NetShow Player

Use NetShow Player to play <u>Active Streaming format (.asf)</u> files and live <u>ASF streams</u>. NetShow Player can receive ASF information delivered via <u>unicast</u> or <u>multicast</u>.

If you click a part of the NetShow Player diagram below, its name and other information appears.



.Asf files are stored ASF streams. .Asf files can be created by building audio files, images, video files, and script commands into a file, or by writing an ASF stream to disk. .Asf files can be played locally or can be streamed from a NetShow or HTTP server over a network.

An ASF stream is a stream of information traveling over a network. This stream can be an .asf file sent from a NetShow Server or HTTP server, or it can be live information that the ASF Real-Time Encoder has encoded into ASF. When a Real-Time Encoder encodes live information into an ASF stream, the encoder sends the ASF stream it creates to NetShow Server, which then delivers the ASF stream to all NetShow Players.

An Active Streaming redirector (.asx) file is a small file that passes information to NetShow Player necessary to connect to or receive the ASF information. To use an .asx file, open it with NetShow Player, double-click it, or run it from a local directory.

The **File** menu provides controls to:

- Browse to and open an .asf or .asx file.
- Enter the path to an .asf file or a live ASF stream so that the player will begin streaming the information.
- Open the **Properties** dialog box. It contains many of the Player's settings, including how many times to play an .asf file, what UDP port to use, and whether to receive <u>multicasting</u>.
- Close the ASF stream or .asf file.
- Exit the application.

Use the **Go** menu to open your browser and access the newest information on the **NetShow Home Page**. The **Go** menu also has a **NetShow Software Updates** option that takes you to the NetShow Web page where you can download the latest version of NetShow Player. This menu also includes a most recently used (MRU) list of the last five URLs that you attempted to stream. The **View** menu enables you to set NetShow Player so that it always stays on top. The **View** menu also contains options to view **Statistics** of the .asf file or live ASF stream, **Play Settings** for NetShow Player, and **Markers** if you are watching an .asf file.

Use the **Help** menu to open the Troubleshooting Guide, the contents of this Help file, or to find NetShow Player version information.

The title bar contains the title or alias of the streaming information that NetShow Player is receiving. Titles correspond to .asf files. A stream alias corresponds to live ASF streaming. The title bar makes it easy to identify streaming information even if NetShow Player is paused, stopped, or at an unrecognizable point. The **Current Time/Total Time** indicator displays how far along in the .asf file you are and the complete playing time for the .asf file. Both of these time indications are measured to the tenth of a second. This indicator will also display an error if you typed an incorrect URL address. To see what the error is, right-click the **Current Time/Total Time** indicator area and select **Error Details** from the menu.

The **Play/Pause** button toggles between **Play** and **Pause**. When the .asf file begins rendering, the **Pause** button is active because the .asf file is playing. If you pause or stop the .asf file, the **Play** button becomes active.

Click the **Stop** button to stop playing an .asf file. When you do, the slider returns to the beginning of the .asf file. Stopping the .asf file does not break communication with the server. You can click the NetShow Player **Play** button to begin playing the .asf file again.

Markers are a feature of streaming .asf files. Click the **Previous Marker** button to go back to the last marker in the .asf file. The **Previous Marker** button is active only if the .asf file contains markers and if you have passed a marker.

Multicasting is the way NetShow Server delivers a single ASF stream feed to multiple NetShow Players. A network must be multicast-enabled in order for multicasting to work. When NetShow Server is multicasting, it sends out a single ASF stream that multiple NetShow Players can receive. All NetShow Players that are receiving the ASF stream are receiving the same stream, similar to how everyone watching the same television channel at the same time sees the same thing. When multicasting, NetShow Player does not have a connection to NetShow Server; NetShow Player only receives what NetShow Server is delivering. Unicasting is a two-way, point-to-point connection between NetShow Server or an HTTP server and NetShow Player. When NetShow Server is unicasting, NetShow Player can send information back to the server while receiving the ASF information. Unicasting can rapidly use up the available network bandwidth because each client connected to the server has a distinct connection.

