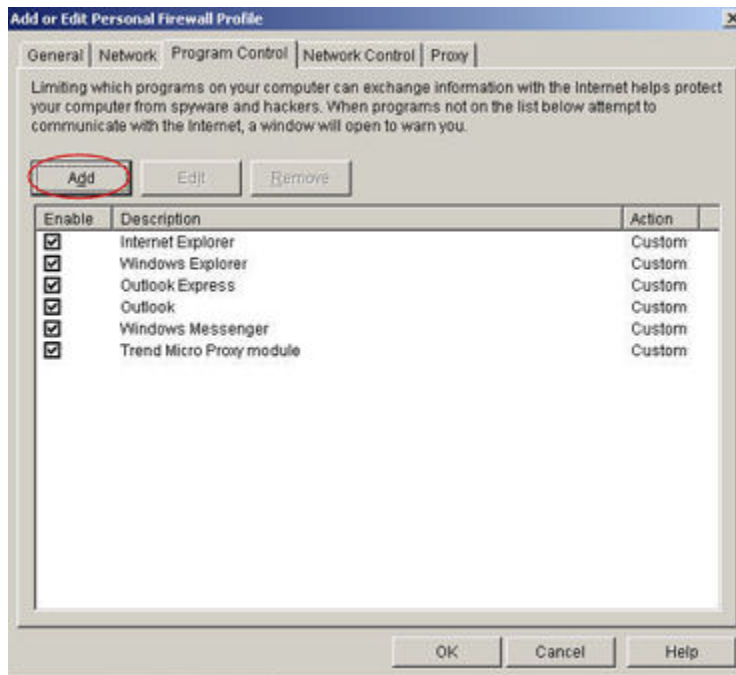


2. On the **Personal Firewall** page, click **Add**.

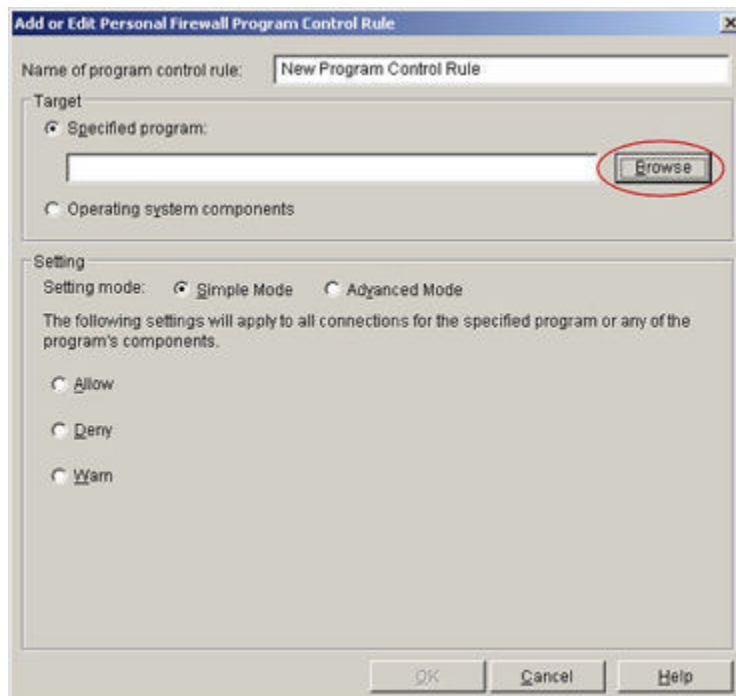




3. Select the **Program Control** tab and then click **Add**.



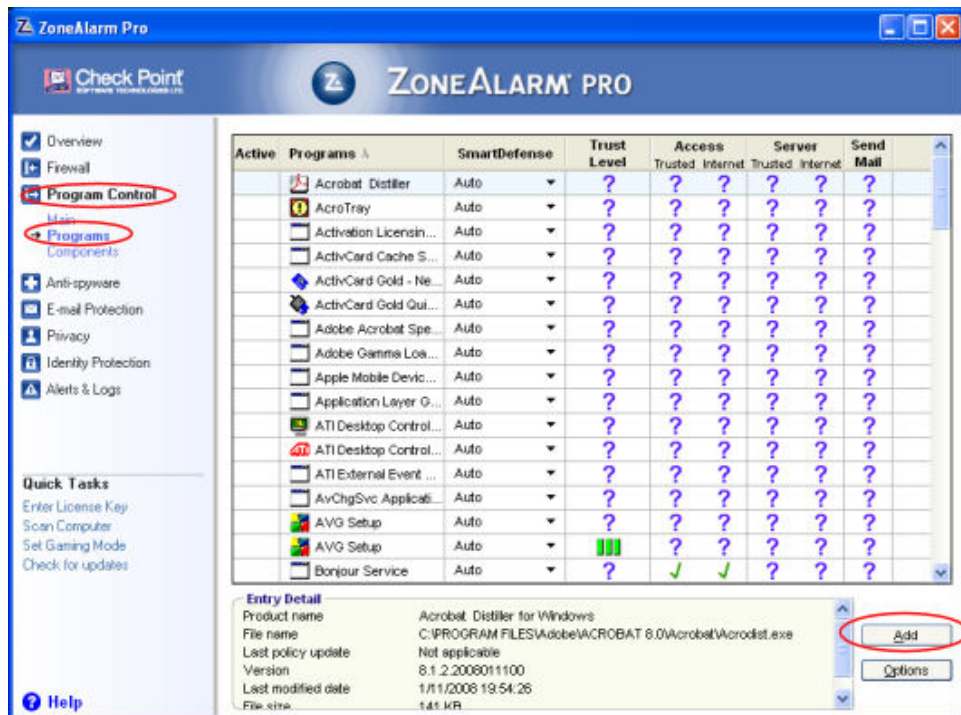
4. Click **Browse** and add the programs listed at the of this page.



5. Click **OK**.

- *ZoneAlarm*

1. Open ZoneAlarm Security.
2. Click **Program Control**, **Programs**, and then **Add**.



3. Add the programs listed at the of this page.

## Install Software on the First PC

The following steps outline the key decision points during the software installation. Click each step to expand it and see additional information.

### Important

To ensure a smooth software installation,

- The first installation must be on a Windows computer. Subsequent installations can be on a Windows or Mac computer.
- [Update Your Firewall's Trusted Program List](#)
- Verify that you have administrator privileges on the computer where you are doing the install (step 1 below).
- Write down your server name (step 6 below).
- Write down your server password (step 7 below).

1. *Check for Administrator Privileges.*

You must have administrative privileges on your computer to install the software. Complete the following steps to view or change user account settings.

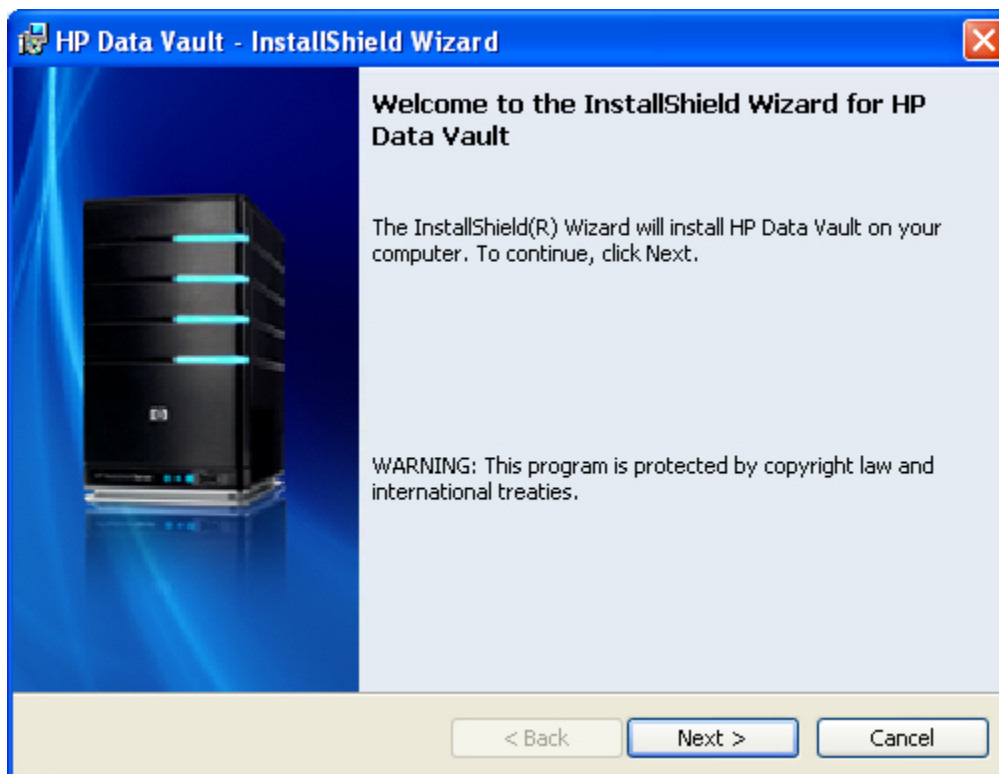
- On Windows Vista,  
Click **Start**, **Control Panel**, and then **User Accounts and Family Safety**
- On Windows XP,  
Click **Start**, **Control Panel**, and then double-click **User Accounts**
- On Mac OS X 10.5 or Later,  
Click **System Preferences**, **Accounts**, and check **Allow user to administer this computer**

2. Insert the Software Installation Disc into a network PC.

3. *Click Next to progress through the Install Wizard and install the HP Data Vault client software.*

The HP Data Vault software installs first. This software is used to

- Provide a single point of access for all of the server's features,
- Share photos and videos easily over the Internet using HP Photo Publisher and HP Photo Viewer
- Centralize your photo, video, and music libraries using HP Media Collector



4. *The Windows Home Server Connector installs next.*

The Windows Home Server Connector:


- Connects your computer to the server
- Automatically backs up your computer every night
- Monitors the health of the network and computers running Windows Vista
- Enables configuration of the server from your computer

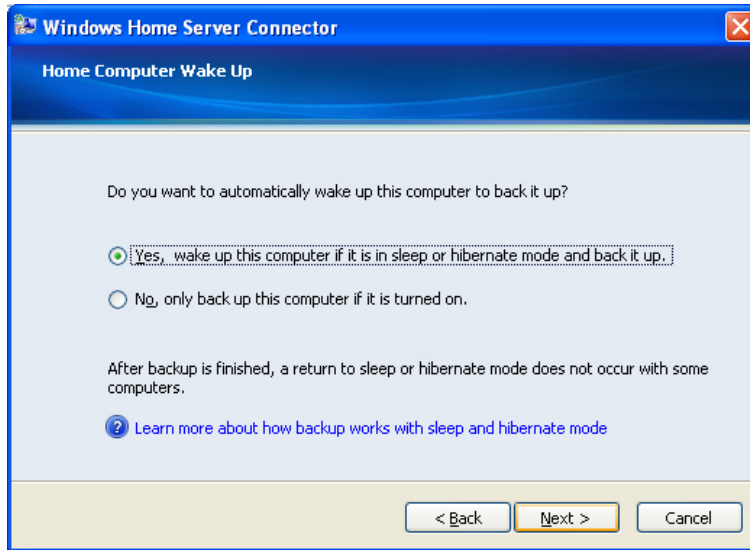
The Windows Home Server software installation runs only once—on the first computer where you run the Software Installation Disc.



5. *Select to **wake up** this computer if it is in sleep or hibernate mode to run a scheduled backup.*

If you do not turn on this option now, you can enable it later.

- a. At the computer, right-click the Windows Home Server icon  in the system tray.
- b. Check **Wake this Computer for Backup** in the shortcut menu.



6. *Name the HP Data Vault.*

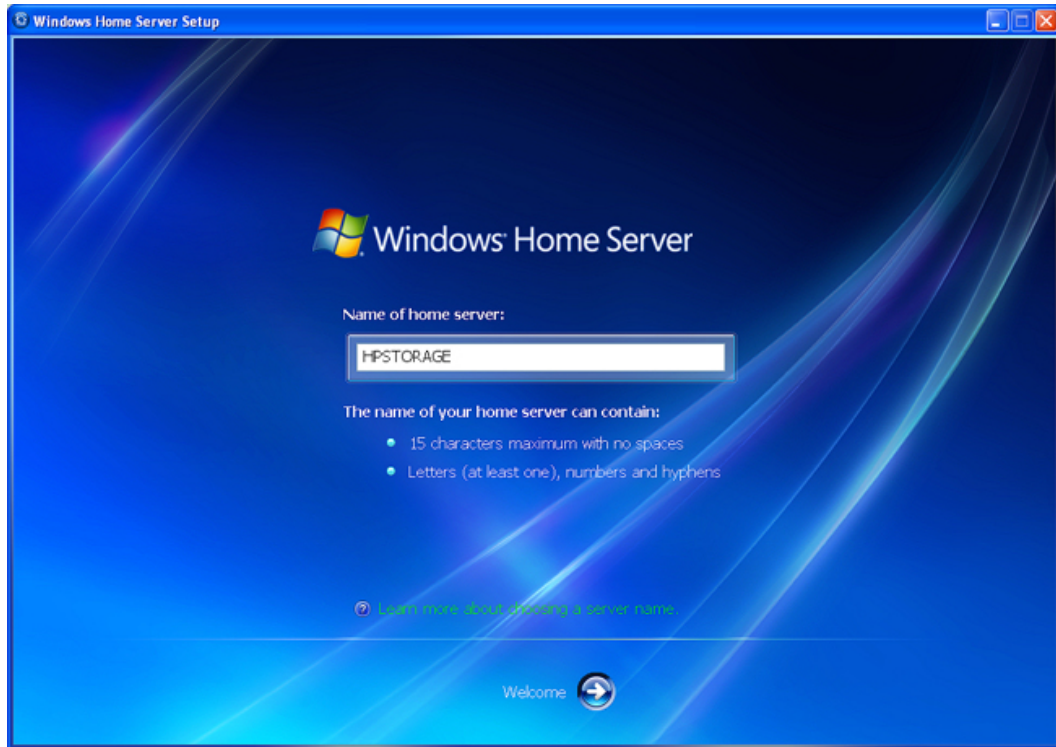
Type a name for your server. Server names can be:

- 15 characters maximum with no spaces
- Letters (at least one), numbers and hyphens



**Important**

This is the only time you can name your server. It cannot be changed later. Write down your server name. The default name is **hpstorage**.



7. *Set the server **password**.*

Create a **strong password**. A strong password must be at least 7 characters long and must fulfill three of the following requirements:

- Uppercase characters
- Lowercase characters
- Numbers
- Symbols (such as !, @, and #)



**Note**

The **password hint** can be seen by anyone who clicks the Password hint button on the Windows Home Server Connector logon window.



**Important**

This is the only opportunity you will have to set the server password.

The server password is not the same as a user password. User accounts and passwords are setup in the Windows Home Server Console.

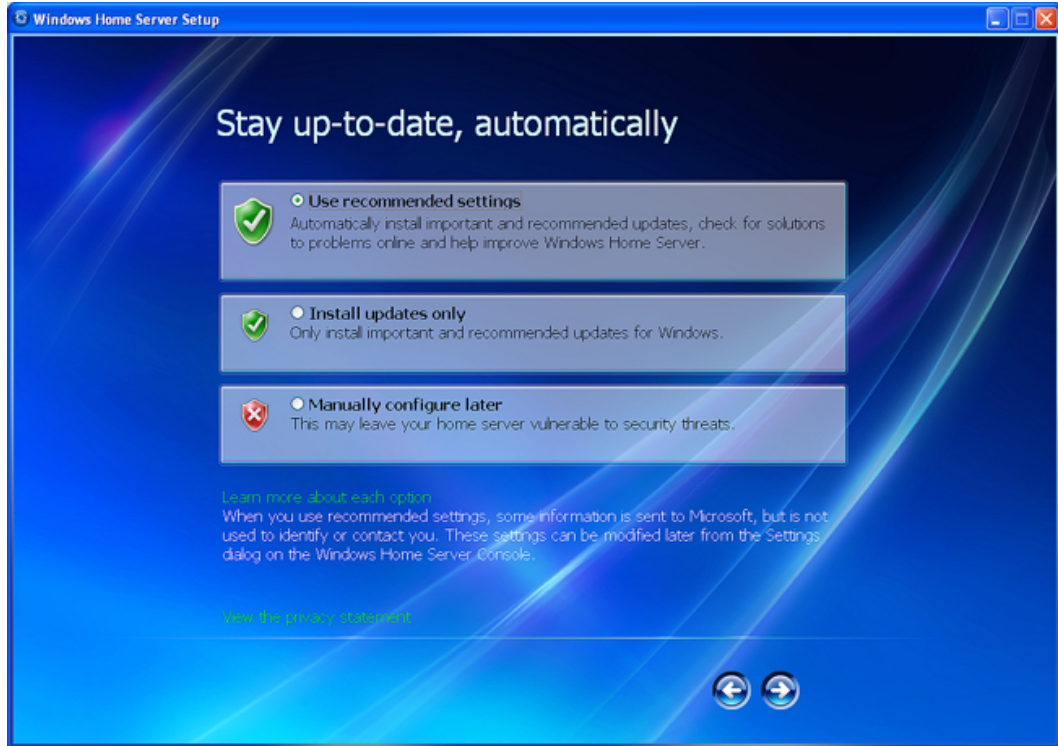


8. *The install checks for Windows Home Server Updates.*

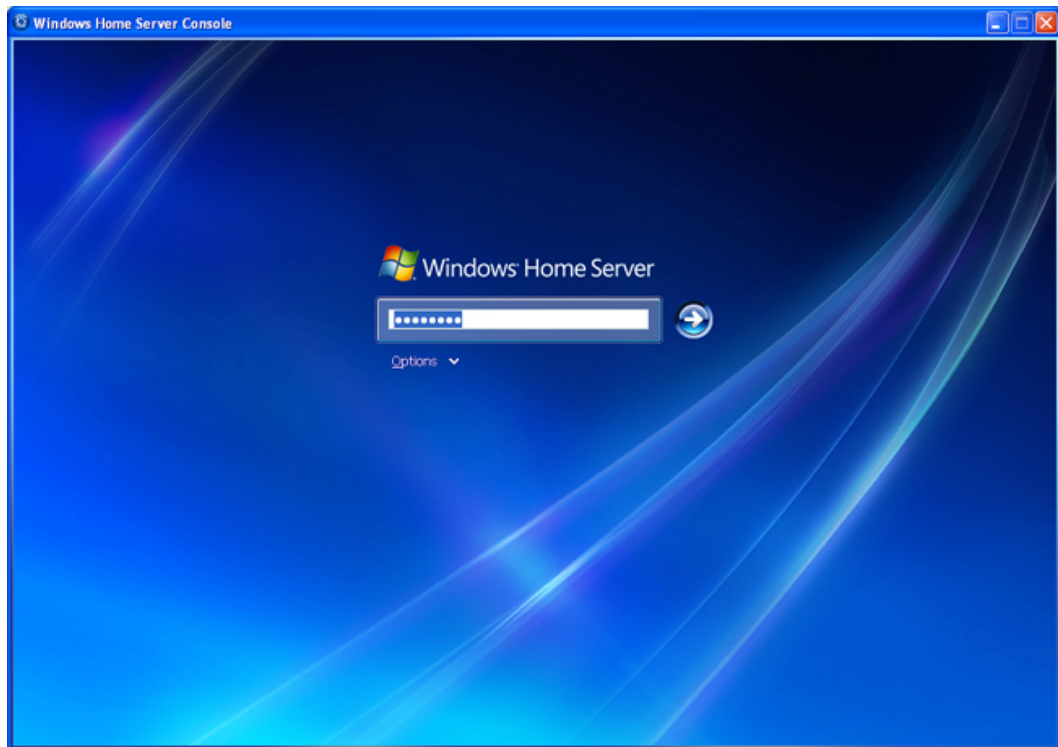
The Windows Home Server installation checks for any relevant important updates. This may take some time to complete, but does not require additional information from you.

**Important**

Do not restart or turn off your home server during the update process.



9. *Type the password you created above and log on to the Windows Home Server.*



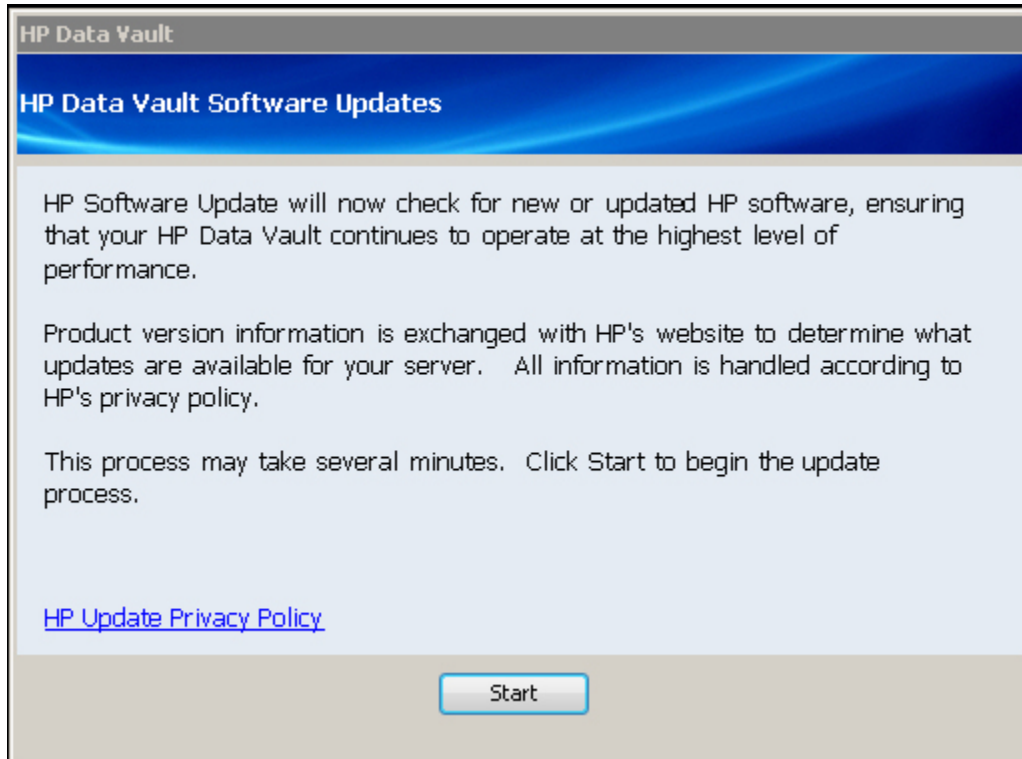
10. *The install checks for HP Data Vault updates.*

The HP Data Vault installation checks for any updates. Installing updates ensures that you experience the full functionality and optimal performance of the HP Data Vault.



**Note**

This check only occurs the first time you run the Software Installation Disc. If you want to check for updates at a later time, see [Updating and Rolling Back the Server](#).

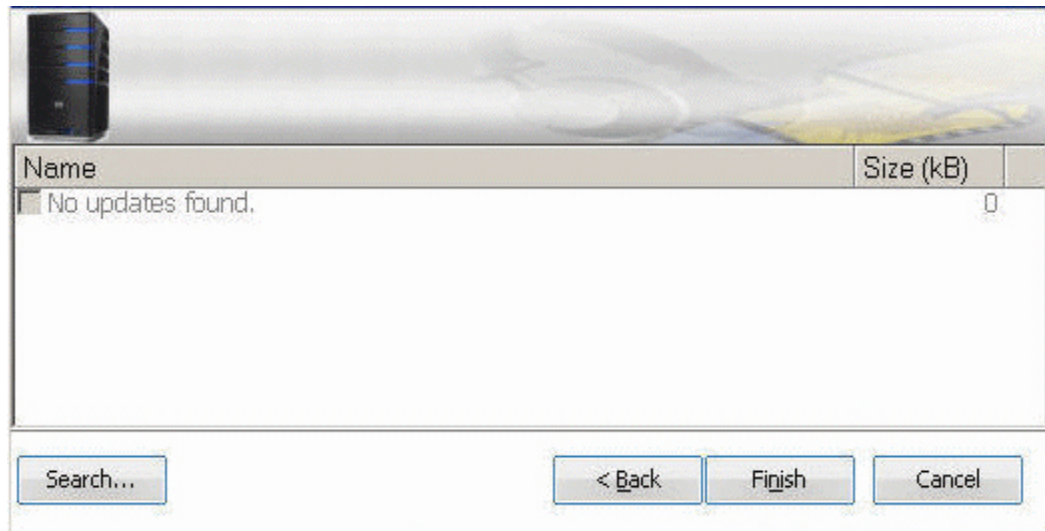


11. *Install server updates if they are available.*

If there is an update, select it and complete the instructions on the screen to install it.

**Important**

Do not restart or turn off your home server during the update process.



12. The Windows Home Server Console opens.

The Windows Home Server console opens. Use the console to set up user accounts and configure HP Data Vault features. Click **Help** in the upper right corner of the Console to get additional assistance.

**Related Topics**

- HP Data Vault User's Guide
- [Update Your Firewall's Trust Program List](#)
- [Install Software on Additional PCs](#)
- [Install Software on a Mac](#)

## Install Software on Additional PCs

You can install the client software through a **web browser** or you can use the Software Installation Disc to install the HP Data Vault client software and Windows Home Server Connector on the other computers on the network. Install the software on one computer at a time.



**Note**

If you misplaced or damaged your Software Installation Disc, you can also install the client software directly from the server. For more information, see [To install from the server using Windows XP or Windows Vista](#) below.

**In this article...**

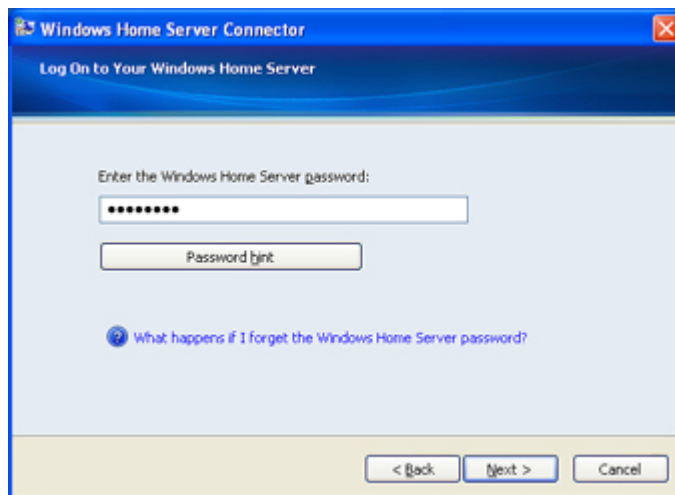
- ↓ [Install from the Software Installation Disc](#)
- ↓ [Install from the Server using Windows XP or Windows Vista](#)

↓ [Install from the Server using a Browser Window](#)

↓ [Set up Additional Computers](#)

## Install from the Software Installation Disc

1. Insert the Software Installation Disc into a computer connected to the network.  
You must have administrative privileges to install. For additional information, see [Installing the Software on the First Computer](#).
2. Follow the instructions on the installation wizard.  
The installation process is identical to installing on the first computer except for the following:
  - The Windows Home Server Setup does not run.
  - Your server password is required to install, as shown in the following figure:



## Install the from the Server using Windows XP or Windows Vista

1. At the computer, click **Start**, and then **Run**.  
Type the following (UNC) network address:  
`\\hpstorage\Software\Home Server Connector Software\setup.exe`

The network address will be different if you renamed your server. In this case type,  
`\\<server name>\Software\Home Server Connector Software\setup.exe`

2. Click **OK**.

### Install from the Server using a **Browser Window**

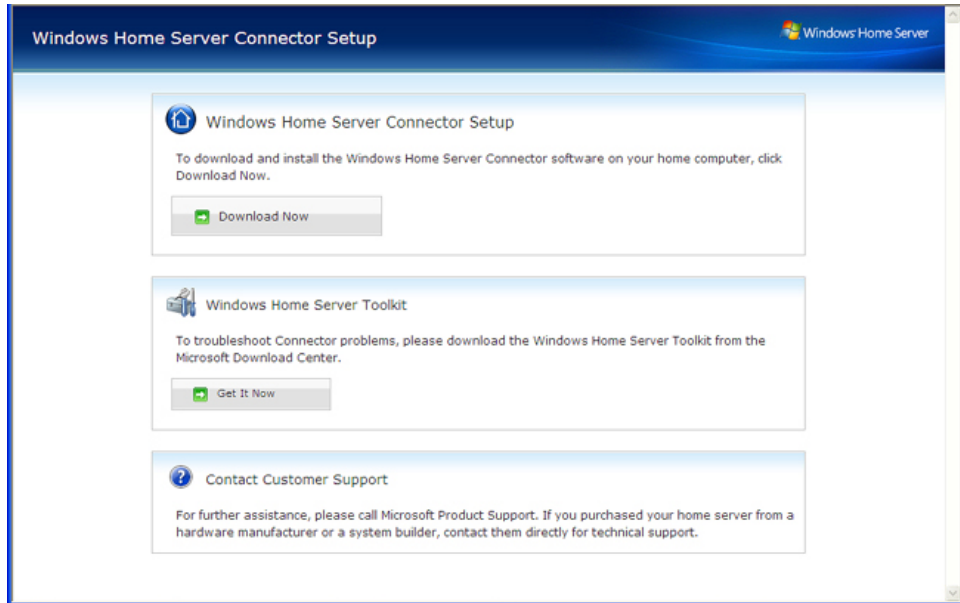
1. Open a web browser and type the following address **http://hpstorage:55000**.  
The address will be different if you renamed your server. In this case, type `http://<server name>:55000`. The Windows Home Server Connector Setup window opens.

2. Click **Download Now**.



**Note**

You can come back later to get the toolkit or contact information. Type the address, `http://<server name>:55000`, in a browser window.



3. A file download security warning and a Internet Explorer dialog box may pop up. Click **Run**.
4. A dialog box opens stating that software is being downloaded from your server. Click **Next**, when the download is complete.
5. The **Install Wizard** opens and gives you the rest of the installation instructions.

## Set up Additional Computers

After installing the software on the Software Installation Disc, there are a few setup options for you to consider.

- The computer is automatically set up to be backed up each night. If you want to customize back up settings for this computer, see [Computer Backups](#).
- If you created individual user accounts in Windows Home Server for one or more network members that use this computer, you also need to set up computer user accounts for them if you want them to be able to access features on the server without logging on. For additional information, see User Accounts in the Windows Home Server help.
- If there are photos, music, or videos on this computer that you want collected on the server, set up media collection for this computer. For additional information, see [Configuring Media Collector General Settings](#).

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## Install the Software on a Mac

### In this article...

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↓ [Install using the Software Installation Disc](#)

↓ [Install from the Server](#)

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### Install using the Software Installation Disc

The first client installation must be on a PC. Subsequent installations can be on a Mac or PC.



#### Note

You must have administrative privileges on your computer to install the software. Click **System Preferences, Accounts**, and check **Allow user to administer this computer**.

1. Insert the Software Installation Disc.
2. Double-click **Install HP Data Vault Software.pkg**.



3. Click **Continue** on the Welcome to the HP Data Vault Software page.
4. Click **Continue** and **Agree** on the End User License Agreement.
5. Choose a location to install the client software or click **Install** to continue with the default location.  
You may be asked to type your Mac computer administrator password.
6. The summary screen notifies you that the software installed successfully. Click **Close**.  
The Server Preferences dialog opens.
7. Type your server name and password.  
Your server name will be hpstorage unless you changed it during the first PC client installation.

8. Once your credentials have been authenticated, click **Apply**.



**Note**

Server Name and Password have to be authenticated prior to using the HP Home Page, or entering preferences for BackUp.

## Install from the Server

1. At the Mac computer, open a Finder window.
2. Click **hpstorage** in the Shared category of the left Sidebar. If you renamed the HP Data Vault during the first installation, select that name in the Shared category. You are connected to the server. If you experience problems connecting to the server see, [Troubleshooting a Mac Connection to the Server](#).
3. Open the **Software** folder.
4. Open the **Mac** folder.
5. Double-click **HP MSS Client.dmg**.
6. Double-click **Install HP Data Vault Software.pkg** and follow the instructions on the screen.

## Troubleshooting a Mac Connection to the Server

File sharing is a key advantage of having a server. The HP Data Vault enables you to place documents, music, photos, or videos on the server and share them with all of the Macs and PCs on your network. This document explains how to connect your Mac to the server so you can access shared folder contents.


**In this article...**


- ↓ [Before Connecting to the Server](#)
- ↓ [Connection Method A: Using the Finder](#)
- ↓ [Connection Method B: Using Connect to Server and the Server Name](#)
- ↓ [Connection Method C: Using Connect to Server and the Server's IP Address](#)
- ↓ [Pinging the Server](#)


**Before Connecting to the Server**

Some set up and decisions are required before connecting your Mac computer to the server and accessing shared folders.

- The client software is installed on one PC.
- The client software is installed on the Mac you are trying to connect to the server.
- Decide how you will connect the Mac to the server—administrator account, user account, or guest account.

Types of Accounts		
Type of Account	Description	Server Account Creation
Guest Account	The guest account is useful when people are visiting your and need temporary access to your server. In these cases, it probably does not make sense to create a user account for each person. Instead, you can create a single guest account that all visitors use. The guest account may or may not have a password.	<ol style="list-style-type: none"> <li>1. From the <b>Server</b> menu , select <b>Launch Home Server Console</b>.</li> <li>2. Select the <b>User Accounts</b> tab.</li> <li>3. Double-click the <b>Guest</b> account and click <b>Enable Account...</b> on the Properties dialog.  You have the option to create a password for the guest account or leave it blank.</li> <li>4. Click the <b>Shared Folder</b> tab to define folder access.</li> </ol>

Types of Accounts		
Type of Account	Description	Server Account Creation
User Account	The server pairs user accounts on the server with those on a computer to identify who is connecting to the server and to maintain security. Each server user account has a unique user name and password that should match their computer log on name and password. Each user account on the server can have their own shared folder access levels.	<ol style="list-style-type: none"> <li>1. From the <b>Server</b> menu , select <b>Launch Home Server Console</b>.</li> <li>2. Select the <b>User Accounts</b> tab.</li> <li>3. Click <b>Add</b> from the Windows Home Server Console <b>User Accounts</b> tab. Complete the information in the Add User Account wizard.</li> </ol>
Administrator Account	Connecting as the server administrator gives you access to all shared folders on the server. The administrator account's user name is always Administrator.	The server administrator account is created the first time you install the client software on a PC. You enter a password during the installation. See <a href="#">Installing Software on the First PC</a> .

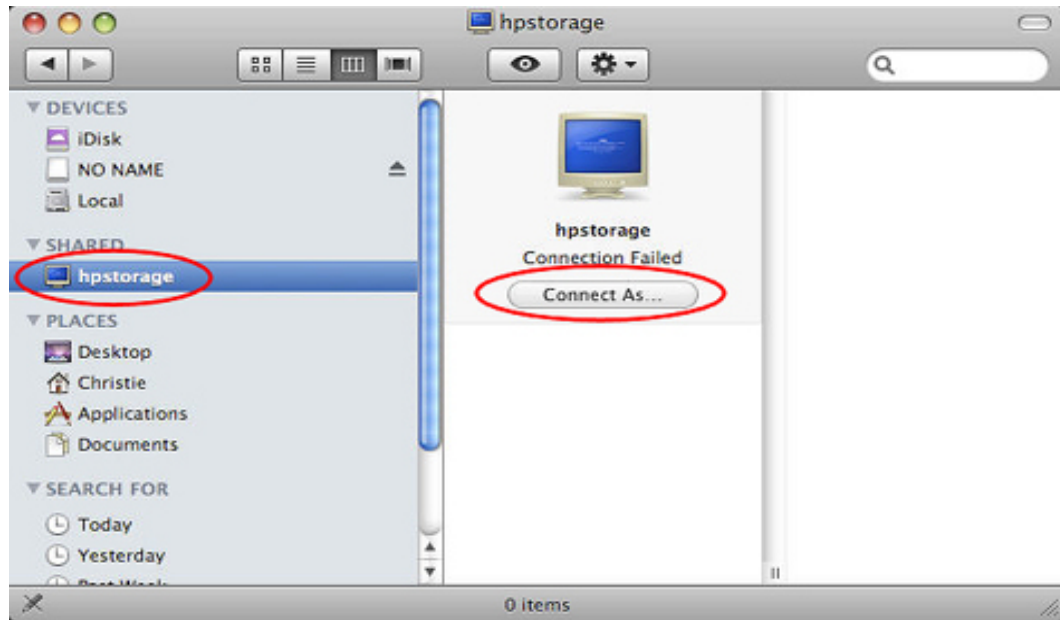
- If you created a User Account on the server, create a matching User Account on the Mac (if it does not already exist). The Mac user account should have the same user name and password as the server user account.  
On the Mac computer, choose **Apple menu > System Preferences > Accounts**. On the Accounts dialog, verify the dialog features are unlocked  and click "+" to add a user account. Complete the information on the Accounts dialog.

### Connection Method A: Using the Finder

Connecting to the HP Data Vault using the Finder is quick and easy. The Finder can also remember your server logon settings so subsequent connections are effortless.

1. At the Mac computer, choose **File > New Finder Window**.
2. Click **hpstorage** in the Shared category of the left Sidebar. If you renamed the HP Data Vault during the first installation, select that name in the Shared category.



**Note**

The same Sidebar shows up in Save and Open dialog boxes of your programs too, making your server available to you for opening and saving files.

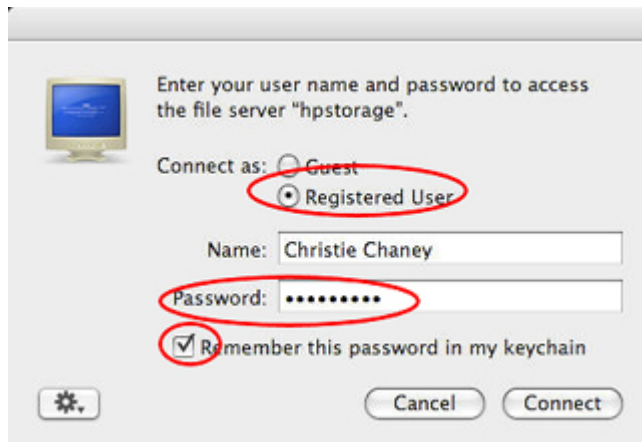
If you don't see the server in the Finder window's Shared category,

- The server may not be connected to the network,
- The Mac computer may not be connected to the network,
- Or maybe the check box is turned off for **Connected Servers** and **Bonjour Computers** in **Finder > Preferences... > Sidebar**.


3. If you are not automatically connected to the server, click **Connect As...**

Precisely how you connect to the server depends on what kind of server account you are using: Guest, User Account, or Administrator.

- **Guest account with no password**—You are automatically connected to the server when you click the server name in the Finder.
- **Guest account with a password**—In the dialog that opens, select **Registered User**, type the server's Guest account **Password**, and click **Connect**. You do not need to change the **Name**. Check **Remember this password in my keychain** to remember your settings and automatically connect to the server in the future.



- **User account**— If you have a User Account on the server, select **Registered User**, type the **Name** and **Password** that was created in the server's user account in the Windows Home Server Console, and click **Connect**. Check **Remember this password in my keychain** to remember your settings and automatically connect to the server in the future.
  - **Administrator account**—Alternately, you can connect to the server using the server's administrator account. Select **Registered User**, type Administrator for the **Name**, and type the server's **Password**. The server's password was created the first time you installed the server software on a PC.
4. Navigate to the folder you want on the server.

The folders that display depend on the **Shared Folder Access** settings for the guest account or user account that you used to connect to the server. To change **Shared Folder Access** settings, select **Launch Home Server Console** from the **Server** menu . Click the **User Accounts** tab and double-click the guest account or user account. Select the **Shared Folder Access** tab to change settings. Click **OK** to accept the changes.

If you connected to the server using the Administrator account, you will see all of the server's shared folders.

### Connection Method B: Using Connect to Server and the Server Name

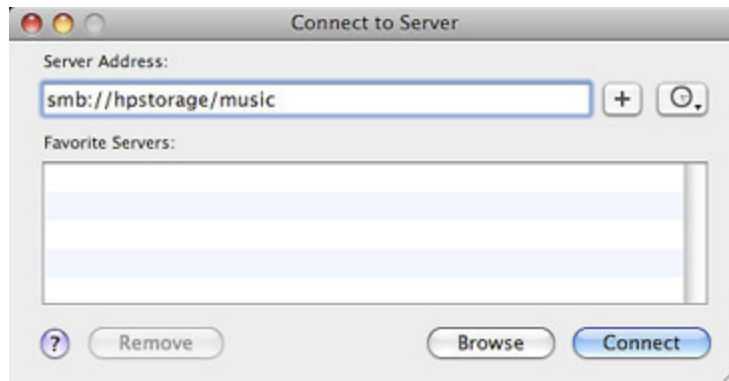
Follow these steps to connect to Windows File Sharing (SMB) from Mac OS X 10.5 or later. SMB is the native sharing protocol for Microsoft Windows operating systems.

1. At the Mac computer, choose **Go > Connect to Server...** on the Apple menu bar.
2. Type the following **Server Address**:

smb://ServerName/ShareName

For example, type the following server address to connect to the music shared folder:

smb://hpstorage/music



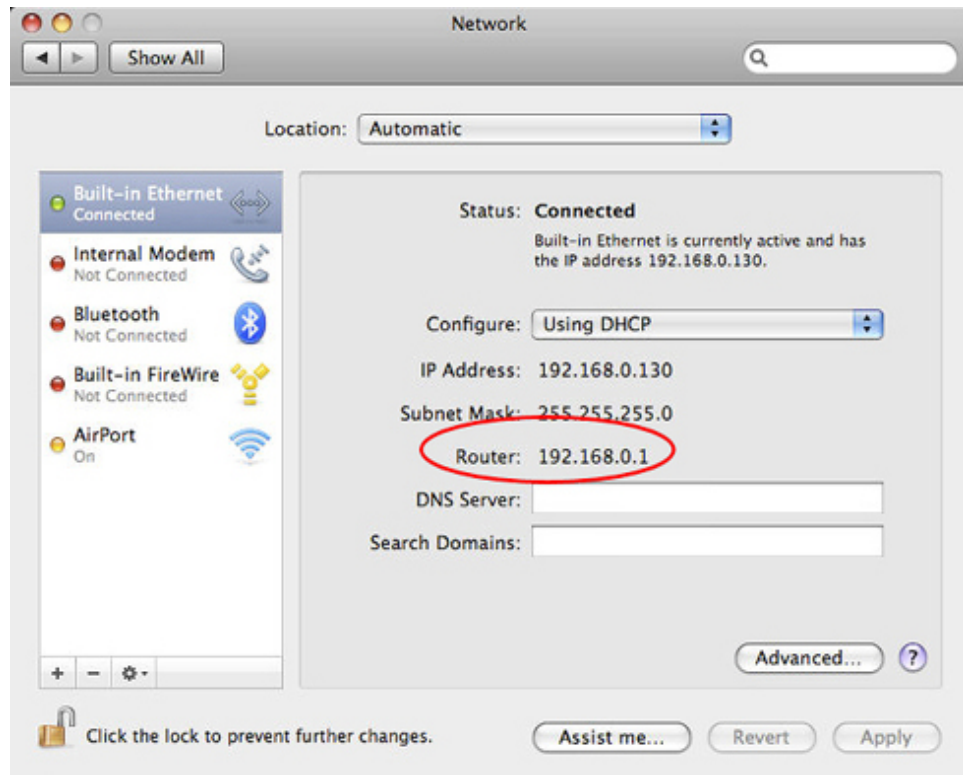
If you renamed your server during the first software installation, remember to use that server name instead of hpstorage. A shared folder name is required. The shared folder name cannot contain spaces; type %20 instead of spaces. Additionally, you cannot connect to a shared folder name that contains a hyphen.

#### Connection Method C: Using Connect to Server and the Server's IP Address

The Mac computer may not recognize the server's name in some cases. If that happens, connect to the server using its IP address instead of the server name. If you are unsure of your server's IP address, you can log on to your **router** to see a list of IP addresses for all network connected devices.

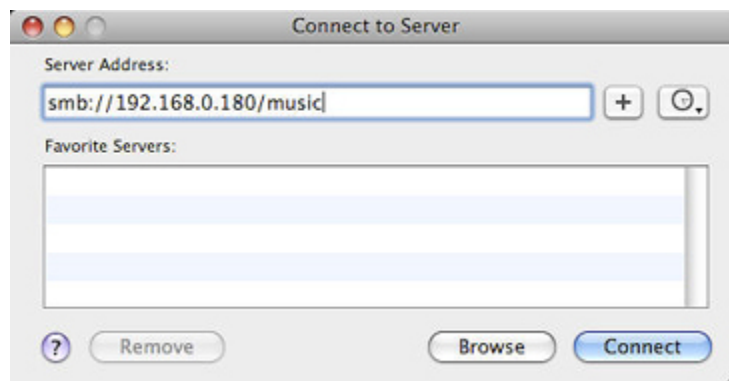
To log on to your router, open an Internet **browser window**, type the router's IP address in the address bar and press Enter. The router's IP address will be one of the following,

- 192.168.1.1,
- 192.168.0.1, or
- Obtain your router's IP address from a Mac by selecting **Apple menu > System Preferences > Network**. Select **Built-in Ethernet** on the left menu. The router IP address is on the right side of the Network dialog.



- To obtain the router's IP address from a PC, select **Start > Run**. Type **cmd** and click **OK**. In the DOS window, type **ipconfig** and press **Enter**. Use the **Default Gateway IP** address to log on to your router.
- 2. Once logged in to the router, look for a list of connected devices. Each router is different. See your router's documentation if you do not find the server's IP address right away.
- 3. Once you find your server's IP address, choose **Go > Connect to Server...** on the Apple menu bar.
- 4. Type the **Server Address**.  
Your address will be different but will look similar to the following,

smb://192.168.0.180/music



**Note**

Click "+" to add the server address to your list of favorites.

5. Click **Connect**.
6. Log on to the server using either a guest account, user account, or administrator account.

## **Pinging the Server**

To troubleshoot a connection failure, you can ping the server.

1. Open a Finder window and choose **Applications > Utilities > Network Utility**.
2. Select the **Ping** tab.
3. Type the server's IP address.
4. Click **Ping**.  
A successful ping verifies a connection between the Mac computer and the server.

If you are unable to ping the server, check that the server is on and that all network cables are securely connected. You may also need to reset your router.

## **UNINSTALL THE SOFTWARE**

### **Uninstall the PC Client Software**

1. Click the **Start** menu, **Control Panel**, and **Add or Remove Programs**.
2. Select **HP Data Vault** and click **Remove**.
3. Select **Windows Home Server Connector** and click **Remove**.
4. Close **Add or Remove Programs**.

### **Uninstall the Mac Client Software**

**In this article...**

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↓ [Uninstall using the Software Installation Disc](#)

↓ [Uninstall from the Server](#)

---

### **Uninstall using the Software Installation Disc**

1. Insert the Software Installation Disc.

2. Double-click **Uninstall HP Data Vault Software**.



3. Follow the instructions on the screen.

### **Uninstall from the Server**

1. At the Mac computer, open a Finder window.
2. Click **hpstorage** in the Shared category of the left Sidebar. If you renamed the HP Data Vault during the first installation, select that name in the Shared category. You are connected to the server. If you experience problems connecting to the server see, [Troubleshooting a Mac Connection to the Server](#).
3. Open the **Software** folder.
4. Open the **Mac** folder.
5. Double-click **HP MSS Client.dmg**.
6. Double-click **Uninstall HP Data Vault Software** and follow the instructions on the screen.

## **HP SOFTWARE UPDATES**

### **HP Update Settings**

Use the HP Data Vault software update to keep your server and networked computers current with the latest HP software, online help, and new features.

HP Data Vault software update does not update the Microsoft Windows Home Server operating system. For information about updating Windows Home Server, see Configuring Windows Update in the Windows Home Server Console Help.

#### **In this article...**



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↓ [Configure HP Update](#)

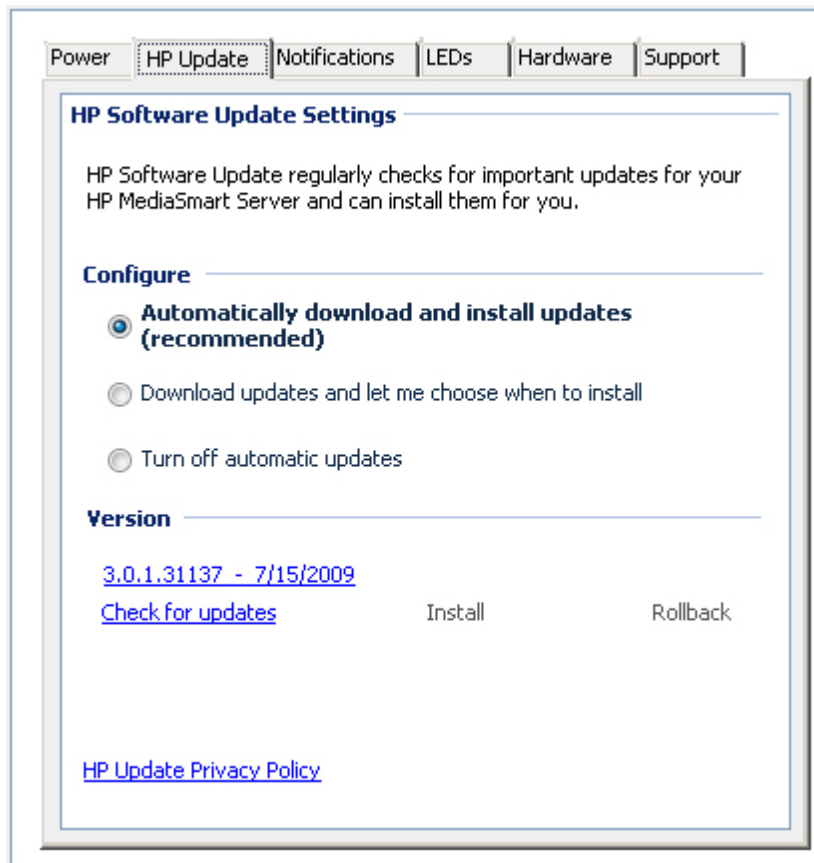
↓ [Version Information](#)

---

### **Configure HP Update**

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, Select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right of the Console.

3. Select **HP Data Vault** in the left menu and click the **HP Update** tab.



4. The following choices are available in the **Configure** section. HP recommends that you select **Automatically download and install updates**.

Configure HP Software Update Options	
Option	Additional information
Automatically download and install updates (recommended)	Requires no user action.  Downloads and installs updates on the server in the background. If necessary the server will automatically reboot.
Download updates and let me choose when to install	Requires user action.  Your computer notifies you that an update has been downloaded and is ready to install on the server. Additionally, the Install link turns blue under HP Data Vault software updates.  To update the server after an update is downloaded, click Install under HP Data Vault software updates in the Windows Home Server Console

Configure HP Software Update Options	
Option	Additional information
Turn off automatic updates	<p>Not recommended.</p> <p>To get updates with this choice you will have to click <b>Check for updates</b> located in the Version section.</p>

5. Click **OK**.

### Version Information

The following information and options are in the **Version** section of the HP Update dialog.

- The server software version number and date are shown.
- Click **Check for updates** to immediately check for available software updates, regardless of the configuration settings you selected above.
- The **Install** link becomes active when an update has been downloaded, but not installed. Click **Install** to run the server update.
- The **Rollback** link becomes active when a software update has been installed. Use this link to uninstall the update on the server and revert to the previous server software version.



#### **Important**

Clicking **Install** or **Rollback** only makes changes to the server software. Each networked computer still needs to be updated or rolled back so that the server and **client computers** are running the same version of software. See [Updating and Rolling Back Client PCs](#) or [Updating and Rolling Back Mac Clients](#) for more information.

## Update and Roll Back the Server

Use HP Update to keep your server and networked computers current with the latest HP software, online help, and new features.



#### **Important**

The server must be updated before client PCs and Macs are updated. The server and the **client computers** must be running the same version of the HP Data Vault software.

#### **In this article...**

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↓ [Update the Server](#)

↓ [Roll Back the Server](#)

---



## Update the Server

The method you use to update the server depends on how you configured HP Update. Click on a bullet to see additional information.

- *To automatically check for updates*


If you selected **Automatically download and install updates** when you configured HP Update, then you do not need to take further action. The server will install updates in the background as they are available.

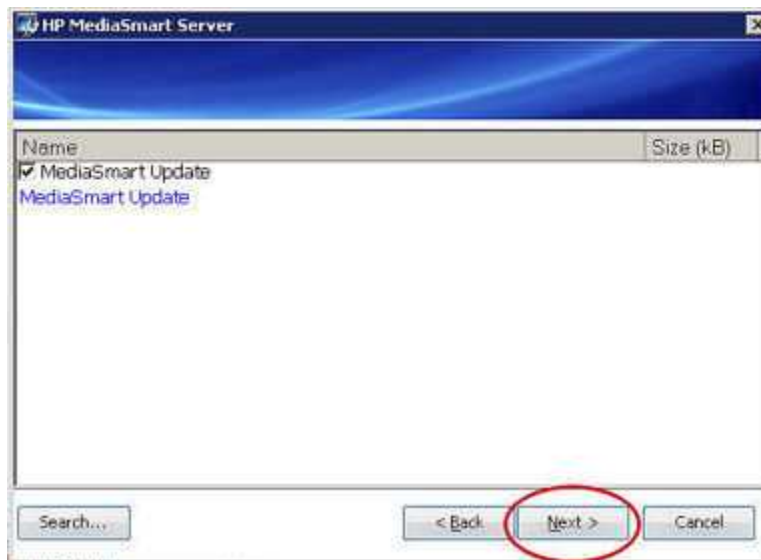
- *To manually check for updates*



### Note


If you have never restarted your HP Data Vault, you may need to turn it off and back on before you check for updates.

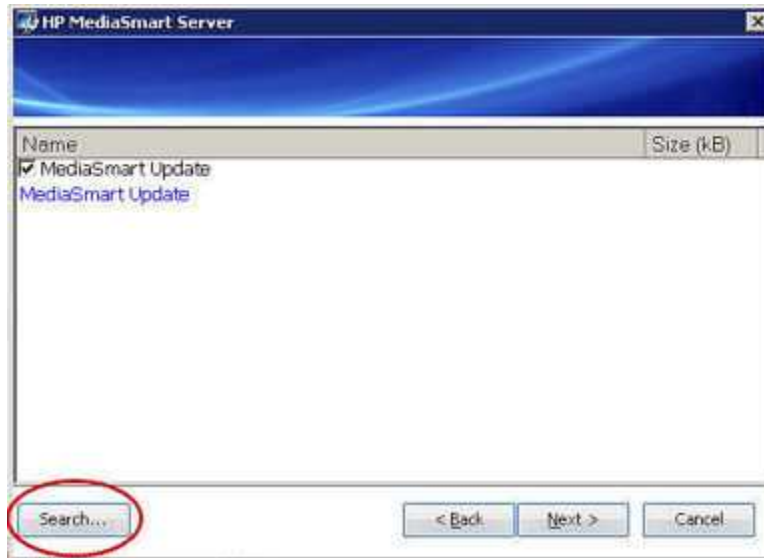
1. At the computer, double-click the Windows Home Server icon  in the system tray and log on.
2. Click **Settings** in the upper right of the Console.
3. Select **HP Data Vault** in the left menu and click the **HP Update** tab.
4. Click the **Check for updates** link.
5. If an update is found it will be listed as below. Click **Next** to start the install process and follow default choices to complete the software install.



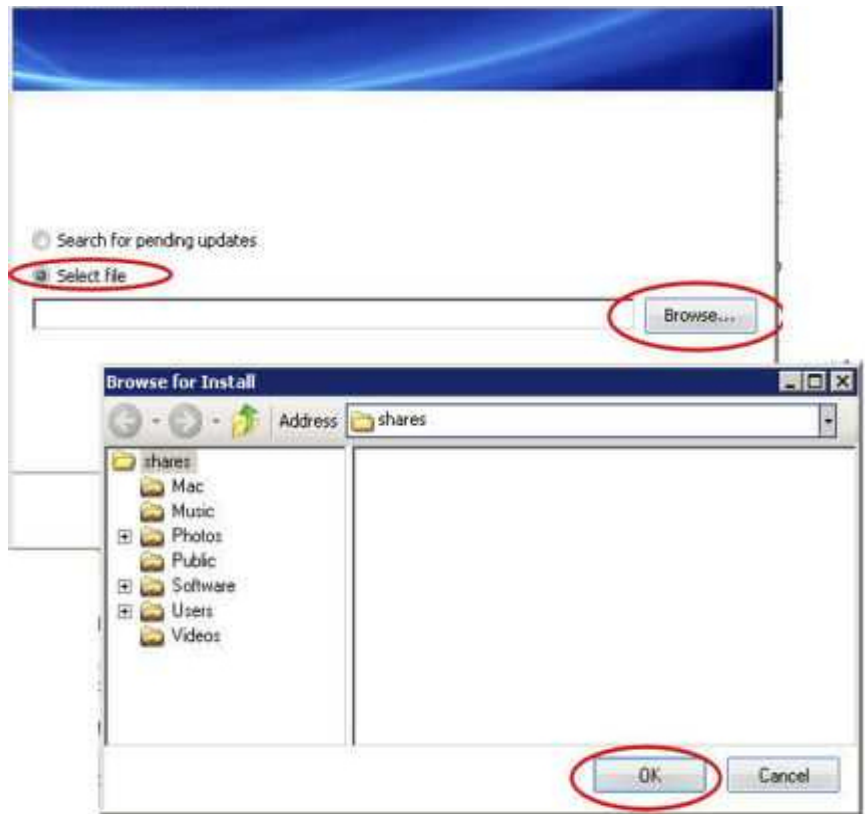
- *To manually install an update copied to the server*

1. If you downloaded a software update from the [www.hp.com](http://www.hp.com) site, you can manually install it by copying the software update package to your server. Once the update is on the server, complete the following steps.

2. At the computer, double-click the Windows Home Server icon  in the system tray and log on.
3. Click **Settings** in the upper right of the Console.
4. Select **HP Data Vault** in the left menu and click the **HP Update** tab.
5. Click the **Check for updates** link. After the install wizard checks for pending updates on your server, you will see the select package page where you can select the **Search** button.





6. Click **Select file**.
7. Type the full path to the file that you copied to the server or select the **Browse** button navigate to the file and select **OK**.



8. Click **Finish** to start the install process and follow the default choices to complete the server software install.

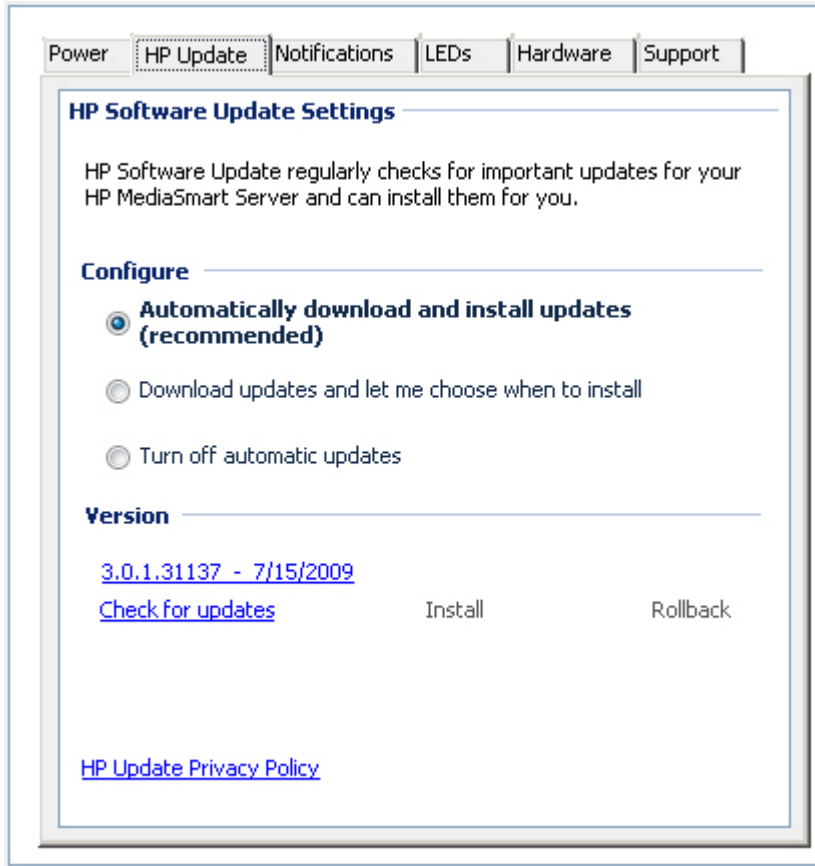
## Roll Back the Server

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right of the Console.
3. Select **HP Data Vault** in the left menu and click the **HP Update** tab.
4. Click **Rollback** and then click **Yes** in the confirmation screen.



### Note

If you updated the client software, it must also be uninstalled so that the server and the client are running the same version of the HP Data Vault software.



**Note**

HP Update does not update the Microsoft Windows Home Server operating system. For information about updating Windows Home Server, see *Configuring Windows Update* in the Windows Home Server Console Help.

## Update and Roll Back Client PCs

**Note**

Update the server software prior to updating the client software. If your server does not have the correct software version, you will get an error message when you try to install the client software. See [Updating and Rolling Back the Server](#) for more information.

**In this article...**

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[Update Client PCs](#)

[Roll Back Client PCs](#)

[Check the Client PC Version Number](#)

[Check the Server Version Number](#)

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## Update Client PCs

There are multiple ways of updating your client PCs. Once the server is updated, the client PC software update file is on the server and can be run from the software folder. The client PC update can also be downloaded and run from HP Update. The following sections describe various methods for installing the client PC update. Click an option to expand and view the instructions for updating your client. Click again to hide the instructions.

- *To Update Client PCs Using Run Programs*

1. At the computer, click **Start**, and then **Run**.

Type the following (UNC) network address.

\\hpstorage\Software\Home Server Connector Software\setup.exe

If you renamed your server during the initial software installation the path will be \\<server name>\Software\Home Server Connector Software\setup.exe.

2. Follow the instructions on your computer for installing the update.

- *To Update Client PCs Using HP Update*

1. Click the **Start** menu, **HP**, and **HP Update**.
2. Click **Settings** to configure HP Update.
3. Click **Next** to immediately check for a client PC update.
4. Follow the instructions on your computer for installing the update.

- *To Update Client PCs Using the Software Installation Disc*

The Software Installation Disc runs an executable file that is on your server. When the server software is updated, the new client executable file is placed on the server but not installed. As long as you run the Software Installation Disc after you update the server, the CD will find the new client executable file on the server and install it.

- *To Update Client PCs Using a Browser*

1. Open a Web Browser and type the following address **http://hpstorage:55000**.  
If you renamed your server during the initial installation the URL will be http://<server name>:55000.  
The Windows Home Server Connector Setup window opens.
2. Click **Download Now**.

## **Roll Back Client PCs**

### **Important**

You must roll back your server prior to rolling back the client PC. See [Updating and Rolling Back the Server](#).

1. Click the **Start** menu, **Control Panel**, and **Add or Remove Programs**.
2. Select **HP Data Vault** and click **Remove**.
3. Select **Windows Home Server Connector** and click **Remove**.
4. Close **Add or Remove Programs**.
5. At the computer, click **Start**, and then **Run**.

Type the following (UNC) network address.

\\hpstorage\Software\Home Server Connector Software\setup.exe

The network address will be different if you renamed your server. In this case type,

\\<server name>\Software\Home Server Connector Software\setup.exe

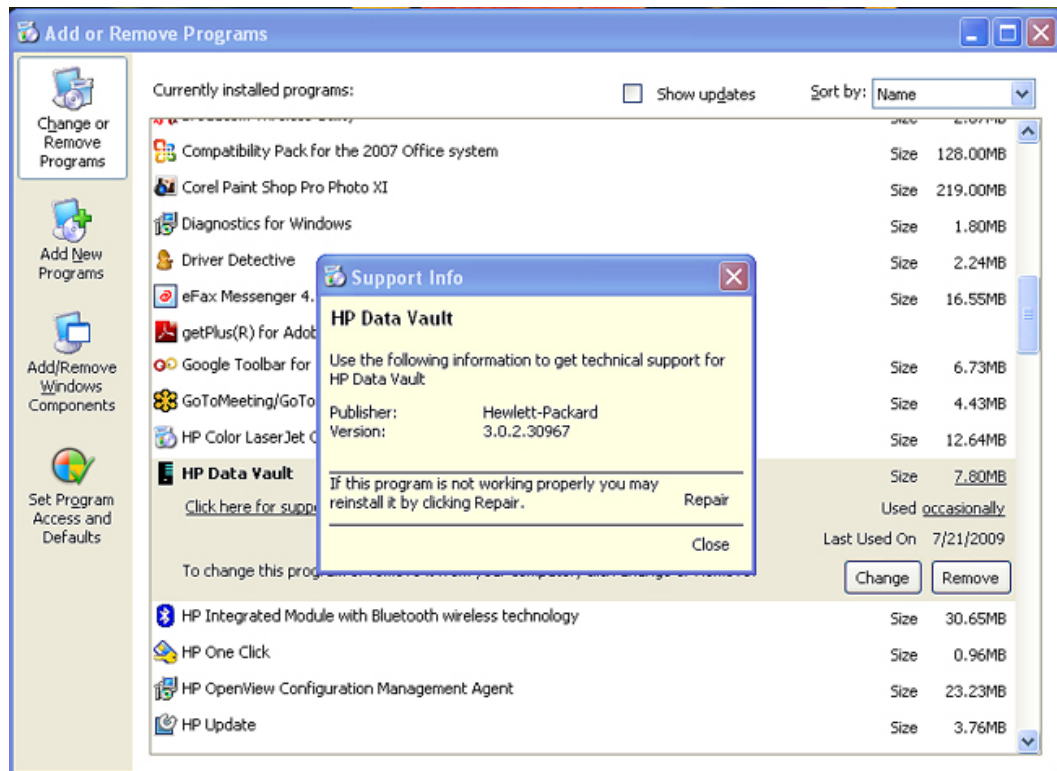
6. Click **OK**.  
Install the software on one computer at a time.

## **Check the Client PC Version Number**

It is important for the server software and the PC client software to be on the same version in order for them to work together properly. Complete the following steps to confirm that the server and the client are on the same version.

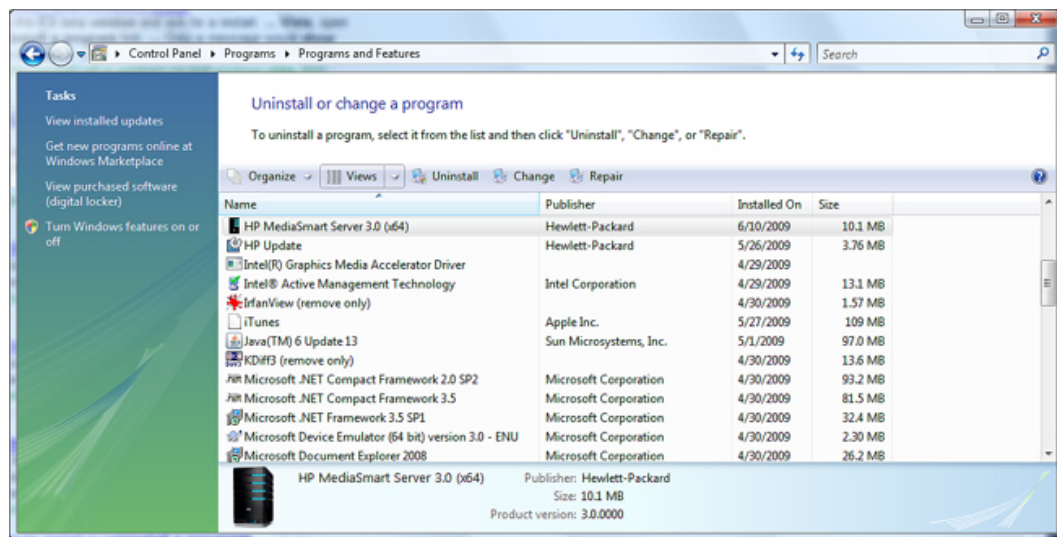
### **On Windows XP**

1. To check the PC client software version number on Windows XP, click **Start** and **Control Panel**.
2. Click **Add or Remove Programs**.
3. Select **HP Data Vault** and then **Click here for information support**.  
The About dialog opens.





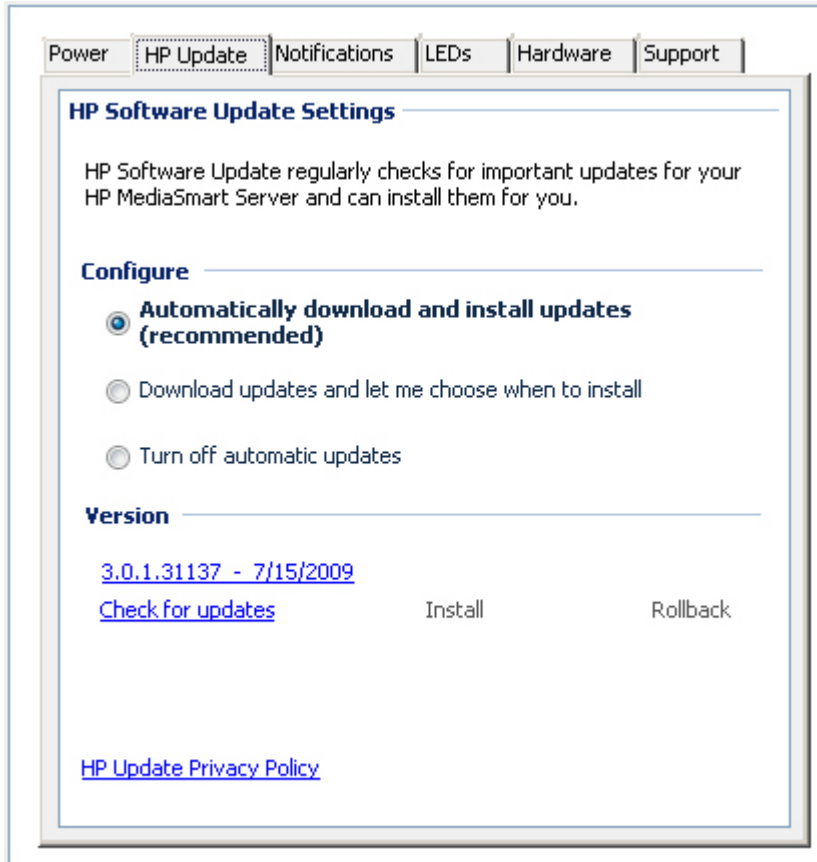
### On Windows Vista

1. To check the client software version number on Windows Vista, click **Start** and **Control Panel**.
2. Select **Programs** and then **Programs and Features**.
3. If the details are not displayed, from the **Organize** menu select **Layout** and **Details Pane**.
4. Select HP Data Vault to see the version number.



## Check the Server Version Number

1. To check the server software version number on a PC, double-click the Windows Home Server icon  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right of the Console.
3. Select **HP Data Vault** in the left menu and click the **HP Update** tab.  
The version number is at the bottom of the HP Update tab.



The server and client software should have compatible version numbers. The following table lists the version numbers that work together.

Compatible Software Version Numbers		
Server Version	PC Client Version	Mac Client Version
1.3.6.21622	1.2.1.18999, 1.3.6.21622	N/A
1.3.8.25155	1.2.1.18999, 1.3.6.21622, 1.3.8.25155	N/A
2.1.7.24261	2.1.7.24261	1.0.0b20



Compatible Software Version Numbers		
Server Version	PC Client Version	Mac Client Version
2.5.10.26972, 2.5.10.27366	2.5.10.26972	2.5.0b51
3.0	3.0	3.0

## Update and Roll Back Mac Clients

This article describes how to manually check for a Mac client update or roll back. Mac computers connected to the network automatically check for changes to the HP MSS Client.dmg file once a day and notify you if it has changed.

### In this article...

- ↓ [Update Mac Clients](#)
- ↓ [Roll Back Mac Clients](#)
- ↓ [Check the Mac Client Version Number](#)
- ↓ [Check the Server Version Number](#)

## Update Mac Clients

### Important

Update the server software prior to updating the client software. The server update and the Mac client update are downloaded at the same time through the HP Update mechanism in the Windows Home Server Console. Updating the server ensures that the most recent copy of the HP MSS Client.dmg is on your server and ready to install. See [Updating and Rolling Back the Server](#) for more information.

1. From the HP Data Vault menu, choose **Open Preferences**.
2. Click the **Software Update** tab.
3. Click **Check Now**.  
If the **HP MSS Client.dmg** file on the server has changed, you will be prompted to install the file. The HP MSS Client.dmg may have changed because an update was downloaded from HP or because the server administrator rolled back the server software.
4. Follow the instructions on the screen for installing the file.

## Roll Back Mac Clients

1. First, roll back the server software.  
When the server is rolled back using the HP Update mechanism in the Windows Home Server Console, it also rolls back the **HP MSS Client.dmg** file that is located on the server. See [Updating and Rolling Back the Server](#) for more information.

2. On the Mac, choose **Open Preferences** from the HP Data Vault menu.
3. Click the **Software Update** tab.
4. Click **Check Now**.  
If the server roll back completed successfully, the **HP MSS Client.dmg** file on the server will have changed and you will be prompted to install the file.
5. Follow the instructions on the screen for installing the file.



### Check the Mac Client Version Number

It is important for the Server software and the Mac client software to be on the same version in order for them to work together properly. Complete the following steps to confirm that the server and the client are on the same version.

1. To check the Mac client software version number, go to the HP Data Vault menu and select **About**.  
The Mac client version number is displayed in the About dialog.



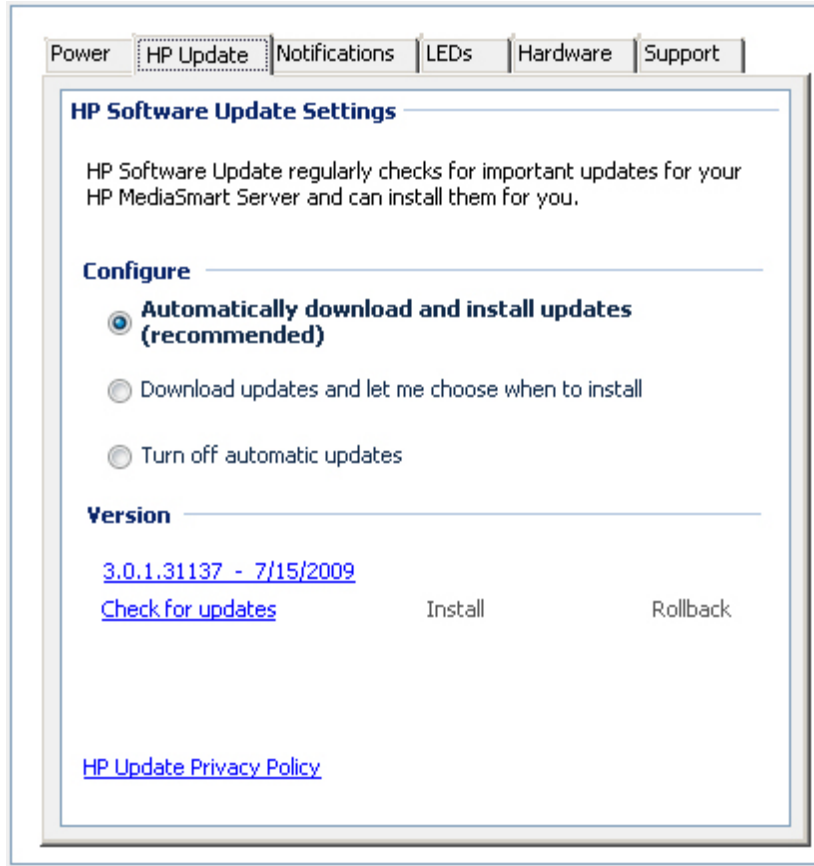
### Check the Server Version Number

1. To check the server software version number on a PC, double-click the Windows Home Server icon  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right of the Console.
3. Select **HP Data Vault** in the left menu and click the **HP Update** tab.  
The version number is at the bottom of the HP Update tab.



#### **Note**

Server version 2.1.7.24261 and Mac client version 1.0.0b20 work together. Starting with version 2.5, the server and the client version numbers will have the same first two numbers.



The server and client software should have compatible version numbers. The following table lists the version numbers that work together.

Compatible Software Version Numbers		
Server Version	PC Client Version	Mac Client Version
1.3.6.21622	1.2.1.18999, 1.3.6.21622	N/A
1.3.8.25155	1.2.1.18999, 1.3.6.21622, 1.3.8.25155	N/A
2.1.7.24261	2.1.7.24261	1.0.0b20
2.5.10.26972, 2.5.10.27366	2.5.10.26972	2.50b51
3.0	3.0	3.0



## Chapter 3. Start Using Your Server

### GUIDED TOUR

#### HP Home Page

The HP Home Page is the starting point for accessing the features of the HP Data Vault.

**In this article...**

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↓ [Open the HP Home Page on a PC](#)

↓ [Open the HP Home Page on a Mac](#)

↓ [The HP Home Page Icons](#)

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#### Open the HP Home Page on a PC

The HP Home Page can be accessed from the following:



**Windows Start menu**—At the computer, click **Start, All Programs**, and then select **HP Data Vault**.



**Desk icon**—At the computer, double-click the **HP Data Vault** icon on the desk.

#### Open the HP Home Page on a Mac

The HP Home Page can be accessed from the following:



**Using the Finder**—At the Mac, click **Finder, Applications**, and then select **HP Data Vault Home**.



**Server Menu**—Select **Open Home Page** from the **HP Data Vault** menu at the of the screen.

If the **Server** menu is hidden, open **System Preferences** from the **Apple** menu, and then select **HP Data Vault**. Check **Show HP Data Vault in the menu bar**.

## The HP Home Page Icons



**Media Streamer**—Opens a web application for streaming music, videos, and photos in your home. For more information, see [About Media Streamer](#).



**HP Photo Publisher**—Publish photos from your Server to your favorite photo-sharing site. Friends and family can see your photos on the Internet. For more information, see [About HP Photo Publisher](#).



**HP Photo Viewer**—View the photo albums that are shared from this server. For more information, see [HP Photo Viewer Home](#).



**Access Files on Server**—Browse the folders and files on your server. This feature is optimized for remote browsing and is enabled when you open the HP Home Page from a remote location.



**Computer Access**—Remotely connect to your server or a computer on your home network. This feature is enabled when you open the HP Home Page from a remote location.



**Server**—Opens a folder that displays a list of all your shared folders.



**Music**—Opens a folder that displays a list of music and music subfolders.



**Photos**—Opens a folder that displays a list of photos and photo subfolders.



**Video**—Opens a folder that displays a list of videos and video subfolders.



**Backup Now (PC) or Time Machine (Mac)**—Backup your computer to the server.



**User's Guide**—Contains installation information, setup instructions, how to use the server, tutorials, and other important information.



**Online support**—Go to the HP Support web site, where you can get more information about the HP Data Vault.



**Registration**—Click to go to <https://register.hp.com> and register your HP Data Vault. Registering your Server ensures that your information is on file with HP if you should need technical support services.



**Shop HP**—Get accessories for your server and shop HP Home & Home Office.

## Windows Home Server Console

### OPEN THE WINDOWS HOME SERVER CONSOLE

The Windows Home Server Console is where you manage and configure the HP Data Vault. You can access the Windows Home Server Console from a PC in the following ways. The Windows Home Server Console cannot be opened on a Mac.

#### **In this article...**

- ↓ [Open the WHS Console from the Start Menu](#)
- ↓ [Open the WHS Console from the HP Data Vault Desk Icon](#)
- ↓ [Open the WHS Console from the System Tray](#)
- ↓ [Open the WHS Console from a Mac](#)

#### **Open the WHS Console from the Start Menu**

1. At the computer, click **Start**, **All Programs**, and then select **Windows Home Server Console**.
2. Log on to the Windows Home Server Console.


#### **Open the WHS Console from the HP Data Vault Desk Icon**

1. From the computer desk, double-click HP Data Vault icon.



2. In the HP Home Page, click the **Tools** tab.
3. Click **Home Server Console**.
4. Log on to the Windows Home Server Console.

#### **Open the WHS Console from the System Tray**

1. At the computer, double-click the Windows Home Server icon  in the system tray.
2. Log on to the Windows Home Server Console.

#### **Open the WHS Console from a Mac**

1. At the Mac, Select **Launch Home Server Console** from the **Server** menu .

### THE SERVER TOUR

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .

2. Click **Overview** and then **Tour** in the left menu.  
The following features are illustrated.

The HP Data Vault includes many features and applications designed to help you secure, store and share your information.

HP Data Vault Features	
Feature	Description
<b>Storage</b>	Use the Server Storage tab on the Windows Home Server Console to view status, capacity, available space, add, repair, and remove hard drives. Easily add drives, even while your system is powered on.
<b>Shared Folders</b>	Shared folders are locations to organize and store files on your home server to make available to others on your network. Shared folders can be seen by other supported devices on the network.
<b>Remote Access</b>	Access files on your server and supported computers plus stream photos, music and videos while away from home.
<b>Backup</b>	Automatically backs up multiple Windows PCs and Macs on your home network. Sophisticated PC backup software provides efficient and compact backups to help save time and disk space on the server.
<b>User Accounts</b>	To access information on your HP Data Vault or PCs on home networks from remote locations, user accounts are required.
<b>Access PCs and Files</b>	Access files on your server and supported computers plus stream photos, music and videos while away from home.
<b>Online Backup (optional)</b>	Save important files to an Amazon S3 account on the Internet.
<b>Shop Online</b>	Visit the HP Applications store to shop for additional software for your server and computer.

## THE WINDOWS HOME SERVER TABS

The Windows Home Server enables you to share, store, access, and automatically protect your pictures, videos, music, and files. It contains the following tabs:

- **HP Data Vault**—Access HP features and functionality.
- **Computers & Backups**—View and customize backups. Also, view the status of your home computers. For more information, see **Computers & Backup** in the Windows Home Server Console Help.
- **User Accounts**—Add, remove, and modify user accounts. For more information, see **User Accounts** in the Windows Home Server Console Help.





- Shared Folders**—Add, open, remove, and view the properties of the shared folders on your server. For more information, see **Shared Folders** in the Windows Home Server Console Help.
- **Server Storage**—View, add, repair, and remove hard drives from server storage. For more information, see **Server Storage** in the Windows Home Server Console Help.
  - **Network**—Displays health notifications from your server and your home computers. For more information, see **Network Health** in the Windows Home Server Console Help.
  - **Settings**—Configure general settings, such as date and time, backups, passwords, media sharing, remote access, add-ins, resources, and more. For more information, see **Server Settings** in the Windows Home Server Console Help.
  - **Help**—Access the Windows Home Server Console Help.

## FIRST STEPS

### PC Backup and Restore

After running the Software Installation Disc on a computer it is automatically added to the list of computers that are backed up by the HP Data Vault each night. The entire computer is backed up by default.

Complete the following steps to customize the hard drive volumes to back up, or to exclude folders from the backup.

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click the **Computers & Backups** tab.
3. Select a computer and click **Configure Backup**. Follow the instructions in the **Backup Configuration Wizard**.

#### Related Topics

- Windows Home Server Console Help
  - Computers & Backup
  - How does backup work?
  - Managing and Configuring Backups
  - Restoring Computer Backups
  - Removing a Computer
  - Troubleshooting Computers & Backup

## Mac Time Machine Backup

### In this article...

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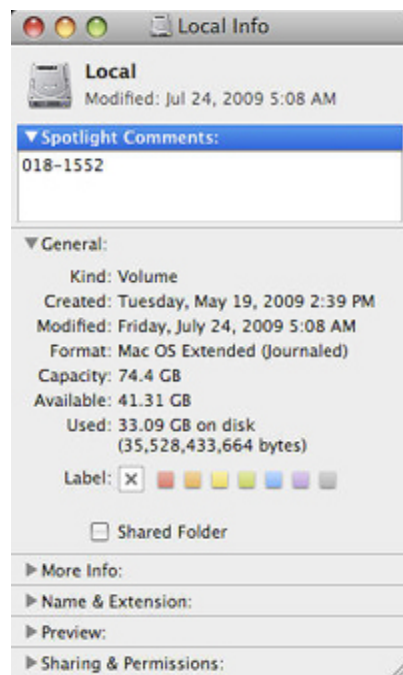
- ↓ [Determine Used Space on Your Local Disk](#)
  - ↓ [Configure Time Machine Backups](#)
  - ↓ [Change the Backup Disk Size](#)
  - ↓ [Delete a Backup Disk](#)
- 

### Determine Used Space on Your Local Disk

Begin by finding out how much space your data currently occupies on your Local disk. When you set up Time Machine, the minimum backup disk size is automatically calculated for you.

However, you may want to increase the backup disk size depending on how often you create or change files on your Mac.

1. Open a Finder window and select the Local disk.
2. On the Apple menu bar, choose **File > Get Info**.
3. In the Local Info window, look in the **General** section next to find the **Used** disk space.



Multiply the used disk space by 1.5. The result is the minimum amount of disk space Time Machine can work with (That's because Time Machine needs space for all of your files plus some extra room to enable it to store new data and multiple copies of files that change.). However, more space is always better, because it enables Time Machine to retain backups that go further into the past. A backup disk with at least 1.5 times as much free space as the amount occupied on your local disk is recommended, and more if possible.

## Configure Time Machine Backups

Before you begin,

- The HP Data Vault software has to be installed on your Mac. See [Installing and Uninstalling Mac Software](#).
- You must be logged on to the Mac with an account that has administrator privileges.

To configure the HP Data Vault as a valid Time Machine backup device,

1. From the HP Data Vault menu, select **Open Preferences**.
2. On the **Server** tab, verify that the server name and the server's administrator password are authenticated.

This information is used by Time Machine to set up the backup destination, as well as the links to the shares on the server. This information may have been entered at the end of the Mac software install. If so, you will be authenticated automatically.

The screenshot shows a dialog box with three tabs: 'Server', 'Backup', and 'Software Update'. The 'Server' tab is selected. The text inside reads: 'Enter the server name and password for your HP MediaSmart Server:'. There are two input fields: 'Server Name' containing 'hpstorage' and 'Server Password' containing seven dots. Below the password field is a green checkmark icon followed by the text 'Authenticated'. An 'Apply' button is centered below these fields. At the bottom left, there is a checked checkbox with the label 'Show HP MediaSmart Server in the menu bar'.

3. Select the **Backup** tab and type a **Backup Disk Size**.



The suggested minimum disk space size displays in the dialog based on approximately 1.5 times the size of your used disk space. However, HP recommends creating a backup disk that is at least as large as your total local disc capacity, or larger if possible. When choosing a backup disk size, you may want to consider how much you use your Mac and how much disk space you have available on your server. The backup disk size cannot exceed the amount of free space that you have available on one server disk.

### **Important**

You can resize your backup disk later if you need more room. Resizing the backup disk overwrites the current backup disk and causes all data to be lost. See [Change the Backup Disk Size](#).



**Note**

The location for the backup is on the server at \\hpstorage\Mac\Backup. If the Mac shared folder has been deleted from the server, you must create it. At a PC, double-click the Windows Home Server icon  in the system tray and log on. Or at a Mac, select **Launch Home Server Console** from the **Server** menu . Click the **Shared Folders** tab and **Add** a shared folder named **Mac**.

4. Click **Apply**.

This process can take quite some time based on the size of the backup disk and server activity. Once the formatting process is complete, the Backup Disk Status changes to **Started**.



**Note**

The backup file will be located at \\<server name>\Mac\Backup. The file name is based on the serial number of the Mac system, and cannot be changed. Do not manually delete or rename this file.

5. Click **Open Time Machine Preferences**, click **Choose Backup Disk** and select **Backup to HP Data Vault** as the backup disk.

**Backup to HP Data Vault** may already be selected. You may have to change the backup location to the HP Data Vault if you had a previous Time Machine backup that pointed to a different location.

### Change the Backup Disk Size

1. From the HP Data Vault menu, select **Open Preferences**.
2. Click the **Backup** tab.

3. In the **Backup Disk Status**, click **S**.  
The **Backup Disk Status** changes to **Sped** and the virtual disk icon on the desk goes away after the backup disk ss.

**Note**

You may have to wait several minutes for the backup disk to s. Please be patient. If the backup disk does not s and it appears to hang, it could be because an application or other process is accessing the backup disk in the background. If this is the case, attempt to eject the disk using Finder.

4. Enter a new value in the **Backup Disk Size** and select **Resize** from the action menu.  
You cannot select **Resize** until the disk is sped and the disk size is changed.
5. Click **Apply**.
6. A pop up warning appears informing you the file already exists and that continuing will erase the existing backup data and start over. To continue with the new size click **Delete and Continue**.

## Delete a Backup Disk

You may want to delete a backup disk if you need to free up space on your server for other things or if you are no longer using your Mac.

1. From the HP Data Vault menu, select **Open Preferences**.
2. Click the **Backup** tab.
3. In the **Backup Disk Status**, click **S**.  
The **Backup Disk Status** changes to **Sped** and the virtual disk icon on the desk goes away after the backup disk is sped.

**Note**

You may have to wait several minutes for the backup disk to s. Please be patient. If the backup disk does not s and it appears to hang, it could be because an application or other process is accessing the backup disk in the background. If this is the case, attempt to eject the disk using Finder.

4. Select **Delete** from the action menu next to the **Backup Disk Size**.

## Using Shared Folders

Shared folders are places for you to organize and store files on your server so that you can share them with other people on your network. Start copying digital assets from your computer to shared folders on the HP Data Vault.

**Important**

Do not delete the shared folders that come with the HP Data Vault: Converted Videos, Mac, Music, Photos, Public, Recorded TV, Software, Users, Videos.

**In this article...**

- ↓ [Copy Files to Shared Folders](#)
  - ↓ [Access Shared Folders from the Run Dialog](#)
  - ↓ [Access Shared Folders from the HP Home Page](#)
  - ↓ [Access Shared Folders from the Desk Shortcut](#)
  - ↓ [Access Shared Folders from the System Tray](#)
  - ↓ [Access Shared Folders from My Network Places in Windows XP](#)
  - ↓ [Access Shared Folders from Network in Windows Vista](#)
  - ↓ [Access Shared Folders using the Finder](#)
- 

## **Copy Files to Shared Folders**

1. Use one of the methods listed below to open shared folders.
2. Copy files to the appropriate shared folder or create shared folders for other digital content.



### **Note**

From the **Media Sharing** page on the Windows Home Server **Settings** tab, you can turn on digital **media streaming** for the Photos, Music, or Videos shared folders. Click **On** for each folder that you want to stream from.

## **Access Shared Folders from the Run Dialog**

At the computer, click **Start** and **Run**. Type `\\hpstorage` or the name of your server and click **OK**.

## **Access Shared Folders from the HP Home Page**

1. At the computer, click **Start**, **All Programs**, and then select **HP Data Vault**.
2. Click one of the following:
  - Server—opens a folder that contains all your shared folders.
  - Photos—opens a folder for sharing photos.
  - Music—opens a folder for sharing music.
  - Videos—opens a folder for sharing videos.


### Access Shared Folders from the Desk Shortcut

1. At the computer, go to the desk, and then double-click the Shared Folders on Server shortcut



2. Double-click the shared folder you want to open.

### Access Shared Folders from the System Tray


1. Right-click the Windows Home Server  icon and log on.
2. Click **Shared Folders**.
3. Double-click the shared folder you want to open.

### Access Shared Folders from My Network Places in Windows XP

1. At the computer, click **Start**, and then click **My Network Places**.
2. Double-click the shared folder you want to open.
3. If the shared folders are not in My Network places, you can add them manually.

### Access Shared Folders from Network in Windows Vista

1. At the computer, click **Start**, and then **Network**.

2. In Network, double-click the computer icon next to **SERVER** . If you changed the default name of the server, that name appears next to the computer icon instead.

3. Double-click the shared folder you want to open.

### Access Shared Folder using the Finder

1. At the Mac computer, choose **File > New Finder Window**.
2. Click **hpstorage** in the Shared category of the left Sidebar. If you renamed the HP Data Vault during the first installation, select that name in the Shared category.
3. If you are not automatically connected to the server, click **Connect As...** and log on.
4. Double-click the shared folder you want to open.

### Related Topics

HP Data Vault User's Guide

- [Troubleshooting a Mac Connection to the Server](#)

Windows Home Server Console Help

- Shared Folder
- Adding a shared folder
- Viewing shared folder properties
- Opening a shared folder
- Removing a shared folder
- Viewing shared folder history

What is Folder Duplication?

## Enable Guest Account or Set up User Accounts

In this article...

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- ↓ [Enable the Guest Account](#)
  - ↓ [Create PC and Mac User Accounts](#)
  - ↓ [Create Matching Server Accounts](#)
- 

### Enable the Guest Account

If you want everyone to use the same logon account to access the HP Data Vault, enable the guest account. If the Guest account is enabled with no password, network users are not required to logon to the server when they use networked computers. Additionally, all network users can be set up to have Full access to all **shared folders** through the Guest account.



#### **Important**

If you enable the Guest account, everyone that connects to the network has the same privileges. That may mean that they all have full access to shared folders and other resources on your server. To protect your network from unwanted connections, see [Securing your server from intruders](#).

#### **Notes**

The Guest account cannot be used to access the server using remote access.



1. At the PC, double-click the Windows Home Server icon  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click the **User Accounts** tab.
3. Click **Enable Guest** on the **User Accounts Setup** dialog or on the **Properties for Guest** dialog.

## Create PC and Mac User Accounts

If network users want to access information on your network from an Internet café, coffee shop, or other location outside of your network, they need individual user accounts with strong passwords on their computer or lap and on the server.

### **Important**

When you create user accounts on the server, use logon names and passwords that match the logon names and passwords of existing user accounts on your networked computers. Creating matching user accounts enables network members to automatically log on to the server when they log on to their computer.

If the user accounts and passwords do not match, you will be prompted to type a user name and password when you open the server's shared folders.

If your computer does not have a password or if the computer uses a factory default user name, you can change these parameters to eliminate the need to enter your user name and password when you access a shared folder.

### **Create a User Account for a PC Running Windows XP**

1. At the computer, click **Start, Control Panel**, and then **User Accounts**.
2. Click **Add** to create a user account.  
-or-  
Click **Change an Account** to change a logon name or password for an existing account.

A **strong password** is suggested to ensure security and is required to use remote access. A strong password must be at least 7 characters long and must fulfill three of the following four character criteria:

- Uppercase characters
- Lowercase characters
- Numbers
- Symbols (such as !, @, #, and so on.)

A **password hint** helps you remember your password. The password hint can be seen by anybody who clicks the link to display it.

### **Create a User Account for a PC Running Windows Vista**

1. At the computer, click **Start** and then **Control Panel**.


2. Under **User Accounts and Family Safety**, select **Add or remove user accounts**.
3. Add user accounts or make changes to existing user accounts.

A strong password is suggested to ensure security and is required to use remote access. A strong password must be at least 7 characters long and must fulfill three of the following four character criteria:

- Uppercase characters
- Lowercase characters
- Numbers
- Symbols (such as !, @, #, and so on.)

A password hint helps you remember your password. The password hint can be seen by anybody who clicks the link to display it.

### **Create a Mac User Account**

1. On the **Apple** menu, click **System Preferences**.
2. Click **Accounts**.
3. If the accounts page is locked, click the lock  and enter your credentials to unlock the page.
4. Click + to open the new account page.

Enter the user information.



A **strong password** is suggested to ensure security and is required to use remote access. A strong password should be at least 7 characters long and fulfill three of the following four character criteria:

- Uppercase characters
- Lowercase characters
- Numbers
- Symbols (such as !, @, #, and so on.)

A **password hint** helps you remember your password.

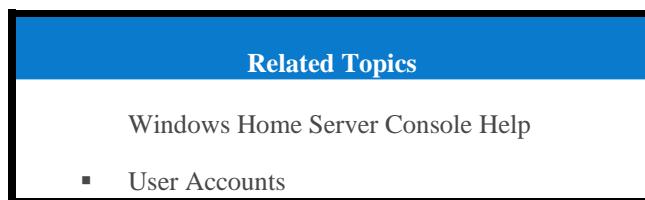
5. Click **Create Account**.

### **Create a Matching User Account on the Server**

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click the **User Accounts** tab at the of the page. If the User Accounts Setup dialog displays click **OK**.

3. Click **Add**, this will open the **Add User Account** screen. enter user information. Check the **Enable Remote Access for this user** check box. Make an appropriate choice concerning allowing access to computer and folders.
4. Click **Next**.
5. Enter and confirm a strong **password**. A strong password is suggested to ensure security and is required to use remote access. A strong password must be at least 7 characters long and must fulfill three of the following four character criteria:
  - Uppercase characters
  - Lowercase characters
  - Numbers
  - Symbols (such as !, @, #, and so on.)
7. Click **Next**.
8. Select access to shared folders
9. Click **Finish**.
10. Click **Done**.

Repeat for each user account that you want to add.





## Configure Remote Access

To easily access your server files and network PCs from a computer that is not attached to the network, you must configure remote access.

### In this article...

- 
- ↓ [Configure Remote Access](#)
  - ↓ [About HP Personal Domain Name by TZO.COM](#)
  - ↓ [About TZO.COM Custom Domain Names](#)
  - ↓ [About Windows Live Personalized Domain Name](#)
  - ↓ [What Value does TZO Domain Names Provide Beyond the Microsoft Live Option](#)
-

## Configure Remote Access

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right of the Console.
3. Click **Remote Access** in the left menu.

Click to **Turn on** remote access.

The Remote Access wizard starts and attempts to configure your **router**. If you encounter problems, see **Configuring your broadband router** in the Windows Home Server Console help.

4. The wizard then prompts you to select a **Domain Name Provider** and create a domain name. A domain name is a web address. It allows you to access your HP Data Vault from the Internet. For instance, if you registered MyFamily.hpshare.net for your HP Data Vault, you would use this address to connect to your server using remote access. Additionally, this address is part of the URL for accessing an album on the HP Photo Viewer.

The HP Data Vault provides three alternatives for setting up a domain name:

- HP Personal Domain Name by TZO.COM
- TZO.COM Custom Domain Name
- Windows Live Custom Domains

When choosing which service to use, consider the following:

TZO domains names allow easy remote access, even if your broadband ISP blocks **port 80**. Blocking port 80 prevents a **Web browser** from reaching the server.

- With the TZO.COM Custom Domain Name option, you can create a domain name with any name that is not already registered.

See additional information on domain names below.

6. Once the wizard is complete, customize **Web site settings** as desired.
7. Click **OK**.

## About HP Personal Domain Name by TZO.COM

HP Personal domain name is free for the first year. After the first year, there is a charge.

An HP personal domain name has two parts:

- Personalized name—enter a name of your choice. TZO.COM will check your choice against existing names. If the name you picked already exists, TZO provides a list of alternatives.
- Second part of the name—choose from an assortment of domain names such as **hphomeserver.com** or **hpshare.net**.

Each part is combined so the Domain Name looks like **MyFamily.hphomeserver.com**.

## **About TZO.COM Custom Domain Names**

With this option, you can create a domain name with any name you want, like MyName.com, as long as that name is not already registered.

A domain name has several components:

- -level or first-level domain names—all domain names end in a small list of generic names, such as **.com** or **.net**, or in a country code, such as **.es** or **.fr**.
- Second-level domain names—the part or parts of the domain name located to the left of the -level domain name. For example, “MyName” in MyName.com.

## **About Windows Live Personalized Domain Name**

Microsoft also offers a service to get a personalized domain name for your server.

## **What Value does TZO Domain Names Provide Beyond the Microsoft Live Option**

- Some broadband ISPs block Port 80 which is required for easy remote access. The TZO service allows you to obtain easy remote access even if Port 80 is blocked.
- With the Microsoft domain name, if you don't already have a Microsoft Live account, you'll have to set that up.
- With TZO custom domain name option, you can get your own domain name (e.g., smithfamily.com).
- TZO customer support and troubleshooting

### **Related Topics**

Windows Home Server Console Help

- Remote Access

## **Secure your Server from Intruders**

The HP Data Vault is designed as a device that is always on, which comes in handy for accessing files any time your network users need or want them. Additionally, remote access network users to view, add, and delete files on the server from remote locations. If not properly secured, these features present security risks, so you'll want to ensure that unauthorized users can't access your server and the files stored on it.

**In this article...**

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- ↓ [Firewall Protection](#)
  - ↓ [Wireless Security](#)
  - ↓ [Anti-virus Software](#)
  - ↓ [User Name and Password Protection](#)
  - ↓ [Remote Access Security](#)
- 

## **Firewall Protection**

A firewall is a hardware device or software program that protects your network from unauthorized access. It protects your system from hackers running programs, sending email, and gaining access to your private information. The following types of firewalls protect your network and computers:

### **Broadband Router Firewall**

- Windows Home Server Firewall
- Personal Firewall
- Firewall Ports

### **Broadband Router Firewall**

The HP Data Vault requires a broadband router. Broadband routers allow multiple computers and devices to share an Internet connection using NAT (Network Address Translation) technology. NAT allows all the computers and devices on your network to use a single Internet connection (IP address). NAT acts as a firewall by masking the real IP addresses of your network components—including the HP Data Vault—which keeps them from being seen outside the network.

Some broadband routers implement Stateful Packet Inspection (SPI), which adds enhanced security by examining each packet of information before allowing it into the network. SPI can prevent advanced forms of incursions like Denial of Service attacks.

### **Windows Home Server Firewall**

Windows Home Server includes Windows Firewall, which protects communications between the server and the computers on your network. This firewall is configured to allow remote access. It is not configurable by the user.

### **Personal Firewall**

A personal firewall is a software application that protects an individual computer. Because a personal firewall is behind the broadband firewall, it protects the computer on which it is installed from attacks from other computers within the network.

### **Firewall Ports**

The following table lists the ports used by the server.

Ports used by the server		
Type	Port numbers	Description
TCP	80, 443	Standard Web site
TCP	55000, 56000	internal (subnet only) Web site for Windows Home Server Web services
TCP	1138	Transport
TCP	8912	Backup and beacon
UDP	8912	Backup and beacon
TCP	2869	UPnP (Universal Plug and Play)
UDP	1900	UPnP
TCP	3389	Remote desk
TCP	4125	Remote access (when enabled)
TCP	139, 445	File and print sharing
UDP	137, 138	File and print sharing
UDP	10284, 10283, 10282, 10281, 10280, 10243	Media connection

## Wireless Security

If your router 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, WAP'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 access your network and may be able to get into the server and any computer or other device 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 (WEP)

Wi-Fi Protected Access (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 all the computers on your network, and configure the software from one of the computers to scan all the **shared folders** on the server. You might be required to assign (**map**) drive letters to all your shared folders to enable the anti-virus software to scan the server.



### **Important**

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

## User Name and Password Protection

User names and passwords help secure the server by requiring authentication for managing the server, accessing shared files, and using remote access.

**Server password** - during the first install of the HP Data Vault, you are asked to create a **strong password** to allow access for managing your server from the Windows Home Server Console. This password protects the server from unwanted changes.

- **User account passwords** - it is recommended that each person who uses your network has a user account so they can access shared folders on the server or, if configured, use remote access.
- **Computer passwords** - by using the same user name and password for logging onto a computer as for the server user account, you can avoid having to enter the user name and password when accessing a shared folder. Requiring logon to each computer on your network adds a level of security.

## Remote Access Security

By default Remote Access is turned off.

Using a computer to remotely access the files on your server is protected in several ways:

- Security certificate  
**HTTPS** (encrypted Secure Sockets Layer (SSL) protocol)
- User account with strong password

### **Security Certificate**

When you install the HP Data Vault software on your network computers, the Windows Home Server Connector software adds the Windows Home Server security certificate to the computer's trusted certificate list. This security certificate helps secure the information that is exchanged between the server and your computer's **Web browser**. The best way to access the files on the server from a computer that is not attached to the network is using a browser with Internet access.

Using remote access to access your server from public or other untrusted computers is not recommended. Doing so can potentially expose your server to malicious software and viruses.



## HTTPS

Remote Access is secure because the connection between the remote computer and the server is done over HTTPS. HTTPS uses the encrypted Secure Sockets Layer (SSL) protocol, the same protocol used for banking transactions and retail commerce.

## User Account with Strong Password

Remote access does not allow logging on from the Guest or Administrator account. Moreover, user accounts must be enabled for remote access, which requires a strong password to ensure that authentication is as secure as possible.



### Note

If you have configured a Domain name to your server, any photos that are placed into the HP Photo Viewer are viewable by any one that finds your domain. The Photos that are found and seen in this manner cannot be deleted or modified. Deleting photos can only be done by users that have successfully logged into the server with a user account and password.

### Related Topics

- Windows Home Server Console Help
- Configuring your broadband router
- Why can't I connect to some computers?
- Learn more about router configuration
- User Accounts
- Setting User Accounts Password Policy
- Why should logon names match?

## Add Shared Folders to Network Places

### In this article...

↓ [Add Shared Folders to My Network Places in Windows XP](#)

↓ [Add a Network Place in Windows Vista](#)

Add **Shared Folders** to My Network Places in Windows XP

1. At the computer, click **Start** and then click **My Computer**.



### Note

If you use the classic start menu, click **My Computer** on the desk.

2. Under **Other Places**, click **My Network Places**.
3. Under **Network Tasks**, click **Add a network place**.

4. In the **Add Network Place Wizard**, click **Next**.
5. Highlight **Choose another network location**, and then click **Next**.
6. To add the network place, you have two options:

In the **Internet or network address box**, enter the path to the shared folder you want to **map**, and then click **Next**.

For example, enter \\hpstorage\Music

Where **hpstorage** is the default name. If you changed the name of the server, use that name.

**Music** is the shared folder's name.

- Click **Browse** and then use Windows Explorer to locate the network place.  
The path is usually: Entire Network, Microsoft Windows Network, Workgroup, <Name of Server>.
7. After locating the shared folder, click to highlight it, and then click **OK**.  
The location appears in the **Folder** box.
  8. Specify whether you want to reconnect every time that you log on to your computer, and then click **Finish**.

Once you create a network place for one of the shared folders, the other shared folders on the server will be available on My Network Places.

## **Add a Network Place in Windows Vista**



### **Note**

Network discovery must be turned on to add a shared folder to Network places in Windows Vista.

1. At the computer, click **Start**, and then click **Network**.
2. Under **Network Tasks**, click **Add a network place**.
3. In the Network Place Wizard, click **Next**.
4. Highlight **Choose another network location** and then click **Next**.
5. To add the network place, you have two options:
  - In the **Internet or network address box**, enter the path to the shared folder you want to map and then click **Next**.  
For example, enter \\hpstorage\Software  
Where **hpstorage** is the default name. If you changed the name of the server, use that name. **Software** is shared folder's name.
  - Click **Browse** and then use Windows Explorer to locate the network place.  
The path is usually: Entire Network, Microsoft Windows Network, Workgroup, <Name of Server>.  
After locating the shared folder, click to highlight it, and then click **OK**. The location will appear in the **Internet or network address box**.
6. To create a name for the network place, enter a name in the **Type a name for this network place** box, and then click **Next**.

7. Specify whether you want to reconnect every time that you log on to your computer, and then click **Finish**.

## Install HP Add-ins for Windows Home Server

HP add-ins are software programs that extend the functionality of Windows Home Server. The McAfee add-in delivers server side anti-virus protection.

### In this article...

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↓ [McAfee Anti-virus Protection](#)

↓ [Install Add-ins](#)

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## McAfee Anti-virus Protection

To receive McAfee Anti-virus protection, you must activate the service. The McAfee anti-virus add-in with Total Protection Service is a comprehensive security management solution that:

- Checks for viruses, spyware, unwanted programs, and other potential threats. Every time a file is accessed on your Windows Home Server, Total Protection Service scans the file to make sure it is free of viruses and spyware.
- Sends security status information for your server to an administrative web site that is unique to your account, known as the McAfee SecurityCenter. You can visit the SecurityCenter to check detection reports or to set up security rules, known as policies, to define the types of programs that do not pose a security threat.
- Updates itself automatically at regular intervals with the latest versions of components and detection definition (dat) files. This ensures that Total Protection Service is always able to protect you against the latest threats.



Total Protection Service typically operates in the background without any interaction on your part.

To learn more about the McAfee anti-virus add-in, see their online documentation in one of the following languages:

- **English**—<http://us.mcafee.com/root/campaign.asp?cid=39906&l=enu&action=whshelp>
- **French**—<http://us.mcafee.com/root/campaign.asp?cid=39906&l=fra&action=whshelp>
- **German**—<http://us.mcafee.com/root/campaign.asp?cid=39906&l=deu&action=whshelp>
- **Spanish**—<http://us.mcafee.com/root/campaign.asp?cid=39906&l=esp&action=whshelp>

After you activate McAfee antivirus protection, you receive a 90-day trial period. Internet access is required to receive updates. Subscription is required for updates after seven months.

## Install Add-ins

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right corner of the Console.
3. Click **Add-ins** in the left menu.
4. Click the **Available** tab.
5. Click **Install** to install an add-in.
6. Click **OK** on the Installation succeeded dialog box to restart the console.

For additional information, see **Add-ins** in the Windows Home Server help.



## Register Your Server

1. On a PC, click **Start, All Programs**, and then select **HP Data Vault**.  
On a Mac, click **Open Home Page** on the HP Data Vault menu.
2. Click **Registration** to go to <https://register.hp.com> and register your HP Data Vault.  
Registering your server ensures that your information is on file with HP if you should need technical support services.

## Configure Server Settings

### POWER SETTINGS

The Power Management screen allows you to put the Server into a sleep mode to save power.

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right corner of the Console.
3. Click **HP Data Vault** in the left menu.

4. Click the **Power** tab.

The screenshot shows a web-based management interface with a top navigation bar containing tabs for Power, HP Update, Notifications, LEDs, Hardware, and Support. The 'Power' tab is selected, and the 'Power Management' section is active. It features a checked checkbox for 'Enable Daily Sleep Time'. Below this, there are two time selection fields: 'Sleep time' set to '12:00 AM' and 'Wake time' set to '06:00 AM'. A note states: 'Note: Your server will wake up for backups at 12:00 AM.' A 'Sleep Now' button is located below the note. A second note at the bottom reads: 'Note: If you have not scheduled a server wake time, your server wakes before backups or from the Windows Home Server icon in the system tray.'

5. Select options.

- **Enable Daily Sleep Time**—The **Enable Daily Sleep Time** checkbox allows the Server to be put into a sleep mode and wake up based on times entered into the **Sleep time** and **Wake time** fields. The server will wake up for a scheduled backup.
- **Sleep Now**— Clicking the **Sleep Now** button puts the Server into sleep mode. The server will wake up for a backup, input from the HP Home Page, or pressing the power button on the Server.

6. Click **OK**.

## HP UPDATE SETTINGS

Use the HP Data Vault software update to keep your server and networked computers current with the latest HP software, online help, and new features.



HP Data Vault software update does not update the Microsoft Windows Home Server operating system. For information about updating Windows Home Server, see Configuring Windows Update in the Windows Home Server Console Help.

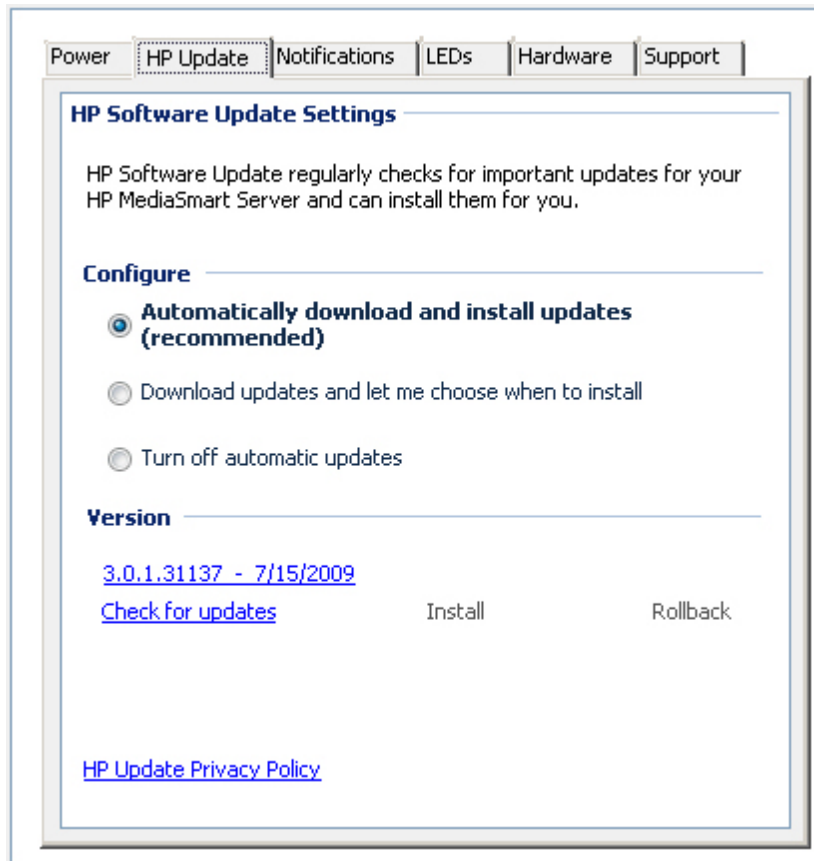
### In this article...

↓ [Configure HP Update](#)

↓ [Version Information](#)

## Configure HP Update

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, Select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right of the Console.
3. Select **HP Data Vault** in the left menu and click the **HP Update** tab.



4. The following choices are available in the **Configure** section. HP recommends that you select **Automatically download and install updates**.

Configure HP Software Update Options	
Option	Additional information
Automatically download and install updates (recommended)	Requires no user action.  Downloads and installs updates on the server in the background. If necessary the server will automatically reboot.
Download updates and let me choose when to install	Requires user action.  Your computer notifies you that an update has been downloaded and is ready to install on the server.

	<p>Additionally, the Install link turns blue under HP Data Vault software updates.</p> <p>To update the server after an update is downloaded, click Install under HP Data Vault software updates in the Windows Home Server Console</p>
Turn off automatic updates	<p>Not recommended.</p> <p>To get updates with this choice you will have to click <b>Check for updates</b> located in the Version section.</p>

5. Click **OK**.

## Version Information

The following information and options are in the **Version** section of the HP Update dialog.

- The server software version number and date are shown.
- Click **Check for updates** to immediately check for available software updates, regardless of the configuration settings you selected above.
- The **Install** link becomes active when an update has been downloaded, but not installed. Click **Install** to run the server update.
- The **Rollback** link becomes active when a software update has been installed. Use this link to uninstall the update on the server and revert to the previous server software version.





### **Important**

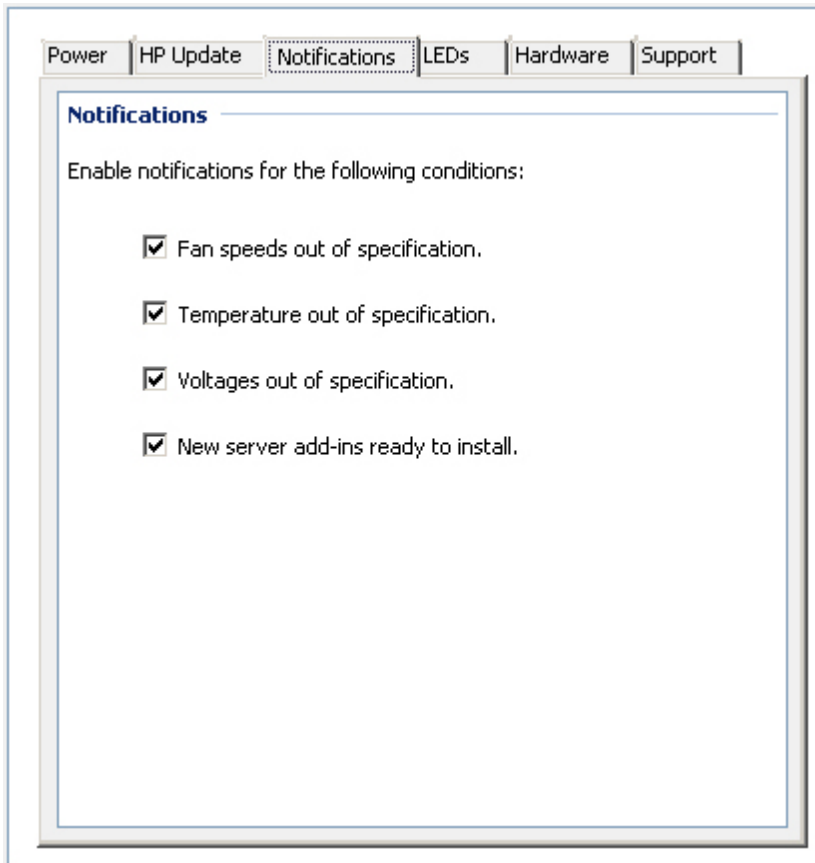
Clicking **Install** or **Rollback** only makes changes to the server software. Each networked computer still needs to be updated or rolled back so that the server and **client computers** are running the same version of software. See [Updating and Rolling Back Client PCs](#) or [Updating and Rolling Back Mac Clients](#) for more information.

## **NOTIFICATION SETTINGS**

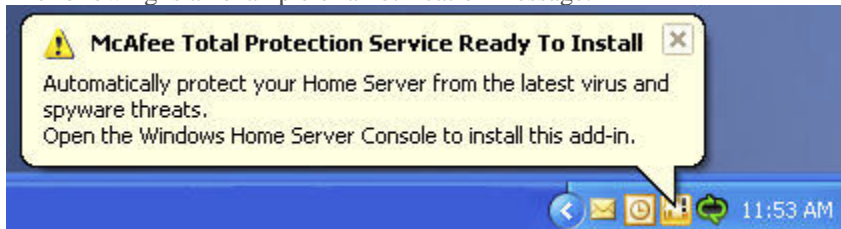
The Notifications screen gives you control of which notifications will show up as messages in your system tray.

1. At the computer, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right corner of the Console.
3. Click **HP Data Vault** in the left menu.

4. Click the **Notifications** tab.





5. Select options.  
The following is an example of a notification message.



6. Click **OK**.

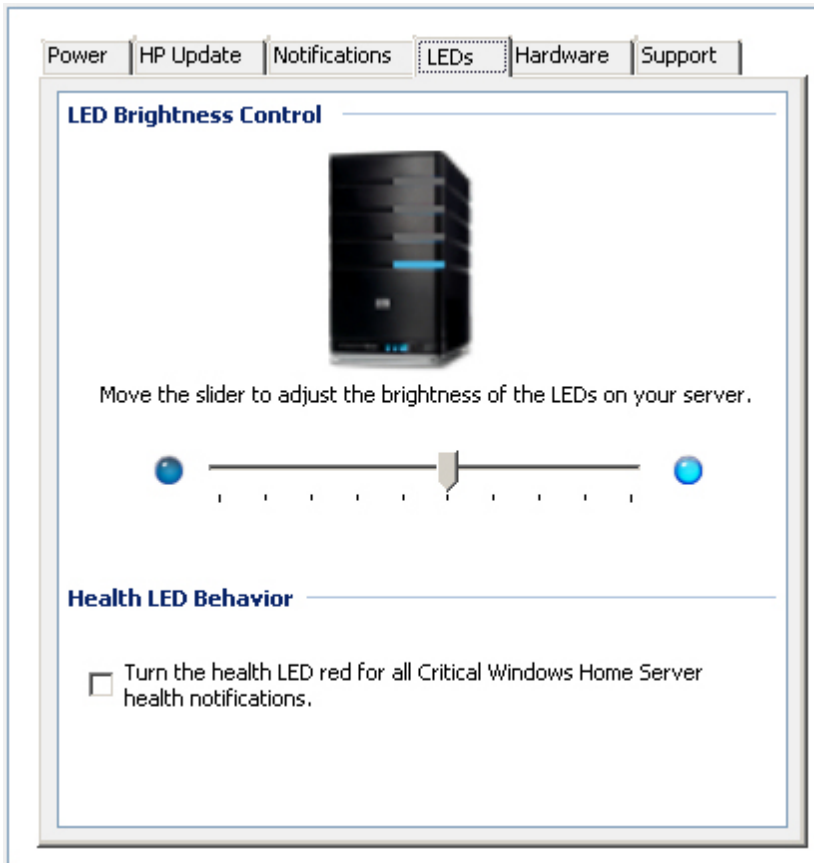
## LED SETTINGS

The LED screen gives you control of two different LED behaviors.

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right corner of the Console.
3. Click **HP Data Vault** in the left menu.





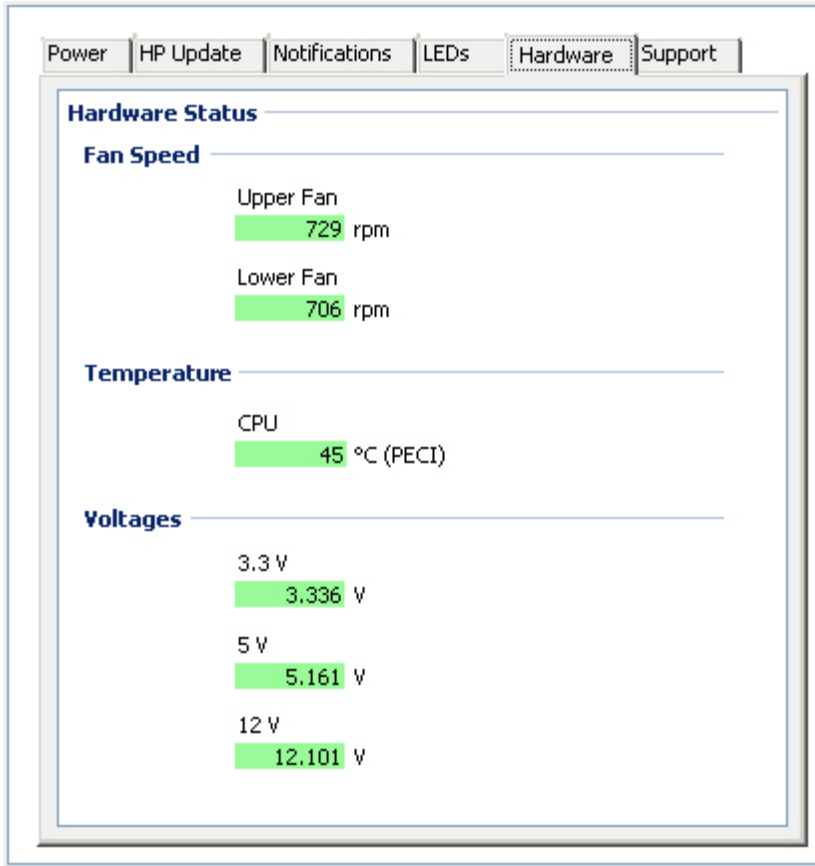
- Click the **LEDs** tab.



- Select options.
  - LED brightness control**—The LED brightness control allows you to adjust the brightness of all LEDs on the front panel of the Server. Grab the slider and move for a brighter or dimmer LED.
  - Health LED Behavior**—The **Health LED Behavior** checkbox allows for the Server's health LED to show red you for any Critical Windows Home Server health notifications.
- Click **OK**.