Click the **Rewind** button to move backward through an .asf file. If the **Rewind** button is not active, you cannot rewind the .asf file. The rewind functionality for an .asf file is available only if you are streaming the .asf file from NetShow Server and the .asf file has an index. The index is created by the tool used to encode the .asf file.

Click the **Fast Forward** button to move forward through an .asf file. If the **Fast Forward** button is not active, you cannot fast forward through the .asf file. The fast-forward functionality is available only if you are streaming the .asf file from NetShow Server and the .asf file has an index. The index is created by the tool used to encode the .asf file.

Click **Next Marker** to move to the next marker in the .asf file. Markers are analogous to tracks on a compact disc. The **Next Marker** button is active only if you are streaming an .asf file from NetShow Server and the .asf file contains markers. Because markers must be created when the .asf file is built, not every .asf file will contain markers. There are no markers in a live ASF stream.

The vertical lines under the slider indicate the location of markers. Markers are a feature of streaming .asf files from NetShow Server. If you place the mouse pointer on a marker, the name of the marker and the time that it marks appears. Markers appear only in .asf files and only if they are built into the .asf file. Markers will not appear in an .asf file streamed via HTTP. Markers cannot be part of a live ASF stream.

The **Slider** points to the current location in the .asf file timeline. If the .asf file has an index, you can use the slider to move forward or backward in the .asf file. This is the same as using the **Previous Marker** and **Next Marker** buttons; that is, you must be streaming the .asf file from NetShow Server in order to move forward or backward in the .asf file.

The slider does not move if you are receiving a live ASF stream.

When playing an .asf file or receiving a live ASF stream, the images or video appear in the NetShow Player window (provided that there are visuals in the stream). When the mouse icon is a hand, left-clicking the window has the same effect as clicking the **Play/Pause** button. When the mouse icon is a hand, right-clicking the window opens the short cut menu.

Opening an .asf File

NetShow Player has two ways that you can play .asf files. Use **Open File** to open the .asf file or .asx file by browsing servers and directories, or use **Open Location** to type the direct path to an .asf or .asx file.

If you open an .asf file locally, you will not be streaming the file; you will be playing the file from your computer's cache. If you open an <u>.asx file</u>, NetShow Player will stream the .asf file from a server. If you enter the URL to an .asf file, you can stream a file from a NetShow server or HTTP server.

See Also:

Browsing to Open an .asf File Entering the Path to an .asf File

Browsing to Open an .asf File

Use **Open File** to find an .asf file when you aren't sure of the exact path to the file, but you are sure that you have access to it.

- 1 On the File menu, click Open File.
- 2 In the **Open** dialog box, browse to the directory that contains the .asf file.
- **3** To begin playing the .asf file, double-click it. NetShow Player appears, buffers some of the .asf file, and then begins playing it. Playing an .asf file in this manner does not stream the file.

See Also:

Opening an .asf File
Entering the Path to an .asf File

Entering the URL for an .asf File

Use **Open Location** to stream an .asf file from a NetShow or HTTP server.

- 1 On the File menu, click Open Location.
- 2 In the **Open Location** dialog box, type the path to the .asf file.

If you want to stream an .asf file from a NetShow server, specify the MMS protocol (for example, mms://server/file.asf). If you want to stream an .asf file from an HTTP server, use the HTTP protocol (for example, http://server/file.asf).

3 To begin playing the .asf file, click **OK**. NetShow Player appears, creates a buffer for the .asf file, and then begins playing it.

See Also:

□ <u>Opening an ASF File</u> □ <u>Browsing to Open an ASF File</u>

Microsoft NetShow Player Properties Dialog Box

The **Microsoft NetShow Properties** dialog box is the main source of information within NetShow Player. The **Properties** dialog box contains six pages of information; seven if the .asf file contains <u>markers</u>. Each property page presents specific information about NetShow Player, the .asf file, or the live ASF stream. Click the page below to learn more about its properties.

See Also:

General property page
 Details property page
 Settings property page
 Statistics property page
 Advanced property page
 Channel property page
 Codecs property page
 Markers property page

Viewing General Information

Data contained in the **General** property page comes from the creator of the .asf file or live ASF stream. This information is added during creation and can provide details about the content. Not all .asf files or live ASF streams contain general information.