## HARDWARE INFORMATION



- At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
- Click **Settings** in the upper right corner of the Console.
- Click **HP Data Vault** in the left menu.
- Click the **Hardware** tab. Information presented on this screen is gathered from various sensors within the Server Solution.

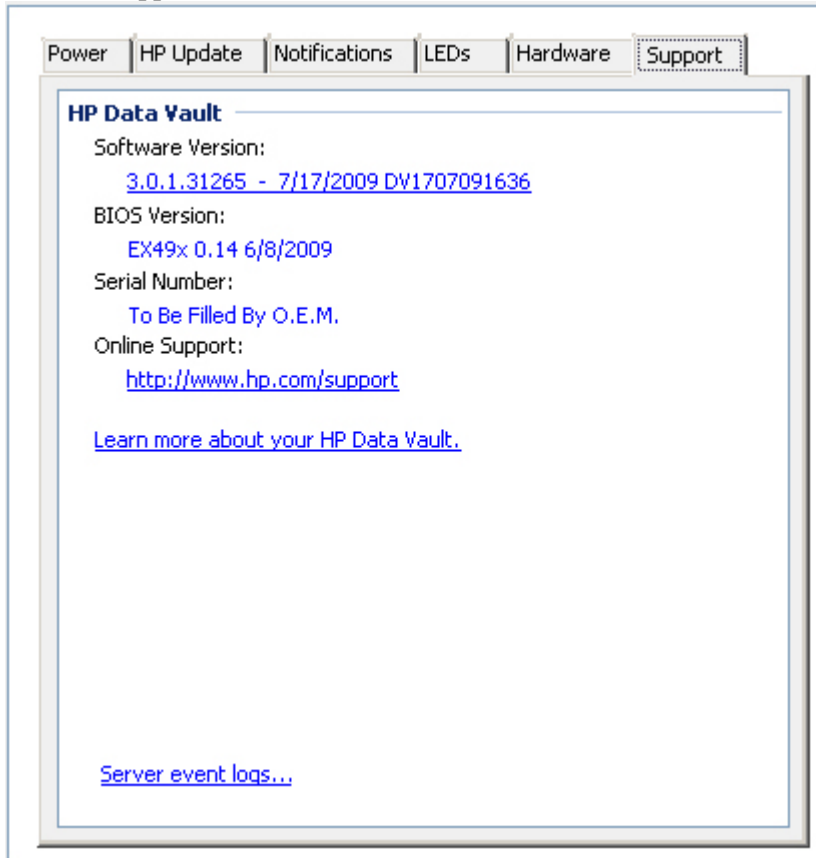


Hardware Status Levels			
	Green	Yellow	Red
<b>Fan Speed</b>	Greater than or equal to 800 rpm	Between 600 rpm and 800 rpm	Less than 600 rpm
<b>Temperature (PECI)</b>	Less than 85	Between 85 and 100	Greater than or equal to 100
<b>3.3V</b>	Between 3.069V and 3.531V	7-10% greater or lesser than 3.3V	More than 10% greater or lesser than 3.3V
<b>5.0V</b>	Between 4.650V and 5.350V	7-10% greater or lesser than 5.0V	More than 10% greater or lesser than 5.0V
<b>12.0V</b>	Between 10.200V and 13.800V	15-20% greater or lesser than 12.0V	More than 20% greater or lesser than 12.0V

5. Click **OK**.

## SUPPORT INFORMATION

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right corner of the Console.
3. Click **HP Data Vault** in the left menu.
4. Click the **Support** tab.



5. Click **OK**.

## GETTING HELP FOR USING YOUR SERVER

The HP Data Vault enables multiple computers on a network to enjoy their digital experiences when and where they want. The HP Data Vault includes remote access to files, automatic computer backups, virtually unlimited storage expandability, and **media streaming** to the entertainment center.

Help is available from most windows on the HP Data Vault.




### In this article...

↓ [HP Server Help](#)

↓ [Windows Home Server Console Help](#)




## HP Server Help

HP Server Help includes the types of help shown in the following table. Additionally, the online User's Guide includes references to ics in the Windows Home Server Help.

	<b>User's Guide</b> —Contains online help, installation instructions, guidance for set up, using the product, tutorials, recovery information, and other important information.
	<b>Online Help</b> —A Help button is available on most pages.
	<b>HP Support Web site</b> —Additional support and informational articles are available at <a href="http://www.hp.com/support">http://www.hp.com/support</a> .

## Windows Home Server Console Help

Some tasks, such as creating users and using shared folders, are done through the Windows Home Server Console.

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Help** in the upper right corner when you are not on the HP Data Vault tab. The help button is indicated by a  icon. Or click **Help** buttons on Microsoft dialog boxes in the Console.

Windows Home Server Console Help	
Main Topics	Description
Welcome to the Windows Home Server Console	Learn what the Windows Home Server tray icon colors mean. This ic also provides an overview of adding user accounts, organizing files, configuring backups, and customizing server settings.
Computers & Backup	Explains how backups work and how to configure, restore, and troubleshoot backups.
User Accounts	How to add users to your server.
Shared Folders	Adding, opening, removing, viewing the history of shared folders, and using <b>folder duplication</b> .
Server Storage	View, add, repair, and remove hard drives from total storage.
Network Health	What health notifications mean and what to do about them.
Windows Home Server Settings	How to configure backups, passwords, media sharing, remote access, add-ins, resources, and more.

<b>Windows Home Server Console Help</b>	
<b>Main Topics</b>	<b>Description</b>
Remote Access	How to set up the server to easily access your files on your server using an Internet connection from a remote location.



# Chapter 4. HP Media Collector

## ABOUT HP MEDIA COLLECTOR

The HP Media Collector takes media files from the computers on your network and copies them to your HP Data Vault. This allows you to maintain a comprehensive library of music, photos, and videos in one location in your home. You can stream media to your television and stereo. You can share music with iTunes applications on other computers in your network. You can even stream media to the Internet where any computer with a **Web browser** can play it.



### Note

Media Collector copies only media files. It does not collect other file types, such as Microsoft Office documents.

### In this article...

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- ↓ [Media Collection](#)
  - ↓ [HP Media Collector Default Settings](#)
  - ↓ [Organization Options and Defaults](#)
  - ↓ [Ignored Directories and Skipped Files](#)
  - ↓ [Supported File Formats](#)
  - ↓ [Media File Duplication](#)
- 

## Media Collection

HP Media Collector scans your network computers for music, image, and video files and it copies them to the server. You can choose how, where, and when Media Collector gathers your media. For example:

- You can tell Media Collector to look for videos in all folders or only in your My Videos folders.
- You can tell Media Collector to look for music and not to look for photos and video.
- You can tell Media Collector to gather photos from your computer and not from your children's computers.

### Schedule

Media Collector scans the computers in your network on an automatic schedule that you choose. After you enable media collection and set the schedule, Media Collector collects new media files when you add them to your computers.

### Media Collection Order

When all media types are enabled for collection, Media Collector collects photo files first; then music files, and it takes video files last.

## **HP Media Collector Default Settings**

Media Collector is disabled by default. Before Media Collector can begin to copy media to your HP Data Vault, you must enable the media types you want to collect.

Media Collector copies media files only from computers that are installed as clients on your Windows Home Server network. For example, if you have a computer that you use only for gaming and you have not made it part of your Windows Home Server network, this computer is not available for Media Collection.

## **Organization Options and Defaults**

You can tell HP Media Collector how you want to organize your media on your HP Data Vault. For example, you can organize media in these ways:

### **Photos**

- By date taken, or existing file structure
- Default is existing file structure

### **Music**

- By Artist/Album or existing file structure
- Default is Artist/Album

### **Videos**

- By existing file structure

## **Ignored Directories and Skipped Files**

HP Media Collector skips picture files that are less than 45 K in size. Media Collector ignores some directories for each media. See the list below:

### **Photos**

temporary Internet files, My Music folder, windows system directories

### **Music**

temporary Internet files, windows system directories

### **Videos**

temporary Internet files, windows system directories, mov files located under My Pictures, Pictures



## Supported File Formats

The files and types listed below are compatible for Media Collection:

### Photos

jpg, gif, tif, pct, mov files located under My Pictures, Pictures

### Music

mp3, wma, m4a, aac, wav, playlists (m3u, wpl), album art

### Videos

AVI, MOV, m4v, MPEG, MP2, WMV, FLV, DIVX, DVR-MS, M2TS, VOB file collections

## Media File Duplication





### Note



When HP Media Collector copies media files from all your computers and users, it attempts to reduce duplicates. For example, if two users have the same media file, Media Collector copies only one file to the Server.

# CONFIGURING MEDIA COLLECTOR

## Configuring Media Collector General Settings

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Media** and then **HP Media Collector** in the left menu.
3. Click **Configuration**.  
The HP Media Collector General Settings panel opens.
4. On General Settings, move **available computers** to **enabled for collection**.  
When enabled, Media Collector automatically scans the **enabled for collection** computers for media. Media Collector does not scan computers in the **available computers** box. Move a computer out of the **enabled for collection** box and into **available computers** if you want to disable media collection for that computer.

## Configuring Media Collector for Photos

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Media** and then **HP Media Collector** in the left menu.

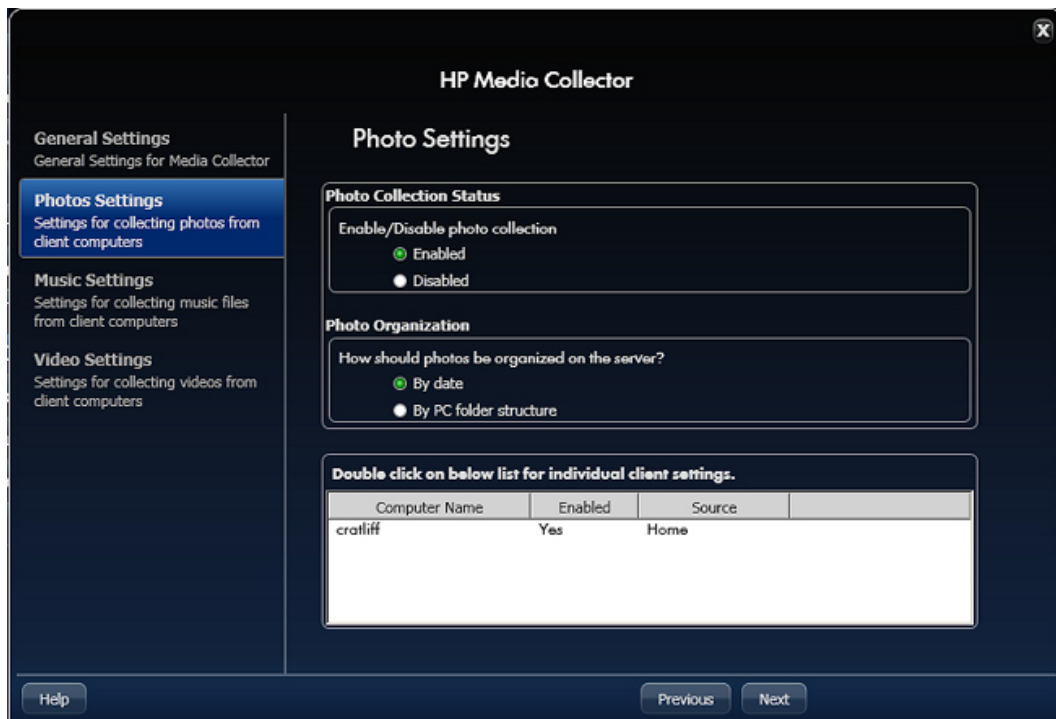
3. Click **Configuration**.  
The HP Media Collector General Settings panel opens.
4. Click **Photo Settings** in the left menu.  
You can configure these settings in this tab:

- **Photo Collection Status**—Enable or Disable photo collection
- **Photo Organization**—Organize by date or by PC folder structure
- **Photo Source**—Double-click a computer name to select either My Pictures folders or All Folders as the source.



**Note**

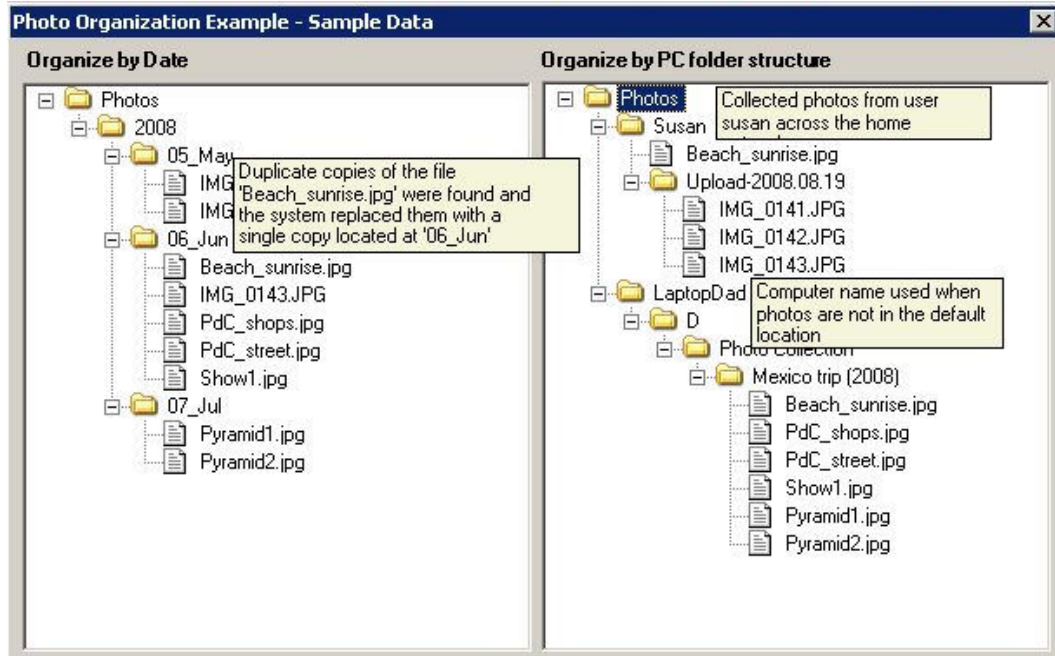
If you select **All folders**, Media Collector may collect graphics and images from your computer that are not a part of your photo collection, such as graphics associated with software applications.



**Example of Photos Collected by Date and by PC Folder Structure**

First of all, it's helpful to understand the underlying data used to build the two examples below. In this case, the files that are being shown are based on two groups of photos. One group is located under user Susan's home Pictures folder, with a number of uploaded photos and a single named photo (Beach\_sunrise.jpg). This group of photos could be on any particular computer in the network (or even split across two computers). The second group of photos is on a particular computer (LapDad), but not under a user's home Pictures folder. In this case, it's under D:\Photo Collection\... Also, note that all of the photos on LapDad are organized and named with meaningful names, including a copy of the Beach\_sunrise.jpg file that also exists on Susan's group of files.

The photo example shows two panes with different file/folder organizations for the same group of sample photos.



Things to Consider	
Organize by Date	Organize by PC Folder Structure
Uses <b>Date Picture Taken</b> tag or <b>Modified Date</b> to organize files	Sorts files by user or source computer
Good for organizing large groups of unsorted image files	Good for maintaining original photo sorting
Reduces duplication of photos	

**On the left, the files are organized by date**

There are two things of interest

1. The photos from the two groups are now grouped together based on date, and
2. The one photo that was duplicated between the two groups is only present once.

The single grouping is what the **Organize by Date** option accomplishes – it uses the **Date Picture Taken** tag within the file to place the photos by date. If this is not set, the system will use the file property **Modified Date** to place the photo. Be aware that this model ignores your folder structure, so it’s most useful in the case where you don’t have a meaningful folder structure (e.g. unsorted groups of folders or groups based on the camera software’s defaults). Regarding the duplicate file, only one copy is kept as shown in the example. If two duplicate files are different, the newest one is retained on the server.



### **In contrast, the right pane is organized by PC folder structure**

If photos are found under a user's home Pictures folder, then they will be grouped just under the user's name with the underlying folder organization. This still may include some simplification in that photos for user Susan on computer1 and user Susan on computer2 will be coalesced into a single group. This may result in some duplicate photos being represented once.

On the other hand, if the photos were found on a computer in a folder other than a user's home Pictures folder, they will be grouped under the computer name, with a path showing their placement on the computer. In general, the "by folder" organization is most helpful if you have already organized your photos and don't want to lose your folder structure.

## **Configuring Media Collector for Music**

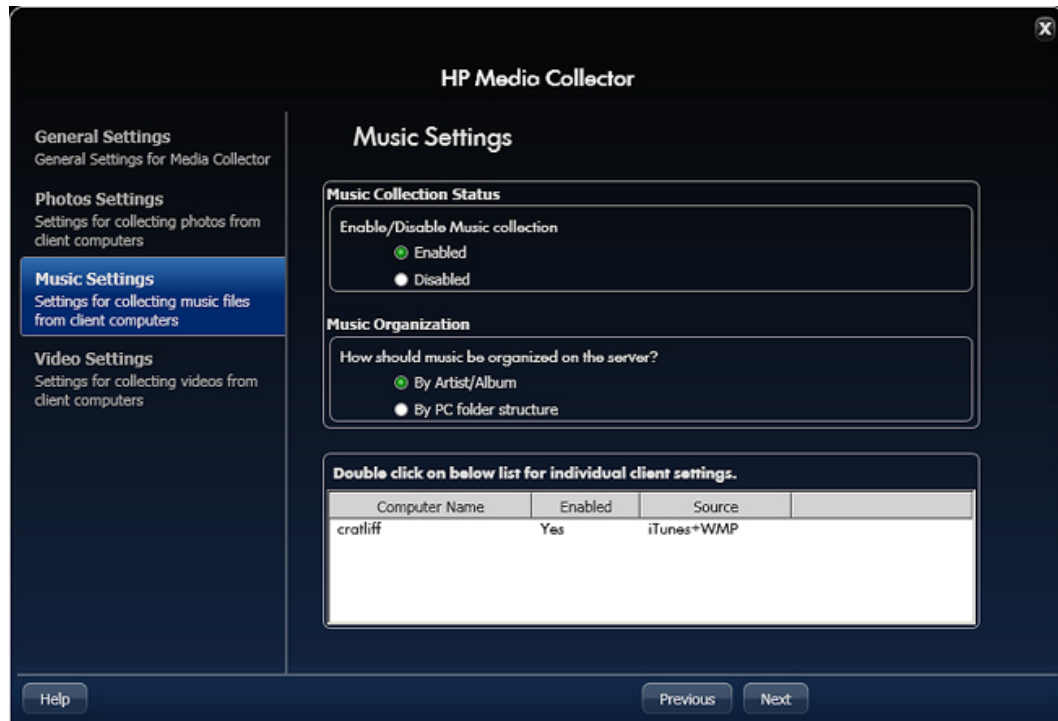
To Configure Media Collector for Music, follow the steps below:

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Media** and then **HP Media Collector** in the left menu.
3. Click **Configuration**.  
The HP Media Collector General Settings panel opens.
4. Click **Music Settings** in the left menu.  
You can configure these settings in this tab:
  - **Music Collection Status**—Enable or Disable music collection
  - **Music Organization**—Organize by Artist/Album or by PC folder structure
  - **Music Source**—Double-click a computer name to select either My Music folders, iTunes libraries, Windows Media Player libraries, or All Folders as the source.



#### **Note**

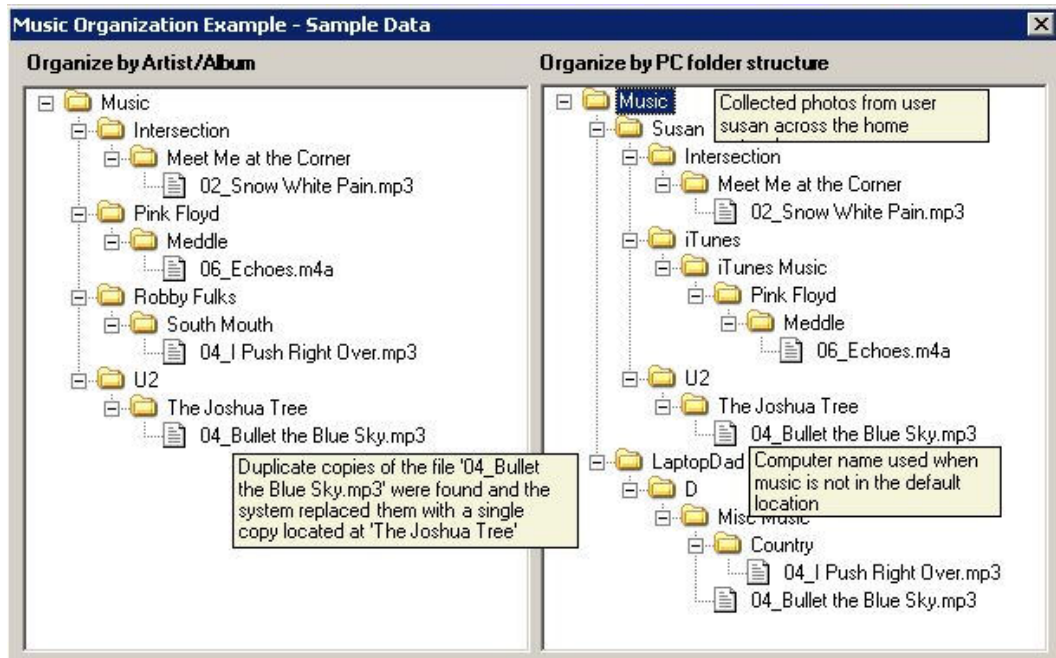
If you select **All folders**, Media Collector may collect sound files from your computer that are not a part of your music collection, such as sound files that are associated with software applications.



### Example of Music Collected by Artist/Album and by PC Folder Structure

We'll start by looking at the underlying data used to build the two examples below. The files that are shown are based on two music collections. One group is located under user Susan's home Music folder, with some songs organized by album as well as some that are included within her iTunes library. This music could be on any particular computer in the network, or even split across two computers. The second group of music files is on a particular computer (LapDad), but not under a user's home Music folder. In this case, it's under D:\Misc Music\... Notice that these files are not organized by album name and they include a duplicate song (U2's Bullet the Blue Sky).

The music example shows two panes with different file/folder organizations for the same group of music files.



Things to Consider	
Organize by Artist/Album	Organize by PC Folder Structure
Uses music file tags to organize files	Sorts files by user or source computer
Reduces duplication of files on the server	Good for maintaining original music sorting

**On the left, the files are organized by Artist/Album**

There are two things of interest

1. The two groups of music files are now organized uniformly, and
2. The one song that was duplicated between the two groups is only present once.

The uniform organization is what the **Organize by Artist/Album** option accomplishes – it uses the **Album** and **Artist** tags within the file to place the files. If a music file doesn't have both of these tags set, it will be placed based on its location on the user's computer. This organizational approach is useful for organizing multiple music collections into a single collection and reducing file duplication. This means that browsing the server music share for music streaming will be more streamlined without duplicate file entries. The example illustrates duplicate file handling by pointing out the single file entry on the left pane that was duplicated on the right. If the two duplicate files are different, the newest one is retained on the server.



**In contrast, the right pane is organized by PC folder structure**

If music is found under a user's home Music folder, it will be grouped under the user's name with the underlying folder organization. This still may include some simplification in that music for user Susan on computer1 and user Susan on computer2 will be coalesced into a single group. This may result in some duplicate songs being represented once.

On the other hand, if the music was found on a computer in a folder other than your home Music folder, it will be grouped under the computer name, with a path showing their placement on the computer. This type of organization is most helpful if you have organized your music in a special way and doesn't want to lose this folder structure or if multiple users have different quality versions of the music and you want to maintain the multiple copies of songs.

## Configure Media Collector for Videos

To configure Media Collector for Videos, follow the steps below:

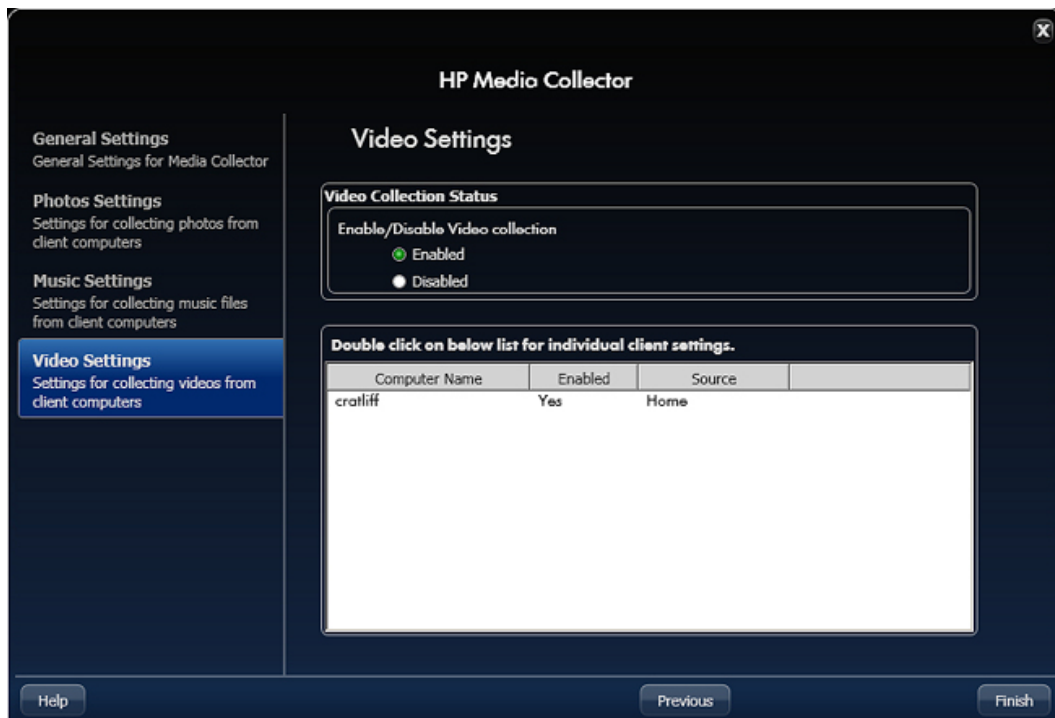
1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Media** and then **HP Media Collector** in the left menu.
3. Click **Configuration**.  
The HP Media Collector General Settings panel opens.
4. Click **Video Settings** in the left menu.  
You can configure these settings in this tab:

- **Video Collection Status**—Enable or Disable photo collection
- **Video Source**—Double-click a computer name to select either My Pictures folders or All Folders as the source.



### Note

If you select **All folders**, Media Collector may collect video files from your computer that are not a part of your video collection, such as videos that are associated with software applications.



**HP Media Collector**

**Video Settings**

**Video Collection Status**

Enable/Disable Video collection

Enabled



Disabled

Double click on below list for individual client settings.

Computer Name	Enabled	Source
cratliff	Yes	Home

Help Previous Finish

## MEDIA COLLECTOR STATUS

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Media** and then **HP Media Collector** in the left menu.
3. View the following information.
  - **Client Name**—The name of the computer where media is being collected.
  - **Connection Status**—The status will be **Connected** if the server can find the computer on the network.
  - **Files Copied**—The number of files that have been copied to the server. Click **Files Copied** to view details. Media Collector keeps track of all of the files that have been copied to the server. Click the **Close** button in the upper right corner to return to the status page.
  - **Files Pending**—The number of files that are waiting to be copied to the server.
  - **Files Not Needed**—The number of files that were ignored by Media Collector and not copied to the server. Click **Files Not Needed** to view details. Select a file in the list to view the reason it was not copied to the server. Click the **Close** button in the upper right corner to return to the status page.
4. Click **Reset Database** to clear the counts and history for **Files Copied**, **Files Pending**, and **Files Not Needed** and restart at zero.

## HP MEDIA COLLECTOR TROUBLESHOOTING

HP Media Collector is used by the HP Data Vault to copy music, photos, and videos of users that have accounts on the HP Data Vault.

There are some common causes for the HP Media Collector to appear not to work.

### In this article...

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- ↓ [No Music, Photos, or Videos are Being Collected](#)
  - ↓ [The Server may not have refreshed yet](#)
  - ↓ [Media Type is not Enabled for Collection](#)
  - ↓ [Home Computer is not Included as a Scanned Computer](#)
- 

### **No Music, Photos, or Videos are Being Collected**

- [The aggregation application may not be accessing the desired media files on the client computer](#)
- [The server may be down or unreachable](#)
- [Services may not be running on the client computer](#)



- [A Firewall may be Blocking Applications or Port 21 TCP/Outbound](#)

### **The aggregation application may not be accessing the desired media files on the client computer**

Media Collector runs with the permissions of the logged on user, if the material to be aggregated is in a folder that the user doesn't have permission to access, then that folder's contents can't be collected when this user is logged in.

### **The server may be down or unreachable**

The client computer cannot access the shares or server console. The server may be down, so aggregation cannot occur. Restart the server.

### **Services may not be running on the client computer**

Reboot the client computer.

### **A Firewall may be Blocking Applications or Port 21 TCP/Outbound**



If Media Collector is not collecting music, photos, or videos and you use a third party firewall, add a firewall exception for port 21 TCP/outbound within the local subnet. Consult your software's documentation for details on how to do this. For additional information, see [Update Your Firewall's Trusted Program List](#).

### **The Server may not have refreshed yet**

Click the **HP Data Vault** tab on the Windows Home Server Console and your media files should now be listed on the Media Collector status page.

### **Media Type is not Enabled for Collection**

The HP Data Vault may not be set up to scan for photos, music, or videos. Check your HP Media Collector settings to make sure the media type is configured for collection.

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings**.
3. Click **Media Collector** in the left menu of the Windows Home Server Settings dialog.



4. Click the **Photos, Music, or Videos** tab.



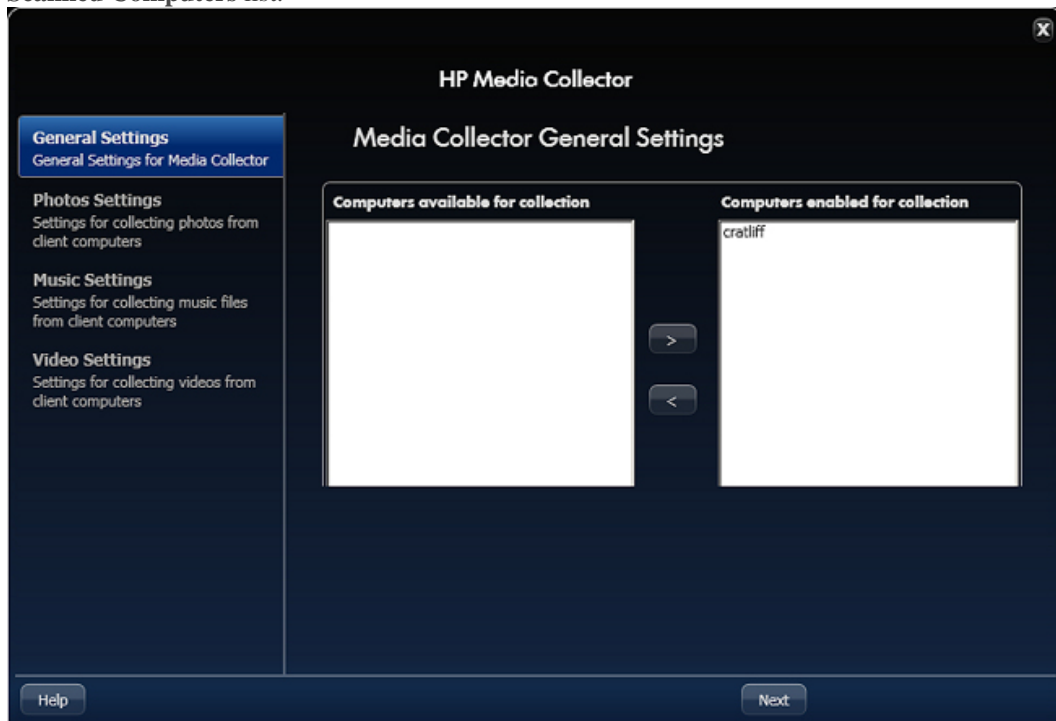
5. Check that the media collection status is set to **Enabled**.
6. Click **OK**.

### **Home Computer is not Included as a Scanned Computer**

The HP Data Vault may not be set up to scan one of your network computers. Check your HP Media Collector settings to make sure all of your home computers are included.

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings**.
3. Click **Media Collector** in the left menu of the Windows Home Server Settings dialog.

4. On the **General Settings** tab, check that all of the necessary computers are **Included** in the **Scanned Computers** list.



5. Click **OK**.



## Chapter 5. HP Video Converter

### CONFIGURE VIDEO CONVERTER

The HP Video Converter converts most popular video formats into a file format that can be played on a variety of devices like notebook PCs, xBox, Playstation, and iPhone. In some cases, you will want to convert videos because the original video format cannot be played by the video player or device you are trying to use. In other cases, video conversion can be used to reduce the resolution and file size so you experience improved performance during video streaming.

#### In this article...

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- ↓ [About Video Converter](#)
  - ↓ [Configure Video Converter](#)
  - ↓ [Select Video Converter Profile](#)
  - ↓ [Input Folders](#)
  - ↓ [DVD Settings](#)
  - ↓ [Output Settings](#)
  - ↓ [Enable Video Converter](#)
- 

#### About Video Converter

The Video Converter monitors selected **shared folders** and attempts to perform video conversion (also known as transcoding) on files with common video file formats. The video converter also supports DVD file system conversion, for DVD files that are commonly used in camcorders.

Videos are converted to a single file format: an MPEG-4 video file using an H.264 video codec and AAC stereo audio codec. Check the video player documentation for support of this video format. At the time of this writing, some devices supporting this format included:



- Microsoft xBox 360
- Sony PlayStation 3
- Sony PlayStation Portable
- Apple iPod (newer iPods with video support)
- Apple iPhone
- Microsoft Zune



**Note**

The Video Converter will not transcode copy protected DVDs or electronic videos with **Digital Rights Management (DRM)** protection.

## **Configure Video Converter**

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Media** and then **Video Converter** in the left menu.
3. Click **Configure**.  
The HP Video Converter Settings panel opens.

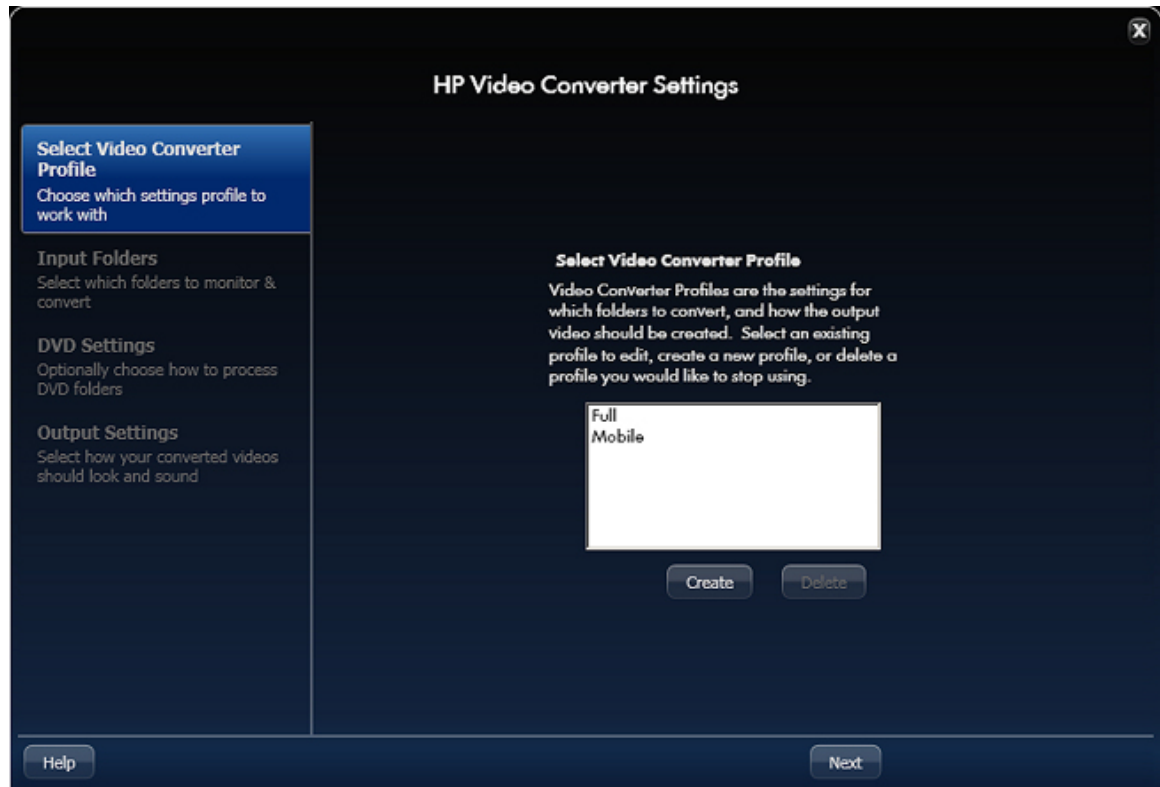
## **Select Video Converter Profile**

Perform one of the following options.

- **Edit**—Select a profile to edit and click **Next**.
- **Create**—Click **Create** to add a new profile to the list. Name the profile and select settings to use as a basis for the profile depending on how the converted video files will be used.
- **Delete**—Select a profile and click **Delete** to remove it from the list.

There are two default profiles.

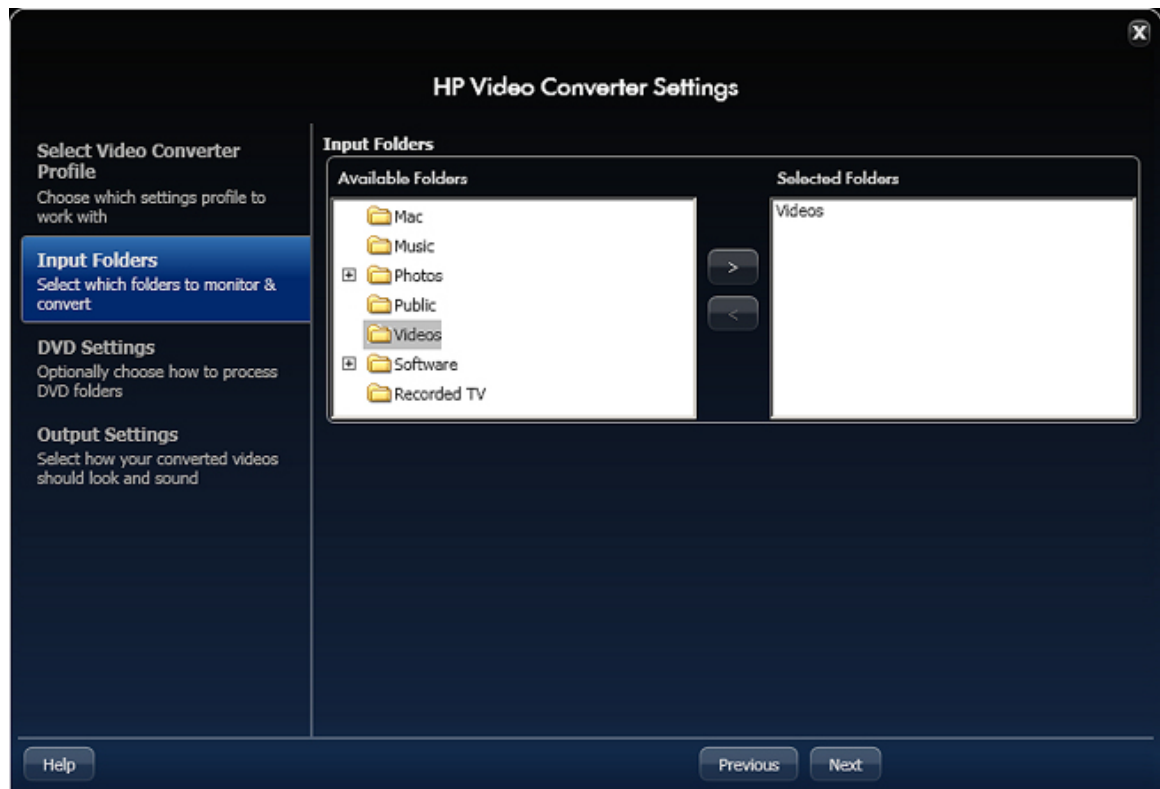
- **Full**—Full resolution keeps the source video's screen resolution, and basically creates an output file with the new format for the provided input. Video and audio quality should be very similar to the source material for Full resolution videos. You may notice some differences between the original and Full resolution output, but these differences are minimal in most situations.
- **Mobile**—The Mobile resolution creates a video that is suitable for mobile devices and remote video streaming (the video will be no larger than QVGA: 320w x 240h). This is to make support of mobile devices easier and to provide videos suitable for remote **media streaming**.



## Input Folders

Select a shared folder where you will place the original videos that you want to convert. The HP Video Converter monitors this folder for changes and automatically converts videos that are placed there. After the video is converted, it is put in the **Converted Videos** folder.

You can select any number of folders or subfolders to monitor. If you select a folder that has subfolders, all of the folders within the selected folder will be monitored. For example, if you select the Videos shared folder and Videos has a subfolder named FamilyMovies, then the Videos and FamilyMovies folders will be monitored. If you only want the FamilyMovies folder to be monitored, select that folder and do not select Videos.



## DVD Settings

The DVD Settings sections applies to DVD folders, which must be named VIDEO\_TS. This settings allows you to customize how titles within your DVDs should be treated. All DVDs contain one or more titles, with each title being made up of one or more chapters. Each DVD can be authored slightly differently, and you may want to consult your DVD creation program or camcorder documentation for more information on how titles are created and structured. As explained within the DVD Settings screen, these settings allow you to change how your DVD is read during conversion.

- **Break apart each title (RECOMMENDED)** - This setting takes each title within your DVD, and creates a new output file. This option is recommended because it provides a good balance between making sure all of your DVD content is converted but also breaking up the content into smaller files.
- **Use the single longest title** - This setting finds the longest duration title within the DVD and ONLY convert this title. The title number will still be used for the output file name, so if the 3rd title is the longest duration title your output file might be "My DVD - Title 3.mp4". This setting works well when you are comfortable that you only want the longest title 100% of the time. This assumption can be problematic, however, as frequently you may find DVDs with a couple of longer titles of similar length and this setting prevents you from getting these other longer titles.
- **Append all titles** - This setting is for when you are comfortable that you want the entire DVD appended into a single output file. If you have DVDs with a relatively small amount of content or your DVD creation process creates many shorter titles (like some camcorders sometimes may), then this approach can be the best option.





## Output Settings

- **Select Output Preset Settings**—Some common uses for converted videos have been anticipated and are listed here. When you select one of the presets, the rest of the output settings are selected for you. You may choose to accept these settings as they are or change them to suite your individual needs. If you do not like the changes you made, you can always return to a preset setting by clicking one of these options.
- **Output Resolution View**—This area displays your selected video dimensions on of some common video resolutions as a reference point. As you change your video dimensions in the advanced settings, the **Output Resolution View** dynamically updates to reflect your changes.
- **Required Bandwidth**—This gauge estimates the network speed required to view the video after it is converted. It is calculated by taking the total bit rate (audio + video), and then approximating the type of network needed to view the converted video.

Why is my total bit rate placed in such a high category?

You may notice that your total bit rate may be low in comparison to the network speed. For example, a 6 mb/s video will likely be on the upper edge of a WiFi G network (which should support 54 mb/s). This is due to a couple of different factors:

- The total bit rate is an average, but the maximum bit rate can be up to 3 or 4 times the average bit rate. This gauge tries to provide extra room in its estimates for this variation.

- Network speeds seldom work 100% efficiently. For example, a WiFi G network under good conditions can frequently max throughput out at around 20-30 mb/s even if the reported connected speed is 54 mb/s.

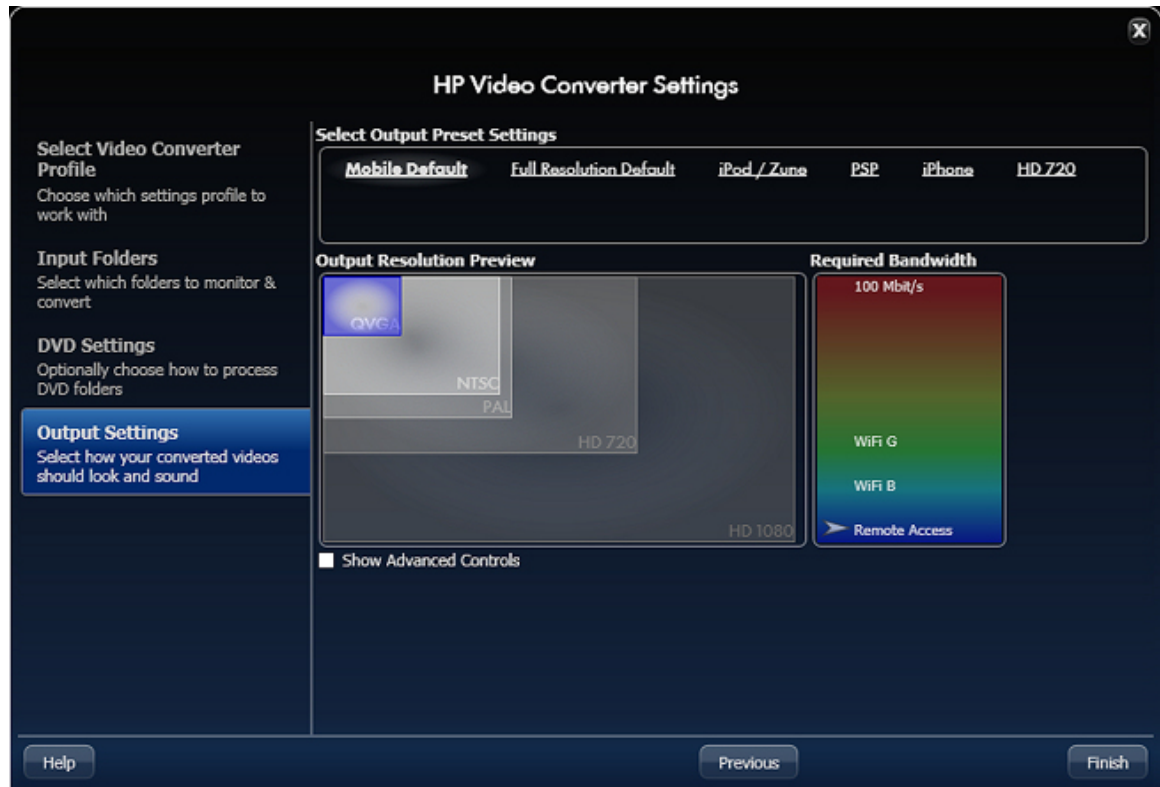
### Advanced Output Controls

- **Screen Size**—The video width and height control the size of the video. If you place "0" values for both height and width, the source video's dimensions will be used for the output file. If you choose a specific resolution, you should not feel obligated to create output videos that exactly match your desired viewing device. For example, if you have a TV that supports 1080p there is no strict rule that states you should convert videos to match this resolution.

Videos are upscaled when the output resolution is greater than the source material; however, the quality of this upscaled copy varies a great deal depending upon the source material. That is to say, a source video that is of poor quality or is very small in display resolution seldom looks pleasant when upscaled to a 1080p screen size. As rule of thumb, if the source material is of good quality, you should be able to nearly double the display resolution and only see minor issues.

Also of note is that some smaller devices only support a limited display resolution. You might need to check device documentation for supported video resolutions.



- **Video Frame Rate**—The video frame rate effects how smooth a video plays and how good the video quality is within each frame. Choosing a higher frame rate will create a smoother video, but may increase the need for a higher video bit rate. Conversely, a lower frame rate can create a more jumpy video, but each frame may look more crisp and you might be able to use a lower video bit rate setting.
- **Video Bit Rate**—The video bit rate controls the average amount of storage dedicated for a video as it plays. A higher bit rate can cause network problems, but a low bit rate can create low quality videos. Staying within the recommended green area may help you determine the best video bit rate to use. The green area is based on the size of your output video.



## Enable Video Converter

After you click **Finish** on the HP Video Converter Settings, you are returned to the Converter Status page. Click **Enable Video Converter** to begin converting videos.

## VIDEO CONVERTER STATUS

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Media** and then **Video Converter** in the left menu.
3. Select options on the Video Converter Status page.
  - **Enable Video Converter**—Check to turn Video Converter on. Clear to turn it off. If you turn Video Converter off after it has been in use, it will remember videos that have already been converted or canceled. Videos that were in progress or waiting to be converted will be removed from the queue.
  - **Sort by**—Choose an option from the list to sort converted videos.
  - **Show All Converted Videos**—Check this box to display your entire video converter history. Clear this check box to list videos that are coping to your source folder, currently being converted, or are in the queue to be converted.

The buttons at the bottom of the page only apply to selected videos on the status page. To select multiple continuous videos, click the video and **Shift+Click** the bottom one. To select random videos, hold down the **Ctrl** key and click each video individually. Buttons are active when they can be applied to the entire selection.

- **Re-convert**—If the video conversion fails or is interrupted, select the video in the status list and click **Re-convert** to attempt the conversion again.
- **Cancel**—Click **Cancel** to remove a video from the queue to be converted. If you later decide to convert a canceled video, you can see it by checking **Show All Converted Videos**. Then, select the canceled video and click **Re-convert**.
- **Resume**—Once the Video Converter is paused, you can restart it by clicking **Resume**. The Video Converter will continue converting the video that it was last working on.
- **Pause**—You can pause the Video Converter when you select a video that is **in progress** and click **Pause**. Use this option when you want to temporarily suspend the Video Converter but plan to resume it later.

## TROUBLESHOOTING AND FAQs

### Examples of Video Converter Profiles

This page gives a couple of examples of Video Converter profiles and their particular uses.

#### In this article...



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- ↓ [Create a Profile to Use When You Want to Stream Videos to an iPhone using iStream](#)
  - ↓ [Create a Profile to Use When You Want to Copy Converted Videos to a Mobile Device](#)
- 

### Create a Profile to Use When You Want to Stream Videos to an iPhone using iStream

The HP MediaSmart Server iStream is an application that allows you to stream photos, music, and videos stored on your HP Data Vault to your iPhone or iPod touch from anywhere that you have an Internet connection. iStream can be downloaded for free from the Apple App Store.



When using iStream, the video is on your server and it is streamed to your iPhone over an Internet connection. The quality of the Internet connection can effect playback of the video. iStream works best on high speed connections like 3G and WiFi. So, you want to create a profile that creates a converted video with a high enough resolution that the video is enjoyable to watch and a small enough file size so that the streams smoothly to your iPhone.

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Select the **HP Data Vault** tab.
3. Click **Media** and then **Video Converter** in the left menu.
4. Click **Configure**.

5. On the **Select Video Converter Profile** page, click **Mobile** and then **Next**.
6. On the **Input Folders** page, select **Videos** and click **Next**.  
This assumes you will place all of your original videos that you want to convert in the videos folder or a subfolder within Videos, and that you want to convert all of your videos using the mobile profile.  
  
If you want to convert a some of your videos for mobile streaming but not all of them, you could create a subfolder within Videos called Mobile (\\Videos\Mobile) and select Mobile as your input folder instead of Videos.
7. On the **DVD Settings** page, select **Break apart each title** and click **Next**.  
This setting takes each title within your DVD, and creates a new output file. This option is recommended because it converts all of your DVD content and it breaks up the content into smaller files based on the DVD titles. When you watch the video using iStream, you will stream only the converted video title that contains the movie, and not other artifacts like menus or movie previews.
8. On the **Output Settings** page, verify that **Mobile Default** is selected and click **Finish**.  
The HP Video Converter will monitor the Videos input folder, or other folder that you selected, for new videos and convert them using the mobile settings. The final videos are placed in the Converted Videos shared folder and are ready to be streamed using iStream. These settings are also suggested for streaming videos to a Mac or PC using the HP Media Streamer.

### **Create a Profile to Use When You Want to Copy Converted Videos to a Mobile Device**

You will have different considerations if you want to copy a video to a mobile device such as a Microsoft Zune or iPod Touch. In this case, the video will be on your mobile device so you do not have to worry about Internet connection speeds that you have when streaming videos. This often means that the video resolution can be higher than it is when streaming videos. However, you will still want to keep the file size relatively small so the video does not consume all of the space on your mobile device.

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Select the **HP Data Vault** tab.
3. Click **Media** and then **Video Converter** in the left menu.
4. Click **Configure**.
5. On the **Select Video Converter Profile** page, click **Create**.  
A dialog box opens.
6. Give the profile a **Name**, such as **My iPod**, and select **iPod/Zune** from the drop down list.
7. Click **Create** to return to the **Select Video Converter Profile** page.
8. Select the profile you just created from the list and click **Next**.
9. On the **Input Folders** page, select **Videos** and click **Next**.  
Assuming you will place all of your original videos that you want to convert in the videos folder



or a subfolder within Videos, and that you want to convert all of your videos using this profile.

If you want to convert a some of your videos using this profile but not all of them, you could create a subfolder within Videos called My iPod (\\Videos\My iPod) and select My iPod as your input folder instead of Videos.

10. On the **DVD Settings** page, select **Break apart each title** and click **Next**.  
Since this setting converts each title on your DVD as a separate output file, you will only need to copy the converted video file to your mobile device that contains the movie and not other content like menus or movie previews.
11. On the **Output Settings** page, verify that **iPod/Zune** is selected and click **Finish**.  
The HP Video Converter will monitor the Videos input folder, or other folder that you selected, for new videos and convert them using the iPod/Zune settings. The final videos are placed in the Converted Videos shared folder and are ready to be copied to your mobile device.

## Using Media Collector with Video Converter

If you have videos on multiple network computers and you want to convert them using Video Converter, it may save you time to move the videos to the server using Media Collector. You may find this scenario ideal if you have little to moderate video content on your network computers. If you have a lot of video content on your network computers, you may want to consider the Video Converter profile settings you are using and how much time will be required to convert the videos and how much disk space will they take up on the server.

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. If you have not already, create user accounts on your server.  
User accounts give network computers a way to authenticate with the server during media collection. See [Enable Guest Account and Set up User Accounts](#).
3. Configure Media Collector to copy all videos on your network computers to the videos shared folder.  
See [Configuring Media Collector General Settings](#) and [Configuring Media Collector for Videos](#).
4. Click **Media** and then **Video Converter** in the left menu.
5. Click **Configure** and create a Video Converter profile.
6. While creating the profile, select the **Videos** shared folder as your input folder since that is where Media Collector places videos.  
For more information on creating profiles, see [Configure Video Converter](#).

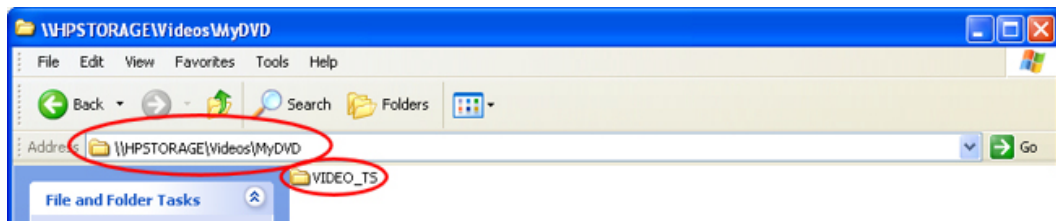
Depending on the number of videos you are converting and their size, the HP Video Converter may take a very long time to convert files.

## Converting Non-Copy Protected DVDs

Video content is becoming more and more popular, whether you're recording your last vacation or creating a YouTube video. If you used software to create a DVD, you can use the HP Video

Converter to transcode the DVD into a format suitable to streaming to many devices on your network, in your home, or mobile devices.

1. Insert the DVD in your computer's DVD-ROM drive.
2. Navigate to a folder on your server that is enabled for video conversion.  
This is typically your videos shared folder at \\hpstorage\videos. If you changed the name of your server during the installation, the path will be different. Navigate to \\<server name>\videos.
3. Create a folder for the DVD content.
4. Navigate to the DVD-ROM in Windows Explorer and copy the **Video\_TS** folder to the folder you created on your server.  
In the example, the full path on the server is \\hpstorage\videos\MyDVD\Video\_TS.





5. When the HP Video Converter scans the Videos shared folder it will transcode the DVD content and put it in a subfolder within \\hpstorage\converted videos.

## Giving Users Access to the Converted Videos Folder



You may want to give users on your network access to the Converted Videos folder so they can see what is in the folder or so they can add, delete, or change videos from the folder. By default, users have no access to the Converted Videos folder. Users that do not have access to the Converted Videos folder are still able to stream content from the folder.

Complete the following steps to change user permissions.

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click the **User Accounts** tab at the of the page. If the User Accounts Setup dialog displays click **OK**.
3. Double-click a user account to open the **Properties** dialog.
4. Select the **Shared Folder Access** tab.
5. Select an access level for the user—**Full**, **Read**, or **None**.
  - **Full**—The user will be able to create, change, or delete any files in the folder.
  - **Read**—The user will only be able to read files in the folder. They cannot create, change, or delete files in the folder.
  - **None**—The user will not be able to access any files in the folder.
6. Click **OK**.

## Enabling Converted Videos for TwonkyMedia

The Converted Videos folder is enabled for TwonkyMedia by default. If the Converted Videos folder is disabled, your mobile devices and in-house **media streaming** will not see the converted videos. Complete the following steps to enable the Converted Videos folder for TwonkyMedia.

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right of the Console.
3. Click **TwonkyMedia** in the left menu of the Settings dialog. The right pane shows current TwonkyMedia status for Media Sharing Folders, Media Receivers, and Maintenance.
4. If **Converted Videos** is not listed under **Media Sharing Folders**, click **Add**.
5. Select the **Converted Videos** folder and click **Videos** for the Content Type.
6. Click **OK** to return to the Settings dialog. Converted Videos should be listed in the Settings dialog with a green light next to it. If the light is not green, double-click Converted Videos.
7. Click **OK** to close the Setting dialog.

## Supported Video Formats

The following table lists several popular video formats supported by the Video Converter. This list is not comprehensive. For a comprehensive list, see <http://www.hp.com/support>. A list of unsupported formats is also included.

Supported Video Formats		
Container	Video	Audio
AVI	DivX (4,5,6)	mp3
AVI	DivX (4,5,6)	aac
AVI	XviD	mp3
AVI	XviD	aac
WMV	WMV, VC1	WMA
MPG	MPEG-1, MPEG-2	mp2, PCM, AC3
AVI	MJPEG	ADPCM, PCM
VOB	MPEG-2	AC3, ADPCM, PCM
MOV	MJPEG-A , B	PCM





MP4,M4V	AVC (h264)	AAC
MP4, M4V	MPEG-4	AAC
DVR-MS	MPEG-2	AC3

Unsupported Video Formats		
Container	Video	Audio
WTV	MPEG-1, 2, 4; WMV, VC1	
MOV	AVC (h264)	AAC and others
Multiple other containers	AVC (h264)	
MKV	AVC (h264)	
MTS	AVC (h264)	
No Support for ISO		

To determine if your video is compatible with Video Converter, check the following

- Check to see if the video file extension matches one of those listed in the Containers column. If it matches, it is likely that the video is compatible with Video Converter. However, if the embedded video or audio is an unsupported format, the file will not convert.
- See the documentation that came with the software or device that you used to create the video.
- Try converting a single test video using Video Converter.

## Video Conversion Fails

1. To view the status of video conversion at the PC, double-click the Windows Home Server icon  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Media** and then **Video Converter** on the left side of the Console.
3. Check **Show All Converted Videos**.
4. Click the **Status** column header to sort and group all Failed videos conversions together.
5. Examine the failed video conversions to determine the reason they failed.
  - **Copy protected DVD**—The HP Video Converter will not transcode copy protected DVDs.

**DRM protected content**—The HP Video Converter will not transcode electronic videos with Digital Rights Management (DRM) protection.

- **Unsupported video format**—The original video format is unsupported by the HP Video Converter.
- **Media Collector files**—If you copy videos to the server using Media Collector, the HP Video Converter may start transcoding videos before they are completely copied to the server. If this happens, the video conversion will fail. Select the video in the **Converter Status** list and click **Re-Convert** to attempt to transcode the video again. See [Automating Video Conversion](#) for more information on using Media Collector to copy videos to the server.

## Network Bandwidth

One benefit of using the Full resolution output settings is that older video formats like MPEG-2 videos are often much larger in size than the format used by the video converter. The output of a Full resolution video conversion can be approximately 25% of the file size of an original DVD (MPEG-2). This significant reduction in size can make streaming via 802.11G less problematic (although many factors impact streaming videos wirelessly and results may vary widely).

When considering remotely streamed video content (using a Windows Home Server with Remote Access Enabled), Full resolution videos will be difficult to stream remotely on many broadband connections. HP recommends using the Mobile resolution videos when streaming remotely for more success. These videos are very limited in resolution and visual fidelity, to provide a better chance for successfully accessing videos remotely. The Mobile resolution setting produces a video that is commonly supported for the mobile devices listed above. The Mobile resolution is also ideal for streaming playback on Internet connected PCs using the HP Media Streamer or the HP MediaSmart Server iStream application for iPhone or iPod touch.

## Chapter 6. Media Streaming

### ABOUT STREAMING MEDIA

Streaming media allows you to enjoy your videos, music, and photos in any room of your home and outside your home. Even when you are away from home, you can enjoy your media on any computer that has a **Web browser**.

**In this article...**

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- ↓ [Streaming Media Requirements](#)
  - ↓ [Streaming Media Types](#)
  - ↓ [Putting Media on the Server](#)
  - ↓ [Streaming to your Television, Stereo, and Home PC](#)
  - ↓ [Streaming to Xbox](#)
  - ↓ [Streaming to PlayStation3](#)
  - ↓ [Streaming to a Remote Computer](#)
  - ↓ [Streaming to iTunes](#)
- 

#### **Streaming Media Requirements**

Before Streaming Media can work, you must:

- Store media on the HP Data Vault
- Set up and enable Remote Access
- Set up Digital Media Receivers in your home

#### **Streaming Media Types**

Your HP Data Vault can only stream media files such as music, photos, and videos. Non-media files are not available for streaming (Microsoft Word files, Spreadsheet files, etc).

#### **Putting Media on the Server**

You can put media on your HP Data Vault in two ways:

- Drag and drop media files to the folders on your Server
- Configure Media Collector to copy files to your Server

Media Collector scans the computers in your home network and copies media to the server. You can choose how often Media Collector copies files; and you can choose what Media Collector copies and how to organize media on the server.

### **Streaming to your Television, Stereo, and Home PC**

Your HP Data Vault uses Digital Media Servers to stream media from the Server to a Digital Media Receiver that is attached to your television and stereo.

### **Streaming to Xbox**

1. Open Xbox and navigate to **My Xbox**.
2. Select either **Music Library**, **Picture Library**, or **Video Library**.
3. Select **hpstorage** from the list of sources.  
If you renamed your server during the initial software installation, that name will be listed.
4. Navigate to the file you want to view or play.

### **Streaming to PlayStation3**

1. Open PlayStaion3 and navigate to **Photo**, **Music**, or **Video**.
2. Select **hpstorage** from the list of sources.  
If you renamed your server during the initial software installation, that name will be listed.
3. Navigate to the file you want to view or play.

### **Streaming to a Remote Computer**

You can stream from the Internet using the HP Web Streamer application. When you are traveling, you can stream media from your HP Data Vault to any computer that has a **Web browser**.

Your Server has a Digital Media Server called TwonkyMedia and a Web server. TwonkyMedia prepares your media for streaming and the Web server streams media to the Internet where your computer can play it on a Web browser.

### **Streaming to iTunes**

You can listen to the music files from your HP Data Vault using iTunes. You cannot stream photos or videos to iTunes, only music files. iTunes can stream DRM-protected media.

## **IN-HOME STREAMING**

**In this article...**

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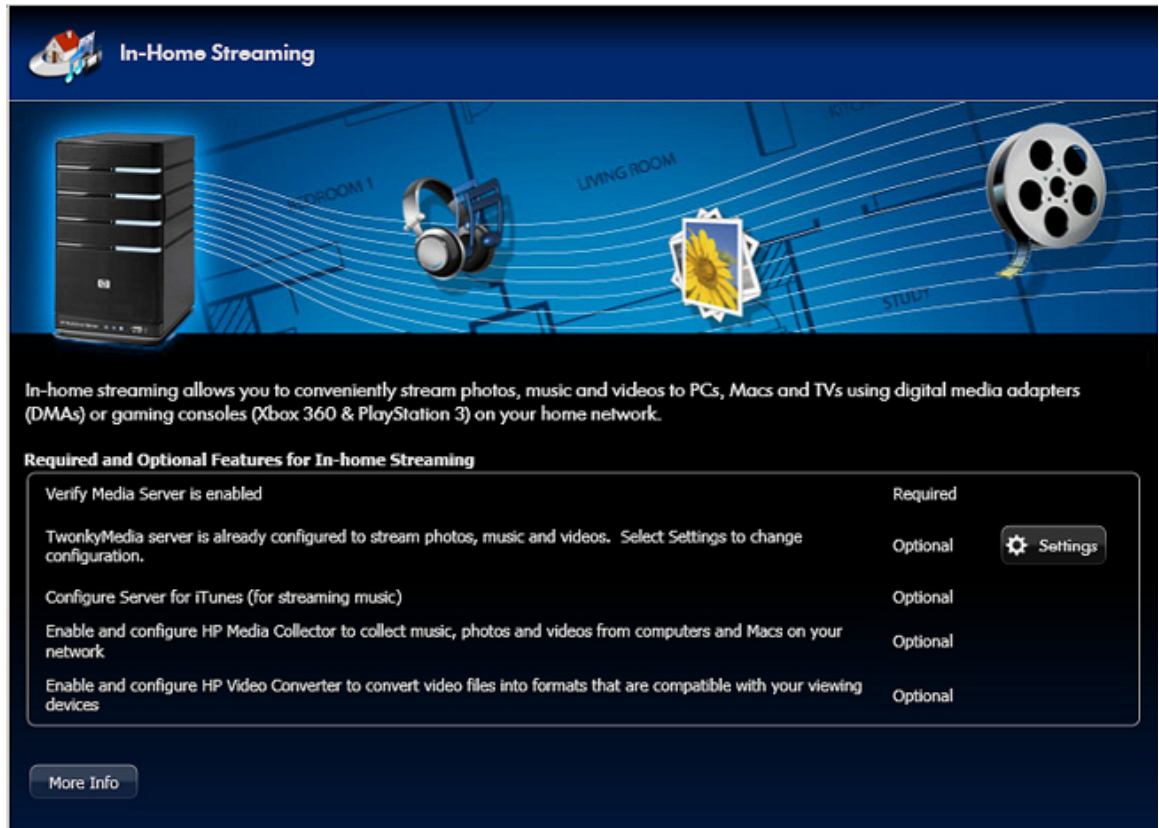
- ↓ [Verify Media Server is Enabled](#)
  - ↓ [Configure TwonkyMedia to Stream Photos, Music, and Videos](#)
  - ↓ [Configure Server for iTunes](#)
-



↓ [Enable and Configure HP Media Collector](#)

↓ [Enable and Configure HP Video Converter](#)

## Verify Media Server is Enabled



Before you can stream photos, music, and videos in the home, Media Server must be enabled. Media Server is enabled out-of-the-box. To verify that Media Server is enabled, perform the following steps.



1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Media** and then **In-home Streaming** in the left menu.
3. Verify the button at the of the page says **S Sharing**. If the button says **Start Sharing**, click it to enable media sharing.

## Configure TwonkyMedia to Stream Photos, Music, and Videos



TwonkyMedia is enabled by default in your **HP Data Vault**. To configure or change TwonkyMedia settings, follow these steps:

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right corner of the Console.
3. Click **TwonkyMedia** in the left menu.  
You can change settings here by using these tabs:
  - **Media Sharing Folders**—Add, Edit, or Remove.
  - **Media Receivers**—Add, Edit, or Remove. Check Automatic Sharing here to enable sharing for new media receivers automatically.
  - **Maintenance**—Rebuild the database, and Reset to Default all media server settings. Create and View Log Files for debugging purposes. And you can change the default Web server port.
5. Click **OK** to finish.

### Configure Server for iTunes

You can centralize your iTunes library for playback on any computer on your home network that runs iTunes.

Your Server is enabled for iTunes by default. To set up your Server for iTunes follow these steps:



1. At the PC, double-click the Windows Home Server icon  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Select **Media** and then **Server for iTunes** in the left menu.
3. Click **Configuration**.  
Here you can set up the following:
  - **Status**—enable or disable.
  - **Shared name**—specify the shared name you want to display in iTunes.
  - **Require password**—check to require password. The default setting here is no password. If you assign a password, then only users who provide the correct password can play music from your Server's shared library.
  - **Check interval**—how often to check for music that has been added to the shared Music folder on the server. By default this is set to check every 5 minutes.
5. Click **OK** to finish.

### Enable and Configure HP Media Collector

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .

2. Click **Media** and then **HP Media Collector** in the left menu.
3. Click **Configuration**.  
The HP Media Collector General Settings panel opens.
4. Complete the steps in the wizard.  
For additional information, see the following help ics.  
[Configuring Media Collector General Settings](#)  
[Configuring Media Collector for Photos](#)  
[Configuring Media Collector for Music](#)  
[Configuring Media Collector for Videos](#)

## **Enable and Configure HP Video Converter**

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Media** and then **Video Converter** in the left menu.
3. Click **Configure**.  
The HP Video Converter Settings panel opens.
4. Complete the steps in the wizard.  
For additional information, see [Configure Video Converter](#).

## **WEB/IPHONE STREAMING**

### **In this article...**

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- ↓ [Configure Remote Access](#)
  - ↓ [Create User Account with Remote Access Enabled](#)
  - ↓ [Verify Media Server is Enabled](#)
  - ↓ [Configure TwonkyMedia to Stream Photos, Music, and Videos](#)
  - ↓ [Enable and Configure HP Media Collector](#)
  - ↓ [Enable and Configure HP Video Converter](#)
-



## Configure Remote Access

1. At the PC, double-click the Windows Home Server icon in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right of the Console.
3. Click **Remote Access** in the left menu.
4. Click to **Turn on** remote access.
5. The wizard then prompts you to select a **Domain Name Provider** and create a domain name.
6. Once the wizard is complete, customize **Web site settings** as desired.
7. Click **OK**.

For additional information, see [Configure Remote Access](#).

## Create User Account with Remote Access Enabled



1. At the PC, double-click the Windows Home Server icon in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .



2. Click the **User Accounts** tab at the of the page. If the User Accounts Setup dialog displays click **OK**.
3. Click **Add**, this will open the **Add User Account** screen. enter user information. Check the **Enable Remote Access for this user** check box. Make an appropriate choice concerning allowing access to computer and folders.
4. Click **Next**.
5. Enter and confirm a strong **password**. A strong password is suggested to ensure security and is required to use remote access. A strong password must be at least 7 characters long and must fulfill three of the following four character criteria:
  - Uppercase characters
  - Lowercase characters
  - Numbers
  - Symbols (such as !, @, #, and so on.)
7. Click **Next**.
8. Select access to shared folders
9. Click **Finish**.
10. Click **Done**.



For additional information, see [Enable Guest Account or Set up User Accounts](#).

## **Verify Media Server is Enabled**

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Media** and then **In-home Streaming** in the left menu.
3. Verify the button at the of the page says **S Sharing**. If the button says **Start Sharing**, click it to enable media sharing.



## **Configure TwonkyMedia to Stream Photos, Music, and Videos**

TwonkyMedia is enabled by default in your **HP Data Vault**. To configure or change TwonkyMedia settings, follow these steps:



1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right corner of the Console.

3. Click **TwonkyMedia** in the left menu.  
You can change settings here by using these tabs:
  - **Media Sharing Folders**—Add, Edit, or Remove.
  - **Media Receivers**—Add, Edit, or Remove. Check Automatic Sharing here to enable sharing for new media receivers automatically.
  - **Maintenance**—Rebuild the database, and Reset to Default all media server settings. Create and View Log Files for debugging purposes. And you can change the default Web server port.
5. Click **OK** to finish.

### **Enable and Configure HP Media Collector**

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Media** and then **HP Media Collector** in the left menu.
3. Click **Configuration**.  
The HP Media Collector General Settings panel opens.
4. Complete the steps in the wizard.  
For additional information, see the following help ics.  
[Configuring Media Collector General Settings](#)  
[Configuring Media Collector for Photos](#)  
[Configuring Media Collector for Music](#)  
[Configuring Media Collector for Videos](#)

### **Enable and Configure HP Video Converter**

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Media** and then **Video Converter** in the left menu.
3. Click **Configure**.  
The HP Video Converter Settings panel opens.
4. Complete the steps in the wizard.  
For additional information, see [Configure Video Converter](#).

## TWONKYMEDIA FOR MEDIA SHARING

### About TwonkyMedia

We strongly recommend that you use TwonkyMedia as your Digital Media Server. TwonkyMedia is enabled by default in your HP Data Vault. TwonkyMedia includes these features:

Allows your digital media receiver (DMR) to see photo thumbnails for pictures and album artwork for music

Supports remote media streaming

- Supports more media formats than Windows Media Connect

Complies with the Digital Living Network Alliance (DLNA) protocol which allows support for more DMRs

#### In this article...

- ↓ [File Compatibility for Local Streaming](#)
- ↓ [TwonkyMedia Default Settings](#)
- ↓ [UPnP A/V and DLNA](#)
- ↓ [TwonkyMedia and Remote Streaming](#)

### File Compatibility for Local Streaming



The table below compares local streaming file compatibility between TwonkyMedia and Windows Media Connect.

TwonkyMedia and Windows Media Connect File Compatibility		
File Types	TwonkyMedia	Windows Media Connect
<b>Music Formats</b>		
3gp	Yes	
ac3	Yes	
aiff	Yes	
asf	Yes	Yes
FLAC	Yes	
LPCM	Yes	
m4a	Yes	

<b>TwonkyMedia and Windows Media Connect File Compatibility</b>		
<b>File Types</b>	<b>TwonkyMedia</b>	<b>Windows Media Connect</b>
mp1	Yes	
mp2	Yes	
mp3	Yes	
mp4	Yes	
mpa	Yes	
ogg	Yes	
wav	Yes	Yes
wma	Yes	Yes
<b>Picture Formats</b>		
bmp	Yes	Yes
gif	Yes	Yes
jpg	Yes	Yes
png	Yes	Yes
tif, tiff	Yes	Yes
<b>Video Formats</b>		
3gp	Yes	
asf	Yes	
avi	Yes	Yes
DivX	Yes	
dvr-ms	Yes	Yes
m1v	Yes	
m4v	Yes	
mpe	Yes	
mpg/mpeg	Yes	Yes

TwonkyMedia and Windows Media Connect File Compatibility		
File Types	TwonkyMedia	Windows Media Connect
MPEG-1	Yes	Yes
MPEG-2	Yes	
MPEG-2-T-S	Yes	
MPEG-4	Yes	
vdr	Yes	
vob	Yes	
wmv	Yes	Yes
Xvid	Yes	
Playlist Formats		
m3u	Yes	Yes
pla	Yes	
wpl	Yes	Yes

## TwonkyMedia Default Settings

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right corner of the Console.
3. Click **TwonkyMedia** in the left menu.

TwonkyMedia has these default settings in your HP Data Vault:

Enables three folders for media streaming (You can add more.):

- **Music**—music only (album art is displayed but is not shared as a picture)
  - **Photos**—music, photos, and videos
  - **Videos**—videos only
- Gives all newly-detected DMRs access to your media

## UPnP A/V and DLNA

Universal Plug and Play Audio Video (UPnP A/V) and Digital Living Network Alliance (DLNA) define standard network protocols for streaming media.



- **UPnP A/V** is a set of network protocols that allow networked devices to communicate seamlessly in a home networking environment. The Digital Media Servers on your HP Data Vault, TwonkyMedia and Windows Media Connect, use UPnP/AV.
- **DLNA** is a set of standards (that includes UPnP A/V) for sharing media between devices. TwonkyMedia is DLNA compliant. Windows Media Connect is not. This compliance allows TwonkyMedia to work with more DMRs.

## TwonkyMedia and Remote Streaming

You can stream media to your lap in the hotel room or to your friend's computer in London. TwonkyMedia takes media from the folders on your disk and streams this to the Web server. The Web server streams your media files to the Internet where you can access them from any computer that has an Internet browser.

## Configure TwonkyMedia for Streaming Media

TwonkyMedia is enabled by default in your **HP Data Vault**. To configure or change TwonkyMedia settings, follow these steps:

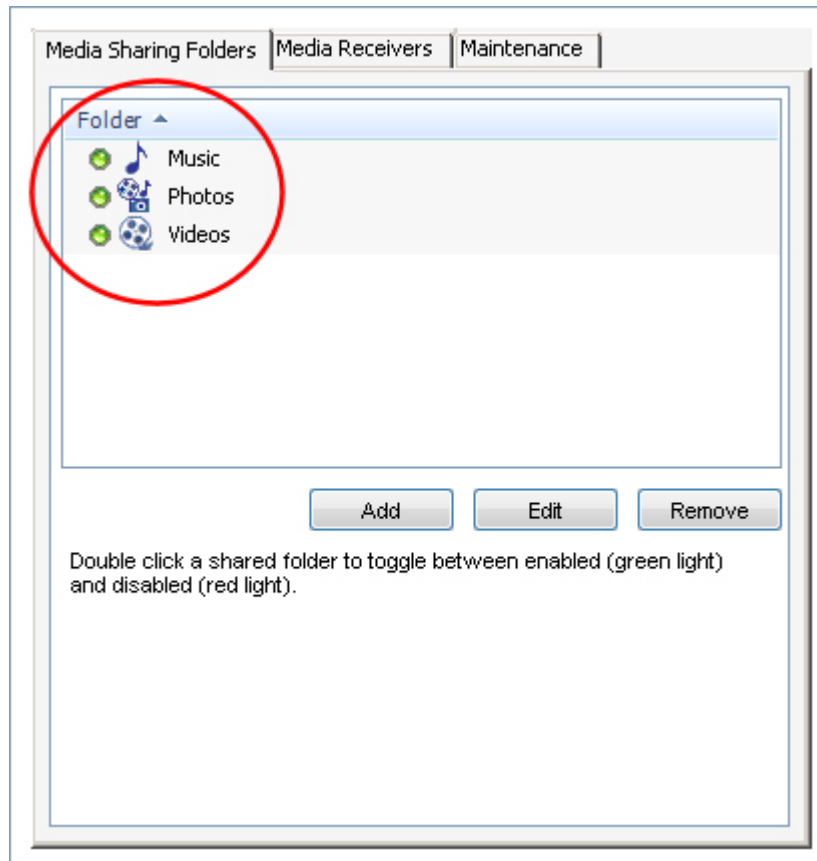
1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right corner of the Console.
3. Click **TwonkyMedia** in the left menu.  
You can change settings here by using these tabs:
  - **Media Sharing Folders**—Add, Edit, or Remove.
  - **Media Receivers**—Add, Edit, or Remove. Check Automatic Sharing here to enable sharing for new media receivers automatically.
  - **Maintenance**—Rebuild the database, and Reset to Default all media server settings. Create and View Log Files for debugging purposes. And you can change the default Web server port.
5. Click **OK** to finish.

## Troubleshooting and FAQs

### TWONKYMEDIA: DISABLING MEDIA SHARING FOLDERS STILL STREAMS TO DMA

#### Symptom

TwonkyMedia was connected to a DMA and now I want to Disable Media Sharing. I go to the TwonkyMedia, click Media server settings and click the Media Sharing Folders tab. I double click on each of the folders to disable sharing.



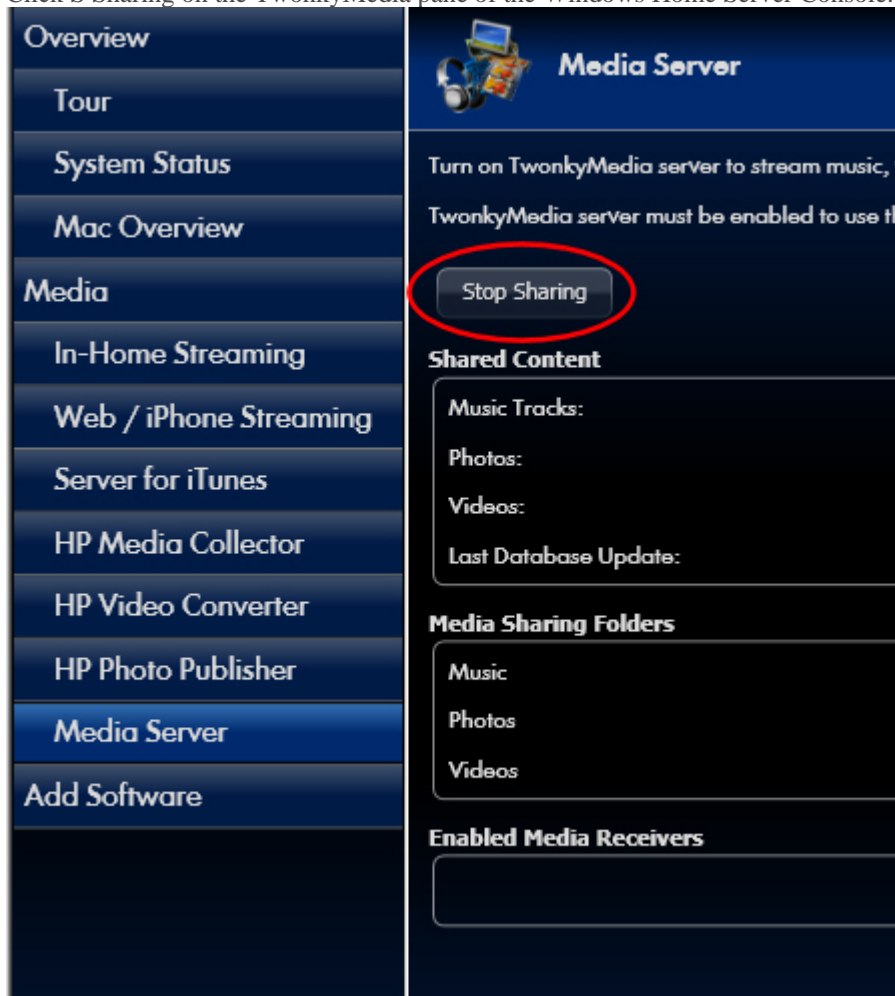
TwonkyMedia is still streaming media.

#### Workaround

Disabling the media sharing does not halt the media sharing. This has to be accomplished through the TwonkyMedia pane of the Windows Home Server Console.

## Solution

Click S Sharing on the TwonkyMedia pane of the Windows Home Server Console.





## SERVER FOR ITUNES

### Settings for iTunes

You can centralize your iTunes library for playback on any computer on your home network that runs iTunes.

Your Server is enabled for iTunes by default. To set up your Server for iTunes follow these steps:

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Select **Media** and then **Server for iTunes** in the left menu.
3. Click **Configuration**.  
Here you can set up the following:



- **Status**—enable or disable.
  - **Shared name**—specify the shared name you want to display in iTunes.
  - **Require password**—check to require password. The default setting here is no password. If you assign a password, then only users who provide the correct password can play music from your Server's shared library.
  - **Check interval**—how often to check for music that has been added to the shared Music folder on the server. By default this is set to check every 5 minutes.
5. Click **OK** to finish.

## Troubleshooting and FAQs

### ITUNES FREQUENTLY ASKED QUESTIONS

#### Song Selection from the Server is not Updating with New Additions.

Server has not refreshed yet.

- Wait for the Server to synchronize.
- Click on eject button on the Server bar.

#### Podcasts not Showing in Playlist.

Podcasts copied over will not show in playlist for server.

### WHY CAN I PLAY AND STREAM DRM CONTENT MY HOME COMPUTER BUT NOT STREAM IT FROM MY SERVER?

The HP Data Vault includes a media server for streaming iTunes music to PCs running iTunes through the house. See the section in the User's Guide on iTunes.

For Windows Media DRM (WMDRM) content (protected .wma music and .wmv videos), the HP Data Vault does not support streaming of this content to DMAs at this time. Playing (and streaming) of WMDRM protected content requires that the device that is playing the content have a license for the content. When you downloaded the content to your PC, you also received a license to play the content on that PC. If you copy the files to the HP Data Vault, you cannot copy or transfer the license to the server. The server must obtain its own license, and we do not provide for this feature in the current product.

What you can do however, is store your protected content on the HP Data Vault. This allows all of the PCs in the home that have a license for the content to play it from the HP Data Vault by accessing it through the network. For example, to add all of the music on your Server to the Windows Media Player library on your PC:

1. Open **Windows Media Player** on your PC.

2. Select **File**, then **Add to Media Library**, and click **Add Folder...**
3. In the Add Folder dialog, type \\<YourServerName>\Music and click **OK**.

This will add all of the music files in your Music shared folder on the HP Data Vault to your Windows Media Player library. You will then be able to play all of the protected content for which this PC has a license.

## HP MEDIA STREAMER

### About the HP Media Streamer

The HP Media Streamer allows you to store music, videos, and photos on your server and stream them to computers on your network or logged in remotely over the Internet for viewing and listening.


#### In this article...

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- ↓ [Open Media Streamer from the HP Home Page](#)
  - ↓ [Open Media Streamer using a Web Browser](#)
  - ↓ [File Formats Supported by the HP Media Streamer](#)
  - ↓ [Before You Begin Using the HP Media Streamer](#)
- 

### Open Media Streamer from the HP Home Page

You can open the Media Streamer from the HP Home Page while your computer is connected to the network or logged in remotely over the Internet.

1. At the PC, double-click the HP Data Vault desk icon.  
At the Mac, select **Open Home Page** from the **Server** menu .
2. Click **Media Streamer**.

#### Open Media Streamer using a Web Browser

Media Streamer is a Web application that can be opened using a web browser such as Internet Explorer, Firefox, or Safari, and a personal URL. When you open Media Streamer this way, it assumes you are opening it through a remote Internet connection and you must log on using a server user account.

1. Open a Web browser and type your personal URL address in the address bar.  
An example URL is: smithfamily.HPhome.com. If you have not created a URL for your server, see [Configure Remote Access](#). The browser opens the Windows Home Server home page.
2. Click **Media Streamer**.
3. Enter your HP Data Vault **User Name** and **Password**.  
If you have not created a user account, see [Enable Guest Account or Set up User Accounts](#).

---

## **File Formats Supported by the HP Media Streamer**

The files and types listed below are compatible for Media Streaming:

### **Audio Formats**

MP3, AAC-LC, PCM

### **Compatibility for Audio**

.wma, .mp3, .m4a, .mp4, .aac, .wav

### **Compatibility for Photo**

.jpg, .tif, .tiff, .png, .gif, .bmp

## **Before You Begin Using the HP Media Streamer**

Before you can run Media Streamer you must:

- Install Flash 9 plugin for the Web browser on your computer
  - [Configure TwonkyMedia for Streaming Media](#) on your HP Data Vault
  - Configure Remote Access on your Server (required for remote access only)
- Create a [User Account](#) with a strong password (required for remote access only)

## **HP Media Streamer Music Page**

In this article...

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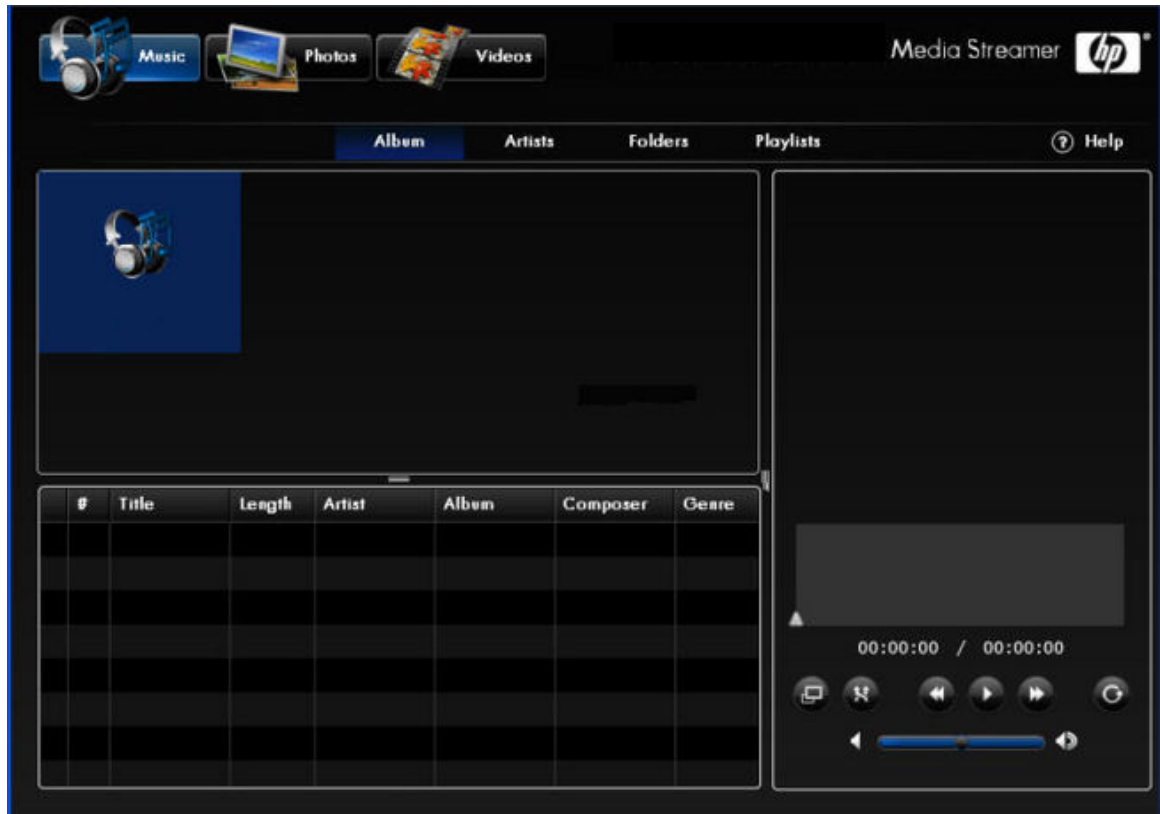
- ↓ [Album View](#)
  - ↓ [Artists View](#)
  - ↓ [Folders View](#)
  - ↓ [Playlists View](#)
  - ↓ [Media Player](#)
  - ↓ [Tracks Panel](#)
- 

### **Album View**

The Album view on the Music page has two selection panels (Album and Tracks) and a media Player. The blue background shows the item selected in each panel.

The **Album** panel shows a list of the albums available on the server sorted alphabetically by album title. When you select an album, the tracks for that album appear in the tracks panel. You can jump to a different album in the list by typing the first letter of an album.

In the **Tracks** panel, the tracks sort by track order. Again, you can jump to a different section of each column by typing the first letter of any Title, Artist, or Album.



## Artists View

The Artists view on the Music page has three selection panels (Artists, Albums, Tracks) and a media Player. The blue bar shows the item selected in each panel.

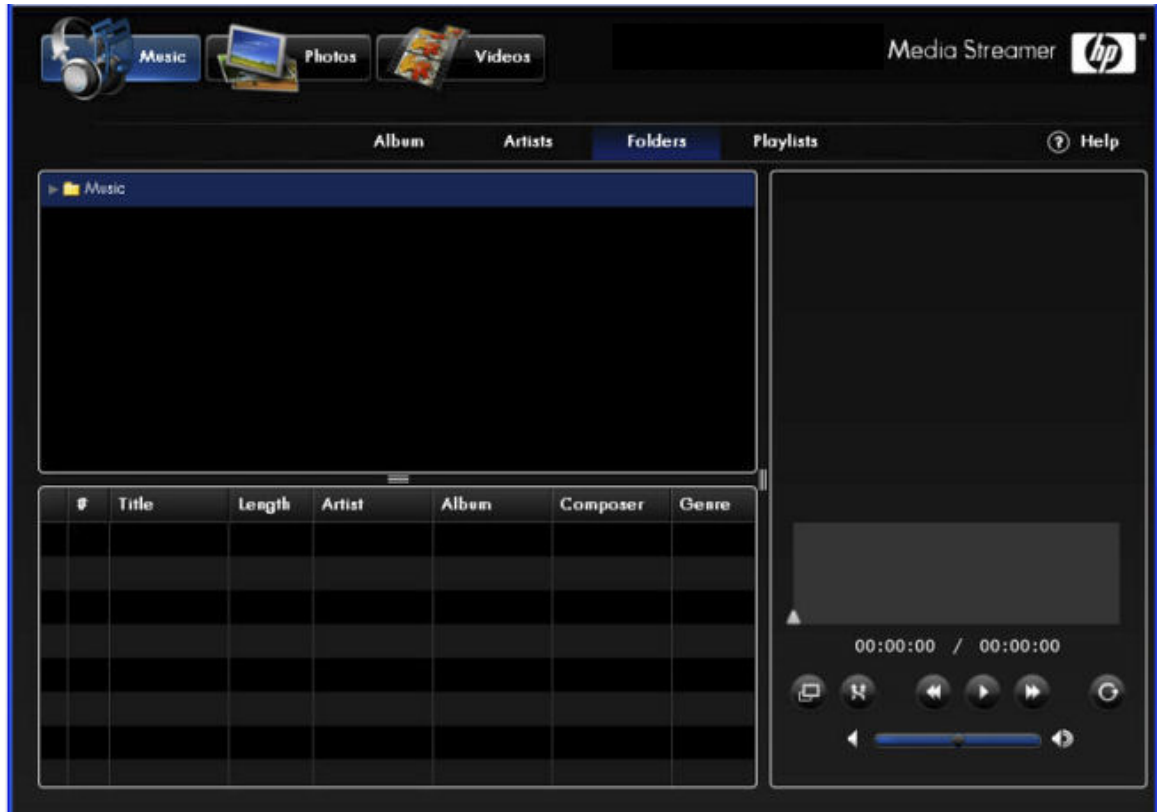
In the **Artists** and **Albums** panels, names sort alphabetically. When you select an artist, the albums for that artist appear in the Albums panel. When you select a single album, the tracks for the selected album appear in the tracks panel sorted by song title.

The **Artists** and **Albums** panels have an – **All** – item at the . This allows you to select all artists or albums and this option always stays on screen.

- Selecting – **All** – in the **Artists** panel will list all albums in the albums panel.
- Selecting –**All** – in the **Albums** panel will list the tracks from all albums by that artist in the tracks panel.

The Albums column in the **Artist** panel shows the number of albums for – All – and for each artist. The Tracks column in the **Albums** panel shows the number of tracks for – All – and for each artist.





## Playlists View

The Playlists View has two selection panels and a media player.

There are three pre-defined playlists: **-Last played-**, **-Most played-**, and **Recently added**. And the user's personal playlists are listed below.

Tracks from the selected playlist display in the Tracks panel. Playlist tracks sort in playlist order.



### **Note**

Playlists display up to 500 songs.

### **Selection Bar**

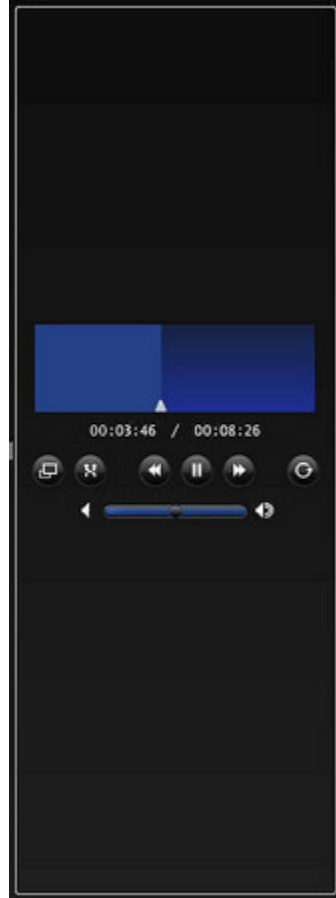
This blue bar shows the item selected in each panel. When you open Media Streamer the Selection Bar highlights what you last selected.



## Media Player

From the down, the Player shows these features:

- Player window shows album art (if available)
- Blue Display area – shows artist on line, album in the middle line, track name on the bottom line. Below the Text the progress bar shows the amount of time played. Names that are too wide to fully display in the player can be read in a tool tip by hovering the mouse over desired name.
- Progress Bar –Click the progress bar at the place you want to play or slide the arrow to the desired time.
- Song progress text – shows the current position in time for the song and total song duration.
- Player Controls are in left to right order:
  - Full Screen Toggle
  - Shuffle Toggle – blue circle outline indicated shuffle is turned on
  - Previous Track
  - Play/Pause toggle
  - Next track
  - Repeat Toggle -- blue circle outline indicates repeat is turned on
- Below the player controls is the volume control slider bar. You can grab and move this to left and right or click the desired position on the slider bar.



### Tracks Panel

The columns: Length, Artist, Album, Composer, and Genre give information about each track and are sort-able by clicking the column header. Once the column is sorted, type the first letter of the value you are looking for, and the first track with a value in that column that matches will be selected, but not played. Repeating the key press will move the selection to the next value beginning with the letter typed.

Click the desired track with mouse and it will begin to play.



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## HP Media Streamer Photos Page

In this article...

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- ↓ [Date View](#)
  - ↓ [Folder View](#)
  - ↓ [Playlist View](#)
  - ↓ [Full Screen view](#)
- 

### **Date View**

The Photo Page, Date View has three selection panels and one media player.

The Year panel has a column showing years and a column showing the number of photos in that year.

The Month panel has a month column that shows the number of the month, only the months that have photos show up and a column showing the number of photos in that month and year.

The Photos panel displays thumbnails, if you hover over a thumbnail a tool tip will display the filename.

### **Selection Bar**

This blue bar shows the item selected in each panel.

– All – The Year and Month panels have an – All – item.

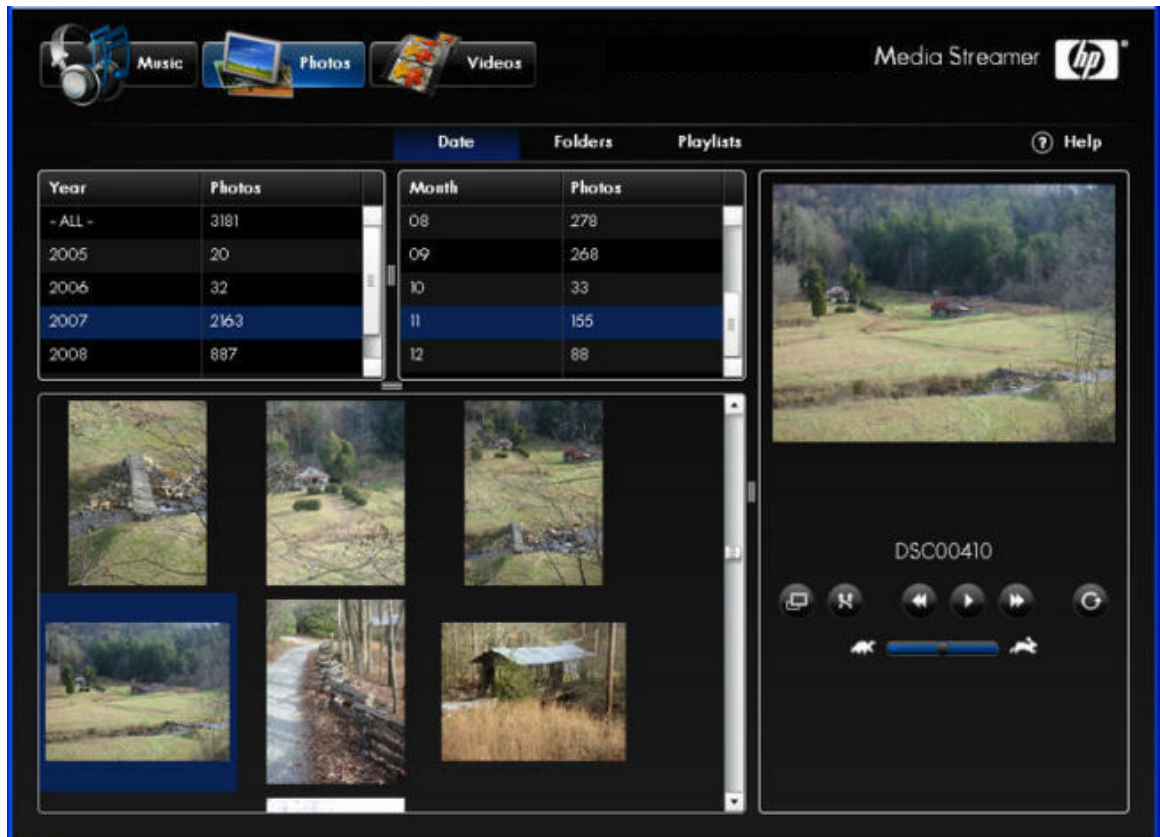
- Selecting - All - in the year panel will list all months in the month panel, each month entry includes the photos from that month for all years combined.
- Selecting – All – in the month panel will show all photos for the selected year in the photos panel.

Selecting a particular year in the year panel will load all months that contain images from that year.

Selecting on a particular month will load the thumbnails of all images for that month in the photos panel.

Selecting a photo thumbnail in the photos panel will load the image in the media player.

The figure below shows the Photos Page—Date View



## Folder View

The Photos Page, Folder View has two selection panels and one media player

The selection panel shows folders in a typical file browser view.

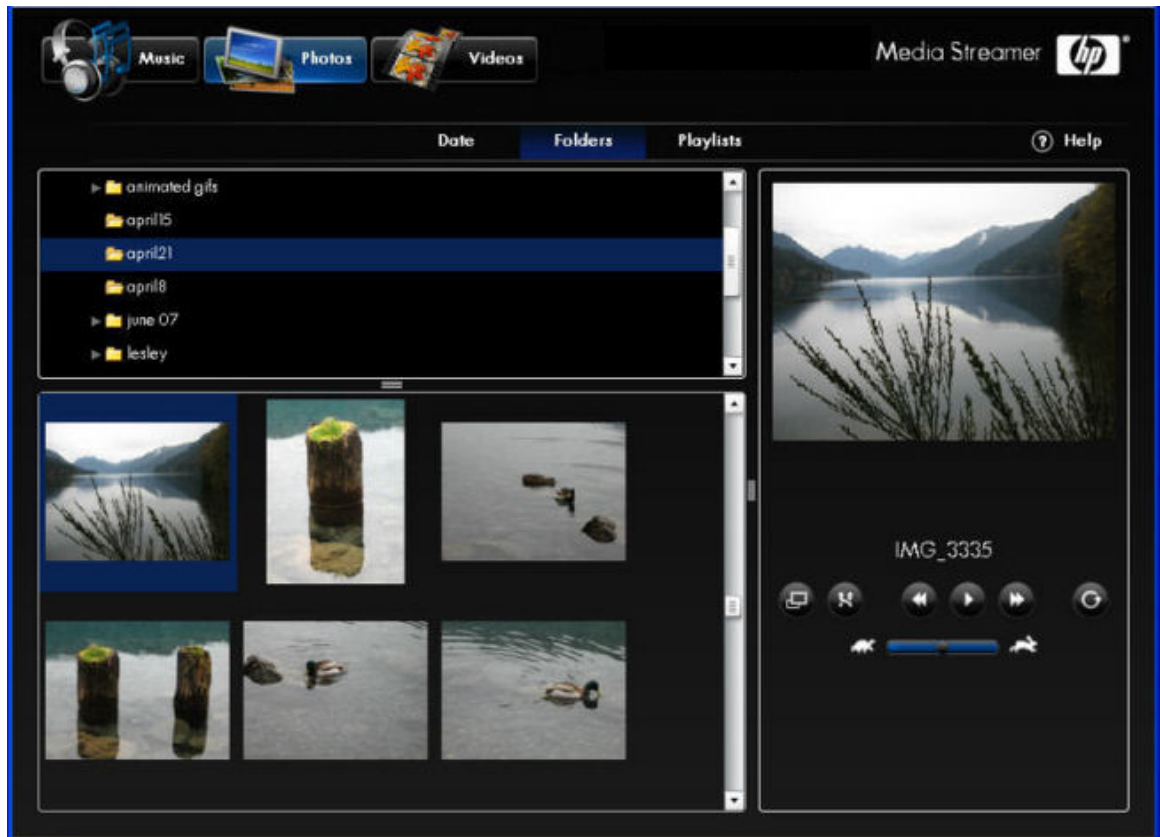
In the photos panel thumbnails of the images in the folder selected in the file browser view are displayed. Images in sub folders are not shown in the photo panel.

Selecting a photo thumbnail in the photos panel will load the image in the media player.

## **Selection Bar**

This blue bar shows the item selected in each panel.

The figure below shows the Photos Page—Folder View



## Playlist View

The Playlists View has two selection panels and a media player.

There are three pre-defined playlists: -Most played-, -Last played-, and -Recently Added-.

Photo thumbnails from the selected playlist display in the photos panel. Playlist photos sort in playlist order.



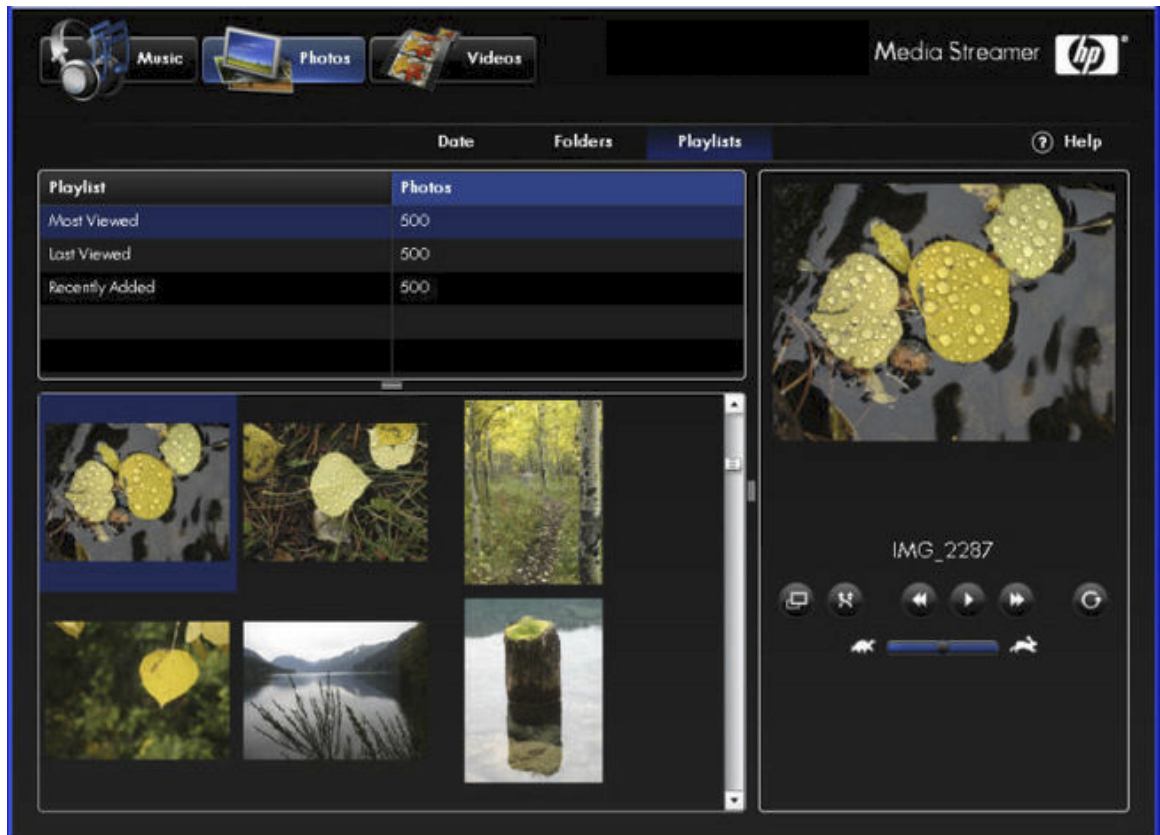
### **Note**

Playlists display up to 500 photos.

### **Selection Bar**

This blue bar shows the item selected in each panel.

The figure below shows the Photos Page—Playlist View



### Full Screen View

This view shows the picture in the full browser window. The player controls appear in a semi-transparent gray bar in the bottom center of the picture. The controls will fade out after 3 seconds. Moving the mouse in the photo viewer window will make the controls appear again.

The figure below shows the Photos Page—Full Screen View



## HP Media Streamer Videos Page



### Note

To ensure that your videos can be streamed, videos should be processed through the HP Video Converter, for more information see [About HP Video Converter](#).

### In this article...

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- ↓ [All View](#)
  - ↓ [Folders View](#)
  - ↓ [Playlists View](#)
  - ↓ [Video Quality Filter](#)
  - ↓ [Status Link](#)
  - ↓ [Videos Panel](#)
  - ↓ [Player](#)
- 

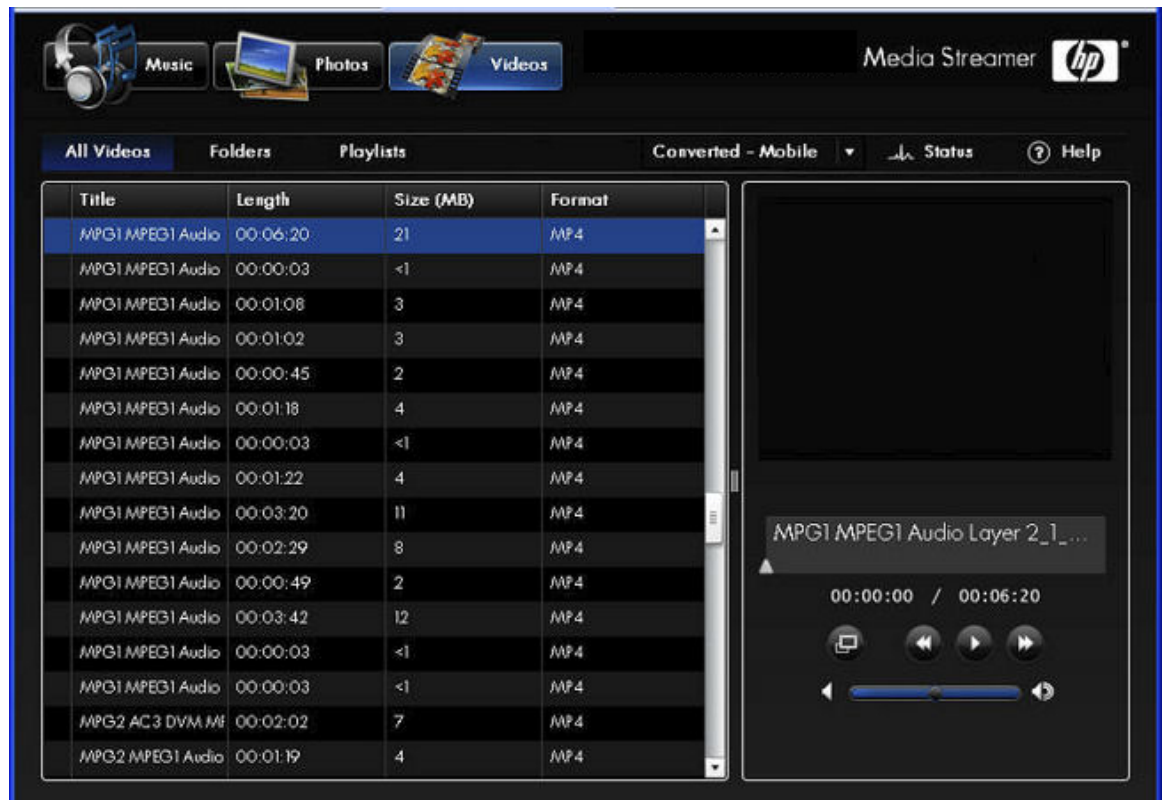
### **All View**

The All view of the Videos page has one selection panel and the media player.

In the Videos panel, videos available for streaming are presented.  
Selection Bar

This blue bar shows the item selected in each panel.

Selecting a video in the Videos Panel will start loading the video in the video player. You must then click the play button to start the video.



## Folders View

The Folders view of the Videos page has two selection panels.

The selection panel shows folders in a typical file browser view. The lower panel lists videos for the selected folder.

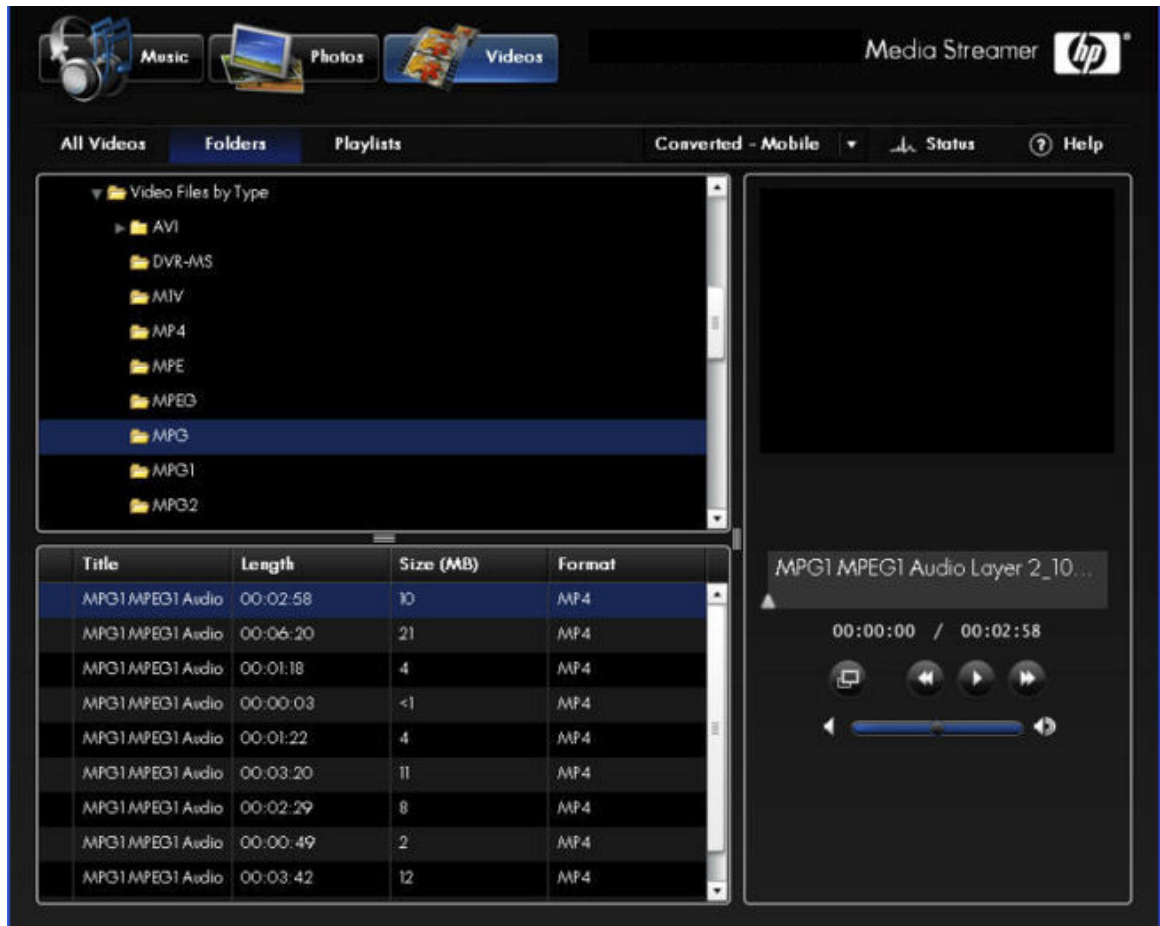
Selection Bar

This blue bar shows the item selected in each panel.

Selecting a video in the Folder Panel lists the videos in that folder in the Videos Panel.

Selecting a video in the Videos Panel will start loading the video in the video player. You must then click the play button to start the video.

The figure below shows the Videos Page – Folders View



## Playlists View

The Playlists View has two selection panels and a media player.

There are three pre-defined playlists: – Most played–, –Last played–, and –Recently Added– which are displayed in the Playlist panel. The playlist panel also lists the number of videos in each playlist.

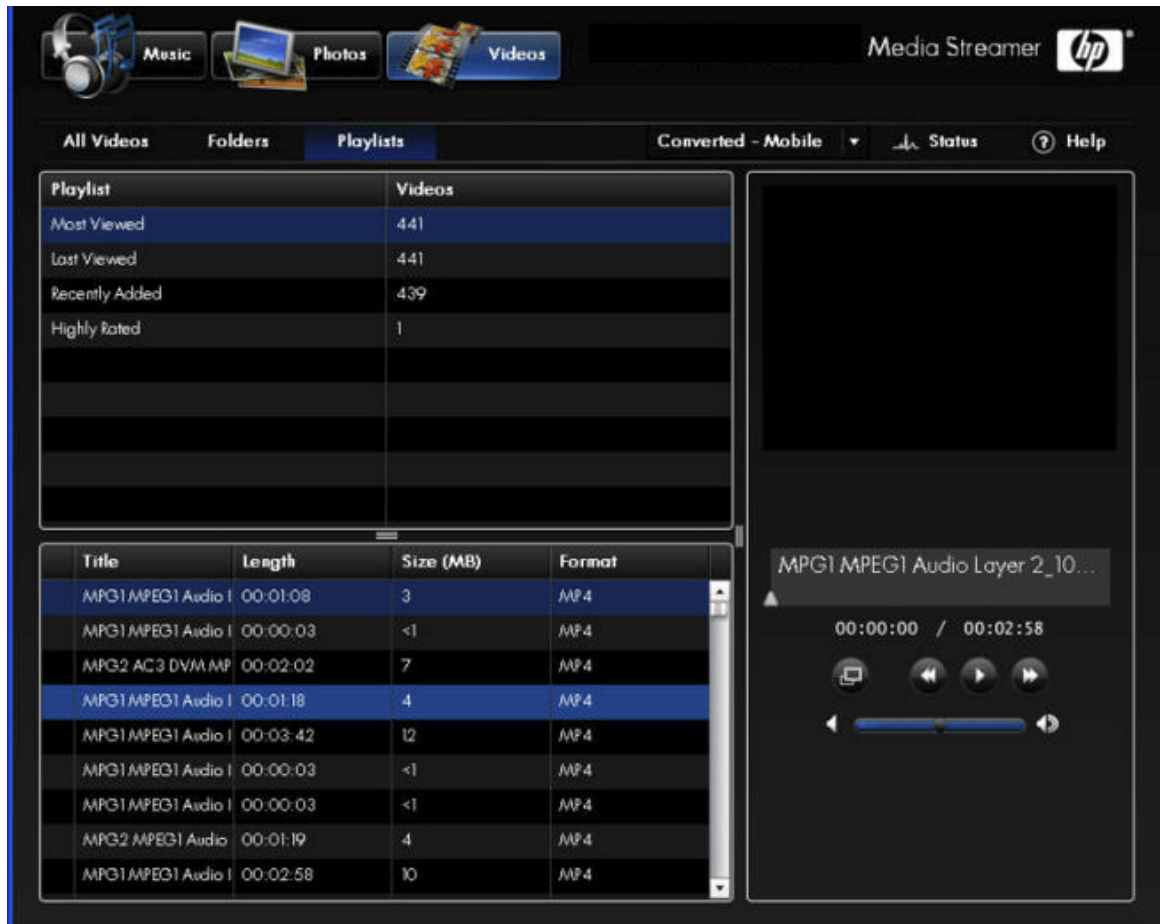
Videos from the selected playlist display in the videos panel. Playlist videos sort in playlist order.

Selecting a video in the Videos Panel will start loading the video in the video player. You must then click the play button to start the video.



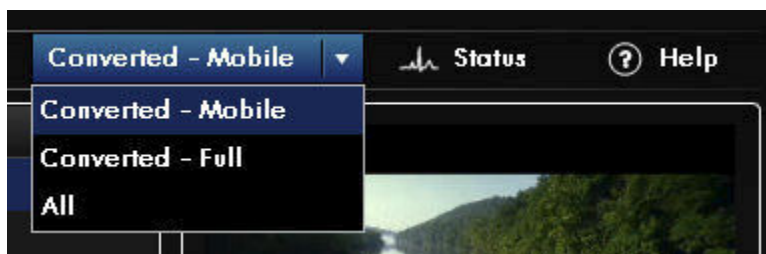
### Note

Playlists display up to 500 videos.



## Video Quality Filter

By default the Video page will open with Converted Mobile videos.



You have three choices for Video Quality

**Converted – Mobile** These Videos are suitable for mobile devices and remote video streaming (the video will be no larger than QVGA: 320w x 240h). This is to make support of mobile devices easier, and to provide videos suitable for remote media streaming.

- **Converted – Full.** Full resolution keeps the source video's screen resolution, and basically just creates an output file with the new format for the provided input. Video and audio quality should be very similar to the source material for Full resolution videos. You may notice some differences



between the original and Full resolution output, but these differences are minimal in most situations.

- All. Displays all videos in the shared folder.

## Status link

Clicking the Status link will bring up a report that can tell you the status of your video conversions. For more information see [Automating Video Conversion](#).

Clicking a file will give a more detailed explanation of its status. If the explanations disappear too soon, remove the check from the Auto-Fresh box.



Source	Source Folder	Destination	Status
SuperC-AVI(AVC,AAC-LC).AVI	Videos\Bad Videos\	Converted Video\MQ\	Pending
SuperC-AVI(AVC,AAC-LC).AVI	Videos\Bad Videos\	Converted Video\HQ\	Pending
Divx v5 MPEG Layer-3_2.divx.avi	Videos\Bad Videos\	Converted Video\MQ\	Pending
Divx v5 MPEG Layer-3_2.divx.avi	Videos\Bad Videos\	Converted Video\HQ\	Active (0%)

Divx v5 MPEG Layer-3\_2.divx.avi | Active (0%): This file is now being converted.

Show All Converted Videos  Auto-Refresh Close

Should the Converter Status be red (off), go to the Video Converter settings as detailed in [Automating Video Conversion](#).



## Videos Panel

In the videos panel, videos sort alphabetically by name. There are three other columns. The Length column shows length in minutes, the Size in mega-bytes, and the Format column shows video file formats, such as .mp4.

Title	Length	Size (MB)	Format
MPG1 MPEG1 Audio I	00:01:08	3	MP4
MPG1 MPEG1 Audio I	00:00:03	<1	MP4
MPG2 AC3 DVM MP	00:02:02	7	MP4
MPG1 MPEG1 Audio I	00:01:18	4	MP4
MPG1 MPEG1 Audio I	00:03:42	12	MP4
MPG1 MPEG1 Audio I	00:00:03	<1	MP4
MPG1 MPEG1 Audio I	00:00:03	<1	MP4
MPG2 MPEG1 Audio	00:01:19	4	MP4
MPG1 MPEG1 Audio I	00:02:58	10	MP4

## Player

Player window

- Blue Display area – shows video title. Behind the text the progress bar shows the amount of time played. Names that are too wide to fully display in the player can be read in a tool tip by hovering the mouse over desired name.
- Progress Bar –Click the progress bar at the place you want to play or slide the arrow to the desired time.
- Video progress text – shows the current position in time for the song and total song duration.
- Player Controls are in left to right order:
  - Full Screen Toggle
  - Previous Video
  - Play/Pause toggle
  - Next Video
- Below the player controls is the volume control slider bar. You can grab and move this to left and right or click the desired position on the slider bar.
- If you choose full screen you can return to the player view by pressing the **Escape** key.