▶ To view the General property page

• On the File menu, click Properties.

The General property page opens.

See Also:

General property page

General Information Property Page

The **General** property page exposes any Title, Author, Copyright, Rating, and/or Description information that the author included with the .asf file or live ASF stream.

See Also:

Properties dialog box
 Viewing the General property page
 Details property page
 Statistics property page
 Advanced property page
 Codecs property page
 Channel property page
 Settings property page
 Markers property page

Channel Property Page

The Channel property page offers information about the Channel Service that is streaming the live ASF stream such as the name, its location, a phone number to call, e-mail address, and description of the channel. This information is contingent on the system administrator making it available. This panel will not appear when receiving an .asf file.

See Also:

General property page
 Details property page
 Advanced property page
 Codecs property page
 Markers property page
 Settings property page
 Statistics property page

Viewing the Codecs Used

You can view the codecs that were used in the .asf file or live ASF stream with the **Codecs** property page. This page identifies the codecs associated with the various image, audio, and video files and whether or not the codec is installed on your computer. Understanding which codecs were used in building the .asf file and whether your computer has those codecs installed will help you track potential rendering problems.

• To view the Codecs property page

- 1 On the File menu, click Properties.
- The General property page opens.
- 2 Click the Codecs property page.

See Also:

Codecs property page

Codecs Property Page

The **Codecs** property page identifies the codecs used in the .asf file and whether or not those codecs are installed on your computer. The **Codecs** property page also provides the URL to the NetShow codecs Web page. Please see this URL if you want more information about the codec.

See Also:

Viewing the Codecs Property page
 Properties dialog box
 General property page
 Settings property page
 Details Property Page
 Statistics property page
 Markers property page
 Channel property page
 Advanced property page

Viewing the Details of the .asf File

Whereas the **General** property page shows any additional information that may have been added to the .asf file or live ASF stream, the **Details** property page provides specific information about the .asf file such as length, date of creation, and so on.

▶ To view the Details property page

- 1 On the File menu, click Properties. The General property page opens.
- 2 Click the **Details** property page.

The **Details** property page opens.

See Also:

Details page

Details Property Page

The **Details** property page provides information (in addition to the **General** property page) that is useful for understanding how the .asf file streams across the network. This information is part of the .asf file, but is not placed there by the author. NetShow Player picks up this information from the .asf file or live ASF stream. The **Details** property page includes:

- **Source Link** Path to the streaming .asf file. This will say **Multicast** if the stream is being multicast.
- **Creation Date** Date when the .asf file or live ASF stream was created.
- **Duration** Length of the .asf file. This will be blank for a live ASF stream.
- **Bandwidth** Bandwidth that the .asf file or live ASF stream was designed for. The content author determines the bandwidth during the build process.
- Error Correction Describes the error correction used (if any).
- Image Width Width of the NetShow Player screen.
- Image Height Height of the NetShow Player screen.

See Also:

Properties dialog box

- 0 Uiewing the General property page
- 1 General property page
- 2 Settings property page
- 3 Statistics property page
- 4 Advanced property page
- 5 Codecs property page
- 6 Channel property page
- 7 Arkers property page

Statistics Property Page

Use the **Statistics** property page to monitor how well NetShow Player is receiving ASF information. The **Statistics** property page contains a three-color pie chart that interprets the number of <u>packets</u> of ASF data that were received, recovered, and/or lost. There is also a progress bar along the bottom of the **Statistics** property page that displays the reception quality over the last 30 seconds.

See Also:

Properties dialog box
 General property page
 Settings property page
 Details property page
 Advanced property page
 Codecs property page
 Channel property page
 Markers property page

Settings Property Page

The **Settings** property page enables you to choose how many times to play an .asf file. You can also choose the size of the NetShow Player window and the type of controls available on NetShow Player.

See Also:

Properties dialog box

- 0 General property page
- 1 <u>Details property page</u>
- 2 Advanced property page
- 3 Codecs property page
- 4 Channel property page
- 5 Markers property page

Markers Property Page

The **Markers** property page displays the times and a description of all markers in the .asf file. The **Markers** property page appears only if the .asf file contains markers. A live ASF stream will not contain markers.