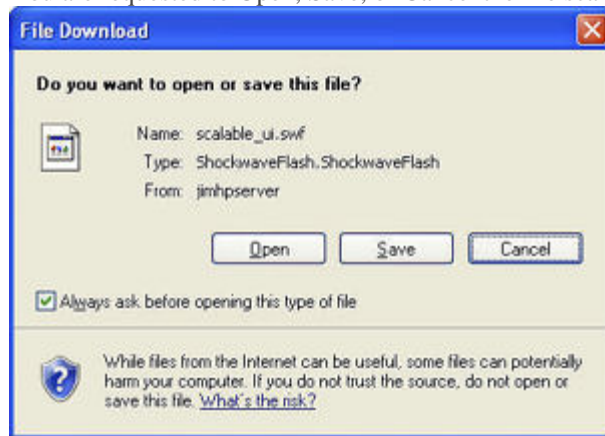
## Troubleshooting and FAQs

### MEDIA STREAMER, DOES NOT LOAD

#### Symptom

Navigate to Media Streamer:

- Page loads as blank page  
or
- You are requested to Open, Save, or Cancel the file scalable\_ui.swf. Click Cancel.



#### Cause

Adobe Flash Player 9.0.115.0 or later is required.

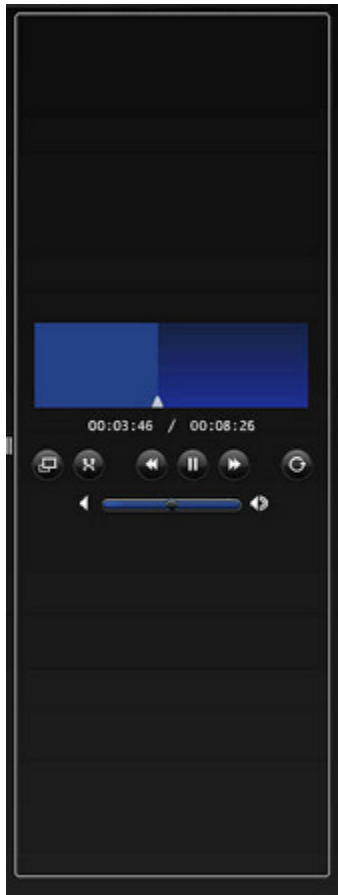
#### Solution

Go to [www.adobe.com](http://www.adobe.com) and click Get Adobe Flash Player. Install Adobe Flash Player version 9.0.115.0 or higher.

### MEDIA STREAMER, HOW TO USE THE BUTTONS IN THE PLAYER PANE

#### What is the Player Pane






The Player Pane is where you control the streaming music or the selected photo, see the examples below.



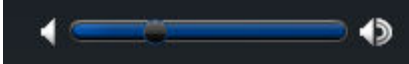




### Music Player Pane Buttons









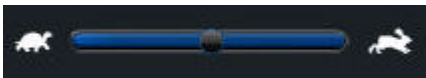

The list below describes the music player pane button functionality:

-  Shuffle Songs button, when this button is selected it will have a blue ring 
-  Previous Song button
-  Play/Pause button
-  Next Song button

-  Repeat all Songs button, when this button is selected it will have a blue ring 
-  Volume Control Bar

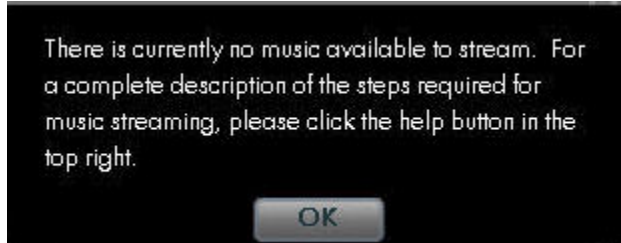
### Photo Player Pane Buttons

The list below describes the photo player pane button functionality:

-  Enlarge Slide Show button, when this button is selected the slide show will fill the browser
-  Shuffle Songs button, when this button is selected it will have a blue ring 
-  Previous Song button
-  Play/Pause button
-  Next Song button
-  Repeat all Songs button, when this button is selected it will have a blue ring 
-  Slide Show Speed Control Bar
-  Shrink Slide Show button, when this button is selected the slide show will shrink to fit the player pane



## No Music To Stream



This dialog box will appear when you open **Media Streaming** and you click the **Music** button and you:

- Do not have [music on your Server](#)
- or
- [You have not configured the server for streaming media.](#)

### No music on your Server

Place music on your server in the following location "**<name of server>/Music**" and then [configure your server for streaming media.](#)

## **STARTING MULTIPLE M4A FILES Ss MUSIC AND ADDITIONAL FILES DO NOT TRANSCODE**

### **Symptom**

Go to a folder with m4a files. Start playing the first track, when music starts click next a few times. The music will s after a few seconds.

### **Cause**

The server is transcoding multiple files and this can cause gaps in the playing of music.

### **Solution**

Do not click next as rapidly, give the Server some time to do it's transcoding

## **REMOTE MEDIA STREAMING, ANIMATED GIF FILES DO NOT DISPLAY UNTIL THE FILE IS SELECTED**

In Web Media Remote Streamer, looking at a folder with animated gif files; the thumbnail preview and the display pane do not show an image.

## **REMOTE MEDIA STREAMING, AUDIO FILES ARE TRUNCATED ON A SLOW CONNECTION**

### **Symptom**

Audio file playback is truncated on a slow uplink connection.

The files play about 3/4 of the way through and then playback ss and the next song starts. This happens on connections below approximately 400Kbits.

### **Cause**

Uplink Connection is slow.

## **STREAMING MEDIA TO A DEVICE**

### **Why does the server show up twice on my DMA list?**

If you are running both Windows Media Connect and TwonkyMedia, they will both show up when you view menus on your digital media adaptor.



Once you turn on media sharing using Windows Media Connect, this program will always display the HP Data Vault in your digital media adaptor list. However, you can disable media sharing for the folders under the HP Data Vault. See Why do I see duplicate songs, pictures, or videos on my DMA list? for information on disabling media sharing for **shared folders**.



Alternately, you can turn off TwonkyMedia media sharing and remove the duplicate HP Data Vault from your digital media adaptor list.

For additional information on these programs, see [Windows Media Connect 2.0 and TwonkyMedia Comparison](#).

### **To turn off TwonkyMedia media sharing**

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right corner of the Console.
3. Click **TwonkyMedia** in the left menu.
4. Click **S Sharing**.

## **Media Files (Audio/Video) of Supported Format Aren't Seen by Device.**

Possible naming convention issues.

Double-check names on server, make sure they start with a letter, and not a number or symbol.

## **My Files Do Not Show Up on My DMA**

**In this article...**

- ↓ [Once WMC has been enabled to share a shared folder, it continually monitors the folder for new files.](#)
- ↓ [If your DMA does not display WMC from the HP Data Vault, or none of your files are found by the DMA.](#)
- ↓ [If some of your files \(e.g., files newly copied to the server\) are not found by the DMA.](#)

Digital Media Adapters (DMA, or Digital Media Receivers - **DMR**) use the Universal Plug 'n Play (**UPnP**) protocol to automatically discover Digital Media Servers (DMS). The HP Data Vault uses Windows Media Connect 2.0 (WMC) as its DMS. In order for a DMA to discover the HP Data Vault and access its content, WMC must be enabled. WMC defaults to being disabled; it is automatically enabled for all DMAs when the server administrator selects one or more of the three media **shared folders** (Music, Photos and Videos) for media sharing. On your DMA, you should then see the HP Data Vault listed as:



```
<YourServerName>: 1 : Windows Media Connect
```



### **Note**

Some DMAs aggregate the content from all DMSs into a single view; in such a case you may not be able to identify each DMS individually. Further troubleshooting steps form DMA follow:

**Once WMC has been enabled to share a shared folder, it continually monitors the folder for new files.**

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right corner of the Console.
3. Click **Media Sharing** in the left menu.
4. Select at least one of the shared folders for sharing by selecting the **On** radio button.
5. Click **Apply**.  
This will automatically start WMC, which will then share all of the files in the selected shared folders.

**If your DMA does not display WMC from the HP Data Vault, or none of your files are found by the DMA.**

1. Check that WMC is enabled (use the above steps to get to the Media Sharing settings, and verify that at least one of the shared folders is On).

Check that the HP Data Vault and DMA are both connected to the same home network (a router or firewall between them could interfere with the discovery and content sharing protocols).

2. Restart the DMA.
3. Restart the HP Data Vault.

**If some of your files (e.g., files newly copied to the server) are not found by the DMA.**



1. Check that the files were copied to the correct location. Only the Music, Photos and Videos shared folders may be enabled for media sharing. Note that if one of these folders is enabled for media sharing; then all folders below that are also enabled for media sharing.
2. Re-enable the shared folder for media sharing.
  - Go to the Media Sharing Settings panel (see the instructions above for how to get here).
  - Turn sharing Off for the shared folder with the missing files and select **Apply**.
  - Turn sharing back On for the shared folder and select **Apply**.
3. Restart the DMA.
4. Restart the HP Data Vault.

## Why do I see duplicate songs, pictures, or videos on my DMA list?

If you are streaming content from **shared folders** using both Windows Media Connect and TwonkyMedia, you may see duplicate entries of your songs, pictures, or videos on your digital media adaptor. To eliminate this problem, disable media sharing for one of the shared folders.

For additional information on these programs, see [Windows Media Connect 2.0 and TwonkyMedia Comparison](#).

### To disable a shared folder in Windows Media Connect 2.0



1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right corner of the Console.
3. Click **Media Sharing** in the left menu.

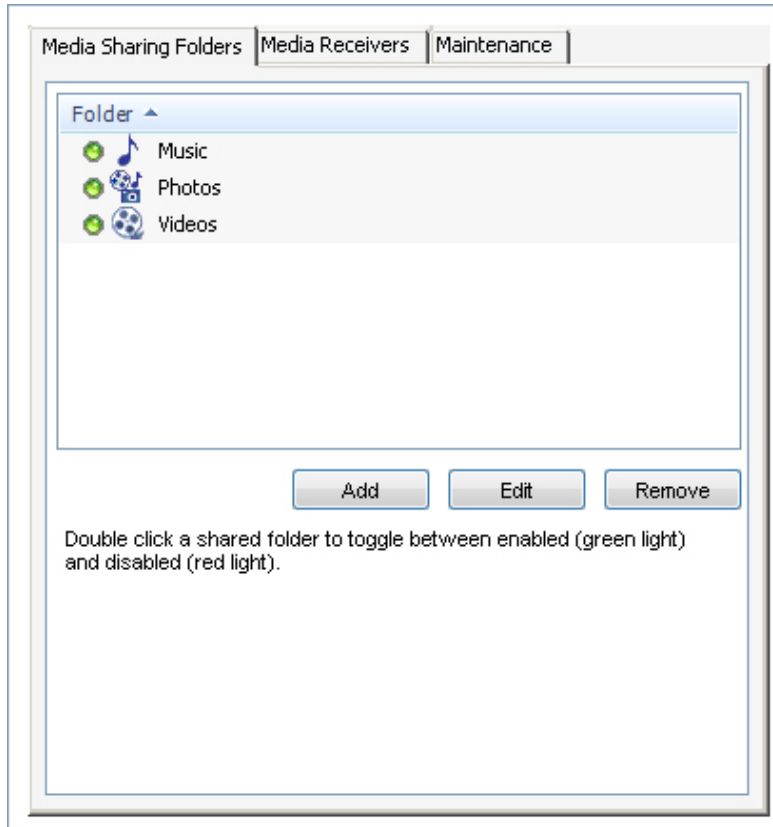


4. On the right side under **Media Sharing Library**, click **Off** for the shared folders that you do not want to use for streaming content using Windows Media Connect.
5. Click **OK**.

For additional information on using Windows Media Connect, see Media Sharing in the Windows Home Server help.

## To disable a shared folder in TwonkyMedia

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right corner of the Console.
3. Click **TwonkyMedia** in the left menu.



4. On the **Media Sharing Folders** tab, select a shared folder and click **Remove** for each folder that you do not want to use for streaming content using TwonkyMedia.
5. Click **OK**.

For additional information on using TwonkyMedia, click **Help** while on the TwonkyMedia tab of the Windows Home Server Console or click **Help** on any of the TwonkyMedia dialog boxes.

## **Windows Media Connect 2.0 and TwonkyMedia Comparison**

The following tables provide a detailed comparison of Windows Media Connect 2.0 and TwonkyMedia features.

At a high level, TwonkyMedia

- Allows your digital media adaptor or digital media receiver to see photo thumbnails for pictures and album artwork for music
- Supports a lot more media formats

### **In this article...**

↓ [General Features](#)

↓ [Views](#)

↓ [File Formats](#)

## **General Features**

<b>Comparison of General Windows Media Connect and TwonkyMedia Features</b>		
<b>Feature</b>	<b>Windows Media Connect 2.0</b>	<b>TwonkyMedia</b>
DLNA Support	Some Capability	1.0 compliant 1.5 reference
Number of Shared Folders	Music Photos Videos	User Controlled
Shared Folders/Media Types	Music/all media types Photos/all media types Videos/all media types	Music/music media types Photos/all media types Videos/video media types User selectable folders/media types
Album Art/Thumbnail Support		Music album art Photo thumbnails
Picture Scaling	Limited	JPG_MED support
Video Trick Modes	No	Yes
Server Side Shuffle	No	Yes
Status/Summary User Interface	No	Yes
Folder Monitoring	Yes	Yes
DMR Exclusion	No	Yes

## Views

Comparison of Windows Media Connect and TwonkyMedia Views		
Views	Windows Media Connect 2.0	TwonkyMedia
<b>Music Views</b>		
Album	X	X
All Tracks	X	X
Artist	X	X
Artist Index		X
Artist/Folder		X
Folder	X	X
Genre	X	X
Genre Index		X
Genre/Artist		X
Playlist	X	X
Year/Artist		X
<b>Picture Views</b>		
Album	X	
All Photos	X	X
Date	X (flat)	X (hierarchal)
Folder	X	X
Playlist	X	
<b>Video Views</b>		
Actor	X	
Album	X	
All Videos	X	
Folder	X	
Genre	X	
Playlist	X	

## File Formats

Comparison of Windows Media Connect and TwonkyMedia File Formats		
File Formats	Windows Media Connect 2.0	TwonkyMedia
<b>Music Formats</b>		
3gp		X
ac3		X
aiff		X
asf	X	X
FLAC		X
LPCM		X
m4a		X
mp1		X
mp2		X
mp3	X	X
mp4		X
mpa		X
ogg		X
wav	X	X
wma	X	X
<b>Picture Formats</b>		
bmp	X	X
gif	X	X
jpg/jpeg	X	X
png	X	X
tif/tiff	X	X
<b>Video Formats</b>		
3gp		X

Comparison of Windows Media Connect and TwonkyMedia File Formats		
File Formats	Windows Media Connect 2.0	TwonkyMedia
asf		X
avi	X	X
DivX		X
dvr-ms	X	X
m1v		X
m4v		X
mpe		X
mpg/mpeg	X	X
MPEG-1	X	X
MPEG-2	X	X
MPEG2-TS		X
MPEG-4		X
vdr		X
vob		X
wmv	X	X
Xvid		X
<b>Playlist Formats</b>		
m3u	X	X
pls		X
wpl	X	X



# Chapter 7. HP Photo Publisher and HP Photo Viewer

## HP PHOTO PUBLISHER

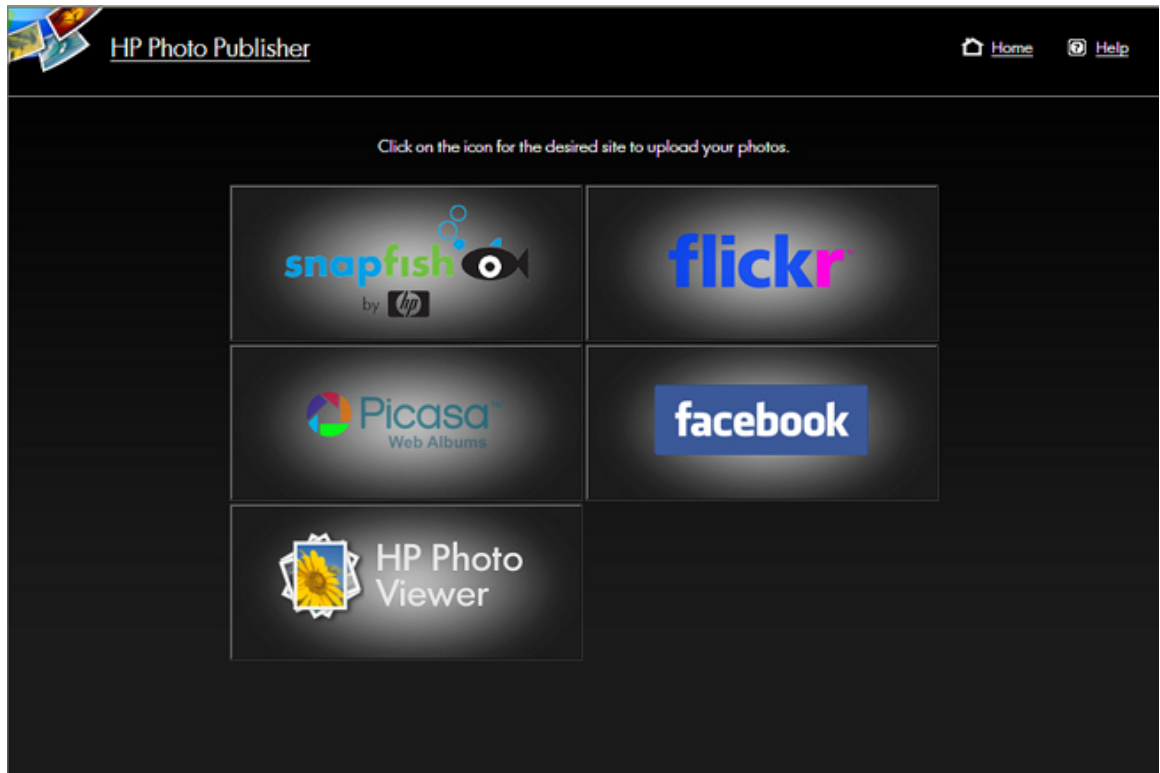
### About HP Photo Publisher

In this article...

- ↓ [The HP Photo Publisher Home Page](#)
- ↓ [Before you use HP Photo Publisher](#)
- ↓ [File Compatibility](#)



### The HP Photo Publisher Home Page

Publish photos from your server to your favorite photo sharing site or share photos directly from your server using HP Photo Viewer. People outside of your network can see your photos using the Internet.



## **Before you use HP Photo Publisher**

You must have a user name and password to log on to HP Photo Publisher. User names and passwords are set up in the Windows Home Server Console.

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click the **User Accounts** tab.
3. Click **Add** and follow the instructions in the **Add user account** wizard.
4. Enable remote access for the user account.

## **File Compatibility**


The table below tells what file types are accepted at the various photo sharing and social networking sites:

	<b>*.jpg, *.jpeg</b>	<b>*.gif</b>	<b>*.png</b>	<b>*.bmp</b>
Picasa	X	X	X	X
Snapfish	X			
facebook	X	X	X	X
flickr	X	X		
HP Photo Viewer	X	X	X	

Some limitations, by site, for the free account:

- At time of writing; flickr only allows for 3 photo sets, and a limit of 100MB worth of photo uploads each calendar month.
- At time of writing; facebook allows only 60 photos for album, but you can have an unlimited number of albums
- At time of writing; Picasa has a storage limit of 250mb
- At time of writing; Snapfish does not have any restriction to number of photos uploaded.

## **Log on to HP Photo Publisher**

1. At the PC, double-click the HP Data Vault desk icon. At the Mac, select **Open Home Page** from the **Server** menu .
2. Double-click **HP Photo Publisher**.

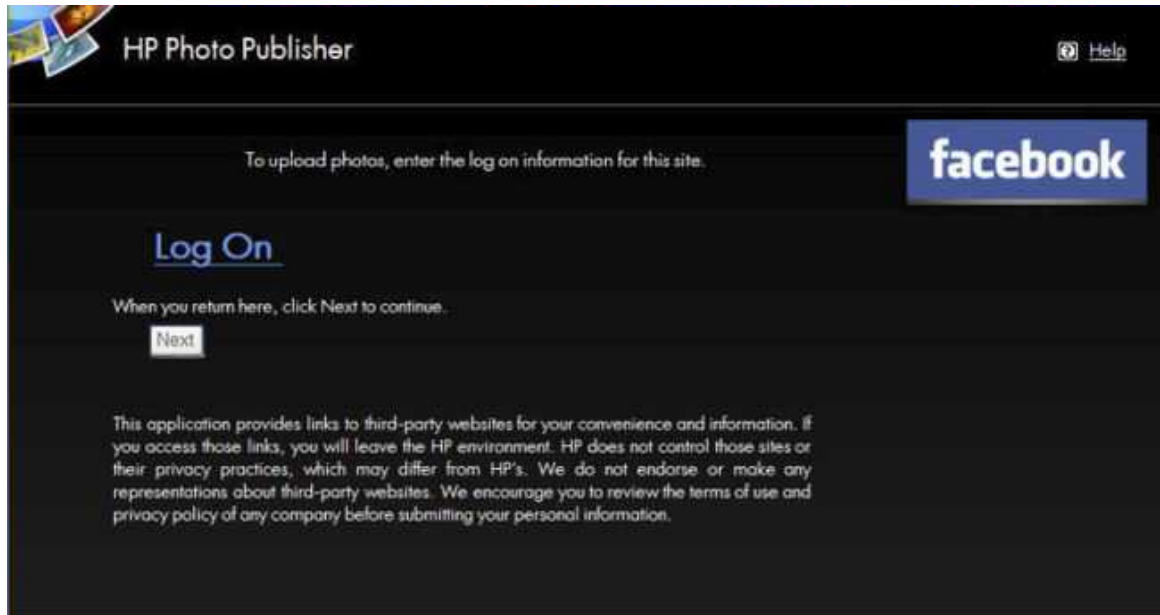
3. Type your **Username** and **Password** and click the **Log On** button.  
If you do not have a user name and password, select the **User Accounts** tab in the Windows Home Server Console and add an account. Then, return to the HP Photo Publisher logon page and enter your credentials.
4. The **HP Photo Publisher** home page opens.
5. If you entered incorrect credentials then you be brought to the Remote Access page. Click the HP Photo Publisher and you will be brought to the **HP Photo Publisher home page**.

**Note**

You can also open HP Photo Publisher by clicking **Start**, **All Programs**, and **HP Data Vault**. The HP Home Page opens. Click **HP Photo Publisher**.

## Log on to Photo Sharing Site

### FACEBOOK LOGON



To log into your facebook account click the **Log on** link.

You will be taken to a page to enter your credentials for that site.



This takes you to the facebook confirmation page. Close this page.

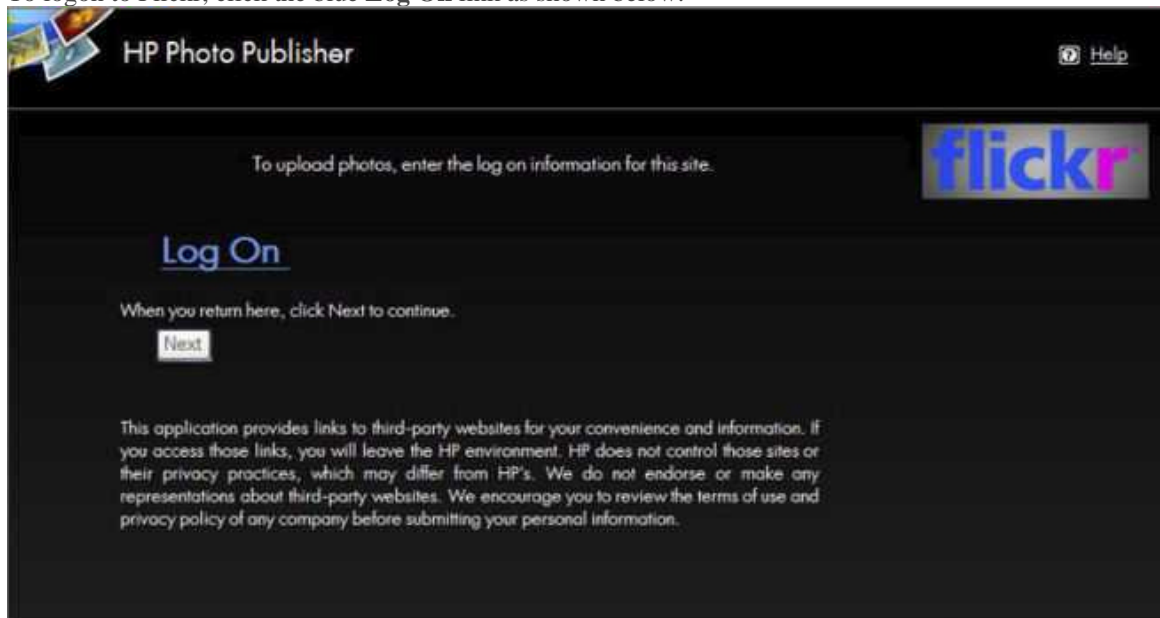
## facebook

You may now close this window and return to the application.

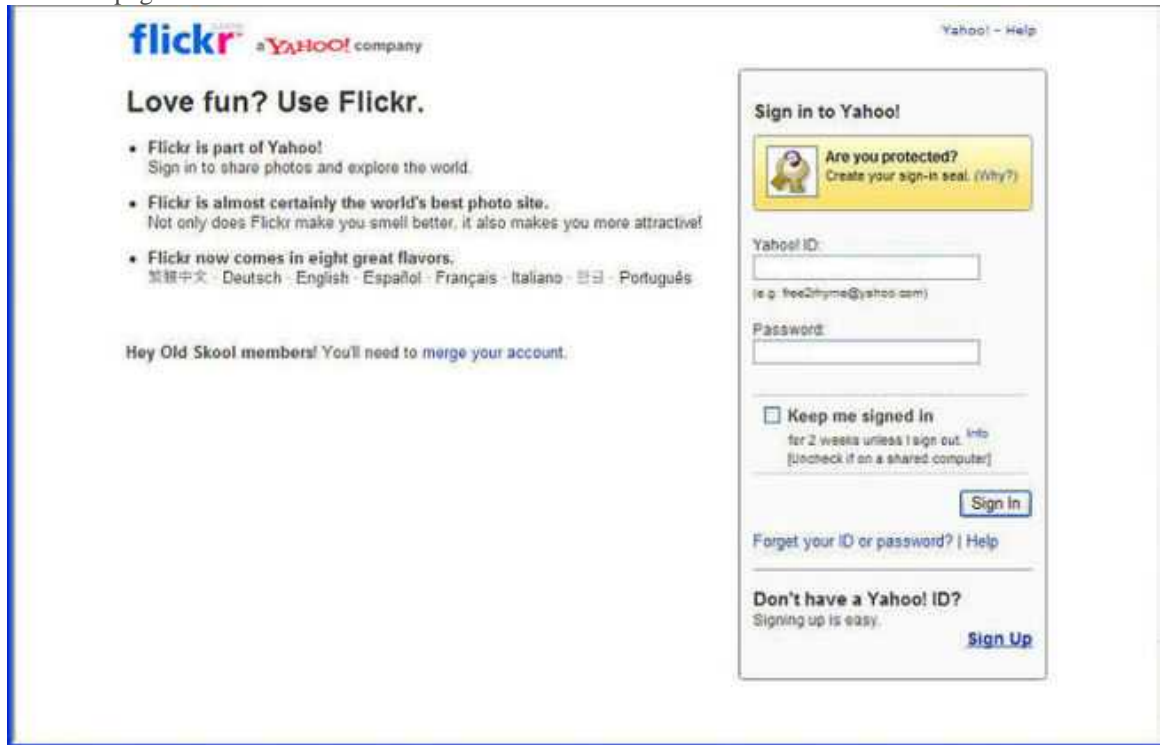
At the Photo Publisher login screen click **Next**. You are then taken to a page where you can create or add to an existing album.

## FLICKR LOG ON PAGE

To logon to Flickr, click the blue **Log On** link as shown below.

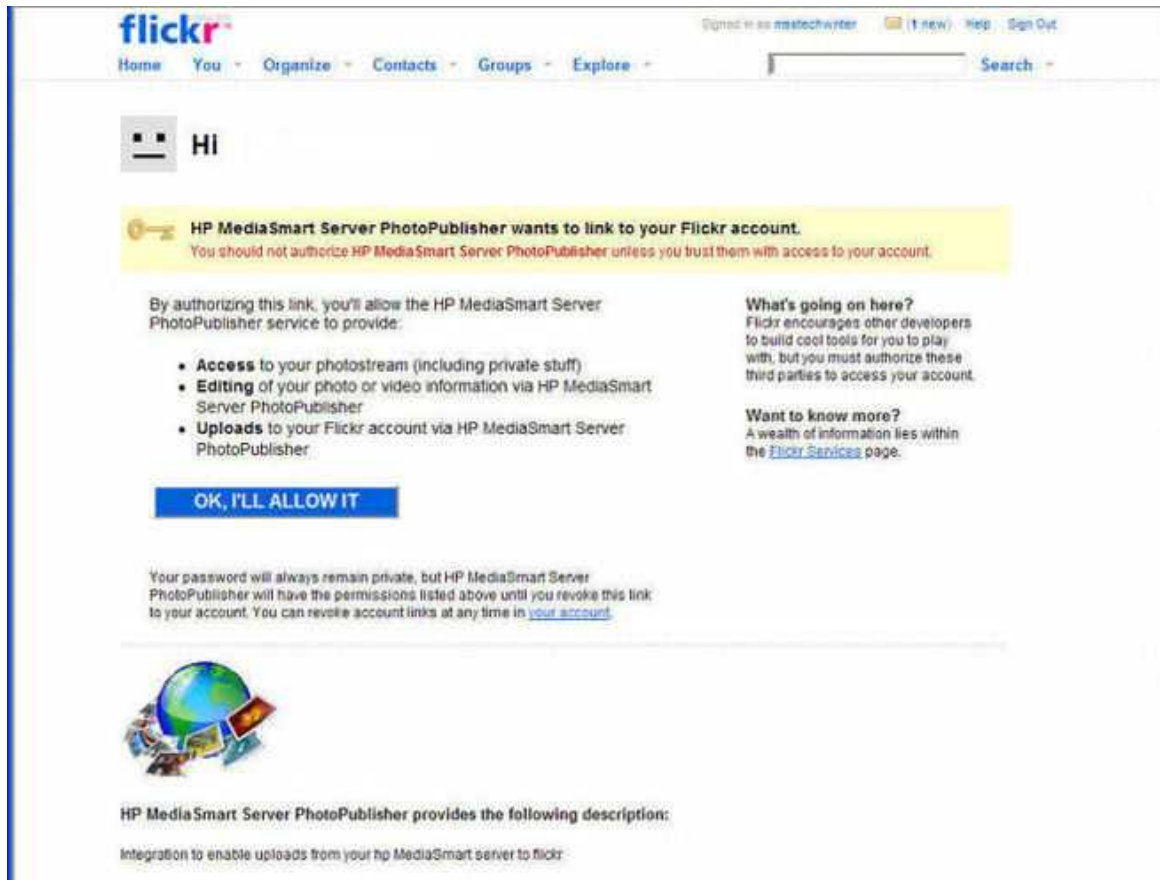


This takes you to the Flickr sign in page. Enter your credentials and return to the HP Photo Publisher page.

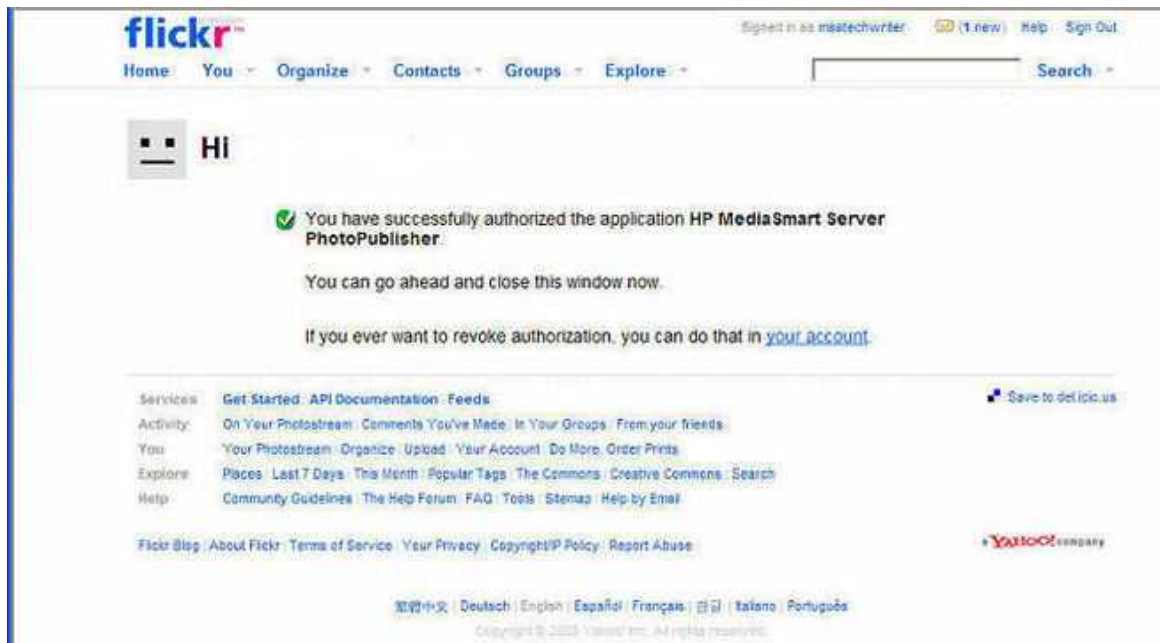


Flickr then asks you to allow HP Data Vault to link to your account.

Click **OK, I'LL ALLOW IT**



This takes you to the Flickr confirmation page. Close this page.



Click Next.

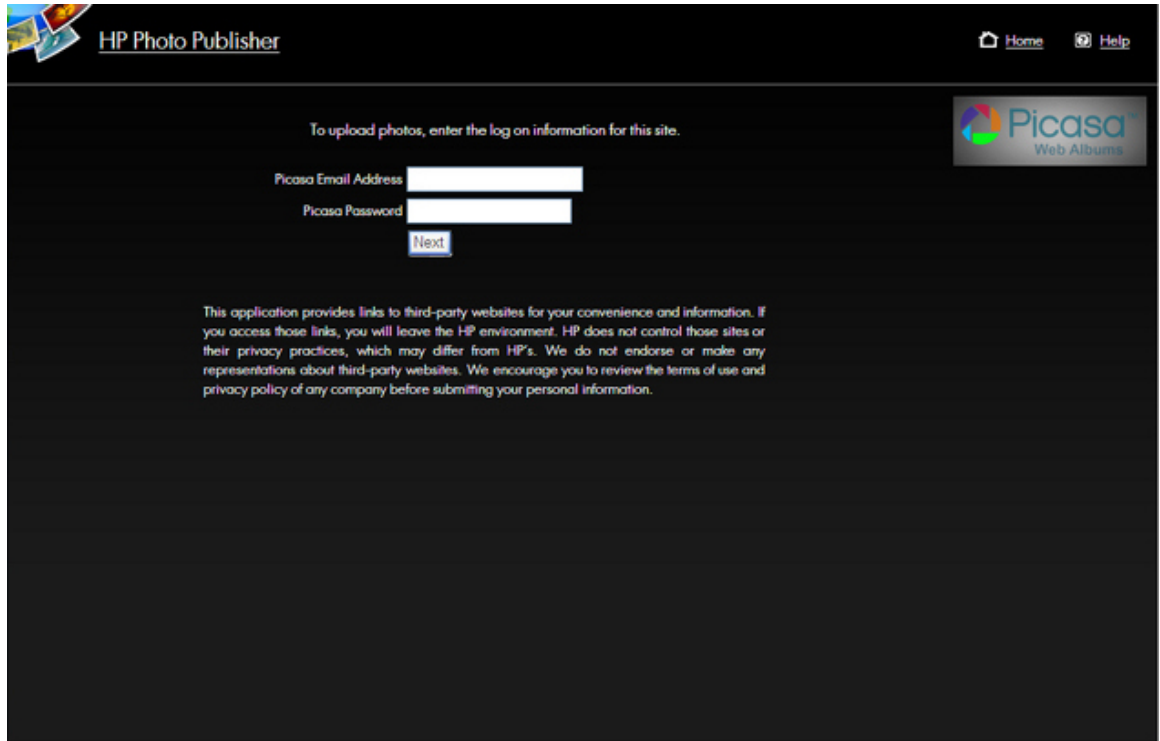
This takes you to the HP Photo Publisher Albums page.

You can now create or add to albums.

## PICASA LOGON

To logon to Picasa, enter your credentials as shown in the figure below. Click **Next**.

After your credentials are accepted, this takes you to a page where you can upload photos and create albums.



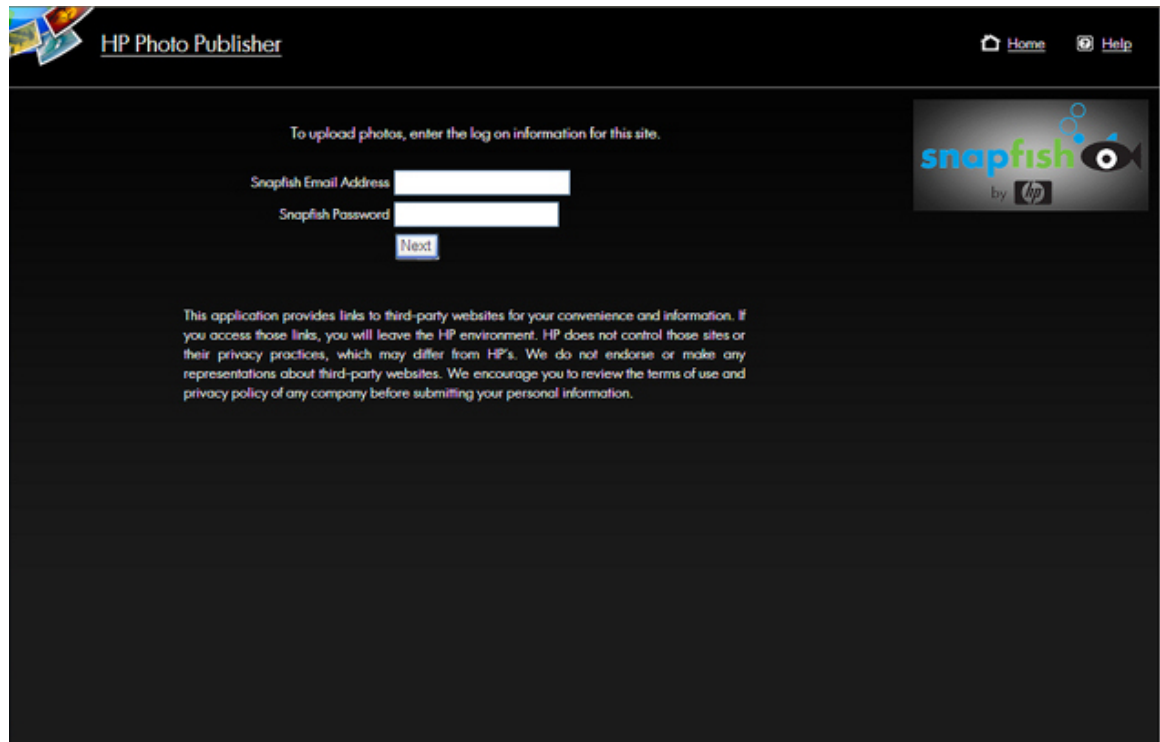
The screenshot shows the HP Photo Publisher interface. At the top left, there is a logo for HP Photo Publisher. In the top right corner, there are links for Home and Help. The main content area has a dark background. At the top of this area, it says "To upload photos, enter the log on information for this site." Below this, there are two input fields: "Picasa Email Address" and "Picasa Password". A "Next" button is positioned below the password field. In the top right corner of the main area, there is a Picasa Web Albums logo. At the bottom of the main area, there is a disclaimer: "This application provides links to third-party websites for your convenience and information. If you access those links, you will leave the HP environment. HP does not control those sites or their privacy practices, which may differ from HP's. We do not endorse or make any representations about third-party websites. We encourage you to review the terms of use and privacy policy of any company before submitting your personal information."

## SNAPFISH LOGON

To login to Snapfish, enter your credentials. Click **Next**.

After your credentials are accepted, this takes you to a page where you can create or add to albums.





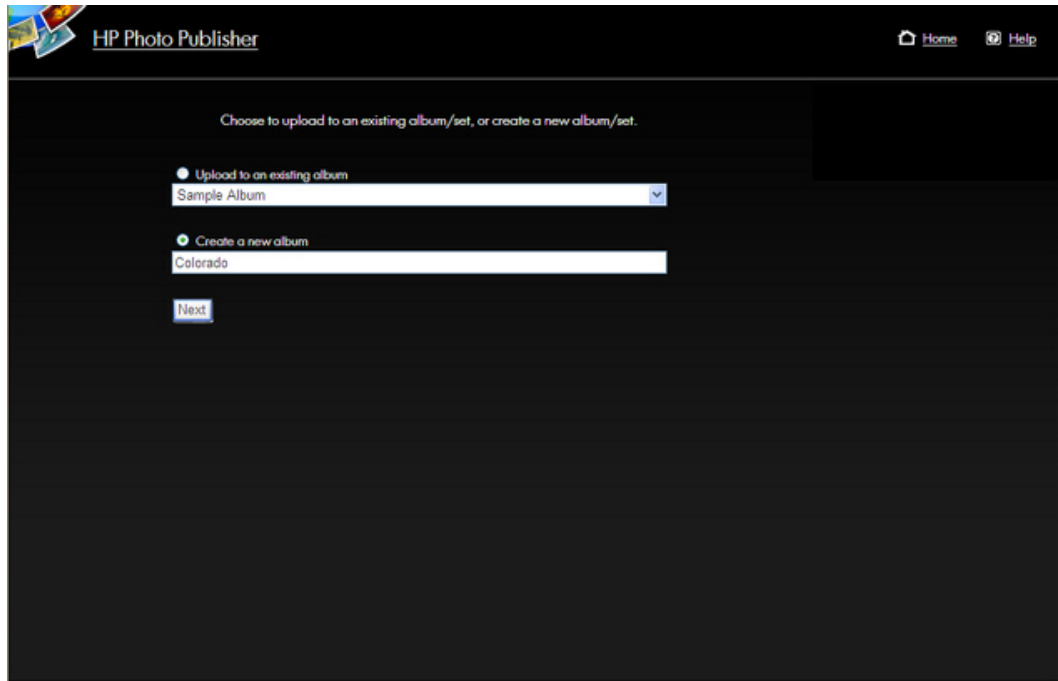
## Select Existing Album or Create an Album

1. Select **Upload to an existing album** and select the album from the drop down list.  
or,  
Select to create a new album or set. Type the name of the album.
2. Click **Next**.



### Note

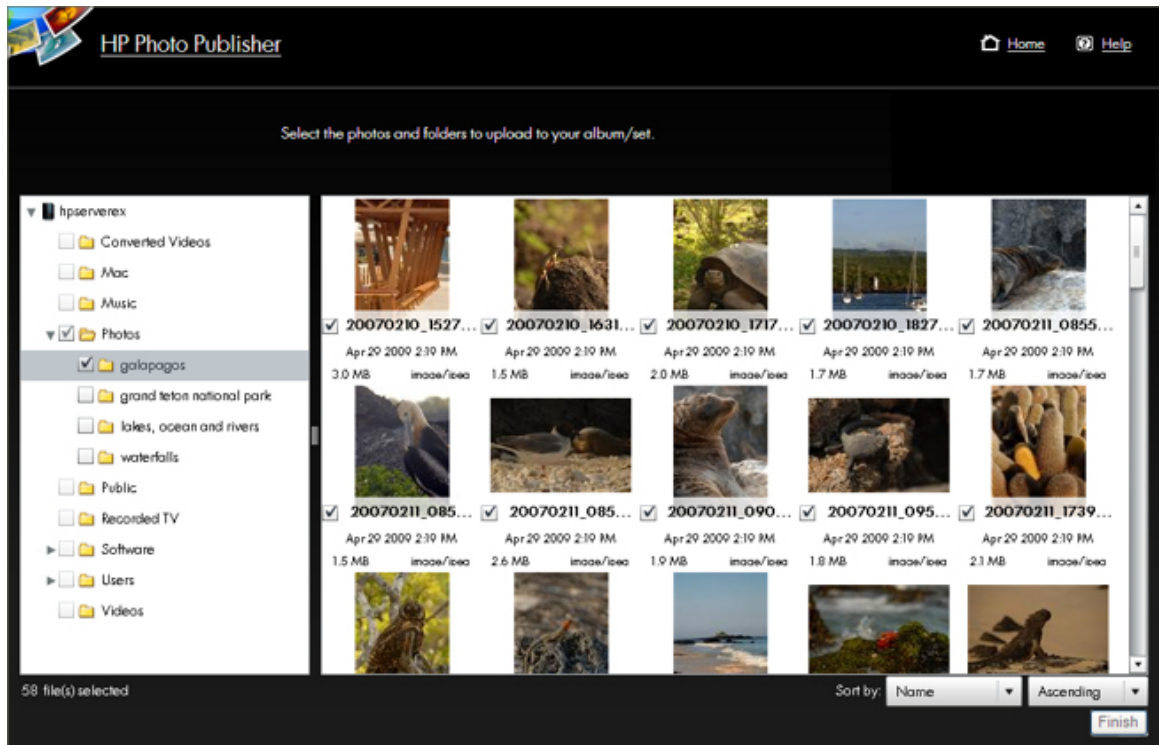
Flickr uses the term **set** instead of **album**. Another term that Flickr uses is **photo stream**. The **photo stream** is the default presentation mode for Flickr and uses no sets.



## Select Photos

The HP Photo Publisher queries the server and displays a list of folders and photos available to the current user.

1. Click the **Arrow** to see an expanded view of folders.
2. Select photos to publish.
  - Select an entire folder by putting a check in the checkbox by the folder.
  - Select individual files using the checkboxes beside individual files.
3. Once you have finished your selections click **Finish**.  
The photos selected will now upload to the photo sharing site you are logged onto.



Only file types that are supported by the photo sharing site are available to upload.

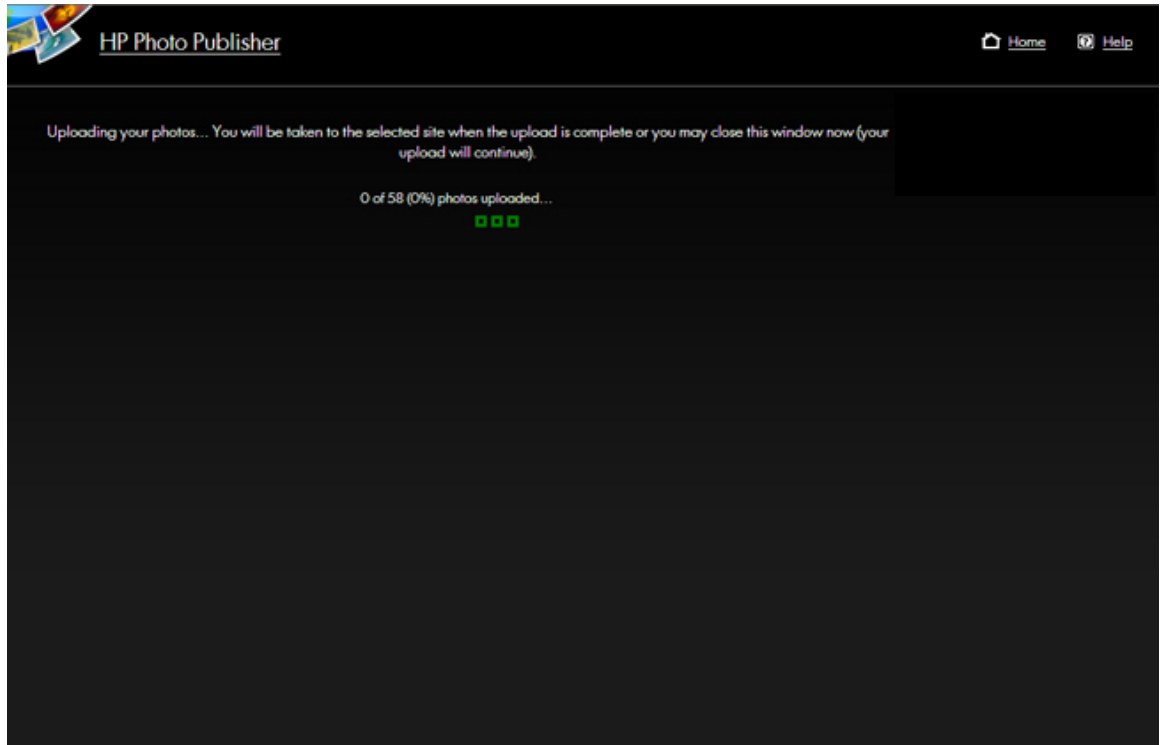
The table below tells what file types are accepted at the various photo sharing and social networking sites.

	*.jpg, *.jpeg	*.gif	*.png	*.bmp
Picasa	X	X	X	X
Snapfish	X			
facebook	X	X	X	X
flickr	X	X		
HP Photo Viewer	X	X	X	

## Server Continues Uploading

This page gives a status concerning the uploading of the photos.

If the browser is responding, you can close the browser, or you can visit another Web site; your HP Data Vault will continue the upload.

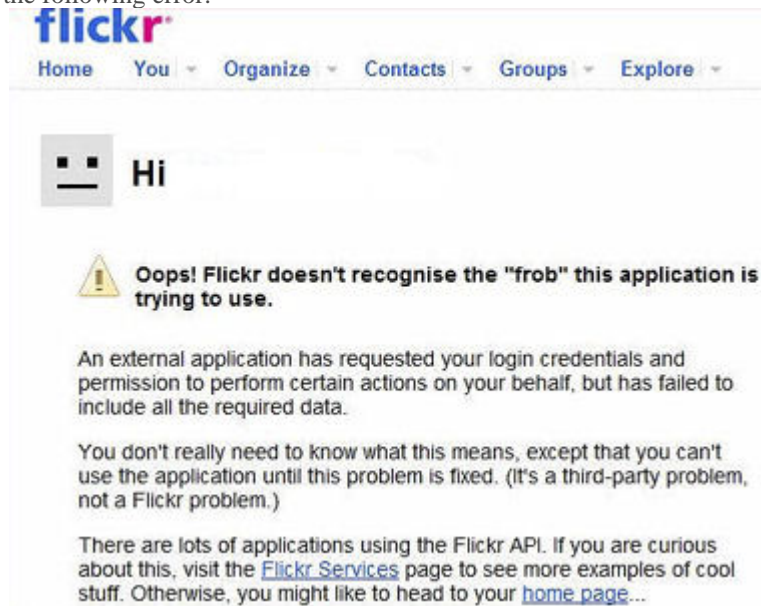


## Troubleshooting HP Photo Publisher

### PHOTO PUBLISHER, FLICKR “FROB” ERROR

#### Symptom

While logged into flickr, I open a second Firefox browser session and try to log into flickr. I get the following error.



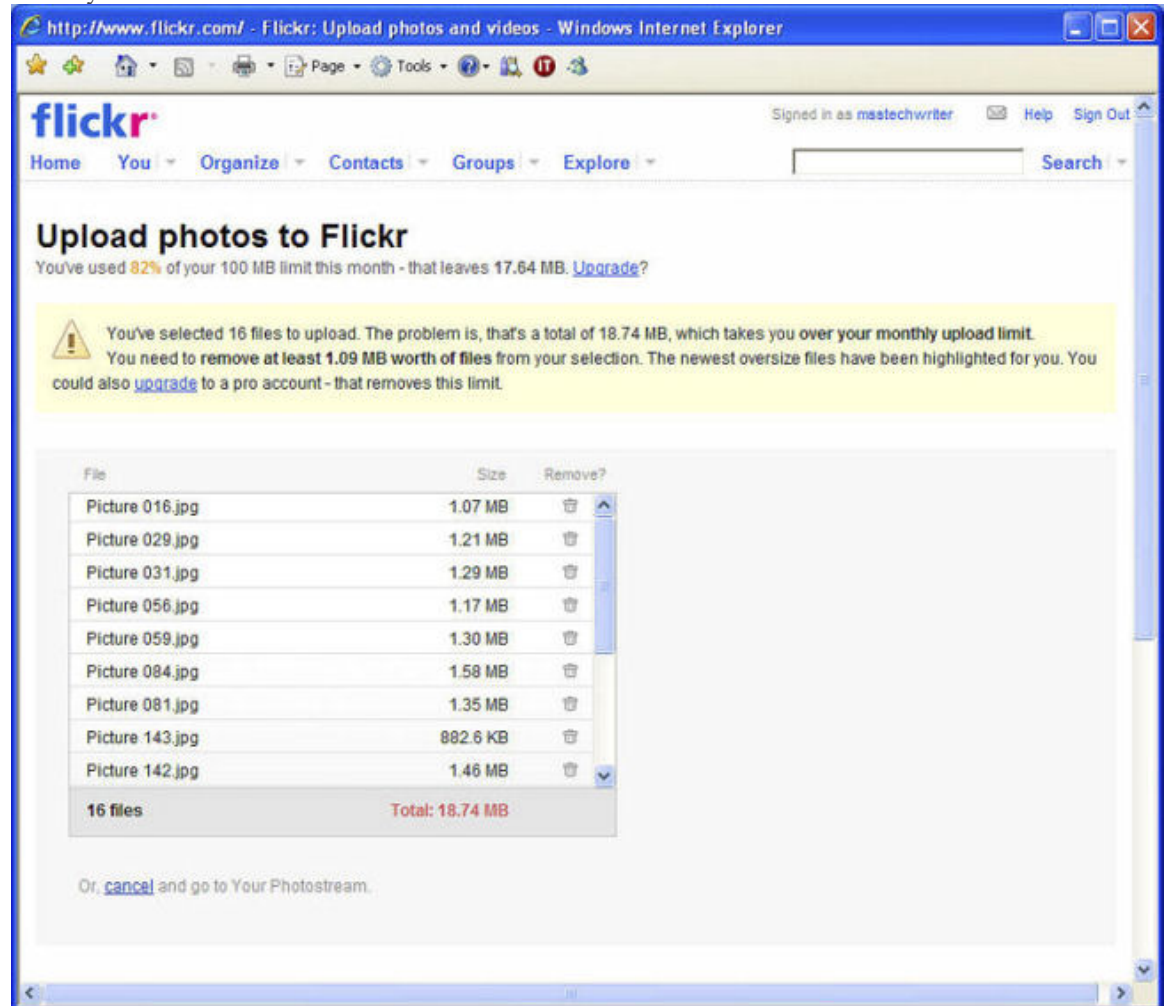
#### Solution

Close all Firefox browsers that are logged into flickr. You will be able to log back into flickr.

## PHOTO PUBLISHER, FLICKR PHOTO UPLOAD FAILS

### Symptom

Trying to upload photos to my flickr account, and I get an error saying that I've exceeded a monthly limit.



### Cause

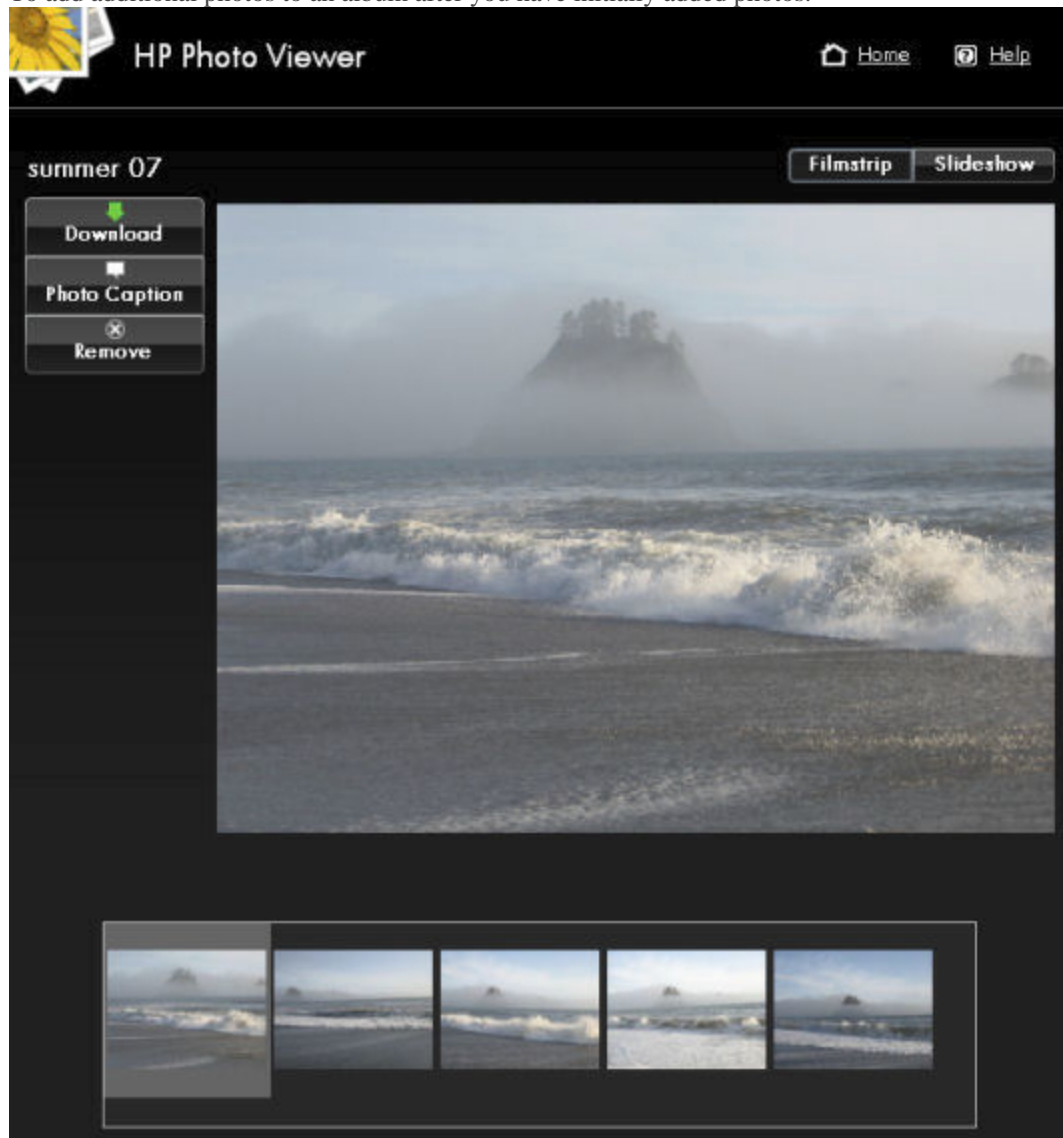
At the time of writing, flickr only allows the free accounts to upload 100MB per month.

### Solution

Wait until the following month to upload to your free account; or follow the upgrade link to purchase flickr pro account.

## PHOTO PUBLISHER, HOW TO ADD ADDITIONAL PHOTOS TO AN ALBUM

To add additional photos to an album after you have initially added photos.

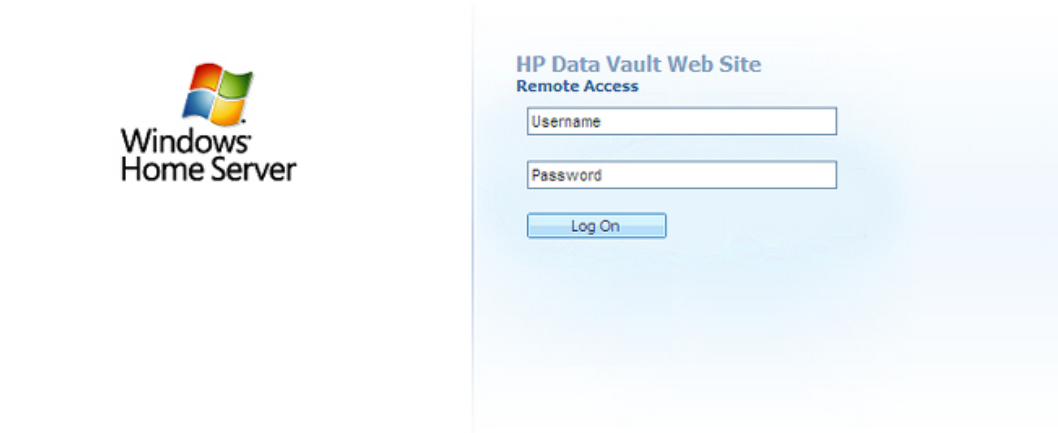


- [Use the HP Home Page to access the Photo Publisher logon page](#)  
or
- [Use the browsers back button](#)

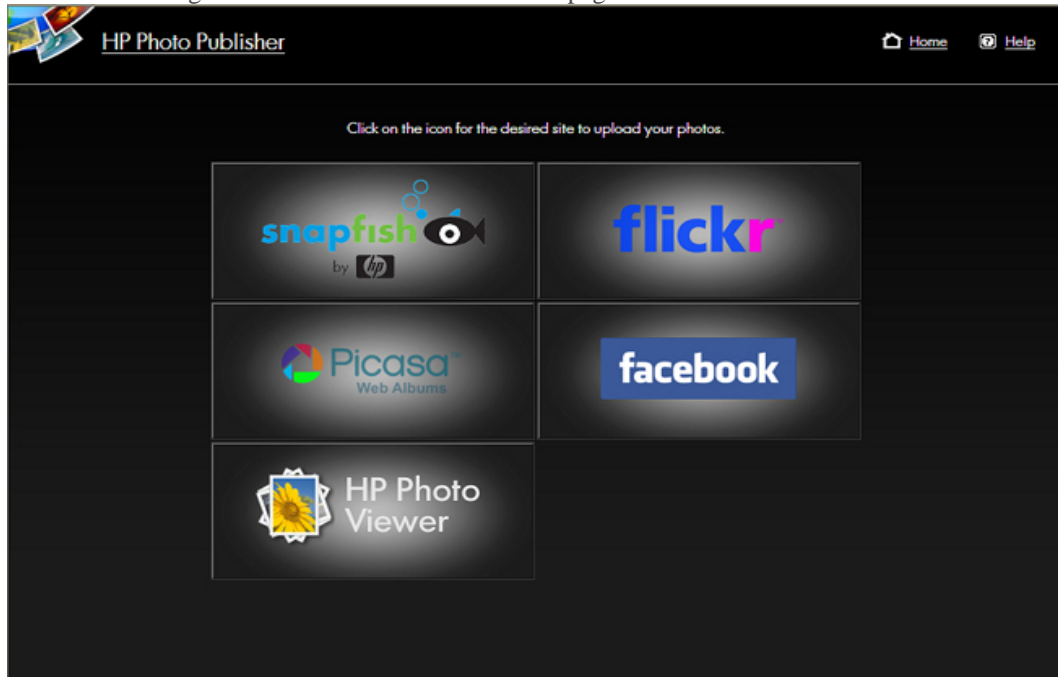
### **Use the HP Home Page to access the Photo Publisher logon page**

HP recommends that you use the HP Home Page to re-access the Photo Publisher to add photos to an existing photo album.

1. At the PC, close your browser and double-click the HP Data Vault desk icon.  
At the Mac, close you browser and select **Open Home Page** from the **Server** menu .
2. Double-click **HP Photo Publisher**.
3. Log into HP Photo Publisher. Enter your **Username**, **Password** and click the **Log On** button.



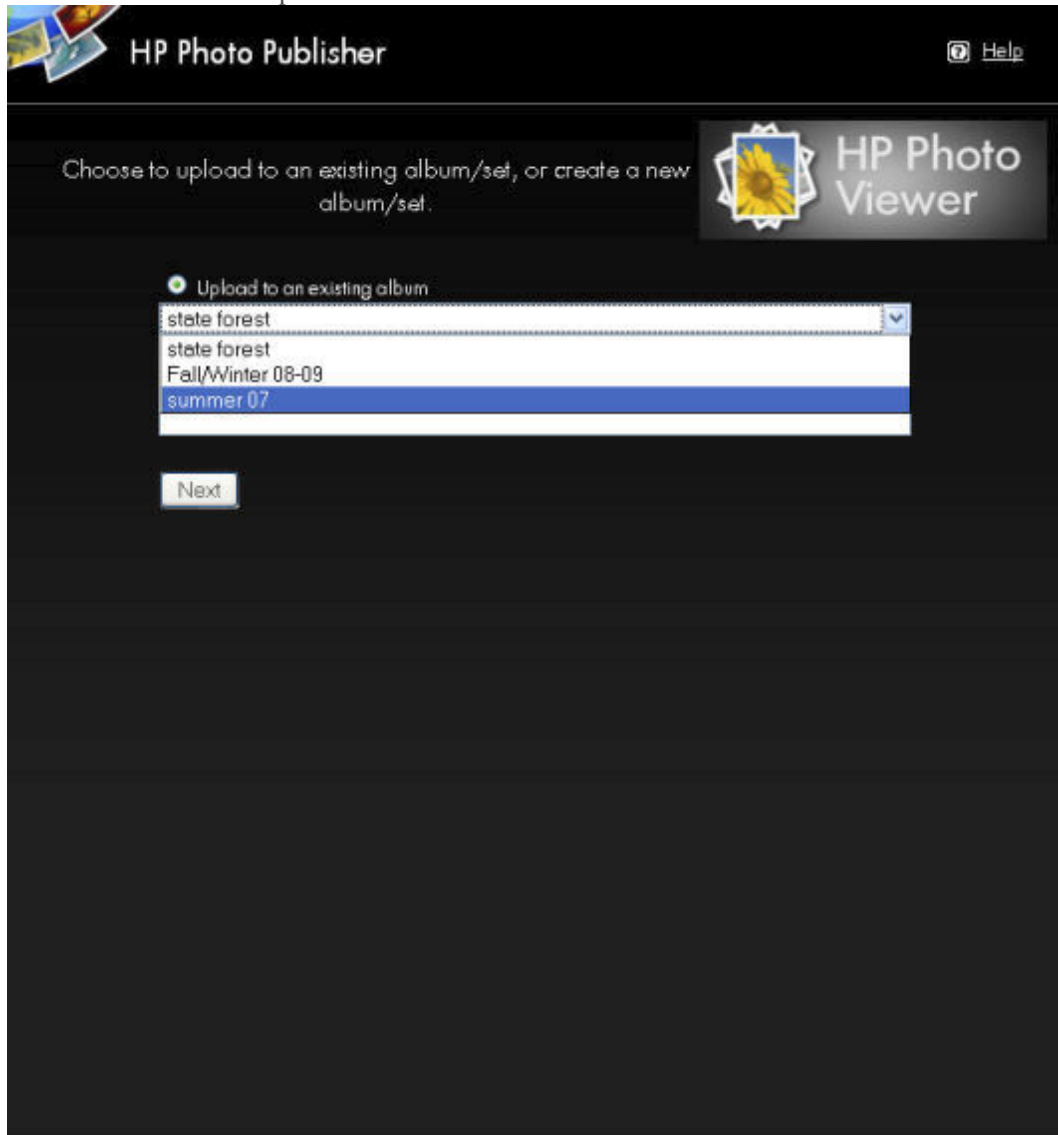
4. You will be brought the **HP Photo Publisher** home page.



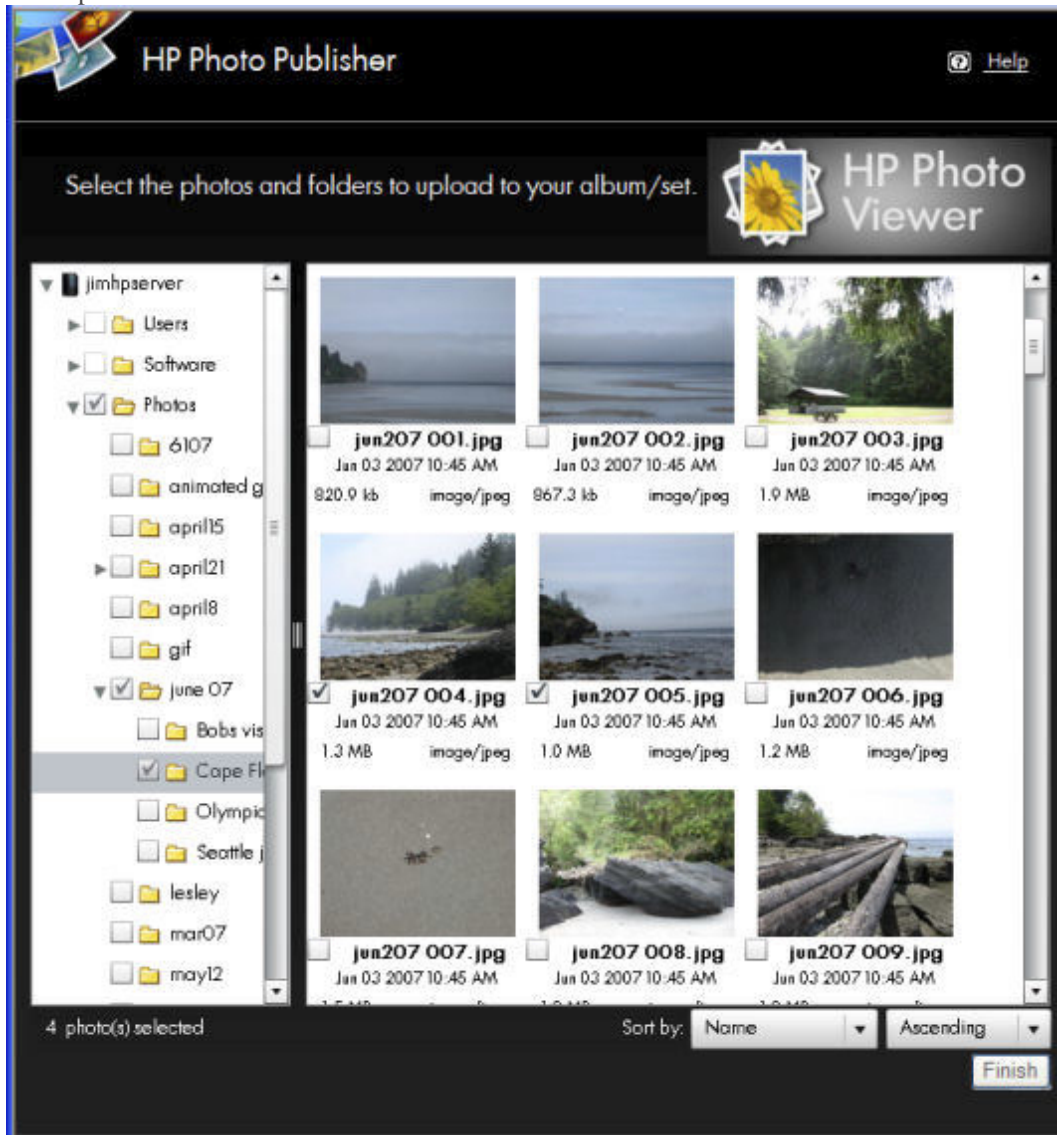
5. Click the site and login.



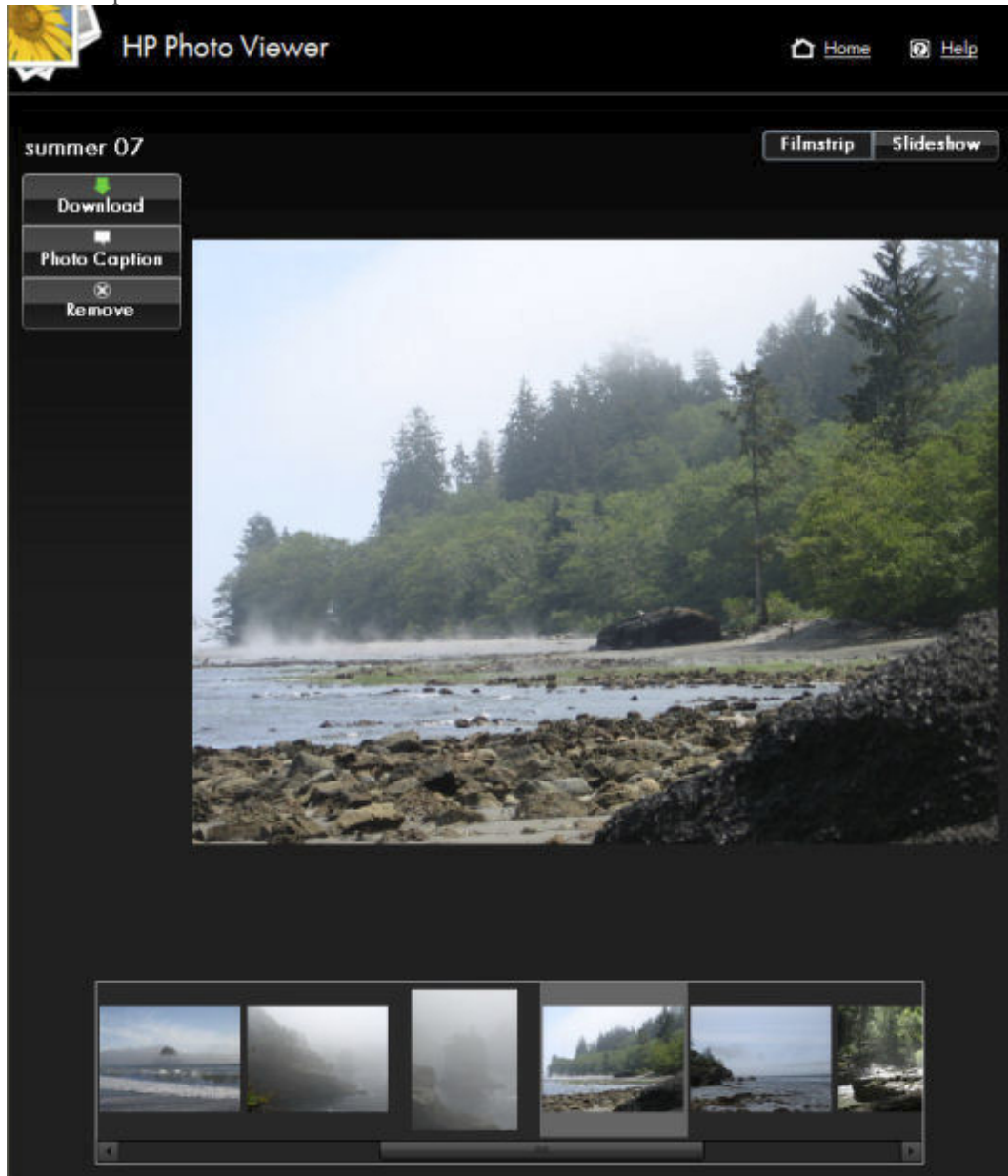
6. Choose the album to add photos to.



7. Select photos and click **Finish**.



8. Select the photo album to view.



## Using the back button to access the add photos page

1. Click the back button until you arrive at the Select Photos page. Click **Photo Publisher**.

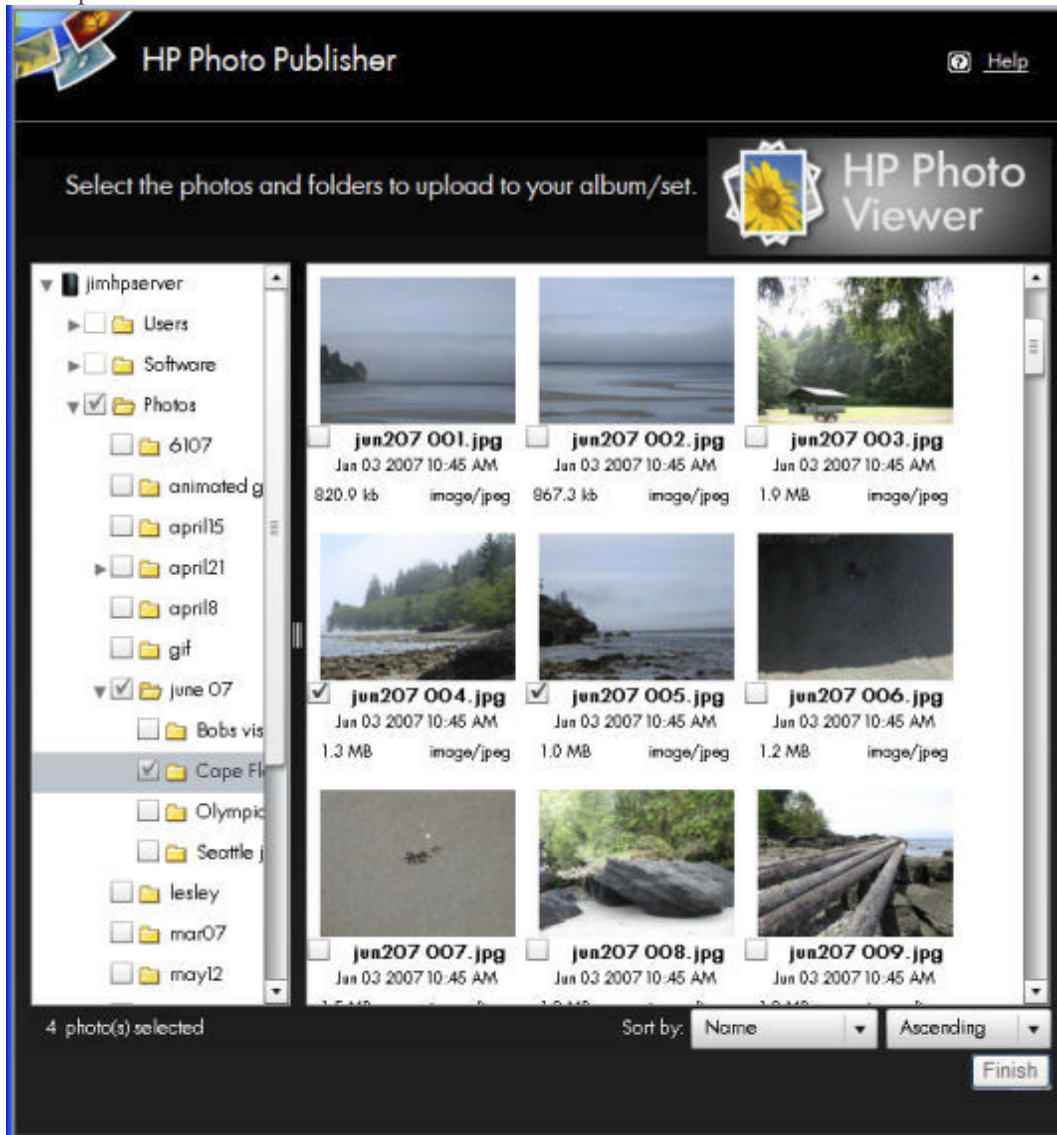


2. Click the site and login.

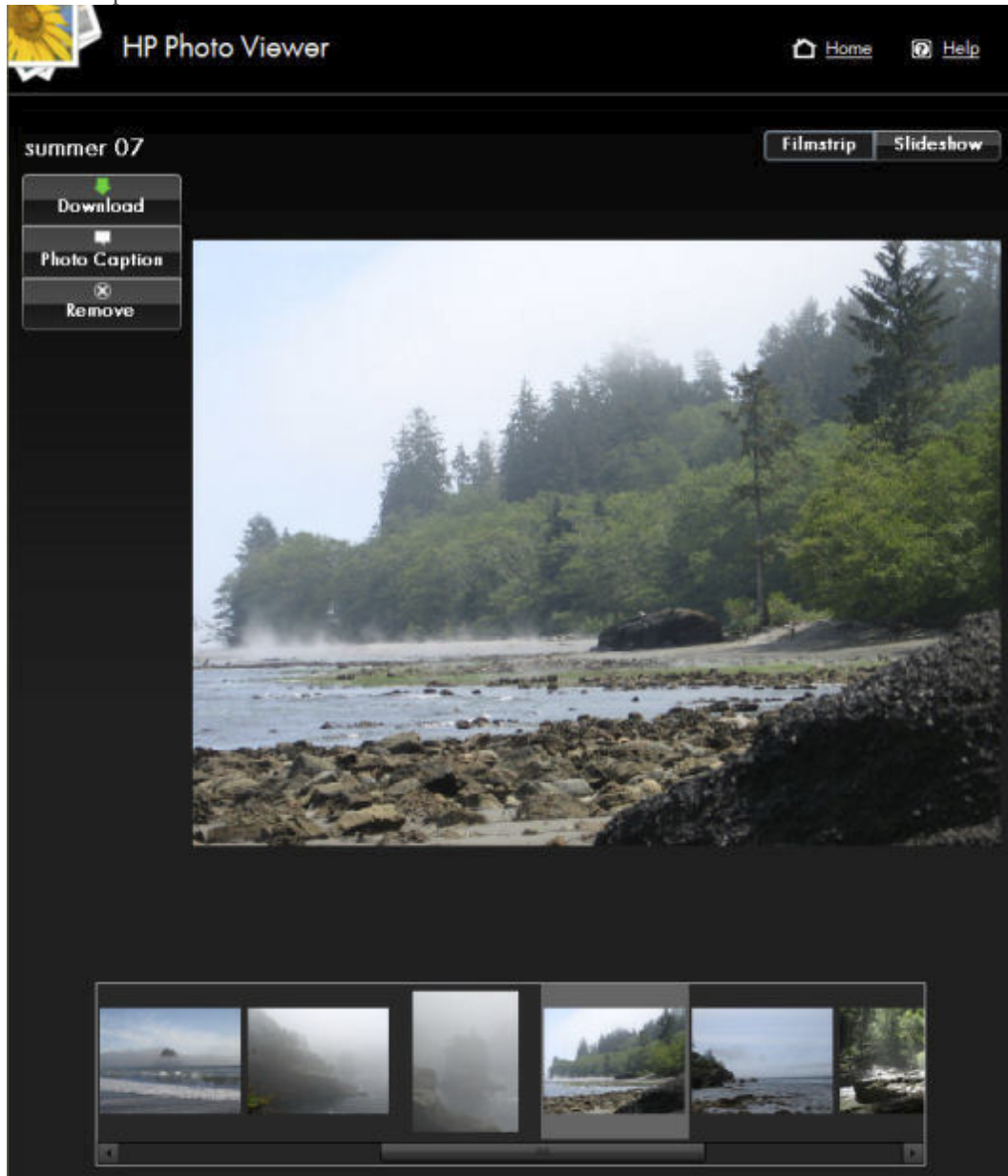
3. Choose the album to add photos to.



4. Select photos and click **Finish**.



5. Select the photo album to view.



NOTE:

You might need to close your browser and reopen or clear out your internet cache.

## PHOTO PUBLISHER, UPLOAD ERROR MESSAGE "FORBIDDEN" IN PICASA

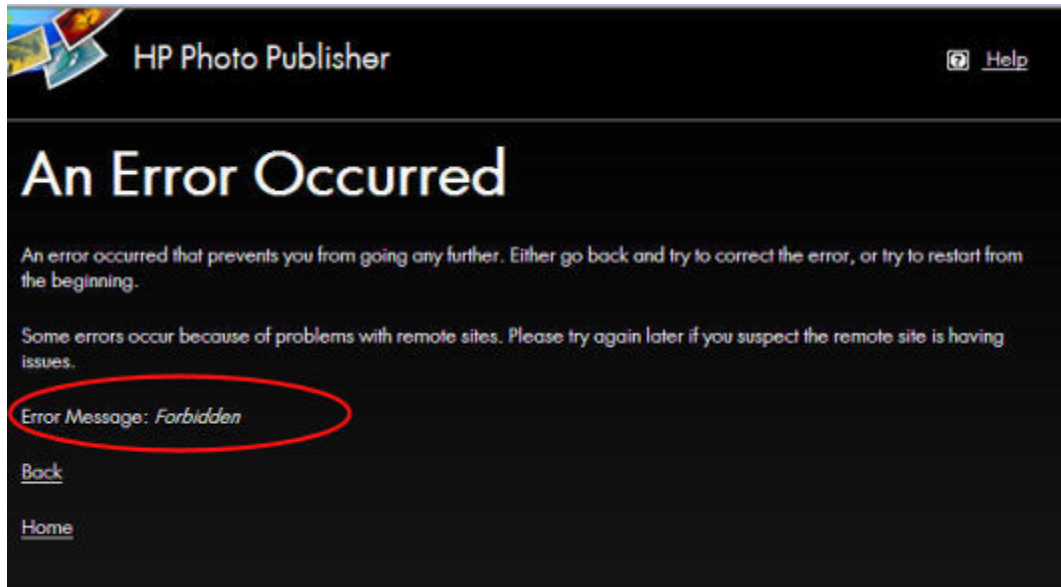
### Symptom

Trying to upload photos to my Picasa account, I get an error saying "forbidden".

## Cause

At the time of writing; the "Forbidden Error Message" can be caused by exceeding one or both of the following conditions:

- Picasa allows 500 photos in an album on their free accounts.
- Picasa allows for 1GB of storage on there free accounts.



## Solution

Consider either:

- Breaking your large album into smaller albums
- Clearing off some of your existing photos to make room for the photos you want to load
- Going to the Picasa web site and purchasing more storage space.

## **PHOTO PUBLISHER, USING BACK BUTTON UNABLE TO SELECT PHOTOS**

### Symptom


I want to add more photos to my photo album, but i have passed the photo select page. Clicking the browsers back button, I get back to the photo select page where I select photos. When I click finish my browser does not read the albums properly.

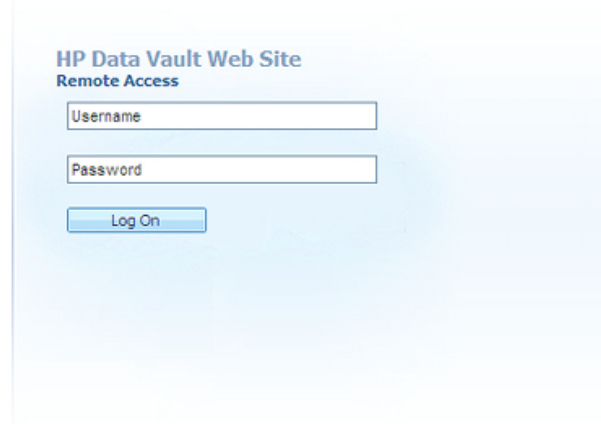


## Cause

Sometimes the browser will display cached album information.

## Solution

1. At the PC, close your browser and double-click the HP Data Vault desk icon.  
At the Mac, close you browser and select **Open Home Page** from the **Server** menu .
2. Double-click **HP Photo Publisher**.
3. Enter your **Username**, **Password** and click the **Log On** button.



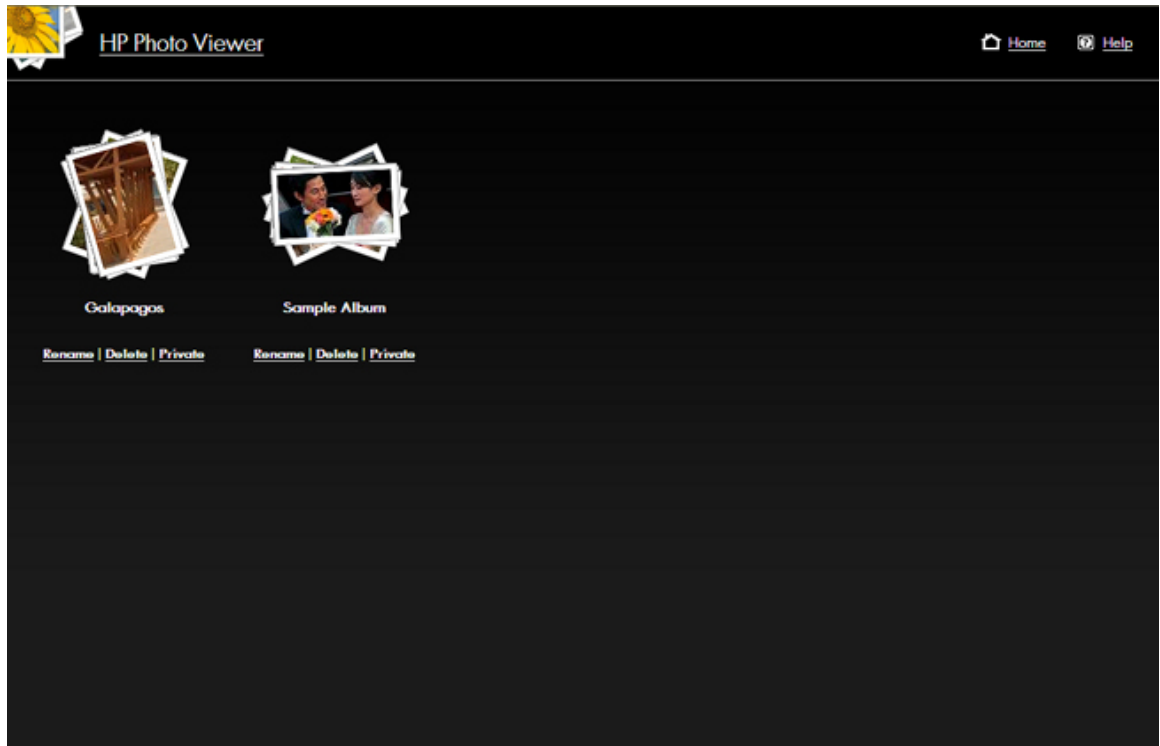
4. You will be brought the **HP Photo Publisher** home page.

## HP PHOTO VIEWER

### HP Photo Viewer Home Page

The Photo Viewer Home Page gives you the opportunity to View, Rename, Delete an album Photo Viewer lets you make an album Public or Private.

The Public/Private choice is designed for additional privacy for Server owners that have set up their servers for remote access. This feature allows the administrator to make an album private, while allowing access to friends and family that know the URL of the album.



To share a Private album:

1. Open the Album
2. Either
  - Use your browser's menu to send the URL, click **File, Send, Link by E-mail** to start sending an email to outside users
  - Copy the URL  
<http://myserver.homeserver.com/PhotoViewer/album633689042886093750/index.xml> to paste into your email.

NOTE: Make sure you use the URL that has been set up for Internet/Remote Access. Using local address for your album such as:  
<http://hpstorage/PhotoViewer/album633689042886093750/index.xml> will not work for remote users.

3. Send the URL to your friend or family member, and they can now gain access to the Album.

## HP Photo Viewer Slideshow

You have two choices:

- Filmstrip View
- Slideshow View

## Filmstrip View

Viewing the album in **Filmstrip** view, you will see a page similar to below. As long as you are logged into the server you will see three buttons on the left: **Download**, **Photo Caption**, and **Remove**.

If you have been logged off the server due to inactivity you will only see the **Download** button. Click the **Login** link in the upper right part of the screen and provide credentials to log back on.



The Download Button allows visitors to download the photo to there Computer.

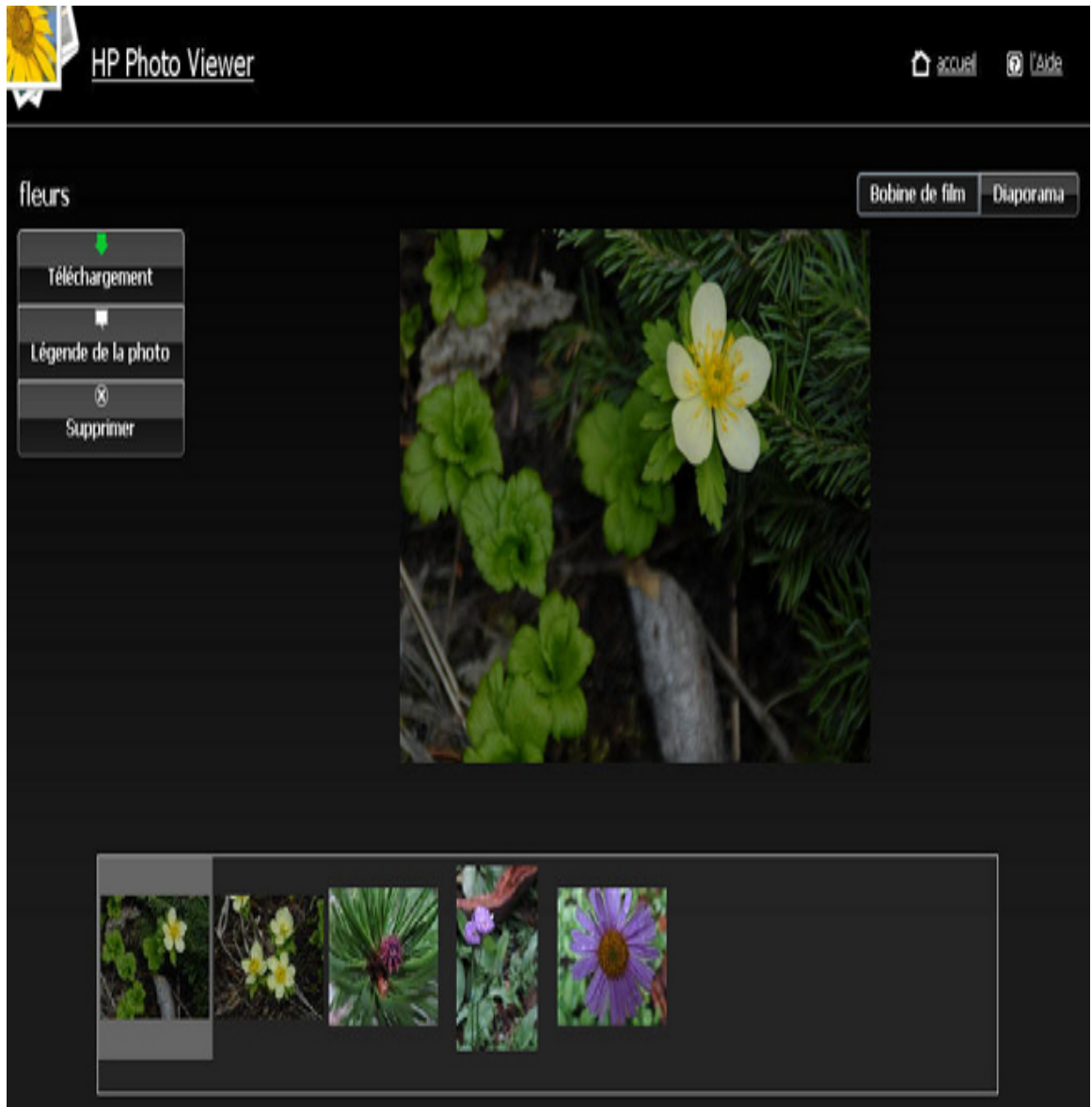
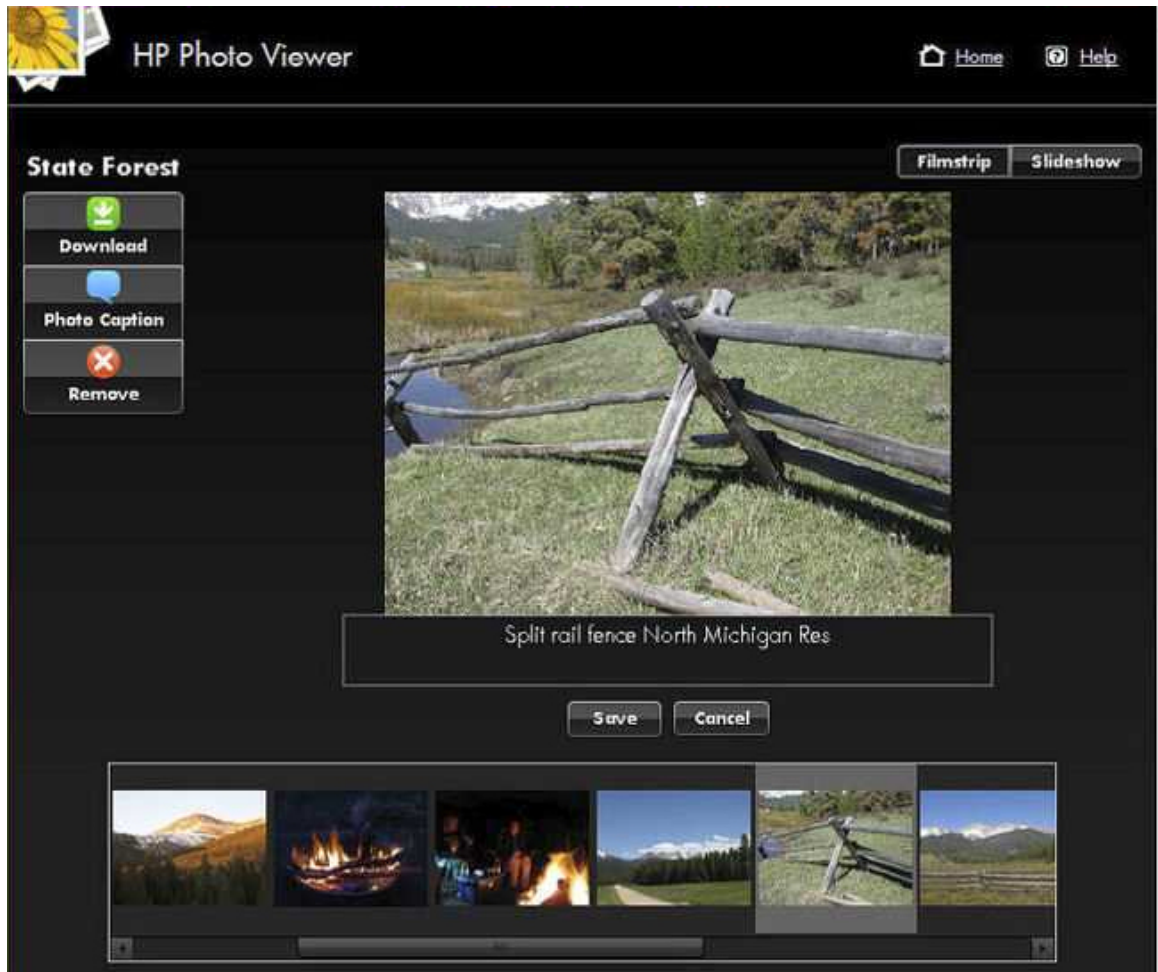


Photo Caption allows you to add a caption for the photo. Enter text in the field that appears below the photo as shown in the example below. Click the **Save** button to keep the Caption

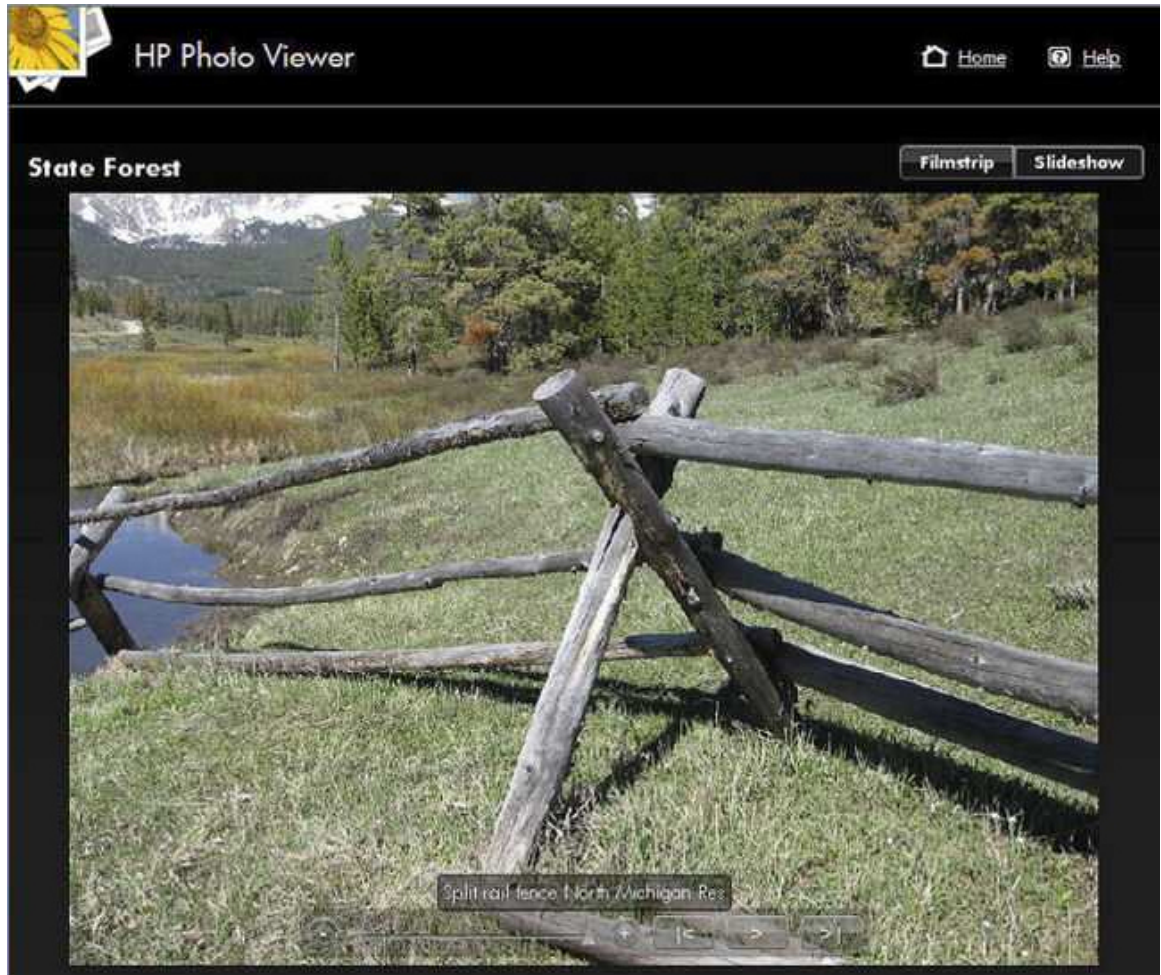


Remove lets you remove the photo from the album, please note that the photo still remains on the Server. Click **Yes** or **No** to confirm the removal.



### Slideshow View

Viewing the album in Slideshow will give you larger views of the photos. If the photo has a caption, it will show as in the example below.



The Control Bar for the slideshow will appear towards the bottom of the screen.



The slider half of the bar controls how fast the next

photo will show. The button will bring up the previous photo in the slideshow, the

button will bring up the next photo in the slideshow, and the button is a toggle switch; playing or pausing the slideshow.

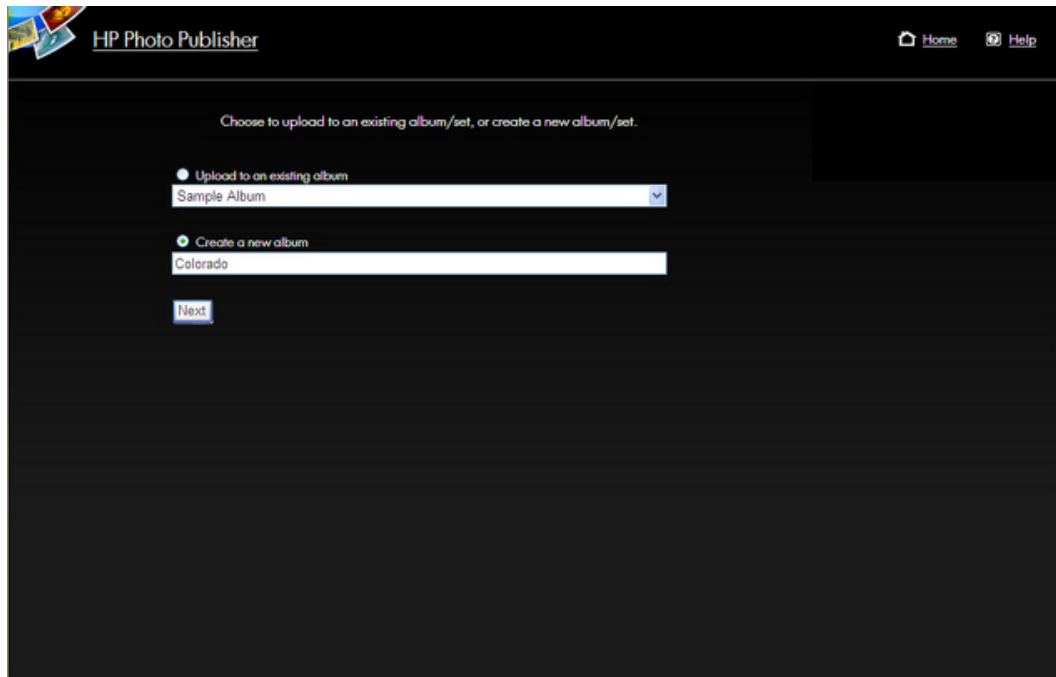
## Select Existing Album or Create an Album

1. Select **Upload to an existing album** and select the album from the drop down list.  
or,  
Select to create a new album or set. Type the name of the album.
2. Click **Next**.



### Note

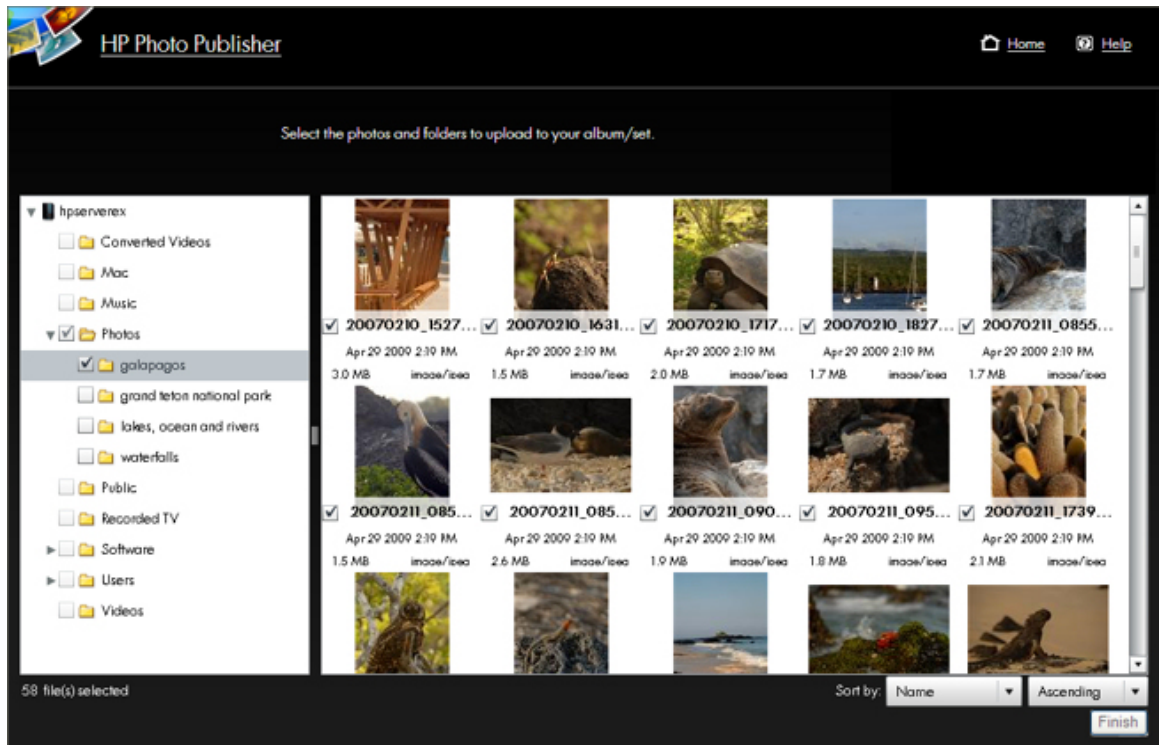
Flickr uses the term **set** instead of **album**. Another term that Flickr uses is **photo stream**. The **photo stream** is the default presentation mode for Flickr and uses no sets.



## Select Photos

The HP Photo Publisher queries the server and displays a list of folders and photos available to the current user.

1. Click the **Arrow** to see an expanded view of folders.
2. Select photos to publish.
  - Select an entire folder by putting a check in the checkbox by the folder.
  - Select individual files using the checkboxes beside individual files.
3. Once you have finished your selections click **Finish**.  
The photos selected will now upload to the photo sharing site you are logged onto.



Only file types that are supported by the photo sharing site are available to upload.

The table below tells what file types are accepted at the various photo sharing and social networking sites.

	*.jpg, *.jpeg	*.gif	*.png	*.bmp
Picasa	X	X	X	X
Snapfish	X			
facebook	X	X	X	X
flickr	X	X		
HP Photo Viewer	X	X	X	



## Troubleshooting HP Photo Viewer

### FIREFOX CERTIFICATION NEEDED TO ACCESS HP PHOTO VIEWER

#### Symptom

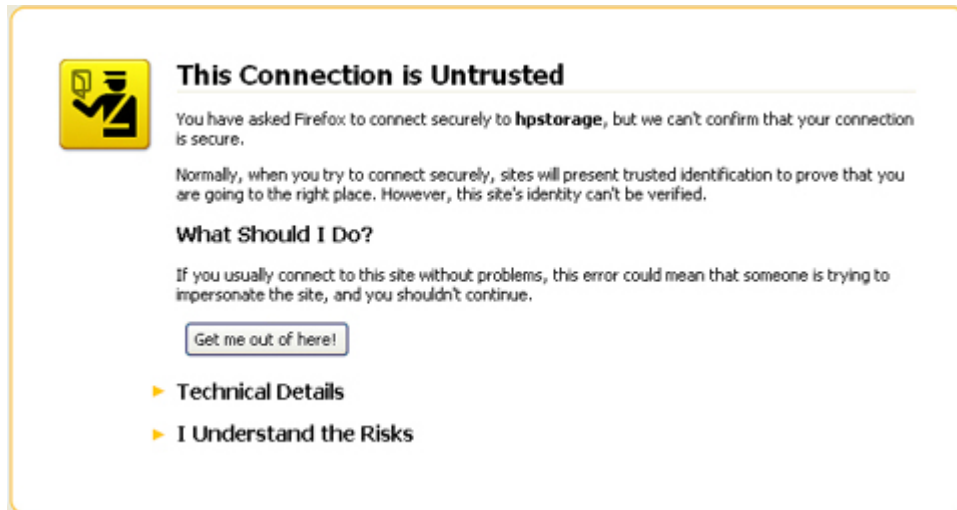
When trying to enter HP Photo Viewer, Firefox gives an untrusted connection message.

#### Cause

A signed SSL certificate is required to access this Server. This certificate is created when you first visit the server from each computer.

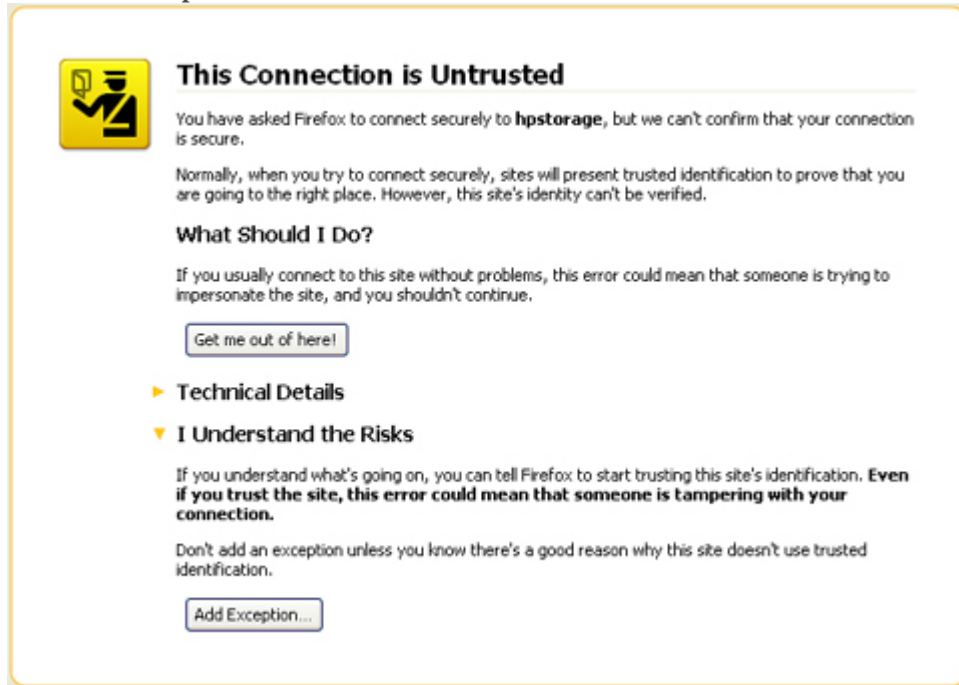
#### Workaround

1. Click **I Understand the Risks**.

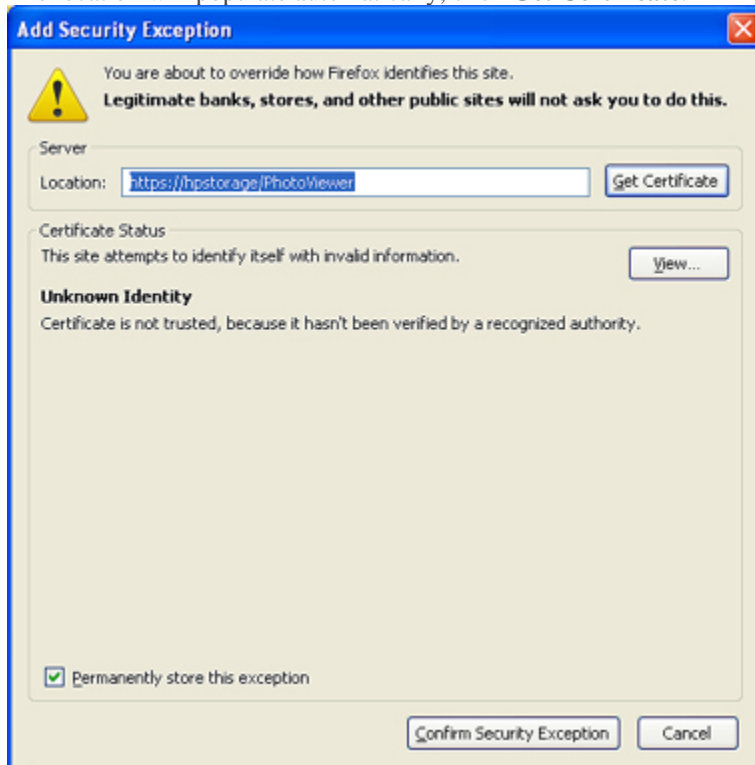


The screenshot shows a yellow warning dialog box with a lock icon and a red 'X' over it. The title is "This Connection is Untrusted". The text inside reads: "You have asked Firefox to connect securely to **hpstorage**, but we can't confirm that your connection is secure. Normally, when you try to connect securely, sites will present trusted identification to prove that you are going to the right place. However, this site's identity can't be verified." Below this is the section "What Should I Do?" with the text: "If you usually connect to this site without problems, this error could mean that someone is trying to impersonate the site, and you shouldn't continue." There is a button labeled "Get me out of here!". At the bottom, there are two options: "▶ Technical Details" and "▶ I Understand the Risks".

2. Click **Add Exception**.



3. The location will populate automatically, click **Get Certificate**.



4. Click **Confirm Security Exception**.

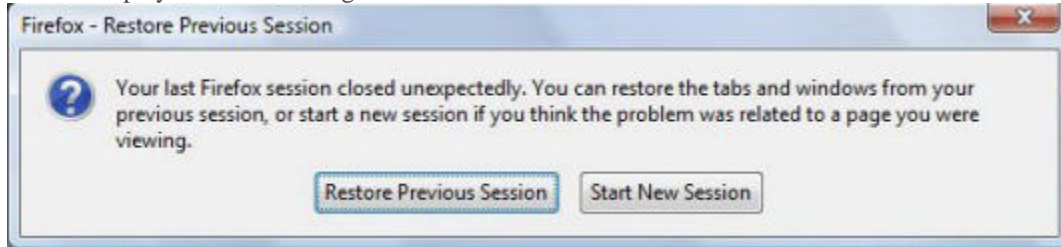
## LAUNCHING HP PHOTO VIEWER IN FIREFOX AFTER BROWSER CRASH GIVES ERROR MESSAGE

### Symptom

Closed a Firefox browser using **CTRL+ALT+DEL**.

Open the Windows Home Server Console, click on the HP Data Vault tab, click **HP Photo Publisher**, click the **Launch Photo Viewer**.

Firefox displays an error message.



### Cause

Clicking on a link in the admin console, which starts a local browser session. The user's firefox browser does not start immediately due to a previous firefox crash.

The admin console incorrectly thinks this is an error.

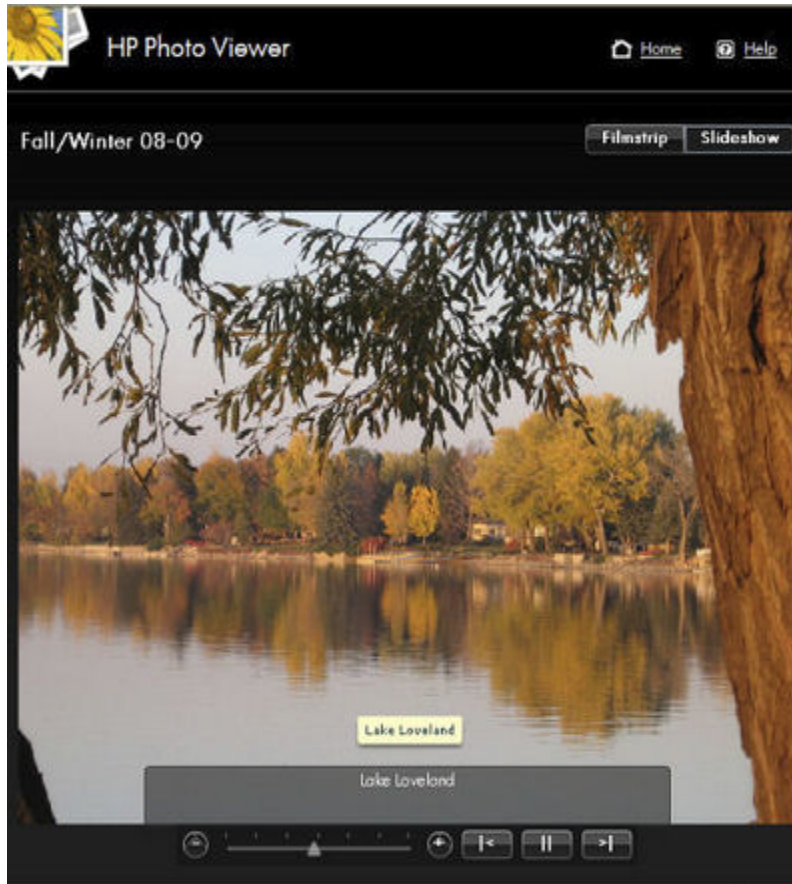
### Solution

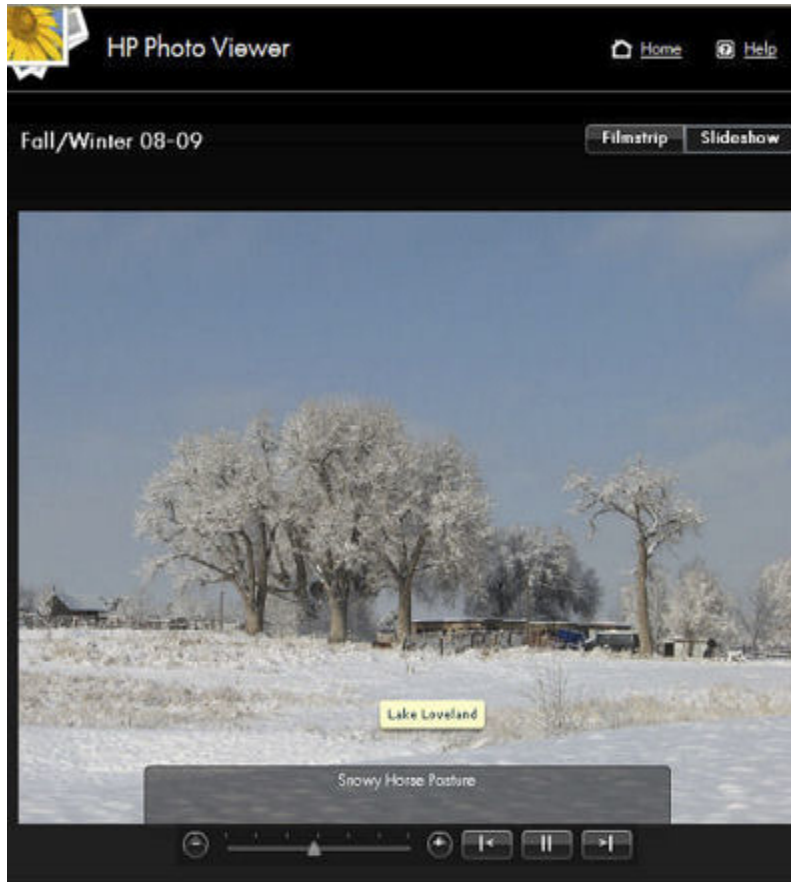
Open Firefox and click either **restore session** or **start new session**, then click photo viewer link.

## PHOTO VIEWER SLIDESHOW CAPTION TOOL TIP DOES NOT REFRESH

### Symptom

While running a slideshow a tool tip displaying the photo caption will appear over a picture and not go away.





### Cause

The tool tip does not refresh if the mouse is stationary.

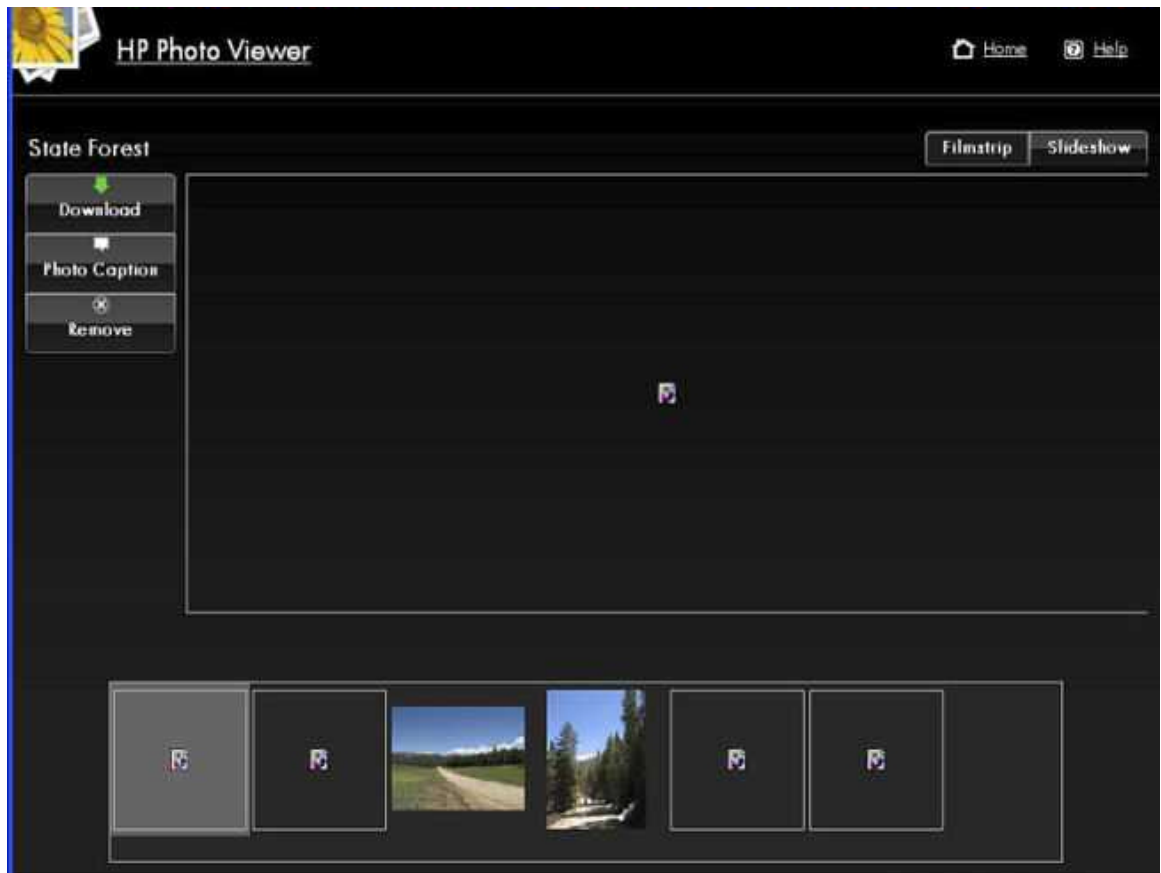
### Solution

Move the Mouse and the photo caption will disappear. The best practice for viewing a slideshow would be to position the mouse out of the slideshow viewing area.