See Also:

Using Markers

- 0
 Properties dialog box
- 1 General property page
- 2 Settings property page
- 3 Details property page
- 4 Advanced property page
- 5 Codecs property page

Advanced Property Page

The **Advanced** property page enables you to set the buffering and protocols that NetShow Player can receive.

Buffering

The buffer is the amount of ASF information (measured in seconds) that NetShow Player "saves up" ahead of what is playing. NetShow Player uses the information stored in the buffer to fill in gaps in the ASF stream caused by network traffic. You can use the default buffer, or if you know that you may experience heavy network traffic, you may want to set your own buffer.

Protocols

The protocol settings are the various ways that NetShow Player can receive ASF information. <u>Multicasting</u>, <u>TCP</u>, and <u>HTTP</u> are enabled by default. Select the protocols that you want to enable. Select <u>UDP streaming</u> if you are on a local or high bandwidth network that does not have large delays caused by network traffic, otherwise do not select this protocol.

See Also:

Properties dialog box
 General property page
 Settings property page
 Details property page
 Channel property page
 Codecs property page
 Markers property page

UDP is a protocol that can be used to deliver ASF information from NetShow Server. UDP provides connectionless service for unacknowledged delivery, that is, a server using UDP transmits information to the client and doesn't wait to hear if the client received the information. UDP tends to work better on intranet or local area networks than it does over the Internet.

TCP is a standard networking protocol that every computer on the Internet supports. TCP is a reliable protocol which will ensure that you won't lose information when watching an .asf file or ASF stream. However, the drawback to ensuring reliability is that at times network traffic may force NetShow Player to wait for ASF information to be delivered.

HTTP is the protocol used on the Internet to send Web pages, graphics, and so on. This protocol is often used to go through firewalls. When using this protocol, be sure that you select the proxy settings that NetShow Player will use.

Adjusting the Number of Times an .asf File Plays

You can set NetShow Player to play an .asf file a fixed number of times, or continuously.

• To set the number of times an .asf file plays

1 On the **View** menu, click **Settings**.

The **Settings** property page opens.

2 On the **Settings** property page, click **Play Count** and then specify the number of times you want to play the .asf file.

__Or__

To play an .asf file continuously

1 On the View menu, click Settings.

The Settings property page opens.

2 On the Settings property page, click Play Forever.

See Also:

Properties dialog box
 General Information
 Details
 Using Markers
 Statistics

Viewing Statistics of the Streaming .asf File

If the .asf file you are watching seems choppy or the file stops playing while NetShow Player buffers ASF data, you can check how much information you are receiving. The **Statistics** property page displays several types of information.

▶ To view the Statistics property page

• On the View menu, click Statistics.

The **Statistics** property page appears.

See Also:

Statistics Page

Adjusting the Window Size

Unless specified otherwise, the NetShow Player window sizes to the height and width of the .asf file. If you want, you can resize the window based on the original size of the .asf file.

To resize the NetShow Player window

- 1 On the View menu, click Play Settings. The Settings property page opens.
- 2 From the Window Size menu, select a size.
 Default Size is the original .asf file size. Half Size is half of the original .asf file size. Double Size is two times the original .asf file size.

3 Click **Apply** and then click **OK**.

See Also:

Settings property page

Hiding and Displaying Controls

You can set NetShow Player to three possible control views—No Controls, Simple Controls, or Full Controls. No Controls means that none of the Player controls are visible. The Simple Controls option displays all controls except the Previous Marker, Next Marker, Fast Forward, and Rewind buttons. Full Controls displays all Player controls.

To adjust NetShow Player controls

- 1 On the View menu, click Play Settings. The Settings property page opens.
- 2 On the **Controls** menu, select a controls view.
- 3 Click Apply and then click OK.

See Also:

Settings property page

A marker is a pointer to a specific point in an .asf file. Use markers to jump forward or backward in an .asf file. Markers exist in an .asf file only if the author creates them. If an .asf file contains markers, there will be vertical dashes under the slider. Place the pointer on a dash to see the name and time of the marker.

Using Markers

You can access <u>markers</u> in an .asf file either by clicking the **Previous Marker** or **Next Marker** button, or by choosing a marker in the **Markers** property page.

To use the Markers property page

1 On the View menu, click Markers.

The **Markers** property page opens.

- 2 In the list of markers, select the marker you want to go to and then click the **Go To Marker** button. NetShow Player finds the marker, but the **Microsoft NetShow Properties** dialog box remains.
- 3 To return to NetShow Player, click OK.

NetShow Player buffers the .asf information and then plays the .asf file from that marker.

— Or —

To use the Next Marker or Previous Marker button

• Click Next Marker or Previous Marker to move forward or backward one marker.

The slider moves one marker for each time you click **Next Marker** or **Previous Marker**. After the slider moves to the marker, NetShow Player buffers the .asf information and then plays the .asf file from that marker.

See Also:

<u>Properties dialog box</u>
 <u>Markers property page</u>

Setting a Proxy Server for HTTP Streaming

NetShow Player automatically understands how to receive ASF information via HTTP streaming by checking the proxy settings on your default browser (as long as you're using a Netscape or Microsoft browser). If your browser works fine, but you are having a problem receiving HTTP streaming, adjust the proxy server that NetShow Player is using.

To set a proxy server

1 On the File menu, click Properties.

The **General** property page appears.

- 2 Click the Advanced property page.
- 3 On the Advanced property page, select the Use proxy for HTTP streaming check box.
- 4 In the **Server** box, specify the name of an HTTP proxy server.
- **5** In the **Port** box, specify the number of the port that the server will use. Port 80 is the usual port number to specify.

See Also:

<u>Advanced property page</u>
 <u>General Information</u>

Using a UDP Port to Receive an .asf File

If you require a specific UDP port to receive streaming information through a firewall, you can set the port using NetShow Player.

To set a UDP port

1 On the File menu, click Properties.

The General property page appears.

- 2 Click the Advanced property page.
- 3 On the Advanced property page, select the Use the following UDP port check box.
- 4 Enter the number of the UDP port.

See Also:

<u>Advanced property page</u>
<u>General Information</u>

Adjusting an .asf File's Buffer Time

You can adjust the amount of information that NetShow Player uses for buffering during playback. By minimizing the amount of information that is buffered, you will decrease the time it takes for an .asf file to start rendering; however, you may experience interruptions or delays, especially when receiving streaming information over the Internet.

By maximizing the buffer information, you will increase the time it takes for an .asf file to start rendering, but you will decrease the number of interruptions or delays.

Note Any changes made in the buffering time will not take effect until the next .asf file is streamed.

To adjust the buffering time

1 On the File menu, click Properties.

- The General property page appears.
- 2 Click the Advanced property page.
- **3** On the **Advanced** property page, adjust the **Buffering Time** slider.

When you first open the Advanced property page, the slider appears in its default position.

See Also:

Advanced property page General Information

Troubleshooting

Use the following error messages to link to a possible solution or at least help you understand what the problem is.

Error Messages

■<u>"The specified stream type is not recognized</u>." ■<u>"The network connection failed."</u>

Symptoms

Can't get NetShow Player to work with the 16-bit version of Internet Explorer or Netscape 2.0.
 Can't connect to a v.1.0 NetShow Server
 Can't connect to a server while using Dial-up Networking
 All I see is a black screen.
 Screen is frozen and the current time/total time indicator continuously shows "Buffering."
 Audio is distorted and/or video is choppy

Return to overview.

Error Details

There is an error with the address entered in the **Open Location** box.

To check what may have occurred

- 1 Right-click the NetShow Player window.
- 2 In the drop-down menu, click Error details. The Error Details box appears.
- 3 The Error Details box lists the errors beginning with the first error found.

Return to <u>Troubleshooting</u>.

Failed Network Connection

One possible reason that you may get this message is that your NetShow Player settings may conflict with your Internet Explorer setting. This will occur if you adjust the NetShow Player protocol settings in the Advanced Settings tab and do not restart NetShow Player. Clicking Apply will not cause these changes to take effect.

Return to <u>Troubleshooting</u>.

Browser Incompatibility

NetShow Player doesn't work with the 16-bit version of Internet Explorer or Netscape Navigator 2.0.