## HP PHOTO VIEWER ALBUM MISSING PHOTOS

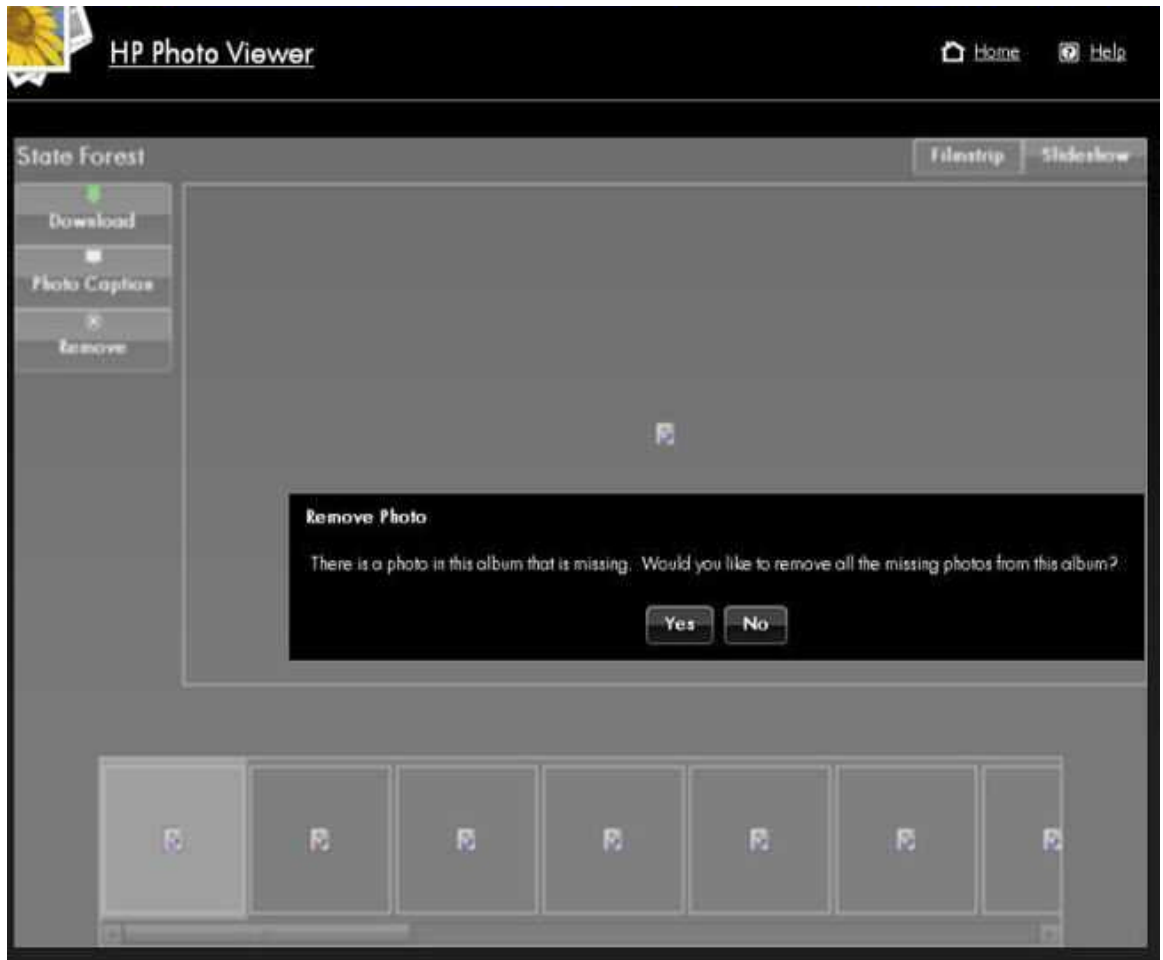
When viewing an album I have missing photos.

This occurs when photos that have been added to an album have been moved from the location that they were originally located when the photos were added to the album. The photos may still reside on the server, just in a different location. A Photo Album is very much like a play list – it contains a reference to photos on your server, but does not contain its own copy of these photos.



To remove the missing photos placeholders:

1. Log into Photo Viewer as the administrator
2. Open the album.
3. Click the Yes button in the Remove Photos dialog.







## Chapter 8. Backup, Restore, and Recover

### CHOOSE A BACKUP STRATEGY

The following table describes the different backup options that are available with the HP Data Vault and when to use them.

Backup Options			
Backup Option	Description	When to use	Setting it up
Windows Home Server Backup for PCs	<p>Backs up your entire PC. If a PC drive dies, replace the drive, run the PC restore disk and the PC is restored to the last backup.</p> <p>You can configure Windows Home Server Backup to exclude specific volumes or folders.</p>	<p>Choose this option if you want to be able to recover your entire PC, including the operating system, software and all files, in the case of a hard drive failure.</p> <p>Also, choose this option if your original working copies of files are on your PC and you want the security of knowing that there are copies on the server.</p>	<p><a href="#">Run the Software Installation Disc</a> on your PC.</p> <p>No additional configuration is required. Your entire PC will be backed up automatically.</p> <p>See <a href="#">PC Backup and Restore</a> to learn how to exclude volumes or folders from the backup.</p>
Time Machine Backup for Macs	<p>Creates a Time Machine backup of your Mac and stores it on the server.</p>	<p>Choose this option if you want to be able to recover your entire Mac, including the operating system, software and all files, in the case of a hard drive failure.</p> <p>Also, choose this option if you store original working copies of files on your Mac and you want them backed up to the server.</p>	<p><a href="#">Run the Software Installation Disc</a> on your Mac.</p> <p>Configure <a href="#">Mac Backup</a>.</p>
Server Shared Folder Duplication	<p>Creates two copies of any shared folder on the server that has duplication enabled. If a server drive fails, other than the <b>system drive</b>, simply remove it and replace. This is similar to a RAID 1 array for <b>shared folders</b>.</p>	<p>Choose this option if you keep your original working copies of files in the shared folders on your server and you want a copy of them. Storing original files on your server reduces the number of copies on your network and makes it possible for everyone to share the same files.</p>	<p>Windows Home Server requires that two or more drives are added to server storage.</p> <p>See <b>Shared Folders</b> in the Windows Home Server help.</p>



Backup Options			
Backup Option	Description	When to use	Setting it up
Back up Server to a Device	Uses Windows Home Server Backup Now to backup server shared folders to a device that can be stored off site.	Choose this option if you want to back up shared folders on the server to a <b>SATA, eSATA, or USB</b> drive and store it off site. This option protects you against total disasters, such as a fire or flood.	<p><a href="#">Run the Software Installation Disc</a> on your PC.</p> <p>Attach an eSATA or USB drive to your server, or add a SATA drive to an empty bay in your server using the backup drive option.</p> <p>See <a href="#">Back up Server to a Device</a>.</p>

## PC BACKUP, RESTORE, AND RECOVER

### PC Backup and Restore

After running the Software Installation Disc on a computer it is automatically added to the list of computers that are backed up by the HP Data Vault each night. The entire computer is backed up by default.

Complete the following steps to customize the hard drive volumes to back up, or to exclude folders from the backup.

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click the **Computers & Backups** tab.
3. Select a computer and click **Configure Backup**. Follow the instructions in the **Backup Configuration Wizard**.

Related Topics
Windows Home Server Console Help
<ul style="list-style-type: none"> <li>▪ Computers &amp; Backup</li> <li>▪ How does backup work?</li> <li>▪ Managing and Configuring Backups</li> <li>▪ Restoring Computer Backups</li> <li>▪ Removing a Computer</li> <li>▪ Troubleshooting Computers &amp; Backup</li> </ul>

## Restore an Entire PC Hard Drive

To help you recover your computer and data in the event of a hard drive failure, the HP Data Vault includes a **PC Restore Disc**. Use this disc to restore your computer from the HP Data Vault in the event of the following:

To restore the system drive.

- When the operating system will not start (boot).
- If you cannot use **System Restore** to restore the system files.



### Caution

To ensure that you have the latest version of the **PC Restore Disc**, contact HP support at <http://www.hp.com/support>.

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 THE END USER CUSTOMER'S SYSTEM TO REBOOT WITHOUT PRIOR NOTIFICATION TO THE END USER CUSTOMER AFTER 24 HOURS OF CONTINUOUS USE.

## Recover Your Computer

1. Insert the **PC Restore Disc** into a CD/DVD drive in the computer you want to restore.
2. Restart the computer, and boot from the CD.
3. Follow the instructions in the **Restore Wizard**.

For additional information about restoring computer backups, see Restoring Computer Backups in the Windows Home Server Console Help.

## MAC BACKUP AND RECOVER

### Mac Time Machine Backup

In this article...

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↓ [Determine Used Space on Your Local Disk](#)

↓ [Configure Time Machine Backups](#)

↓ [Change the Backup Disk Size](#)

↓ [Delete a Backup Disk](#)

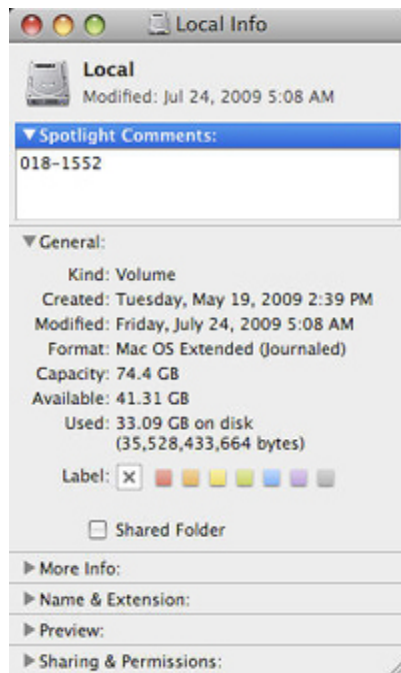
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## Determine Used Space on Your Local Disk

Begin by finding out how much space your data currently occupies on your Local disk. When you set up Time Machine, the minimum backup disk size is automatically calculated for you.

However, you may want to increase the backup disk size depending on how often you create or change files on your Mac.

1. Open a Finder window and select the Local disk.
2. On the Apple menu bar, choose **File > Get Info**.
3. In the Local Info window, look in the **General** section next to find the **Used** disk space.



Multiply the used disk space by 1.5. The result is the minimum amount of disk space Time Machine can work with (That's because Time Machine needs space for all of your files plus some extra room to enable it to store new data and multiple copies of files that change.). However, more space is always better, because it enables Time Machine to retain backups that go further into the past. A backup disk with at least 1.5 times as much free space as the amount occupied on your local disk is recommended, and more if possible.

## Configure Time Machine Backups


Before you begin,

- The HP Data Vault software has to be installed on your Mac. See [Installing and Uninstalling Mac Software](#).
- You must be logged on to the Mac with an account that has administrator privileges.

To configure the HP Data Vault as a valid Time Machine backup device,

1. From the HP Data Vault menu, select **Open Preferences**.
2. On the **Server** tab, verify that the server name and the server's administrator password are authenticated.

This information is used by Time Machine to set up the backup destination, as well as the links to the shares on the server. This information may have been entered at the end of the Mac software install. If so, you will be authenticated automatically.



Server Backup Software Update

Enter the server name and password for your HP MediaSmart Server:

Server Name:

Server Password:

Authenticated

Show HP MediaSmart Server in the menu bar

3. Select the **Backup** tab and type a **Backup Disk Size**.



The suggested minimum disk space size displays in the dialog based on approximately 1.5 times the size of your used disk space. However, HP recommends creating a backup disk that is at least as large as your total local disc capacity, or larger if possible. When choosing a backup disk size, you may want to consider how much you use your Mac and how much disk space you have available on your server. The backup disk size cannot exceed the amount of free space that you have available on one server disk.

 **Important**

You can resize your backup disk later if you need more room. Resizing the backup disk overwrites the current backup disk and causes all data to be lost. See [Change the Backup Disk Size](#).



**Note**

The location for the backup is on the server at \\hpstorage\Mac\Backup. If the Mac shared folder has been deleted from the server, you must create it. At a PC, double-click the Windows Home Server icon  in the system tray and log on. Or at a Mac, select **Launch Home Server Console** from the **Server** menu . Click the **Shared Folders** tab and **Add** a shared folder named **Mac**.

4. Click **Apply**.

This process can take quite some time based on the size of the backup disk and server activity. Once the formatting process is complete, the Backup Disk Status changes to **Started**.



**Note**

The backup file will be located at \\<server name>\Mac\Backup. The file name is based on the serial number of the Mac system, and cannot be changed. Do not manually delete or rename this file.

5. Click **Open Time Machine Preferences**, click **Choose Backup Disk** and select **Backup to HP Data Vault** as the backup disk.

**Backup to HP Data Vault** may already be selected. You may have to change the backup location to the HP Data Vault if you had a previous Time Machine backup that pointed to a different location.

### Change the Backup Disk Size

1. From the HP Data Vault menu, select **Open Preferences**.
2. Click the **Backup** tab.

3. In the **Backup Disk Status**, click **S**.  
The **Backup Disk Status** changes to **Sped** and the virtual disk icon on the desk goes away after the backup disk ss.

**Note**

You may have to wait several minutes for the backup disk to s. Please be patient. If the backup disk does not s and it appears to hang, it could be because an application or other process is accessing the backup disk in the background. If this is the case, attempt to eject the disk using Finder.

4. Enter a new value in the **Backup Disk Size** and select **Resize** from the action menu.  
You cannot select **Resize** until the disk is sped and the disk size is changed.
5. Click **Apply**.
6. A pop up warning appears informing you the file already exists and that continuing will erase the existing backup data and start over. To continue with the new size click **Delete and Continue**.

## Delete a Backup Disk

You may want to delete a backup disk if you need to free up space on your server for other things or if you are no longer using your Mac.

1. From the HP Data Vault menu, select **Open Preferences**.
2. Click the **Backup** tab.
3. In the **Backup Disk Status**, click **S**.  
The **Backup Disk Status** changes to **Sped** and the virtual disk icon on the desk goes away after the backup disk is sped.

**Note**

You may have to wait several minutes for the backup disk to s. Please be patient. If the backup disk does not s and it appears to hang, it could be because an application or other process is accessing the backup disk in the background. If this is the case, attempt to eject the disk using Finder.

4. Select **Delete** from the action menu next to the **Backup Disk Size**.

## Recover an Entire Mac Hard Drive

In this article...

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↓ [Prepare the USB Flash Drive](#)

↓ [Recover the Mac Hard Drive Using the USB Flash Drive](#)

---

## **Prepare the USB Flash Drive**

The flash drive is prepared with software that enables the Mac OS X Installer to restore the entire Mac hard drive, including the operating system, applications, and files, from a Time Machine backup on the HP Data Vault.

The flash drive will be formatted and any files already on the drive will be lost. Save files already on the drive to a different location.

You also need to have configured the HP Data Vault backup file before you prepare the USB Flash Drive.

1. Insert a USB flash drive into a USB slot on the Mac computer that has the HP Data Vault Mac Client software installed.
2. From the HP Data Vault menu, select **Open Recovery Assistant**. The Recovery Assistant opens.
3. On the Welcome page, click **Continue**.
4. Select the USB flash drive as the destination and click **Continue**.
5. Type your Mac administrator name and password and click **Continue**. The USB flash drive is formatted and initialized with the recovery software.
6. On the Summary page, click **Close**.

## **Recover the Mac Hard Drive Using the USB Flash Drive**

The USB flash drive contains the HP Data Vault Recovery software that enables you to restore your entire Mac hard drive from a backup on your HP Data Vault. The USB flash drive activates and mounts backup disks of your Mac computer created on the server using the HP Data Vault backup utility. The USB flash drive is used in the Mac OS X Installer environment to make the backup disks available in the Mac OS X Installer Restore assistant.



### **Note**

Your computer must be connected to the network with an Ethernet network cable before you begin the restore. In most cases, you cannot use a wireless connection.

You also need at least one Time Machine backup on the HP Data Vault before you can recover the entire hard drive.

1. Insert the prepared USB flash drive into a USB slot on the computer that you want to restore.
2. Insert the Mac OS X Install Disc into the DVD-ROM drive.
3. Double-click **Install Mac OS X**, or boot from the Mac OS X Install Disc.
4. Select a language and click the arrow.
5. At the Welcome page, choose **Utilities>Terminal**.
6. Type the following command in the Terminal window. The command is case sensitive.  
`/Volumes/Restore/run`



7. A message displays that the HP Data Vault backup disk has been activated. Click **OK**.
8. On the Recovery Center dialog, verify that your server name and password are authenticated.
9. Quit the Recovery Center.
10. Quit the Terminal.  
You are returned to the Welcome page.
11. Choose **Utilities>Restore System From Backup**.
12. Click **Continue**.
13. Select **Backup to HP Data Vault** and click **Continue**.
14. Select a Time Machine backup on the server and click **Continue**.  
You will probably want to select the most recent backup.
15. Select the **Local** disk and click **Restore**.
16. Follow the instructions on your screen to complete the restore.

## SERVER BACKUP, RECOVER, AND RESET

### Back up Server to a Device

Back up shared folders on the server to a SATA, eSATA, or USB drive and store it off site. This option protects you against total disasters, such as a fire or flood.

#### In this article...


- 
- ↓ [Add the Device to the Server](#)
  - ↓ [Back up the Server to the Device](#)
  - ↓ [Remove the Device from the Server](#)
- 

### Add the Device to the Server

1. Add an internal SATA drive to the server or attach an eSATA,USB drive, or SATA port multiplier.

For additional information see,

- [Add an Internal SATA Drive](#)
- [Add and Remove an External USB Drive, eSATA Drive, or SATA Port Multiplier](#)

2. To add the drive as a backup drive at a PC, double-click the Windows Home Server icon  in the system tray and log on.

At the Mac, select **Launch Home Server Console** from the **Server** menu .

3. Click the **Server Storage** tab.

4. Click **Add**.
5. Click **Next** on the Add a Hard Drive Wizard.
6. Select **Use this hard drive to back up files that are stored on your home** server and click **Next**.
7. Choose whether to format the drive or not and click **Next**.
  - Formatting the drive—Any files already on the drive will be lost. Save important files already on the drive to a different location.
  - Not formatting the drive—The server will not be able to browse to files already on the drive.
8. Name the drive and click **Next**.
9. Click **Finish**.
10. Once the device is added, click **Done**.

### **Back up the Server to the Device**

1. Still in the Windows Home Server Console, click the **Computers & Backup** tab.
2. Select the HP Data Vault from the list and click **Backup Now**.
3. Choose the backup device as the **Destination** for each shared folder you want to back up.
4. Check **Remember these settings for future backups** to save the settings.
5. Click **Backup Now**.
6. Click **Close** once the backup is complete.

### **Remove the Device from the Server**

1. In the Windows Home Server Console, click the **Server Storage** tab.
2. Select the device from the list and click **Remove**.
3. Follow the instructions in the **Remove a Hard Drive** wizard.
4. Detach the hard drive from the server.



#### **Note**

If files are added to the drive while it is unattached to the server, you will not be able to browse to those files from the server when the drive is reattached. The space occupied by those files is unavailable to the server and it will not see them.

### Related Topics

HP Data Vault User's Guide

- [Remove an Internal SATA Drive](#)
- [Remove and Reattach a USB Drive](#)
- [A USB Drive Accidentally Detaches from the Server](#)

## Server Recovery and Factory Reset

To help recover or reset the server, the server includes a Server Recovery Disc. Using this disc requires a DVD drive.

Server Recovery attempts to recover all data and restore the folders. However, because of the state of the system prior to the recovery, not all data may be able to be recovered or integrated into the folder structure.

### In this article...

- ↓ [Choose Server Recovery or Factory Reset](#)
- ↓ [Recover or Reset the Server](#)
- ↓ [No Server Found](#)
- ↓ [Server Recovery Fails](#)

## Choose Server Recovery or Factory Reset

The following table will help you determine whether to choose Server Recovery or Factory Reset.



### Caution

During **Server Recovery**, all system settings, such as user accounts and settings, are lost. You will need to recreate them. During **Factory Reset**, in addition to losing all system settings, the data on all drives is lost.

### Choosing Server Recovery or Factory Reset

#### Choose Server Recovery if...

Server operating system has been corrupted.

Disk replacement - partition data on other storage drives are okay.

If you have lost your password.

Server's system hard drive has been replaced.

#### Choose Factory Reset if...

The partition data on the other storage drive is corrupted.

You are giving away or selling the server. See the caution below this table.

**!** **Caution**

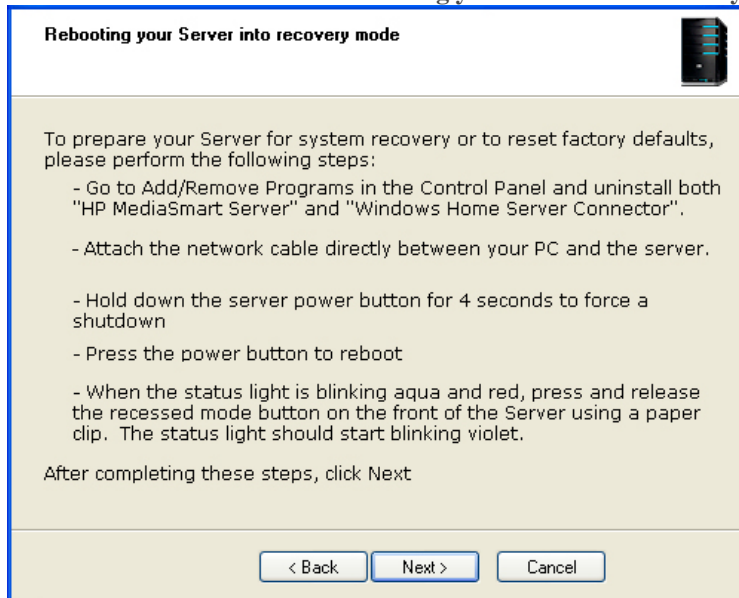
Factory Reset does not remove data from the drives; instead, it allows the existing data to be overwritten. To insure that your data can never be accessed, use a “shredder” program that overwrites the hard drives with random numbers or meaningless data.



### **Recover or Reset the Server**

1. If the Home Page is open on your computer, close it before proceeding.
2. Insert the **Server Recovery Disc** into a PC DVD drive.  
The Server Recovery program automatically starts.
3. Click **Next** on the **Server Recovery** dialog.





4. Follow the instructions on the **Rebooting your server into recovery mode** dialog and click **Next**.



- Uninstall the HP Data Vault and Windows Home Server Connector.
  - a. Click **Start, Control Panel** and select **Add or Remove Programs**.
  - b. Select **HP Data Vault** and click **Remove**.
  - c. Select **Windows Home Server Connector** and click **Remove**.
- Attach an network cable directly between your PC and the server.
  - a. Unplug one end of the server Ethernet cable from your router or switch.
  - b. Plug the free end of the Ethernet cable into your computer so there is a direct connection between the server and the computer.
- Prepare the server for recovery or reset.
  - a. If the server is on, hold down the **Power** button on the back of the server for at least 4 seconds to force the server to shut down. If the server is not on, skip to the next step.
  - b. On the back of the server, press the **Power** button to restart.
  - c. While the Health indicator light is blinking aqua white  and red , press and release the status/recovery button on the front of the server using a paper clip.



- d. If recovery mode is successfully initiated, the Health indicator light blinks violet .
5. Please wait while the server enters recovery mode and click **Next**.  
This may take up to 15 minutes.  
During the recovery process, the following may happen:
    - If the recovery program cannot find the server, see [No server found](#).
    - If the Server Recovery cannot recover the partition data, the progress bar will go to 100% and then back to zero and start over.
    - If the recovery fails, see [Recovery fails](#).
  6. Select **Server Recovery** or **Factory Reset** and click **Next**.  
For help deciding which option to select, see [Choose Server Recovery or Factory Reset](#) above.
  7. Follow the instructions on your computer to complete the server recovery or factory reset.
  8. Click **Finish** on the **Server recovery complete** dialog box to reboot your server.  
Once the server reboots, the server lights will be breathing aqua white .
  9. Re-connect the Ethernet cable to your router.
  10. Complete the server software installation on the computer where you performed the Server Recovery or Factory Reset and all other network computers.

### **No Server Found**

If the recovery program cannot find the server, the most likely causes are:

- The Recovery Mode was not successfully initiated—repeat [step 4](#) if you did not push the Status/Recovery button while the Health indicator lights was blinking red and aqua white.
- A firewall is blocking the connection - configure the firewall to allow the **Windows Home Server Recovery** application or to allow connections over TCP port 8192 and UDP port 8192. If opening these ports, be sure to close them after the recovery has completed. For more information, see the vendor's documentation.
- The network connection is not working.

### **Server Recovery Fails**

If the recovery fails, one of the following messages will be displayed:

- The server disks could not be reformatted.
- The partition data on the server could not be written.
- The primary volume on the server could not be written.
- The recovery image could not be loaded.

The most likely cause for these messages is a connection failure.

1. Make sure that you are using a wired connection to the server from the computer you are using to do the recovery.
2. Check network connections.
3. Repeat the server recovery or factory reset.





## Chapter 9. Server Storage

### EXPAND SERVER STORAGE

You can expand storage in the HP Data Vault in several ways:

Add one or more **SATA** hard drives to the server's internal expansion bays. (Integrated Drive Electronics (IDE) drives are not supported.)

- Add up to four USB disk drives to the server's USB ports.
- Add an external SATA (eSATA) hard drive to the server's external eSATA port.
- Add a SATA port multiplier to the server's external eSATA port.

Related Topics
<p>HP Data Vault User's Guide</p> <ul style="list-style-type: none"><li>▪ <a href="#">Add an internal SATA drive</a></li><li>▪ <a href="#">Add and Remove a USB Drive, eSATA Drive, or SATA Port Multiplier</a></li><li>▪ <a href="#">Add and Remove Drives from Server Storage</a></li></ul>

### INTERNAL SATA DRIVES

#### Add an Internal SATA Drive

How to place a hard drive into an expansion bay in the HP Data Vault.

 **Important**

Do not remove the bottom drive. This drive contains the Windows Home Server operating system.

 **Important**

There are two steps to adding an internal drive. First, add the drive to an expansion bay. Second, add the drive to the total server storage or set it up as a backup drive.

1. Determine which expansion bay to use:
  - The light bar for an empty expansion bay is off.
  - Add the new hard drive to the lowest available expansion bay.
2. Open the door on the front of the server.



3. On the lowest empty hard drive tray, press down the lever to unlock the handle.



4. Lift the handle all the way up.



5. Gently pull the hard drive tray from the expansion bay.



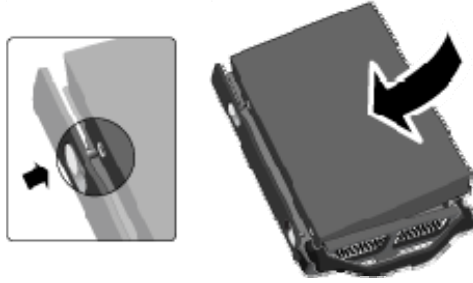
6. Fold down the flap near the back of the hard drive tray.



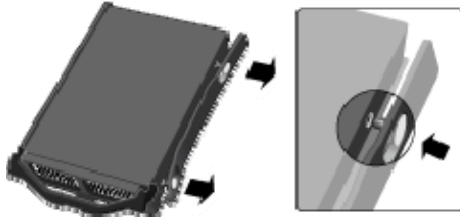
**Note**

This flap improves air flow through the server. If you remove a drive, be sure to fold this flap back up.

7. Insert the new drive into the left side of the hard drive tray, making sure that the pins go into the hard drive's mounting holes.



8. Flex the right side rail, and then insert the pins into the hard drive's mounting holes.



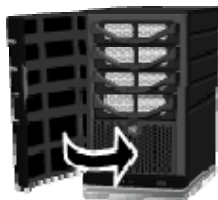
9. With the handle up, slide the hard drive tray and drive into the expansion bay.



10. Press down on the handle on the hard drive tray until it locks.



11. Close the door on the front of the server.



11. Notice that within a few seconds the light bar for the new hard drive blinks aqua white . This indicates that the hard drive has been installed, but has not been initialized.
12. [Add the drive to the server's total storage.](#)


## Remove an Internal SATA Drive

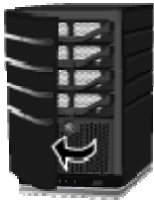
For information about removing the system drive, see [Replace the System Drive](#).

**Caution**

Before removing a drive from an expansion bay, you must remove the drive from the server's total storage.

For information about removing a drive from total storage, see [Add and Remove Drives from Server Storage](#).

1. Be sure that the light bar for the hard drive you want to remove is blinking aqua white . This indicates that the drive has been properly removed from the server's total storage.
2. Open the door on the front of the HP Data Vault.



3. On the drive you want to remove, press down the lever to unlock the handle.



4. Lift the handle of the hard drive tray all the way up.



5. Gently pull the system drive from the drive bay.



6. Flex the back of the right side rail, and then withdraw the back pin from the hard drive by gently pulling the side rail down and away.



7. Flex the front of the right side rail, and then withdraw the front pin from the hard drive by gently pulling the side rail down and away.
8. Remove the drive from the hard drive tray.



9. Fold up the flap near the back of the hard drive tray.



 **Note**

Folding up the flap improves air flow and helps keep the server cool.

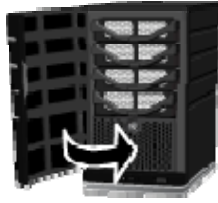
10. With the handle up, slide the hard-drive tray back into the system bay.



11. Close the handle on the hard drive tray until it locks.



12. Close the door on the front of the server.



## USB DRIVES, eSATA DRIVES, AND PORT MULTIPLIERS

### Add and Remove an External USB Drive, eSATA Drive, or SATA Port Multiplier

You can add external USB disk drives to any of the HP Data Vault's four USB ports. You can add either an eSATA drive or SATA port multiplier to the eSATA port.

 **Important**

There are two parts to adding external drives: connect the drive to a port and then initialize the drive so it becomes part of the total server storage.

**In this article...**

---

↓ [Connect an External USB Disk Drive](#)

↓ [Connect an eSATA Disk Drive or SATA Port Multiplier](#)

---

#### **Connect an External USB Disk Drive**

If you use a USB disk drive, it is recommended that you use a drive that conforms to USB 2.0 or later.

1. Plug in the USB cable into one of the USB ports on the server.
2. To plug in and power up your external USB drive, see the documentation that came with your USB disk drive.

 **Caution**

The addition of multiple USB disk drives through an external USB hub is neither recommended nor supported.



3. Follow instructions to [Add and Remove Drives from Server Storage](#).

### **Connect an eSATA Disk Drive or SATA Port Multiplier**

1. Plug the eSATA cable into the eSATA port on the back of the server, as shown in the following figure.
2. To plug in and turn on your eSATA disk drive or SATA port multiplier, see the documentation that came with your device.



3. Follow instructions to [Add and Remove Drives from Server Storage](#).

### **Detach and Reattach a USB Drive**



**In this article...**

- 
- ↓ [Detach a USB Drive from the Server](#)
  - ↓ [Reattach a USB Drive to the Server](#)
-

## Detach a USB Drive from the Server

USB drives may be attached to the server to either increase the server's storage capacity or to back up server files. You can detach any USB drive that is attached to the server.

To safely remove a drive, remove the drive from server storage using the Windows Home Server Console before detaching the drive from the server.

1. At the PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Select the device from the list and click **Remove**.
3. Follow the instructions in the **Remove a Hard Drive** wizard.
4. Detach the hard drive from the server.



If a USB drive is removed can be reattached and added back to server storage.

## Reattach a USB Drive to the Server

Add an internal SATA drive to the server or attach an eSATA,USB drive, or SATA port multiplier.

For additional information see,

- [Add an Internal SATA Drive](#)
- [Add and Remove an External USB Drive, eSATA Drive, or SATA Port Multiplier](#)

2. To add the drive as a backup drive on a PC, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
3. Click the **Server Storage** tab.
4. Click **Add**.
5. Click **Next** on the Add a Hard Drive Wizard.
6. Select **Use this hard drive to back up files that are stored on your home server** and click **Next**.
7. Choose whether to format the drive or not and click **Next**.
  - Formatting the drive—Any files already on the drive will be lost. Save important files already on the drive to a different location.
  - Not formatting the drive—The server will not be able to browse to files already on the drive.
8. Name the drive and click **Next**.
9. Click **Finish**.
10. Once the device is added, click **Done**.



**Note**

If files are added to the drive while it is unattached to the server, you will not be able to browse to those files from the server when the drive is reattached. The space occupied by those files is unavailable to the server and it will not see them.

## A USB Drive Accidentally Detaches from the Server

In this article...

---

↓ [The USB Drive is Missing from Server Storage](#)

↓ [The USB Drive Detaches During a Backup](#)

---

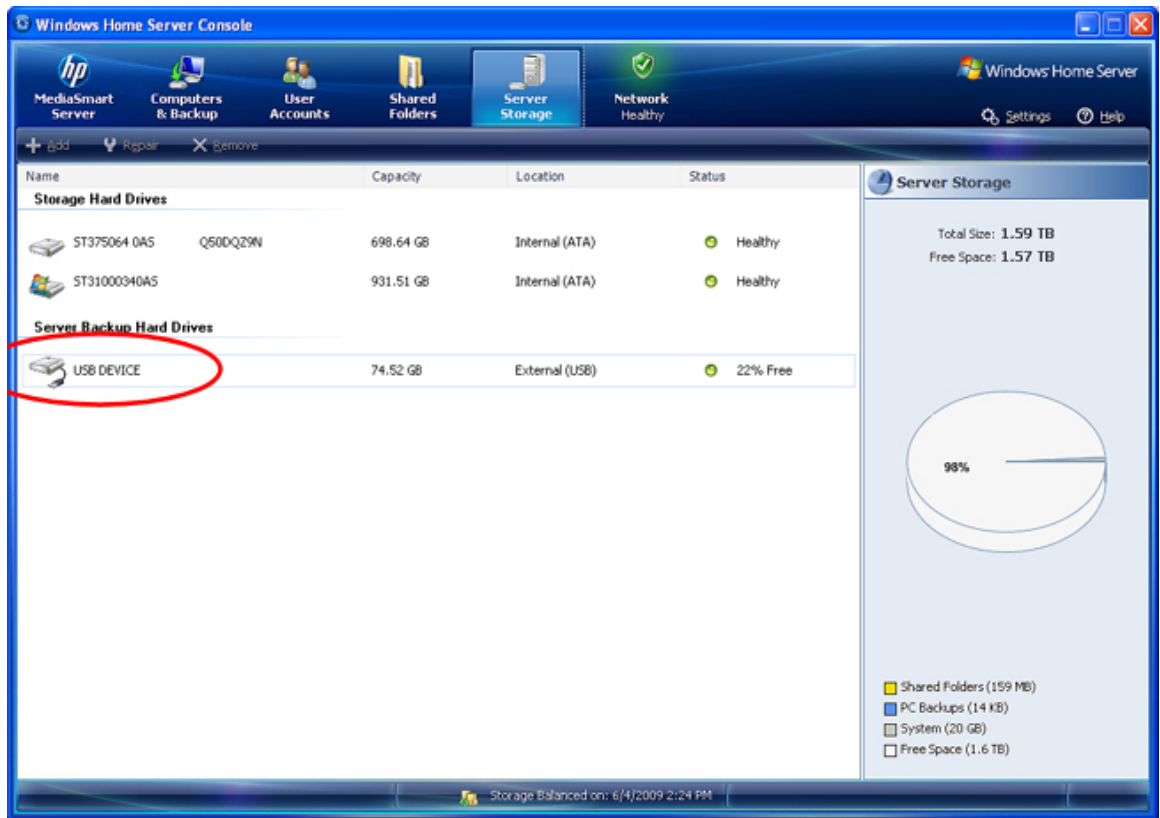
### The USB Drive is Missing from Server Storage

A USB drive that has been successfully added to the **Servers Backup Hard Drives** or **Storage Hard Drives** can detach from the server. If your USB drive detaches from the server, the drive will not be listed in the Windows Home Server Console **Server Storage** tab.

Some of the reasons a USB drive might become detached include,

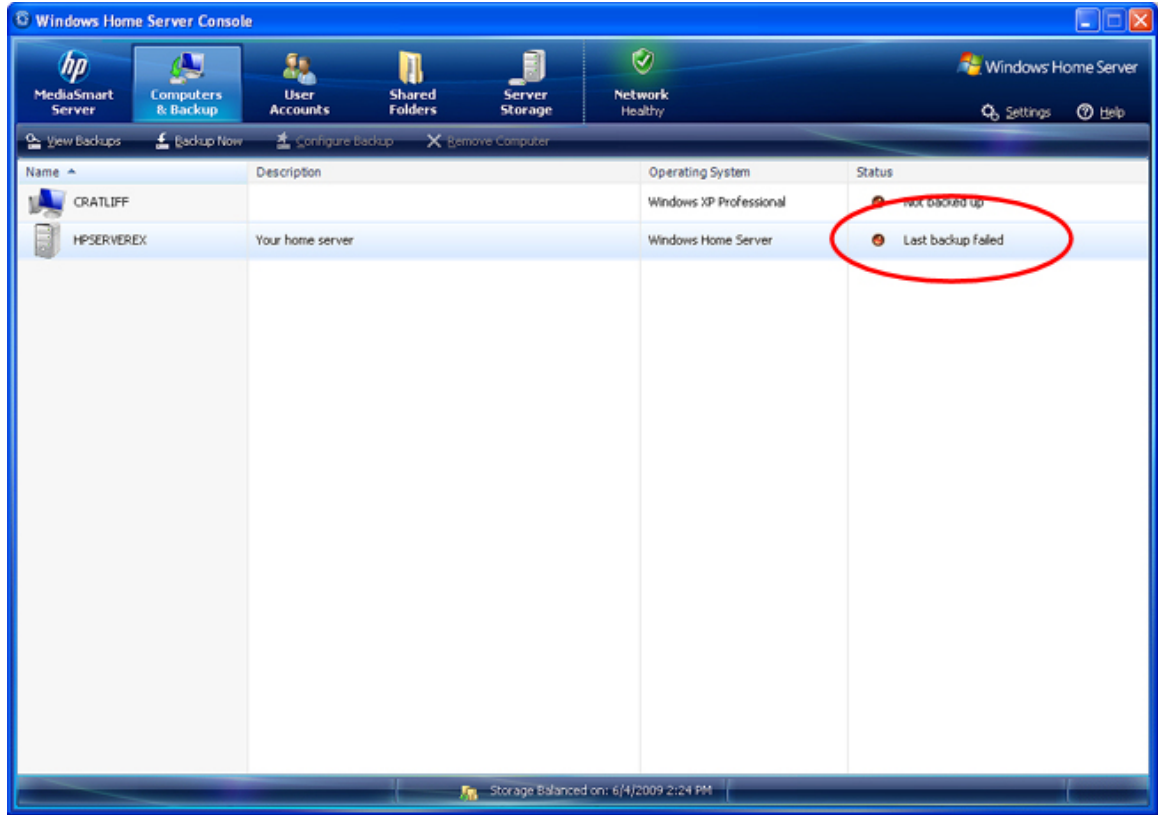
- The USB Drive loses its power supply, or
- The USB cable comes loose from the drive or server.

Verify that your USB drive has power and the cable connecting the drive to the server is firmly seated. Once the USB drive is reattached, it will be reappear on **Server Storage** tab.



### The USB Drive Detaches During a Backup

If the USB drive detaches from the server for any reason during the backup, the backup will fail. Once the USB drive is successfully seen by the server again, the next back up should work as long as the USB drive is in a healthy state.





## ADD AND REMOVE DRIVES FROM SERVER STORAGE

Drives added or removed from an expansion bay or port must be added or removed from total server storage.

### Caution


When adding a hard drive to server storage, the hard drive is formatted. Make sure to back up any important files that are on the hard drive before adding it to server storage.

### Add a Drive to the Server's Total Storage

1. At the computer, double-click the Windows Home Server icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click the **Server Storage** tab.
3. Follow the instructions in **Adding a hard drive** in the Windows Home Server Console Help.

## Remove a Drive from the Server's Storage

If the server does not have enough remaining storage, and you do not first add another hard drive to server storage, either you will lose shared-folder duplication or you will lose files. This depends on how much server storage space remains after you remove a hard drive.

1. At the computer, double-click the Windows Home Server icon  in the system tray.
2. Log on to the Windows Home Server Console.
3. Click the Server Storage tab.
4. Follow the instructions in **Removing a hard drive** in the Windows Home Server Console Help.

## REPLACE THE SYSTEM DRIVE

In this article...

---

↓ [Remove the Old System Drive](#)

↓ [Insert the New System Drive](#)

---

After replacing the system drive, you must

- Reset the system drive. See [Server Recovery and Factory Reset](#).
- Reinstall the software on each computer. See [Install the Software on Additional PCs](#).



### **Important**

The system drive contains the Microsoft Windows Home Server operating system. The server cannot operate while the system drive is removed and must be re-installed via the Server Recovery Disc or factory reset. See [Server Recovery and Factory Reset](#).

## Remove the Old System Drive

The following figure shows the location of the system hard drive.



### To remove the system drive

1. Hold in the **Power** button for at least 4 seconds to force the server to shut down.

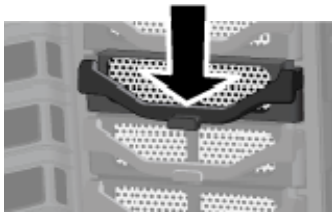
2. Open the door on the front of the server.



3. Using a coin, turn the security knob clockwise to unlock the drive.



4. On the bottom drive, press down the lever to release the handle.



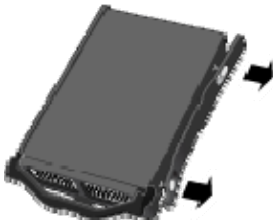
5. Lift the handle all the way up.



6. Gently pull the system drive from the drive bay.



7. Flex the back of the right side rail and withdraw the back pin from the hard drive by gently pulling the side rail down and away.



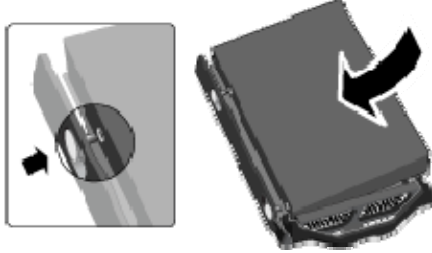
8. Flex the front of the right side rail and withdraw the front pin from the hard drive by gently pulling the side rail down and away.

9. Remove the drive from the hard-drive tray.

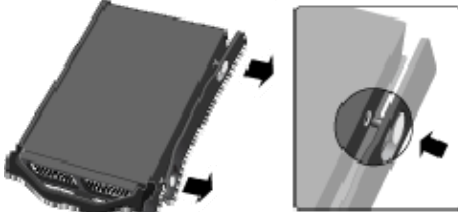


### **Insert the New System Drive**

1. Insert the new system drive into the left side of the hard drive tray, making sure that the pins go into the hard drive's mounting holes.



2. Flex the front of the right side rail and insert the pin into the hard drive's mounting hole, and then flex the back of the right side rail and insert the pin into the other mounting hole.



3. With the handle up, slide the hard drive tray and drive into the system bay.



#### **Note**

Don't push on the handle; the tray won't slide in.



4. Close the handle on the hard-drive tray by pressing down until it locks.



5. Using a coin, turn the security knob counterclockwise to lock system drive in its bay.



6. Close the door on the front of the server.



7. Power on the server.
8. The HP Data Vault lights will pulsate aqua white.
9. Perform a Factory Reset to initiate the drive. See [Server Recovery and Factory Reset](#).





# Chapter 10. Network and Firewall

## NETWORK CONNECTION ISSUES

### In this article...

---

- ↓ [No Available Port on Network Router](#)
  - ↓ [Why did URL not Work?](#)
  - ↓ [What do Firewall Blocking Messages Mean?](#)
  - ↓ [Why is the Network Connection Light Off?](#)
  - ↓ [The Firewall is Blocking the Connection](#)
  - ↓ [Windows Vista: Check that Network Discovery is turned on](#)
  - ↓ [Windows XP: To ensure your network is set up properly for TCP/IP](#)
  - ↓ [Windows Vista: To ensure your network is set up properly for TCP/IP](#)
  - ↓ [Windows XP: To ensure your network has the correct NetBIOS set up](#)
  - ↓ [Windows Vista: To ensure your network has the correct NetBIOS set up](#)
- 

#### No Available Port on Network Router

Take the following steps:

To add more Ethernet ports, connect an Ethernet switch to the router. Refer to the switch documentation for instructions on how it connects to the router.

Connect one end of the Ethernet cable that came with the server to the switch and the other end to the HP Data Vault.

#### **Why did URL not Work?**

DNS has not updated, wait about 10 minutes for DNS to update.

#### **What do Firewall Blocking Messages Mean?**

Firewalls block certain types of communications between network devices. This helps protect your data from hackers, viruses, spyware, and Trojan horse software. The computer might have one or more firewall programs installed. For example, if the latest version of the Microsoft Windows XP operating system is installed, the computer may be using the Windows XP Firewall.

The HP Data Vault comes with software applications that must communicate over the network. Sometimes these programs are blocked by a firewall. When this happens, security alerts pop up on the computer screen.

Security alerts usually have a list of possible options. The particular messages or alerts displayed depend on the vendor.

For example, the alert might offer the following options:

- Keep Blocking
- Unblock
- Defer the choice and be reminded later

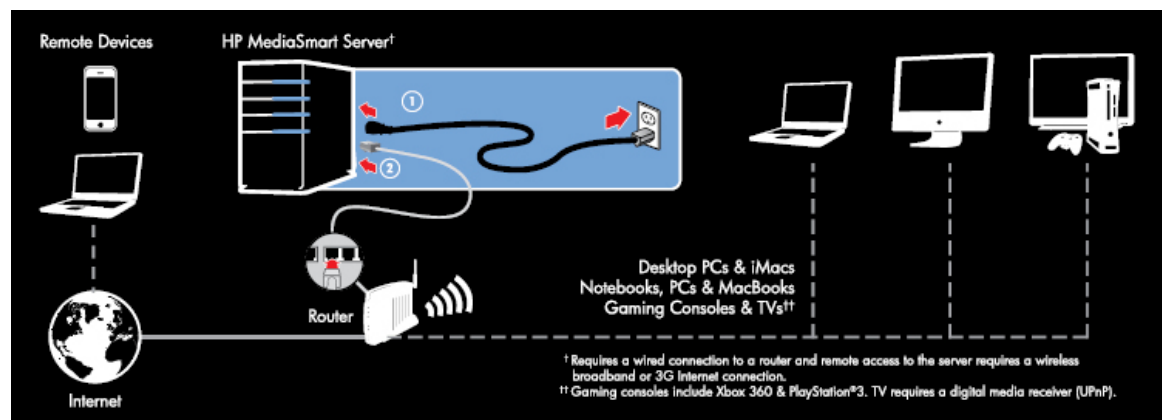
If a security alert dialog box for an HP Data Vault application or the Windows Home Server is displayed by the firewall, click Unblock or Allow to permit the application to execute. It is safe to unblock the communications because no connection or communication with the Internet is enabled, only those between the server and its software applications. After unblocking an application, if any software is reinstalled, moved to a new disk location, or if the application is deleted from the exception list using the Windows XP Security Center control panel, communications between that software and the server may once again be blocked by the firewall.

Configure your firewall to allow any HP Data Vault or Windows Home Server applications.

### Why is the Network Connection Light Off?

To determine why the network connection light is off:

- Make sure that all the cable connections are correctly plugged in.
- Make sure the router or switch has power.
- Restart the router or switch (or unplug and plug it back in).
- If you are using your own Ethernet cable, try using the Ethernet cable that came with the HP Data Vault.



## The Firewall is Blocking the Connection


If using a firewall program, configure it to allow any HP Data Vault or Windows Home Server applications.

For instructions to unblock, see the software vendor's documentation.

For information about firewall blocking alerts, see [What do firewall blocking messages mean?](#).

## Windows Vista: Check that Network Discovery is turned on

To ensure that Network Discovery is turned on

1. Click the **Start** menu, and then select **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 the **down arrow** , then select **Turn on network discovery** and **Apply**.

Windows XP: To ensure your network is set up properly for TCP/IP

1. Click **Start**, and then select **Control Panel**.
2. Double-click **Network and Internet Connections**.
3. Double-click **Network Connections**.

If the computer is connected via Ethernet cable to the network, right-click **Local Area Connection (LAN)**.

4. If the computer is using a wireless connection, right-click **Wireless Network Connection**.
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**, and then **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**.

6. All computers should be set identically.

## Windows Vista: To ensure your network is set up properly for TCP/IP

1. Click **Start**, and then select **Control Panel**.
2. Click **View network status and tasks** under **Network and Internet**.

3. In the left pane, click **Manage Network Connections**.
4. If the computer is connected via Ethernet cable to the network, right-click **Local Area Connection (LAN)**.
5. If the computer is using a wireless connection, right-click **Wireless Network Connection**.
6. 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**, and then **Add**. In the dialog box that appears, select **Internet Protocol (TCP/IPv4)**.
  - If TCP/IP is listed and checked, highlight it and click **Properties**, then select **Obtain IP address automatically** and **Obtain DNS server address automatically**.
7. All computers should be set identically.

### **Windows XP: To ensure your network has the correct NetBIOS set up**

1. Click **Start**, and then select **Control Panel**.
2. Double-click **Network and Internet connections**.
3. Double-click **Network Connections**.
4. Double-click your default network connection.
  - **Local Area Connection** for wired networks.
  - **Wireless** for wireless connections.
5. Click **Properties**.
6. Highlight **Internet Protocol (TCP/IP)**.
7. Click **Properties**.
8. Click **Advanced**.
9. Click the **WINS** tab.  
WINS refers to Windows Internet Naming Service, which converts NetBIOS network names to IP addresses.
10. 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: To ensure your network has the correct NetBIOS set up**

1. Click **Start**, and then select **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 your default network connection.
  - **Local Area Connection** for wired networks.
  - **Wireless** for wireless connections.
5. Highlight **Internet Protocol Version 4(TCP/IP)**.
6. Click **Properties**.
7. Click **Advanced**.
8. Click the **WINS** tab.  
WINS refers to Windows Internet Naming Service, which converts NetBIOS network names to IP addresses.
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**.

## NETWORK HEALTH

The Windows Home Server console contains a Network Health button to view the health of your network.

The Home Network Health dialog box shows health notifications from the server and the computers that are running Windows Vista.

### To access the Network Health button

1. At the PC, double-click the **Windows Home Server icon**  in the system tray and log on.  
At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click the **Network Health** button.

Related Topics
Windows Home Server Console Help
▪ Network Health
▪ Home Server Health Notifications
▪ Home Computer Health Notifications

## CHECK THAT THE ROUTER IS CORRECTLY CONFIGURED FOR DHCP


The HP Data Vault comes automatically set to use a **DHCP** server to dynamically assign IP addresses. Most **router** come with a built-in DHCP server.

Check that the router has the DHCP server correctly enabled. Refer to the documentation that came with the router for instructions on proper DHCP server configuration.

For information about configuring a router for remote access, see *Configuring your broadband router* in the Windows Home Server Console Help.

### Windows Vista: Check that Network Discovery is turned on

To ensure that Network Discovery is turned on

1. Click the **Start** menu, and then select **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 the **down arrow** , then select **Turn on network discovery** and **Apply**.

## CHECK THE NETWORK IS SET UP PROPERLY FOR TCP/IP

Check the network is set up properly for **TCP/IP** Check that each computer on the network has TCP/IP listed and selected for the network properties with these options selected:

Obtain **IP address** automatically

Obtain **DNS server address** automatically

### Windows XP: To ensure your network is set up properly for TCP/IP

1. Click **Start**, and then select **Control Panel**.
2. Double-click **Network and Internet Connections**.
3. Double-click **Network Connections**.

If the computer is connected via Ethernet cable to the network, right-click **Local Area Connection (LAN)**.

4. If the computer is using a wireless connection, right-click **Wireless Network Connection**.
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**, and then **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**.
6. All computers should be set identically.

### **Windows Vista: To ensure your network is set up properly for TCP/IP**

1. Click **Start**, and then select **Control Panel**.
2. Click **View network status and tasks** under **Network and Internet**.
3. In the left pane, click **Manage Network Connections**.
4. If the computer is connected via Ethernet cable to the network, right-click **Local Area Connection (LAN)**.
5. If the computer is using a wireless connection, right-click **Wireless Network Connection**.
6. 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**, and then **Add**. In the dialog box that appears, select **Internet Protocol (TCP/IPv4)**.
  - If TCP/IP is listed and checked, highlight it and click **Properties**, then select **Obtain IP address automatically** and **Obtain DNS server address automatically**.
7. All computers should be set identically.

## **CHECK THE NETWORK NETBIOS PROPERTIES**

Check that each computer on the network has TCP/IP advanced network properties set to Enable NetBIOS over TCP/IP. All computers should be set identically.

### **Windows XP: To ensure your network has the correct NetBIOS set up**

1. Click **Start**, and then select **Control Panel**.
2. Double-click **Network and Internet connections**.
3. Double-click **Network Connections**.
4. Double-click your default network connection.
  - **Local Area Connection** for wired networks.
  - **Wireless** for wireless connections.
5. Click **Properties**.

Highlight **Internet Protocol (TCP/IP)**.
6. Click **Properties**.

7. Click **Advanced**.
8. Click the **WINS** tab.  
WINS refers to Windows Internet Naming Service, which converts NetBIOS network names to IP addresses.
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: To ensure your network has the correct NetBIOS set up**

1. Click **Start**, and then select **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 your default network connection.
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5. Highlight **Internet Protocol Version 4(TCP/IP)**.
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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**.

## **NETWORK FREQUENTLY ASKED QUESTIONS**

The following questions are answered in this document. Click the question to find the solution:

No Available Port on Network Router

- Why did URL not Work?

### **No Available Port on Network Router**

Take the following steps:

1. To add more Ethernet ports, connect an Ethernet switch to the router. Refer to the switch documentation for instructions on how it connects to the router.
2. Connect one end of the Ethernet cable that came with the server to the switch and the other end to the HP Data Vault.



### Why did URL not Work?

DNS has not updated, wait about 10 minutes for DNS to update.

## **WHAT ARE OPTIMUM DATA THROUGHPUT SPEEDS FOR DIFFERENT NETWORK INTERFACES?**

Depending on the network interface your computer uses, you will experience different rates of data transfer to your server. Network Interfaces are described in terms of their ideal maximum speed, but many factors can affect the actual data transfer speeds you will experience. For example, your optimal wireless transfer speed will be reduced depending on the type of security and encryption you have enabled on your wireless network and by the amount of other work your computer and server are performing at the same time.

### What are optimum data throughput speeds for different network interfaces?

- Gigabit Ethernet - 1000mbps/125MBs
- Fast Ethernet - 100mbps/12.5MBs
- Wireless N - 600mbps/75MBs
- Wireless G - 54mbps/6.75MBs
- Wireless A - 54mbps/6.75MBs
- Wireless B - 11mbps/1.375MBs

### What is the ideal minimum time to transfer a 1GB file for different network interfaces?

- Gigabit Ethernet - 8s
- Fast Ethernet - 1min 20s
- Wireless N - 13.3s
- Wireless G - 2min 28s
- Wireless A - 2min 28s
- Wireless B - 12min 7s

## **THE FIRST BACKUP IS TAKING A LONG TIME**

Your initial PC backup could take several hours, depending on how much data you have on your computer. Subsequent backups will go much faster since only the data that has changed is copied to the server.

## UNINTERRUPTIBLE POWER SUPPLY IS NOT SUPPORTED

The HP Data Vault does not support active Uninterruptible Power Supply (UPS). Using the USB cable to allow the UPS to communicate with the HP Data Vault, can cause a wide range of false errors. Using the UPS in a passive mode (USB cable not attached) does not appear to cause any false error reporting.

## THE FIREWALL IS BLOCKING THE CONNECTION

If using a firewall program, configure it to allow any HP Data Vault or Windows Home Server applications.

For instructions to unblock, see the software vendor's documentation.

### What do Firewall Blocking Messages Mean?

Firewalls block certain types of communications between network devices. This helps protect your data from hackers, viruses, spyware, and Trojan horse software. The computer might have one or more firewall programs installed. For example, if the latest version of the Microsoft Windows XP operating system is installed, the computer may be using the Windows XP Firewall.

The HP Data Vault comes with software applications that must communicate over the network. Sometimes these programs are blocked by a firewall. When this happens, security alerts pop up on the computer screen.

Security alerts usually have a list of possible options. The particular messages or alerts displayed depend on the vendor.

For example, the alert might offer the following options:

- Keep Blocking
- Unblock
- Defer the choice and be reminded later

If a security alert dialog box for an HP Data Vault application or the Windows Home Server is displayed by the firewall, click Unblock or Allow to permit the application to execute. It is safe to unblock the communications because no connection or communication with the Internet is enabled, only those between the server and its software applications. After unblocking an application, if any software is reinstalled, moved to a new disk location, or if the application is deleted from the exception list using the Windows XP Security Center control panel, communications between that software and the server may once again be blocked by the firewall.

Configure your firewall to allow any HP Data Vault or Windows Home Server applications.

## UPDATE YOUR FIREWALL'S TRUSTED PROGRAM LIST

The Software Installation Disc installs several programs that enable your computer to communicate with the HP Data Vault over your network. Software firewalls installed on your

computer can block this communication and prevent the computer from locating the HP Data Vault on your network.

**Note**

If Media Collector is not collecting music, photos, or videos and you use a third party firewall, add a firewall exception for port 21 TCP/outbound within the local subnet. Consult your software's documentation for details on how to do this.

**In this article...**

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↓ [Set Your Firewall or Anti-Virus Programs to Automatically "Learn" New Programs](#)

↓ [Manually Add Programs to Your Firewall or Anti-Virus Program's Trusted List](#)

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## **Set Your Firewall or Anti-Virus Programs to Automatically "Learn" New Programs**

It is recommended that you set your firewall and anti-virus programs to "**Learn**" new programs before installing the HP Data Vault software. After the HP Data Vault software is installed, the firewall should prompt you to allow the installed programs to communicate with the server.

Allow the following HP Data Vault programs to communicate through your firewall or anti-virus program:

C:\Program Files\Windows Home Server\

- MountBackup.exe
- RestoreOffProc.exe
- WHSTrayApp.exe
- WHSConsoleClient.exe
- WHSConnector.exe
- BackupEngine.exe
- WHSOOBE.exe

C:\Program Files\Hewlett-Packard\HP MediaSmart Server\

- MediaCollectorClient.exe
- MSSConnectorService.exe
- ControlCenter.exe

C:\Program Files\HP\HP Software Update\

- HPWUcli.exe

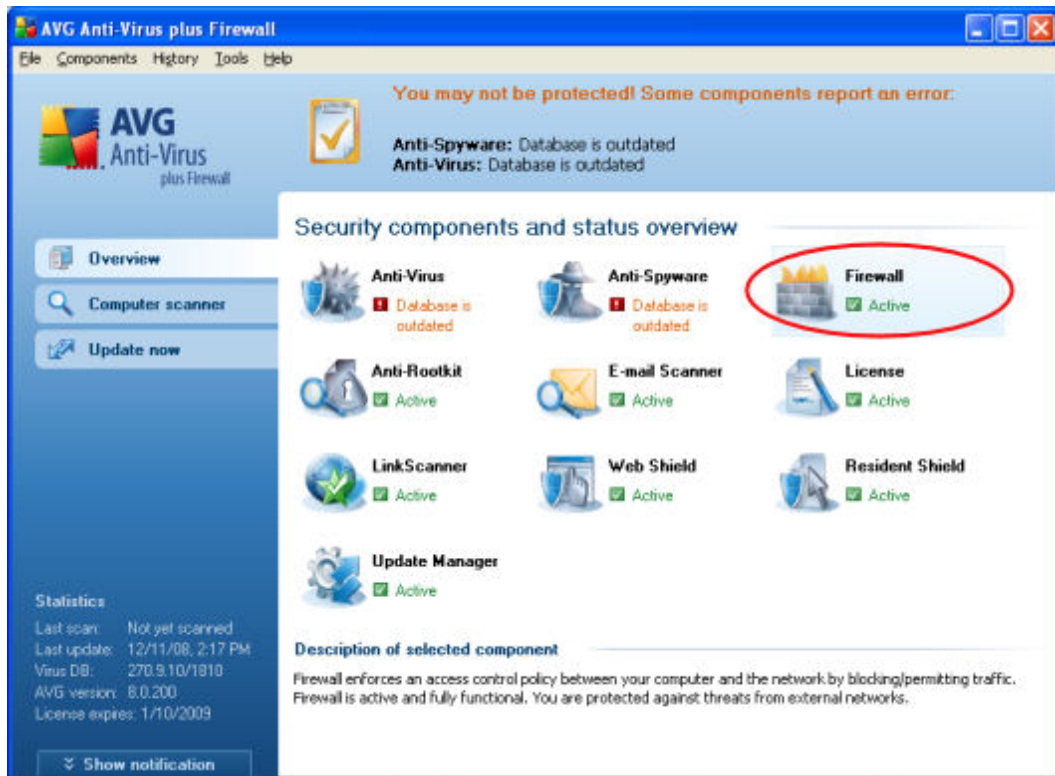
## Manually Add Programs to Your Firewall or Anti-Virus Program's Trusted List

Some firewall or anti-virus programs may not automatically update their trusted programs list. Instructions for manually updating several common firewall and anti-virus programs are listed below. If your firewall or anti-virus program is not listed, please contact the vendor to find out how to manually add programs to the trusted programs list. Additionally, see the documentation that came with your firewall or anti-virus program for the latest information.