Return to Troubleshooting.

Won't Work with v.1 NetShow Server

NetShow Player's v.2 default configuration for unicast connections is to establish a TCP connection with the server. Previous releases would have tried to use UDP to establish a connection. Because NetShow v.1 servers support only UDP connections, the NetShow v.2.0 client will fail to connect to a server when using its default protocol settings. To use a v.2 client to access content on a v.1 server, go to the NetShow Player **File Properties** dialog, select the **Advanced** tab, and in the **Protocols** group, select UDP. Close NetShow Player and then try again to access the v.1 server.

Return to Troubleshooting.

Dial-Up Problems

When using dial-up networking to access a network, you can encounter some problems. These problems are usually caused by incorrect settings for the proxy server that a firewall is using.

Verify that your proxy settings are correct

• On the Advanced tab of the NetShow Player Properties dialog box, for the HTTP protocol, select No proxy.

Return to <u>Troubleshooting</u>.

Black Screen

When NetShow Player opens and the opening animation stops, if all you see is a black screen, you should check to see if you have the correct codec installed to render the video.

To check if you have the correct codec installed

- 1 Click the right mouse button on the player window and select **Properties**.
- 2 In the NetShow Player Properties dialog box, select the Codecs tab. The codecs used to compress the ASF information are displayed.
- 3 Verify that the video codec used to compress the ASF information is installed on your computer. If the codec is not, contact the person who created the ASF stream for information about how to get the proper codec. Most content creators will either use standard NetShow codecs or provide a way for you to download the codec before watching the ASF information.

Return to Troubleshooting.

Frozen Screen

When the current time/total time indicator constantly says, "**Buffering**," it means that you are using a TCP connection to the server. TCP is a reliable protocol which will ensure that you won't lose information when watching an .asf file or ASF stream. However, the drawback to ensuring reliability is that at times network traffic may force NetShow Player to sit and wait for more ASF information to be delivered. During this waiting period, NetShow Player will display the message, "Buffering," because it is waiting to receive ASF information to use to build up its buffer and continue rendering the ASF stream.

Return to <u>Troubleshooting</u>.

Audio is Distorted and/or Video is Choppy

Distorted audio and video is usually caused by one of two things: large amounts of network traffic, or the audio and video were created that way.

To judge if network traffic is the problem

- 1 Click the right mouse button on the player window and select Statistics.
- 2 In the NetShow Player Properties dialog box, see how many (or what percentage) of <u>packets</u> have been lost. If you are losing more than 5% of the packets, then network traffic is your problem.
- **3** If NetShow Player is losing only a few packets, check to see if **Buffering** appears in the Current Time/Total Time indicator. If NetShow Player has to constantly buffer information then that means that there is network traffic and NetShow Player must wait to receive ASF information.

If the you are not losing any packets and there isn't network traffic then there is a good probability that the content was created that way. Take into consideration the type of ASF content that you are watching. Video requires considerably more network bandwidth than image flipping, and the higher the audio quality, the more bandwidth that is required.

Return to Troubleshooting.

Packets are pieces of ASF information. All NetShow content creation tools create ASF information in fixed-size pieces. ASF streams and .asf files are comprised of large numbers of packets. When an .asf file or ASF stream is sent across a network, NetShow Server breaks the stream into the packets and sends those packets out over the network. NetShow Player receives the stream of packets and re-assembles the packets and plays the ASF information.

Using NetShow Player with AOL 3.0

NetShow Player can work in the America Online (AOL) browser, as long as the player is registered.

To register NetShow Player with AOL 3.0

- 1 Using a text editor, open the AOL browser Viewers.ini file.
 - The file is in the AOL3.0 install directory, which by default is c:\aol\viewers.ini
- 2 Look for the section [Viewers]. If it does not exist, create the section.
- 3 In the Viewers section, add the line

video/x-ms-asf=NetShow Active Streaming Format (*.ASX, *.ASF)

4 Add the following section to the Viewers.ini file.

[video/x-ms-asf] Ext=asf, asx App=C:\Program Files\Microsoft NetShow\Player\nsplayer.exe

*Insert existing text here and delete this text. **Do not remove** the following paragraph.