Click the vendor to expand and view the instructions on updating their trusted programs list. Click again to hide the instructions.

- *AVG*

Open the AVG Anti-Virus plus Firewall. Double-click the Firewall button to configure the Firewall. Add the programs listed at the of this page.



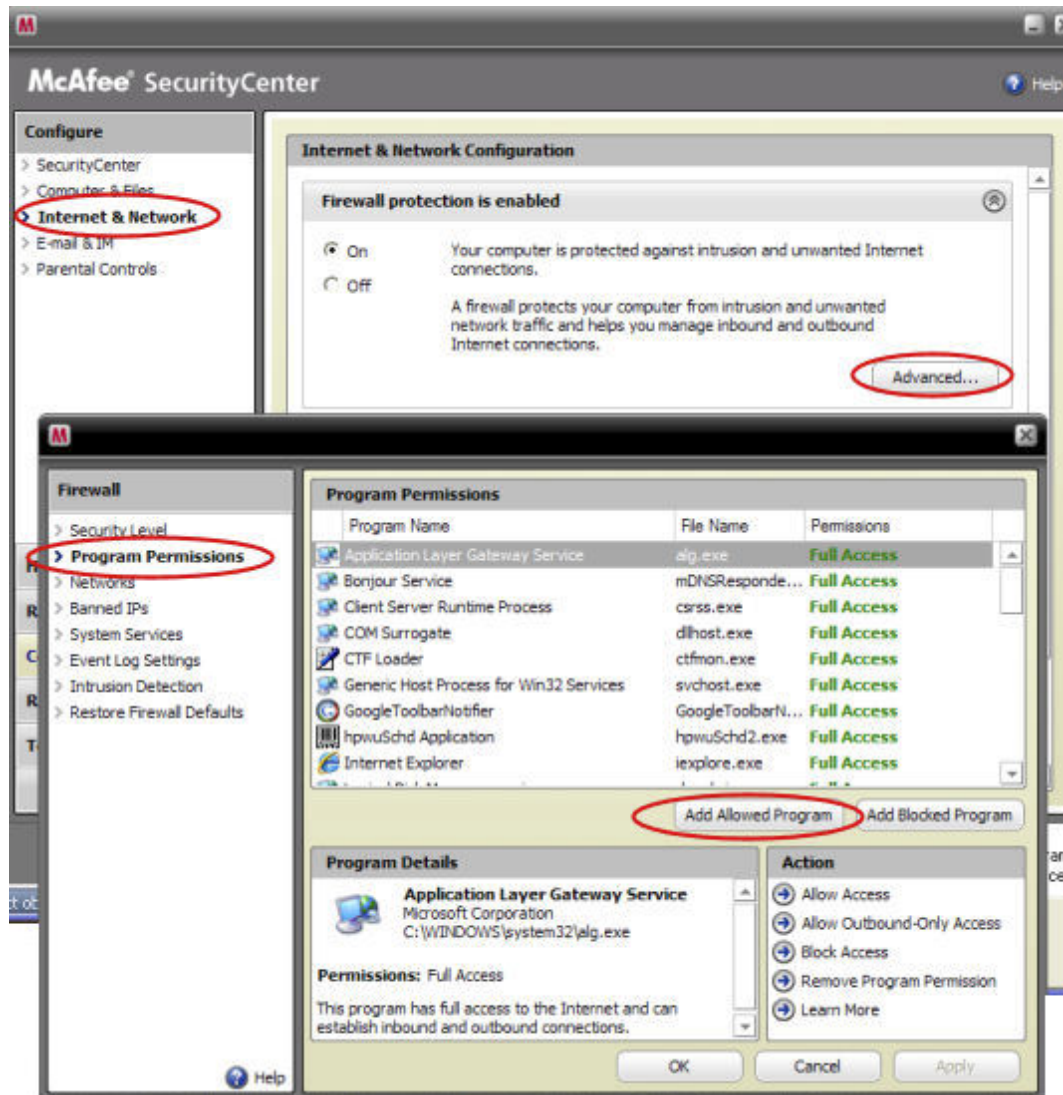
- *McAfee*

Open your McAfee Security Center, click **Internet and Network**, and then click the **Advanced** button in the firewall section. Click **Program Permissions**, then click **Add Allowed Program**. Add the programs listed at the of this page.



### Note

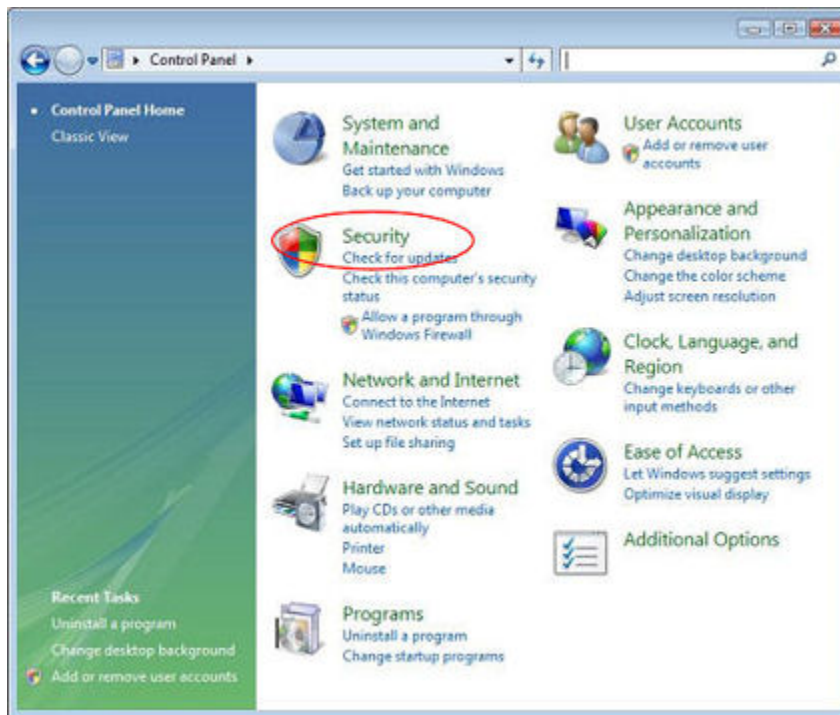
McAfee's firewall automatically disables Windows Firewall and sets itself as your default firewall.



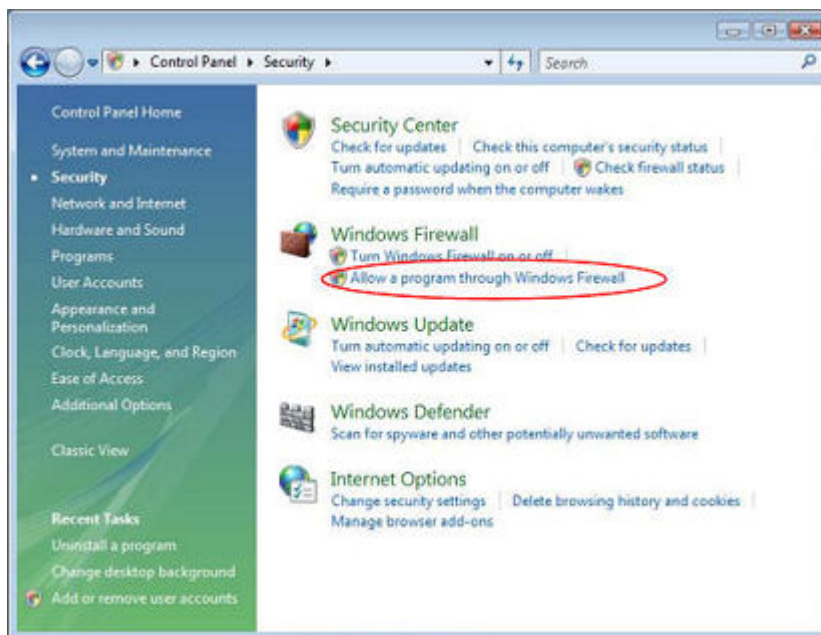
- *Microsoft Windows Vista*

To add exceptions to your firewall using Windows Vista, perform the following steps:

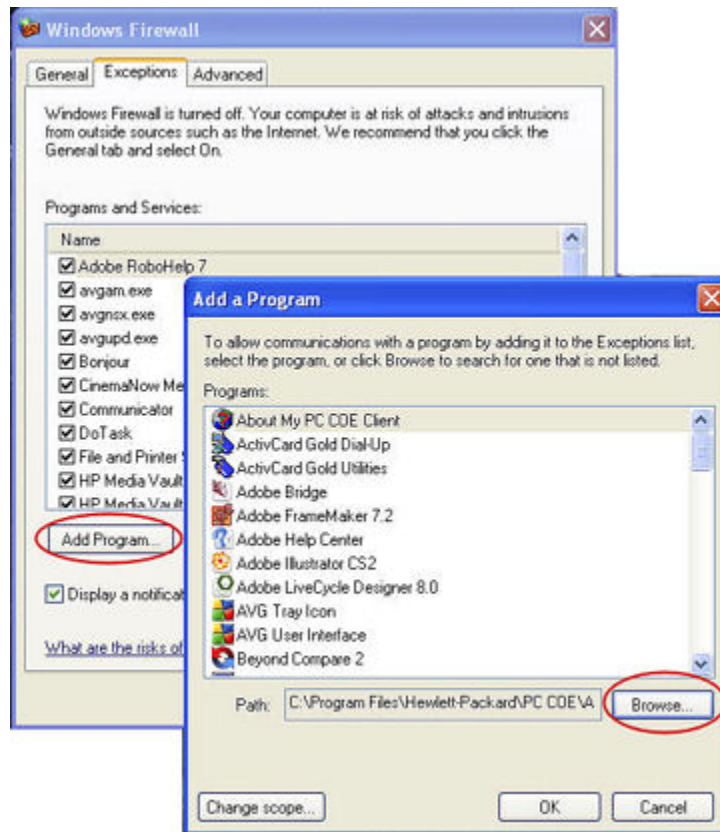
1. Click **Start, Control Panel**, and then **Security Center**.



2. Click **Allow a program through Windows Firewall**.



3. Select the **Exceptions** tab and then click **Add Program**.



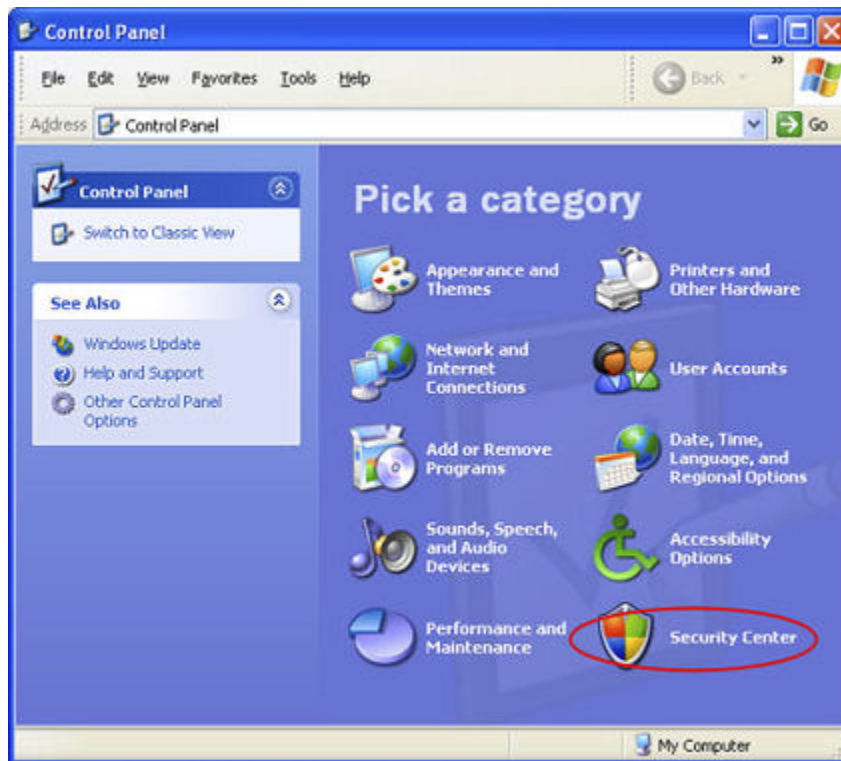
4. In the **Add a Program** dialog box, click **Browse**. Add the programs listed at the of this page.

5. Click **OK**.

- *Microsoft Windows XP*

To add exceptions to your firewall using Windows XP, preform the following steps:

1. Click **Start**, **Control Panel**, and then **Security Center**.

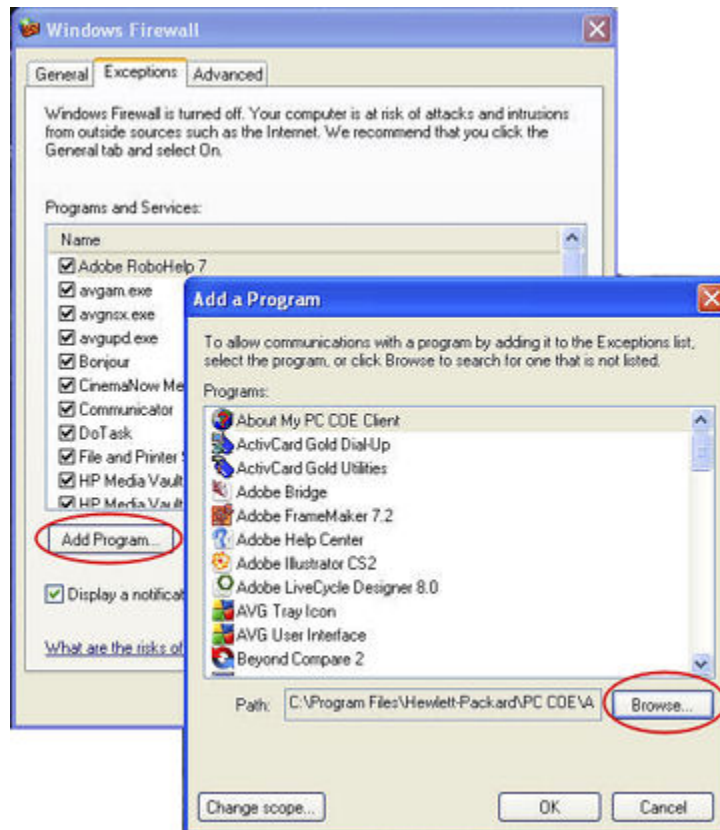


2. Click **Windows Firewall**.



3. Select the **Exceptions** tab and then click **Add Program**.
4. In the **Add a Program** dialog box, click **Browse**. Add the programs listed at the of this page.





5. Click **OK**.

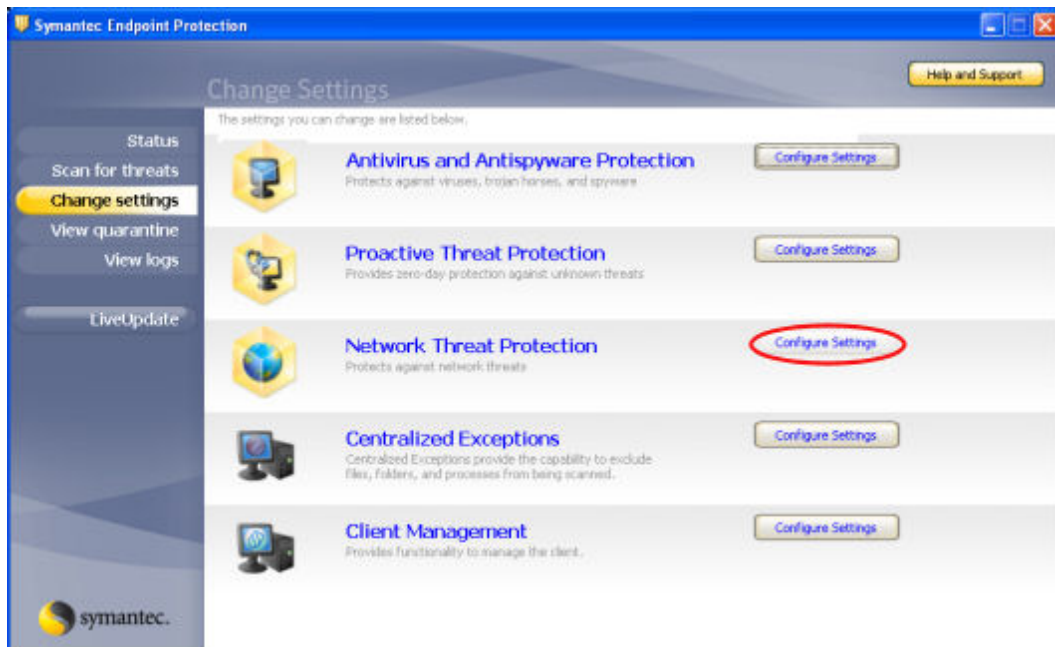
- *Norton*

Click **Options** in Norton to change the firewall settings. Add the programs listed at the of this page.



- *Symantec*

Open Symantec Endpoint Protection, click **Change Settings**, and then click **Configure Settings** for Network Threat Protection. Add the programs listed at the of this page.

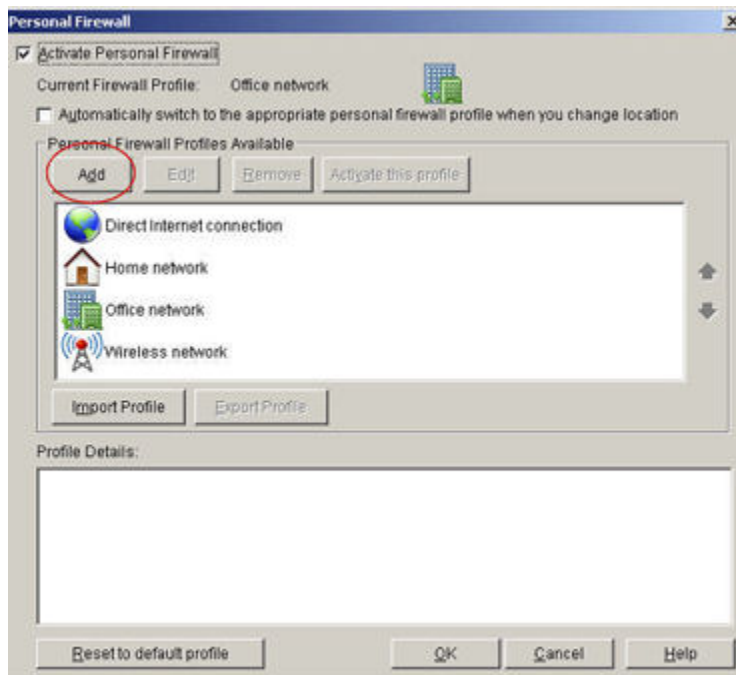


- *Trend Micro*

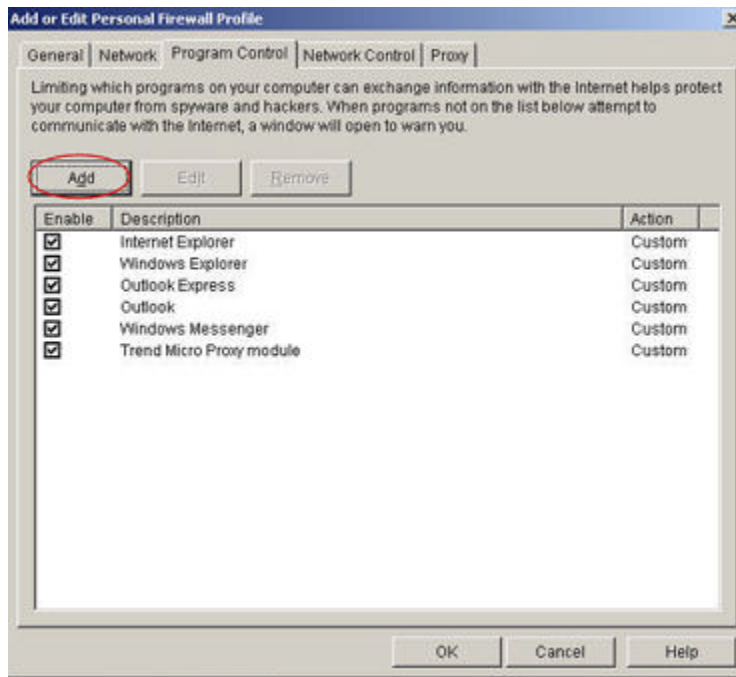
1. Open the Trend Micro **Main Console**, select the **Personal Network and Firewall Controls** tab, and then click **Settings**.



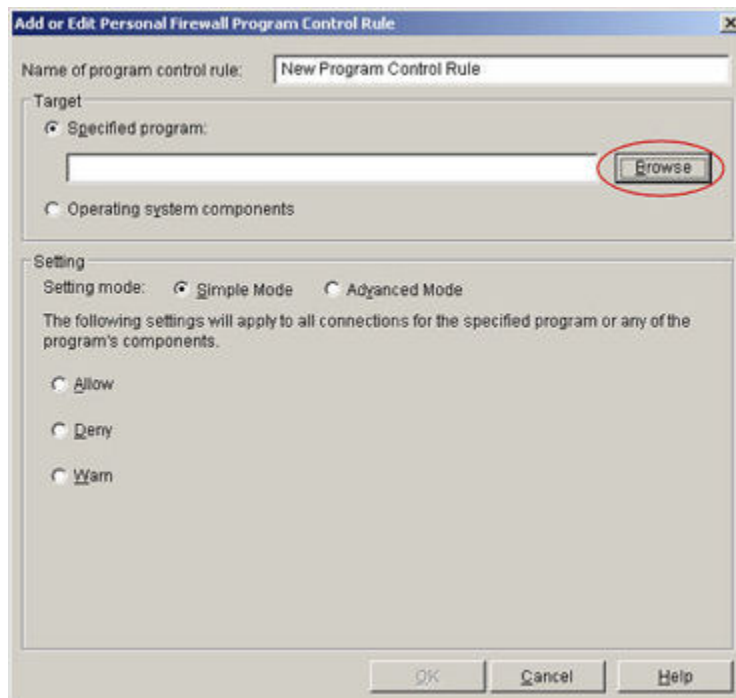
2. On the **Personal Firewall** page, click **Add**.



3. Select the **Program Control** tab and then click **Add**.



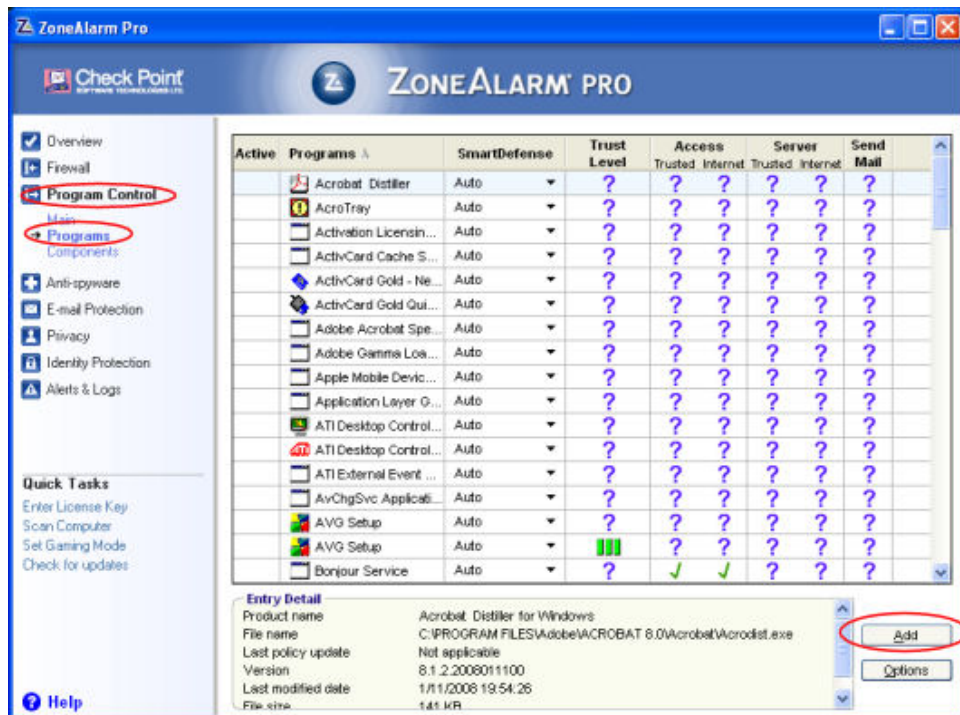
4. Click **Browse** and add the programs listed at the of this page.



5. Click **OK**.

- *ZoneAlarm*

1. Open ZoneAlarm Security.
2. Click **Program Control**, **Programs**, and then **Add**.



3. Add the programs listed at the of this page.



# Chapter 11. Errors and Lights

## SERVER IS UNRESPONSIVE


If the server appears to be unresponsive, do either of the following:

- [Reset the server console](#)
- [Shutdown and restart the server manually](#)

### Reset the server console

How to reset the server from the Windows Home Server Console.

#### To reset the server

1. If the Windows Home Server Console is open, click the Close button in the upper-left corner of the console.
2. Double-click the **Windows Home Server** icon  in the task tray.
3. On the Windows Home Server Console startup page, click **Options**.
4. From the drop-down menu, select **Reset the Windows Home Server Console**.
5. Click **OK** to verify that you want to reset the console.

### Shutdown and restart the server manually

How to force the server to turn off and restart.

#### To perform a soft shut down and restart

1. On the back of the server, press the **Power** button.
2. The health light should begin blinking.  
The shutdown process may take up to two minutes to complete.
3. After the server is completely off, press the **Power** button to restart.

#### To force a shutdown and restart

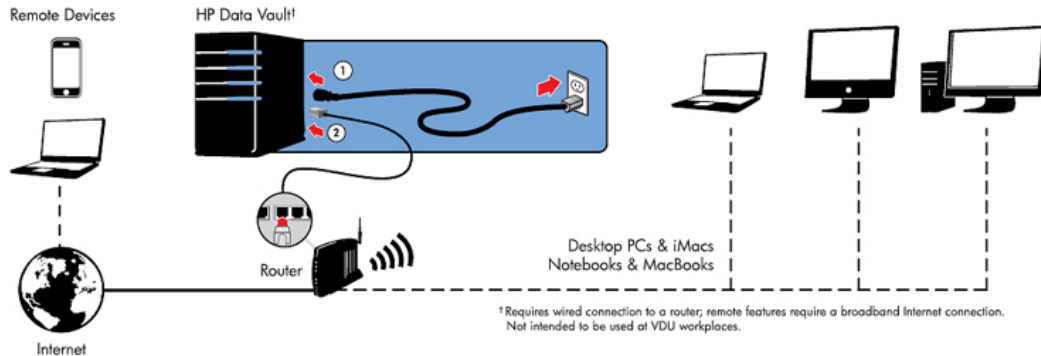
1. On the back of the server, hold in the **Power** button for at least 4 seconds to force the server to shutdown.
2. After the server is completely off, press the **Power** button to restart.

## POWER INDICATOR IS OFF

The server is not powered on.

### To power on the server

1. Make sure the power cord is fully plugged into the server and a powered electrical outlet.



2. If plugged into a surge protector or power strip, make sure the device is switched on.

## LIGHT-BAR BREATHING AQUA WHITE

A breathing or blinking aqua white light bar  indicates that a hard drive has been installed, but has not been initialized. It occurs in the following conditions:

- When setting up the server for first time—the light-bar is breathing aqua white until the set up on the first computer is complete.
- The drive has been removed from total storage and the light bar is blinking—for example, when removing a drive from the drive bay. See [Add and Remove Drives from Server Storage](#).
- When adding a new drive the light bar blinks aqua white, before it has been added to server storage.

Related Topics	
Windows Home Server Console Help	
▪	Server Storage

## HEALTH LIGHT IS RED

A red Health indicator light  has the following states:

- **Solid red** - operating system failure.
- **Blinking red** - power on test has failed or BIOS failed.



Additionally, on your computers the Windows Home Server icon is grey  on the task tray, which indicates the computer cannot contact Windows Home Server.

To get more information about the failure, the HP Data Vault provides additional error codes.



### To get the specific error code causing the failure

Use a paper clip to press and release the recessed Status/Recovery button on the front of the server.



## LIGHT-BAR IS RED

A red light-bar  indicates the following:

- That a hard drive has failed and must be replaced. Additionally, the connected computers show the following:
- The drive was removed from the drive bay before removing it from total storage. See [Removing a hard drive in the Windows Home Server Console Help](#).
- Red icon  on the task tray.
- Red indicator  on the Windows Home Server Console Network Health tab.

## HARDWARE WARNING MESSAGES

Warning messages indicate Critical issues or At Risk issues.

- **Critical issues** - address immediately; otherwise, the server may be damaged.
- **At Risk issues** - address as soon as possible.

The HP Data Vault monitors the temperature of the microprocessor (CPU), fan speed, and voltages. It displays the following messages:

- [Temperature warnings](#)
- [Fan speed warnings](#)
- [Voltages warnings](#)

## **Temperature warnings**

Temperature warning messages indicate that some server components are too hot.

### **To lower the temperature of the server**

1. Check the ventilation surrounding the server:
  - If the server is located in a small unventilated space, move the server to a more ventilated location.
  - Check that the server's front and back panels are not blocked.
  - Check that the location of the server is not too hot. Maximum environmental temperature for operating the server is 35° C (95° F).
2. Remove any accumulated dust on the back and front of the server.

Fold up the flap on any empty **system drive** trays. For more information, see [Adding an internal SATA drive](#).

3. If none of the previous steps return the temperature to normal:
  - Write down the temperatures of the CPU.
  - Turn off the server.
  - Contact HP Support at <http://www.hp.com/support>.

## **Fan speed warnings**

The fans cool the disk drives and other electronics. If they are not cooling the server sufficiently, the hard drives and server may be damaged.

### **For fan speed out of specification**

1. Write down the speeds of the upper and lower fans.
2. Turn off the server.
3. Contact HP Support at <http://www.hp.com/support>.

## **Voltages warnings**

The voltages indicate the health of the server's power supply.


### **For voltages out of specification**

1. Write down the voltages.
2. Turn off the server.
3. Contact HP Support at <http://www.hp.com/support>.

## FILE TRANSFER FAILURE

What to do about a failure when transferring files to the HP Data Vault from your computer.

### To correct a file transfer failure

1. Compare files that you were transferring with the files on the shared folder and try transferring the missing files again.
2. If the transfer fails again, check that you can access the Windows Home Server.
3. If you cannot access the Windows Home Server, check the network connections:
  - Make sure that all the cable connections are correctly plugged in.
  - Make sure the HP Data Vault has power and the Network indicator light is aqua white .

Make sure the **router** (or switch) has power.

- Restart the router or switch (or unplug and plug it back in).
- Restart all the devices on the network, including the computers and the server.

Make sure your server and computers are on the same **logical** network (subnet). See *What is an advanced network configuration?* in the Windows Home Server Console Help.

4. If the computer that you transferring files from is connected wirelessly to the network, try connecting it with an ethernet cable.
5. Check the Event Viewer to see if the System logs show a disconnect:
  - In **Windows XP**, click **Start, Control Panel, Performance and Maintenance, Administrative Tools**, and then select **Event Viewer**.
  - In **Windows Vista**, click **Start, Control Panel, System and Maintenance, Administrative Tools**, and then select **Event Viewer**.

## HEALTH INDICATOR CODES

The Tables below are a breakdown of the Health indicator displays. To see this code, using a paper clip, press and release the recessed Status/Recovery button on the front of the server.



Health indicator codes when the indicator starts as solid red		
Code	Description	Action
Solid red—no code	Operating system or application error.	See Windows Home Server Console for error condition.
1 aqua white, 2 red	System drive failed to boot.	If the light-bar for the system drive (the lowest light-bar) is also red, you need to <a href="#">replace the system hard drive</a> .
1 aqua white, 3 red	Operating system USB boot failed.	Check that lowest USB port on back of server has boot source.
1 aqua white, 4 red	Recovery mode failed.	Contact HP Support at <a href="http://www.hp.com/support">http://www.hp.com/support</a> .
1 aqua white, 5 red	Multiple boot failure.	Contact HP Support at <a href="http://www.hp.com/support">http://www.hp.com/support</a> .
1 aqua white, 6 red	Service code.	Do not hold state button longer than 3 seconds. Shut down and repeat.

Codes when the indicator starts as blinking red		
Code	Description	Action
2 aqua white, 1 red	BIOS corrupted.	Repeat power-on to validate. If repeats Contact HP Support at <a href="http://www.hp.com/support">http://www.hp.com/support</a> .
2 aqua white, 2 red	Memory failure.	Contact HP Support at <a href="http://www.hp.com/support">http://www.hp.com/support</a> .
2 aqua white, 3 red	BIOS recovery source not present.	Contact HP Support at <a href="http://www.hp.com/support">http://www.hp.com/support</a> .

## NETWORK CONNECTION LIGHT IS OFF

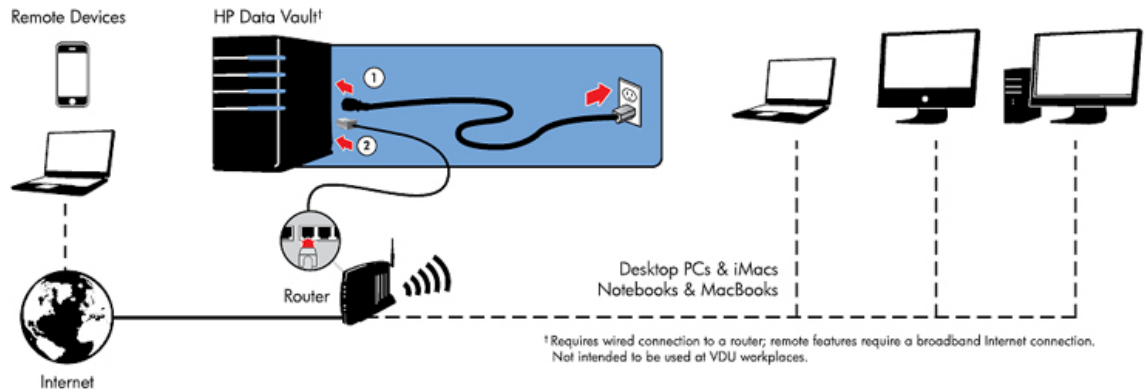
To determine why the network connection light is off:

- Make sure that all the cable connections are correctly plugged in.

Make sure the **router** or switch has power.

- Restart the router or switch (or unplug and plug it back in).

- If you are using your own Ethernet cable, try using the Ethernet cable that came with the HP Data Vault.



## NETWORK CONNECTION LIGHT BLINKING AQUA WHITE

The server is intermittently connected to the network.

Check the cable connection between the server and the **router/switch**.

## SERVER NOT SHOWING UP ON YOUR DMR

### Issue:


The HP Data Vault is not listed on your DMR or DMA.

### Solution:

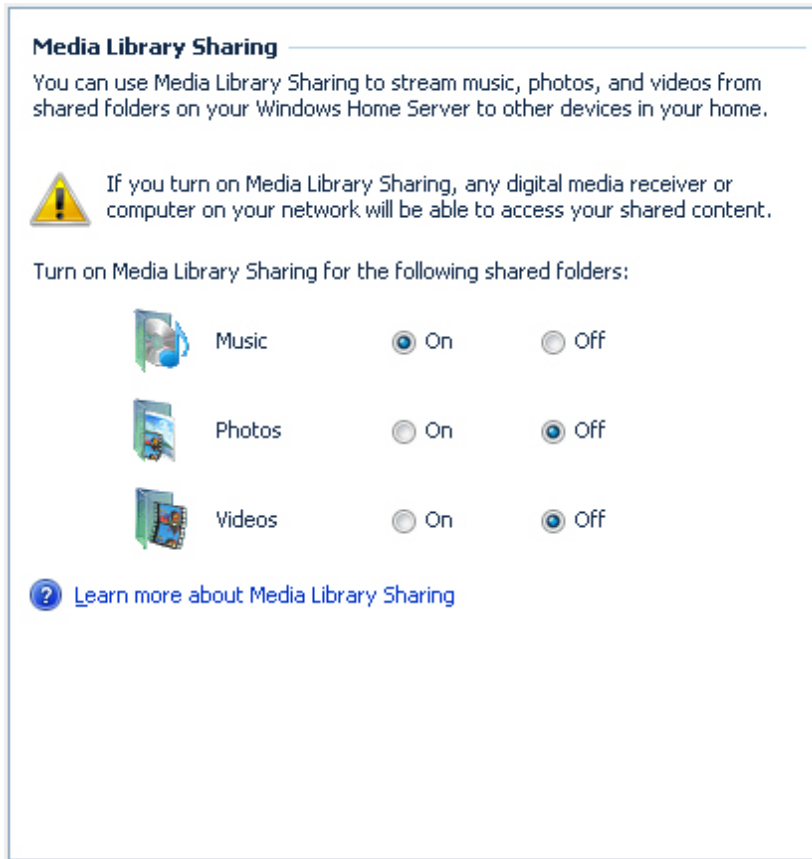
You can either:

- [Turn on Windows Home Server Media Sharing](#)
- [Turn on TwonkyMedia](#)



### Turn on Windows Home Server Media Sharing

1. At the PC, double-click the **Windows Home Server** icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **Settings** in the upper right corner.
3. Click the **Media Sharing** link in the left navigation bar.

4. Click the **On** radio button for at least one of the folders.



### Turn on TwonkyMedia

1. At the PC, double-click the **Windows Home Server** icon  in the system tray and log on. At the Mac, select **Launch Home Server Console** from the **Server** menu .
2. Click **TwonkyMedia** in the left navigation. If you do not see TwonkyMedia in the left navigation, the add-in is not installed. Click **Settings** in the upper right corner. Click **Add-ins** in the left navigation of the Windows Home Server Settings dialog. On the **Available** tab, install the **TwonkyMedia Server for HP Data Vault**.
3. In the right pane, click **Start Sharing** and then click **Media Server Settings**.

## WINDOWS HOME SERVER FREQUENTLY ASKED QUESTIONS

### Server Low on Space.

Clean out unused files.

Earmark backups for deletion and 'clean up now', delete unused docs from Shared Folders.

### **Cannot Connect to Server Shares.**

- A duplicate device exists on the network.  
Verify that there is no device on the network named **hpstorage**.
- User names and passwords do not match.  
Create a user on the server whose name and password match the user on the PC or enable the Guest account.

## **HUBS AND NETWORK HEALTH LIGHT**

Some network hubs, as opposed to switches or routers, may reduce performance between your computer and the HP Data Vault, or the hub may prevent your computer from communicating with the server. If this is a problem, the network health indicator light on the front of the server will be off. Replacing the hub with a switch may improve the network performance or restore connectivity.





# Chapter 12. Product Information

## PRODUCT SPECIFICATIONS

The product specifications contain information about the HP Data Vault, its requirements, and standards.

- [Minimum Client-computer Requirements](#)
- [Server Specifications](#)
- [Network Information](#)
- [Environmental](#)
- [Electrical and Power](#)

### **Minimum Client-computer Requirements**

One or more computers that meet or exceed these requirements:

#### **Computer Requirements**

Any computer capable of running the supported operating systems listed in the following table.

#### **Operating Systems**

Supported Operating Systems			
Operating System	Automatic Backup of Computers Running...	File Sharing for Computers Running...	Remote Access to Computers Running...
Linux		X	
Mac OS X 10.5 or later	X	X	
Windows Vista Business 32-bit or 64-bit SP2	X	X	X
Windows Vista Business N 32-bit or 64-bit (European Union Only)	X	X	X
Windows Vista Enterprise 32-bit or 64-bit SP2	X	X	X
Windows Vista Home Basic 32-bit or 64-bit SP2	X	X	
Windows Vista Home N 32-bit or 64-bit (European Union Only)	X	X	

Supported Operating Systems			
Operating System	Automatic Backup of Computers Running...	File Sharing for Computers Running...	Remote Access to Computers Running...
Windows Vista Home Premium 32-bit or 64-bit SP2	X	X	
Windows Vista Ultimate 32-bit or 64-bit SP2	X	X	X
Windows XP Home SP3	X	X	
Windows XP Professional SP3	X	X	X
Windows XP Media Center Edition 2005 with SP2 and Rollup 2	X	X	

**Client-computer Hard Drive**

25 MB free for software installation on client computers

**Other Client-computer Requirements**

CD-ROM drive for client-computer installation

DVD-ROM drive for Server Recovery

**Server Specifications**

Server Specifications			
Specifications	HP Data Vault 1.0TB	HP Data Vault 2.0TB	HP Data Vault 3.0TB
<b>Internal Drive Storage</b>	1.0 TB	2.0 TB	3.0 TB
<b>Processor</b>	Intel Pentium Dual-Core E5200 Processor	Intel Pentium Dual-Core E5200 Processor	Intel Pentium Dual-Core E5200 Processor
<b>Drive Expandability</b>	3 Serial ATA expansion bays 4 USB 2.0 ports 1 eSATA port Maximum storage space: unlimited	2 Serial ATA expansion bays 4 USB 2.0 ports 1 eSATA port Maximum storage space: unlimited	2 Serial ATA expansion bays 4 USB 2.0 ports 1 eSATA port Maximum storage space: unlimited

Server Specifications			
Specifications	HP Data Vault 1.0TB	HP Data Vault 2.0TB	HP Data Vault 3.0TB
<b>Dimensions</b>	Width: 14cm (5.5")	Width: 14cm (5.5")	Width: 14cm (5.5")
	Height: 25cm (9.8")	Height: 25cm (9.8")	Height: 25cm (9.8")
	Depth: 23cm (base)- 25cm () (9.2"-9.5")	Depth: 23cm (base)- 25cm () (9.2"-9.5")	Depth: 23cm (base)- 25cm () (9.2"-9.5")
<b>Weight</b>	5.00 kg (11.02 lb.)	5.61 kg (12.36 lb.)	5.79 kg (12.76 .lb)

## Network Information

### Default Network Name

hpstorage

### Network Requirements

Network Requirements	
Requirement	Recommended
Server connection	100 Mbps to 1000 Mbps (Gigabit Ethernet) wired connection.
Home computers	One or more computers running a supported operating system with a wired or wireless network connection.
Internet Connection	Broadband connection, such as DSL or cable, required for remote access functionality.
Router	An external Internet broadband router with 100 Mbps (or faster) Ethernet connection to the server for remote access functionality and wired or wireless connections to the computers on the network.  Additionally, your router must have <b>DHCP</b> enabled to provide automatic <b>IP address</b> to the server.

### Connector types

Ethernet: RJ45

eSATA: I-Type

### **Maximum transmission distances**

Ethernet: 100 meters

eSATA: 2 meters

USB: 5 meters

### **Browser**

Internet Explorer 6.0 or greater

Netscape 8.0 or greater

Firefox 2.0 or greater

Safari 3.0 and greater (Mac only)

## **Environmental**

### **Temperature**

Operating: 5 to 35 °C (4 to 95 °F)

Nonoperating: -30 to 65 °C (-22 to 149 °F)

### **Humidity (no condensation allowed)**

Operating: 15% to 90% RH

Nonoperating: 5% to 95% RH

### **Shock**

Nonoperating: 85 G

### **Vibration**

Operating: 0.2 Grms

Nonoperating: 2.1 Grms

## **Electrical and Power**

### **Electrical Ratings**

100-240Vac, 5.0A, 50-60Hz

### **Power Consumption**

HP Data Vault 1.0TB

- Sleep: 1W
- Idle: 41W
- Active Load: 43W
- Extreme Load: 62W
- HP Data Vault 2.0TB
- Sleep: 1W
- Idle: 48W
- Active Load: 54W
- Extreme Load: 69W
- HP Data Vault 3.0TB
- Sleep: 1W
- Idle: 52W
- Active Load: 56W
- Extreme Load: 80W

### **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 60950-1 plus amendments

EN60825 plus amendments

## **REGULATORY STATEMENTS**

The HP Data Vault complies to the following:

- [Federal Communications Commission Notice](#)
- [Modifications](#)
- [Cables](#)
- [Declaration of Conformity for Products Marked with the FCC Logo \(United States only\)](#)
- [California Perchlorate Material Notice](#)

- [Canadian Notice](#)
- [Avis Canadien](#)
- [WEEE Declaration](#)
- [REACH Statement](#)
- [European Union Regulatory Notice](#)
- [Japanese Notice](#)

### **Federal Communications Commission Notice**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or television technician for help.

### **Modifications**

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Hewlett-Packard Company may void the user's authority to operate the equipment.

### **Cables**

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods in order to maintain compliance with FCC Rules and Regulations.

### **Declaration of Conformity for Products Marked with the FCC Logo (United States only)**

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.

For questions regarding the product, contact:

Hewlett-Packard Company

P. O. Box 692000, Mail S 530113

Houston, Texas 77269-2000

Or, call 1-800-HP-INVENT (1-800-474-6836).

For questions regarding this FCC declaration, contact:

Hewlett-Packard Company

P. O. Box 692000, Mail S 510101

Houston, Texas 77269-2000

Or, call (281) 514-3333.

To identify this product, refer to the part, series, or model number found on the product.

### **California Perchlorate Material Notice**

Perchlorate material - special handling may apply See <http://www.dtsc.ca.gov/hazardouswaste/perchlorate/>

This product's real-time clock battery or coin cell battery may contain perchlorate and may require special handling when recycled or disposed of in California.

### **Canadian Notice**

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

### **Avis Canadien**

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

## WEEE Declaration

### Disposal of Waste Equipment by Users in Private Household in the European Union



This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

## REACH Statement

### Chemical Substances

HP is committed to providing our customers with information about the chemical substances in our products as needed to comply with legal requirements such as REACH (Regulation EC No 1907/2006 of the European Parliament and the Council). A chemical information report for this product can be found at: <http://www.hp.com/go/reach>

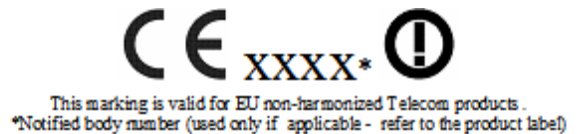
## European Union Regulatory Notice

This product complies with the following EU Directives:

- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC

Compliance with these directives implies conformity to applicable harmonized European standards (European Norms) which are listed on the EU Declaration of Conformity issued by Hewlett-Packard for this product or product family.

This compliance is indicated by the following conformity marking placed on the product:



Hewlett-Packard GmbH, HQ-TRE, Herrenberger Strasse 140, 71034 Boeblingen, Germany



## Japanese Notice

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取扱説明書に従って正しい取り扱いをして下さい。

## WM-DRM 10 LICENSED TECHNOLOGY

Content providers are using the digital rights management technology for Windows Media contained in this device (“WM-DRM”) to protect the integrity of their content (“Secure Content”) so that their intellectual property, including copyright, in such content is not misappropriated. This device uses WM-DRM Software to play Secure Content (“WM-DRM Software”). If the security of the WM-DRM Software in this device has been compromised, owners of Secure Content (“Secure Content Owners”) may request that Microsoft revoke the WM-DRM Software’s right to acquire new licenses to copy, display and/or play Secure Content. Revocation does not alter the WM-DRM Software’s ability to play unprotected content. A list of revoked WM-DRM Software is sent to your device whenever you download a license for Secure Content from the Internet or from a PC. Microsoft may, in conjunction with such license, also download revocations lists onto your device on behalf of Secure Content Owners.

## LIMITED WARRANTY AND TECHNICAL SUPPORT STATEMENT

### HP Data Vault Limited Warranty

#### Duration

Hardware: 1 year Limited Warranty

Software: 1 year 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.

HP MAKES NO OTHER EXPRESS WARRANTY OR CONDITION, WHETHER WRITTEN OR ORAL, AND HP EXPRESSLY DISCLAIMS ALL WARRANTIES AND CONDITIONS NOT STATED IN THIS LIMITED WARRANTY. TO THE EXTENT ALLOWED BY THE LOCAL LAW OF JURISDICTIONS OUTSIDE THE UNITED STATES, HP DISCLAIMS ALL IMPLIED WARRANTIES OR CONDITIONS, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. FOR ALL TRANSACTIONS OCCURRING IN THE UNITED STATES, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, SATISFACTORY QUALITY, OR FITNESS FOR A PARTICULAR PURPOSE IS LIMITED TO THE DURATION OF THE EXPRESS

WARRANTY SET FORTH ABOVE. SOME STATES OR COUNTRIES/REGIONS DO NOT ALLOW A LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR CONSUMER PRODUCTS. IN SUCH STATES OR COUNTRIES/REGIONS, SOME EXCLUSIONS OR LIMITATIONS OF THIS LIMITED WARRANTY MAY NOT APPLY TO YOU.

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.

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### **Pickup and Return Warranty Service**

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### **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.

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## **HP DATA VAULT 3.0 UPDATE READ ME**

### **In this article...**

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↓ [Easy, automatic backup of your digital memories](#)

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↓ [Enjoy your digital media experiences](#)

↓ [Centralize your digital life for sharing with friends and family](#)

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### **Easy, automatic backup of your digital memories**

- Set it and forget it! Your home server automatically manages many important activities (daily backup, media collection, and power management) for you behind the scenes.
- The HP Data Vault will automatically backup multiple computers in your home including both Windows PCs (Microsoft's Windows Home Server Backup) and Macs (Apple's Time Machine) and allows you to easily retrieve your digital media—music, photos, and videos—so they are never lost.
- Easy internal expandability with tool-free expansion bays allowing you to add additional internal SATA disk drives. Or expand your storage capacity externally using the 4 USB ports and the fast eSATA port.
- Automated PC backup software provides efficient backups to help save disk space and time.

### **Enjoy your digital media experiences**

- Extend your digital media experiences by conveniently streaming photos, music and videos to your TVs, through gaming consoles such as Xbox 360 or PLAYSTATION3, and computer's within your home.
- Eliminate the frustration of trying to play your videos on different devices! The HP Video Converter automatically converts your library of videos (including unprotected DVDs) into a video format that can be played in your home and remotely on PCs and/or Macs and streamed to popular media devices such as xBox 360s and PS3s. Plus, you control how your videos are converted by selecting the device your video will be played on or specify the video settings yourself.
- Take your videos with you... The HP Data Vault creates a mobile version of your videos that you can download and play on your iPod, iPhone, PlayStation Portable (PSP), Zune and other popular mobile devices.
- The HP Data Vault supports iTunes and Windows Media Player devices so you can enjoy your music libraries throughout your home.

### **Centralize your digital life for sharing with friends and family**

- The HP Data Vault will automatically centralize your digital media for sharing with family and friends, and enable you to enjoy your digital media while at home or away.
- Stream music, photos and video from your server to any Internet-connected computer. Now, all of your media is just a fingertip away! The MediaSmart Server iPhone app lets you stream all your media to your iPod touch or iPhone!

- HP Media Collector automatically collects, organizes and centralizes your media files from multiple Windows PCs and Macs (including iPhoto, iTunes, and iMovie libraries) to the server so you can easily find, share and stream your media.
- Using an Internet connected PC, you can quickly publish the photos on your server and/or directly to popular web sites such as Snapfish, Flickr, Picasa Web Albums, and even Facebook.
- The HP Photo Viewer allows you to create photo albums for sharing with family and friends.





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<http://clraddins.codeplex.com/Release/ProjectReleases.aspx?ReleaseId=9454>

### Release Notes

This sample demonstrates how AppDomain isolated add-ins can contribute directly to the host's UI using WPF. This sample was originally posted on our team blog (<http://blogs.msdn.com/clraddins/archive/2007/08/06/appdomain-isolated-wpf-add-ins-jesse-kaplan.aspx>) and has been updated to work on v3.5 RTM.

Released:	Jan 10 2008
Updated:	Jan 10 2008 by Jesse Kaplan ( <a href="http://www.codeplex.com/site/users/view/JesseKaplan">http://www.codeplex.com/site/users/view/JesseKaplan</a> )
Dev status:	-not yet defined by owner-
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### **Real-Time Video Coding**

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#### **Background**

The objective of the Real-Time Video Coding group is to research and develop intelligent multimedia software components and delivery systems that adapt to congested and low

infrastructure network environments. The emphasis is on jointly-optimised or co-operative behaviour between the delivery context, as in real-time network conditions, and the video/audio encoder rate control mechanisms. Innovative solutions are sought to enhance the Internet video experience in a developing world context where bandwidth is a scarce resource.

Current research within the group is concentrating on optimal and weighted context-based bit allocation techniques and implementations within international standard video codecs. A scalable and bandwidth adaptive multimedia broadcasting platform is under development to encompass the novelty of the bit allocation research.

### Contact Details

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### Seminars

30 September 2007 - IEEE students seminar at UCT

13 March 2008 - Seminar at UKZN

14 May 2008 - Guest lecture on Video Coding at University of Pretoria

### Papers



Papers will be available here once complete.



### Downloads

A part of the objective of the Real-Time Video Coding group is to utilise open source frameworks and to contribute to the open source community as well as to provide source code that is available for general usage. Please send comments, feedback, suggestions to [rtvc\[at\]meraka.org.za](mailto:rtvc[at]meraka.org.za).

### DirectShow Filter Downloads

The following DirectShow filters are available for download as DLLs. These need to be registered using the `regsvr32` command. Download the documentation below for more information about the filters.

Filter	Version	Description
 <a href="#">ScaleFilter</a>	v1.1	The ScaleFilter is a DirectShow filter that can scale RGB24 media to specified target dimensions.
 <a href="#">CropFilter</a>	v1.3	The CropFilter is a DirectShow filter that can crop RGB24 and RGB32 media.

Filter	Version	Description
 <a href="#">RGBtoYUV420Filter</a>	v1.0	This filter converts RGB24 or RGB32 media to a YUV4:2:0 Planar format whilst retaining the original VideoInfoHeader of the media.
 <a href="#">YUV420toRGBFilter</a>	v1.0	This filter converts the custom packed YUV420 planar format back to RGB24.

### Source Downloads

- **Base classes and interfaces** - DirectShow base classes and interfaces have been written which simplify the creation of a transform filter. The CCustomBaseFilter class provides a base class for filters with a single input and output pin. The MultiIOBaseFilter project provides support for writing DirectShow transform filters with multiple input and output pins such as multiplexers and demultiplexers. All Meraka RTVC filters inherit these base classes, which are available in the download. The base class have been compiled into a static library which the user can reference in the project.
- **Filter Source Code** - The download also contains the source code for the above-mentioned scaling, cropping and color conversion filters.
- **Image Utilities** - The ImageUtils folder contains source code for various image processing such as cropping, scaling, etc. These files have been compiled into a static library which is also referenced by filters that require such functionality.
- **DirectShow LiveMedia RTSP Live Audio Streaming Server** - This project provides an example as to how the DirectShow framework can be integrated with a RTP/RTCP/RTSP streaming library in order to stream live audio.



[Source Code v1.3](#)



[Documentation](#)

### Links

- **DirectShow related**
  - [Blog containing free DirectShow filters and GraphStudio](#), which offers some improved functionality over GraphEdit
  - [DirectShow training](#)
- **RTP/RTCP/RTSP related**
  - [Open source RTP/RTCP/RTSP](#) library that covers framing, sending of many media formats with a high level of importance based on standards. Main support via mailing list.

## Media

- [CSIR researcher profile series](#): Streamlining delivery of internet video broadcasting
- [DST-Innovation Fund investment boosts collaborative research on real-time video broadcasting project](#)
- [Innovation Fund investment boosts collaborative research on real-time video broadcasting project](#)



# Glossary

## A

**all-in-one-gateway:** A device that provides multiple network features such as a router, modem, local area network (LAN) switch, firewall, and/or a wireless access point. Also see LAN.

**anti-virus software:** Software that checks a hard drive for viruses (harmful computer code) that may infect a computer.

## B

**BIOS:** Basic Input/Output Services—the firmware code run by the server when first powered on. The BIOS prepares the server for operation and allows the server software to load, execute, and assume control of the server. This process is also known as booting up.

**Browser window:** A browser window is used to display web pages either on a web site or stored locally such as the server's User's Guide.

## C

**client computers:** A client computer is a computer that accesses the server by the home network. This term also applies to computers using remote access to the server.

## D

**DHCP:** Dynamic Host Configuration Protocol—the protocol used to assign IP addresses to network devices, such as computers. DHCP automatically assigns IP addresses to network devices; the assigned address can change over time. Also see IP address, Protocol, and Static IP Address.

**Digital Living Network Alliance:** A set of standards (that includes UPnP A/V) for sharing media between devices. PVConnect is DLNA compliant. Windows Media Connect is not. This compliance allows PVConnect to work with more DMRs.

**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.

**DMR:** Digital Media Receiver (DMR), Digital Media Adapter (DMA), Digital Media Player (DMP)—a consumer electronic device that communicates with the server and brings digital media streams—such as photos, music, or video—to your entertainment center.

**DNS:** Domain Name System—a server that associates network names with IP addresses. Also see IP address.

## F

**folder duplication:** Folder duplication duplicates folders and files across multiple hard drives. If you enable folder duplication and one hard drive fails, you will not lose any files stored in a shared folder. Any folder that has folder duplication enabled uses twice the amount of server storage.

## H

**HTTPS:** A secure HTTP connection. HTTP (HyperText Transfer Protocol) is the format used to transfer and send web page information across networks, on the Internet, and in help systems. HTTPS is an HTTP connection over encrypted Secure Sockets Layer (SSL) transport mechanism. Also see Protocol.

## I

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

## L

**LAN:** Local area network—a small number of computers that are connected together in a small area, usually in the same building.

**logical:** A device, such as a partition named by the logic of a software system, regardless of its physical relationship to the system. For example, a computer with a single physical hard disk that contains two logical drives, C: and D:.

## M

**Map:** Assigning a drive letter to the connection on a computer to access a shared folder on the server.

**Mbps:** Megabits per second.

**Media streaming:** Media streaming sends media—music, photos and video files—from the server to other devices that can play the media. The server includes functionality that allows media to stream to a Digital Media Adapter (DMA). Also see DMR.

## N

**NAT:** Network Address Translation—Broadband routers use NAT technology to allow network components to share Internet access over a single IP address. Additionally, NAT acts like a firewall because the computers and other devices—including the server—on the network are given IP address that are non-routable (non-internet addresses). This masks the real IP addresses of your network components and keeps them from being seen outside the home. Also see IP address.

## P

**partition:** A logical division of a physical hard disk. Partition data refers to the information contained within the divisions on the drive. For example, some computers are formatted with a C: and D: drive, both of which use the same physical hard drive.

**password hint:** A password hint helps you remember your password. The password hint can be seen by anybody who clicks the link to display it.

**PECI:** Platform Environment Control Interface, abbreviated as Peci, is a recent (introduced in 2006) technology used for thermal management in the Intel Core 2 Duo microprocessors. While previous thermal management technologies have made use of thermal diodes, Peci instead uses on-die digital thermal sensors (DTS). These sensors, after being calibrated at the factory, are able to provide digital data concerning processor temperature information. The Peci bus, allowing access to this data from chipset components, is a proprietary single-wire interface with a variable data transfer speed (from 2 kbit/s to 2 Mbit/s).

**physical hard disk:** The actual hard disk (hard drive) located in a device that stores files and data.



**port 80:** Usually, an HTTP client, such as a Web browser, initiates contact to a server through port 80. After contacting the server, the server sends back a response, such as a Photo Publisher page.

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

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

## R

**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

**SATA:** Serial Advanced Technology Attachment (or Serial ATA) is an interface standard that moves information to and from a storage device, such as a hard drive.

**shared folders:** A “share folder” means the same as a “share,” and you can use these terms interchangeably: A shared folder is a -level folder that is shared on the network and stores other folders within it. For example, the Music shared folder can store other folders (called sub-folders). A subfolder might be named for a musician, such as Mark Knopfler.

**SMTP:** Simple Mail Transfer Protocol—The main protocol used to send email on the Internet, consisting of rules for how programs sending mail should interact with programs receiving mail.

**Static IP Address:** A number assigned to a device, such as a computer, on a network to be its permanent IP address. Also see IP address and DHCP.

**strong password:** A strong password must be at least 7 characters long and must fulfill three of the following four character criteria: uppercase characters, lowercase characters, numbers, and symbols (such as !, @, #, and so on.) Also see password hint.

**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. Also see IP address.

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

## T

**TB:** Terabyte—refers to a data storage capacity equal to approximately 1000 gigabytes.

**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:** TCP/IPv4 is the standard TCP/IP protocol in use today.

**TCP/IPv6:** TCP/IPv6 is the standard TCP/IP protocol used by Windows Vista. IPv6 main advantage is the increase in number of available addresses.

## U

**UNC:** Uniform Naming Convention—identifies shared network devices, such as the server. 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 in the following format: \\server-name\sharedfolder-name. For example, \\SERVER\software. Also see LAN.

**UPnP:** Universal Plug and Play—a networking protocol that allows for many different types of devices to interact with one another. UPnP is the protocol used by media streaming.

## W

**WAP:** Wireless Access Point—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.

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

**WEP:** Wired Equivalent Privacy—a protocol that encrypts data on a wireless system for security.

**WPA:** Wi-Fi Protected Access—a technology that allows for increased security with wireless networks.

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