



Managing Online Presentations

This chapter describes how to set up and create online presentations using the features provided by Cisco IP/TV. This chapter contains the following sections:

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Features for Delivering Presentations

Cisco IP/TV provides the following ways to deliver online presentations:

- Web Presenter
- ScreenCaster
- SlideCast

These features allow you to send slide presentations to viewers by using your TCP/IP internetwork. However, each feature has its own distinct advantages and limitations. This section introduces these features and describes their advantages and limitations.

**Note**

Web Presenter and ScreenCaster features are not supported when IP/TV is integrated into an ACNS network. You may not be able to create a Web Presenter program as part of an ACNS channel.

Web Presenter

Web Presenter enables you to create and direct a web-based presentation, such as the following.

- Live web presentation with a live-capture video and audio program.
- Live web presentation with a playback-from-file program.
- Playback from an MP4 (.mp4) file with an embedded URL track recorded by IP/TV Server. The web presentation consists of HTML pages browsed in the Web Presentation application or of content captured from the screen using the ScreenCaster feature of Web Presenter. The video format must be ISO MPEG-4 and the audio format can be MP3 or AAC. The audio and video server must be on the same host as the Web Presenter server.
- Playback from an Advanced Streaming Format (.asf) file with an embedded URL track. The web presentation consists of HTML pages that are flipped in a designated sequence and at a designated time as determined by the URLs embedded in the .asf file of the program.

Web Presenter includes the following advantages:

- You can achieve better quality and increased clarity for text and images.
- Only one server is required to serve the entire presentation.
- You can publish HTML pages from local files.
- You can quickly convert files you have created using common business tools, such as Microsoft PowerPoint and Microsoft Word into web pages.
- You can incorporate other published websites into your presentation.
- Web Presenter streams can be shared with other audio or video programs.

Web Presenter includes the following limitations:

- Web Presenter streams can be recorded only when the video stream is ISO MPEG-4 and the audio stream is either AAC or MP3.
- Clients must use Internet Explorer to view the presentation.
- Presentations must be written in standard web formats.

ScreenCaster

With ScreenCaster you can do the following:

- Add dynamically captured screen shots to a Web Presenter broadcast or recording from various applications running in real time.
- Include screen shots of any size, up to the full desktop.
- Broadcast a web-based version of a PowerPoint presentation without preprocessing.
- Broadcast a PowerPoint presentation in “native” format, including animation and transition effects.

ScreenCaster includes the following advantages:

- No web authoring is required; screen images from any application (up to the full desktop area) can be captured and transmitted.
- Cross-platform viewers are supported.
- Support for native PowerPoint presentations allows viewers to use a local PowerPoint viewer or application to see animation and transition effects.

A limitation of ScreenCaster is that clients must have Internet Explorer installed to view the presentation.

SlideCast

The SlideCast feature allows you to capture screen information for transmission over a network.

SlideCast enables IP/TV Server to serve the following:

- Live or prerecorded video and audio with a separate SlideCast presentation (requires two servers)
- SlideCast with the audio of the presenter
- Audio of the presenter with alternating SlideCast and live video

SlideCast includes the following advantages:

- The entire presentation can be recorded to a media file and replayed later.
- No web authoring is required; whatever can be displayed on the desktop screen can be transmitted using SlideCast.
- Cross-platform viewers are supported. (An H.261-based SlideCast presentation is viewable on Macintosh and UNIX platforms.)
- SlideCast streams can be shared with other audio or video programs.

SlideCast includes the following limitations:

- Two servers are generally required if SlideCast is used with another video source.
- Text clarity may not be of high quality.
- SlideCast is CPU-intensive.

About Web Presenter

Web Presenter enables you to create and direct a web-based presentation. The types of web presentations you can create include the following:

- Live web presentation with a live-capture video and audio program.
- Live web presentation with a playback-from-file program.
- Playback from an MP4 (.mp4) file with an embedded URL track recorded by IP/TV Server. The web presentation consists of HTML pages browsed in the web presentation application or of content captured from the screen using the

ScreenCaster feature of Web Presenter. The video format must be ISO MPEG-4, and the audio format must be AAC or MP3. The audio and video server must be on the same host as the Web Presenter server.

- Playback from an Advanced Streaming Format (.asf) file with an embedded URL track. The web presentation consists of HTML pages that are run through in a designated sequence and at a designated time, as determined by the URLs embedded in the .asf file of the program. Refer to Appendix A of the *Cisco IP/TV Broadcast Server User Guide* for more information about .asf files.

Creating and Directing a Live Web Presentation

This section lists and describes the steps for creating a live presentation. Although the web presentation is always live, the audio and video program can be live capture or playback-from-file.

To create a live presentation, follow these steps:

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- Step 1** Prepare HTML presentation pages.
- Step 2** Create a scheduled program using IP/TV Program Manager.



Note IP/TV does not support SmallCasting of Web Presenter programs.

- Step 3** Direct the presentation. Use the Presenter Server application (PresenterServerApp window) to enter URLs and control the presentation.
- Step 4** View the presentation using IP/TV Viewer.
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The following sections describe, in detail, how to perform each of these steps.

Preparing HTML Presentation Pages

Before directing the presentation, you need to set up the HTML pages that are required during the presentation. Use the following setup methods.

- Real-time browsing from the web—You can run through the URLs in a random manner or drag and drop shortcuts. You can enter the URLs into the Address field in the PresenterServerApp window as desired (see [Figure 8-3](#) later in this chapter) or click HTML links to access web pages directly from the web.
- Prebrowsing and downloading to local cache—Prebrowse the URLs so that the contents are cached on the same device from which you are directing the presentation. Prebrowsing is useful because at presentation time, the server does not have to access the web, and all prebrowsed URLs are accessible from the URL drop-down list.

Separate Browser Window

If a URL does not contain a frame name or if the frame name is “main,” the IP/TV Viewer application or plug-in treats it as if the frame name were “iptv_presenter.” This situation occurs because web pages generated by IP/TV Program Manager in the Review window for scheduled or on-demand programs use the frame name “iptv_presenter.”

If a different frame name is used, then you should create your own web pages using that name. When the content is viewed using the Review feature, the presentation is displayed in a separate browser window.

Creating a Scheduled Program Using IP/TV Program Manager

To create a live-capture scheduled program to be used in conjunction with a live presentation, follow these steps:

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- Step 1** Go to the New Scheduled Program window in IP/TV Program Manager.
 - Step 2** Choose the **Basic Live Capture Program** option, and click **Create Program**. The New Scheduled Program window for live-capture appears.

Step 3 Scroll to the Multimedia Source Information section. (See [Figure 8-1.](#))

Figure 8-1 Live-Capture with Live Presentation

The screenshot shows a web browser window titled "IP/TV: New/Edit/Dup Scheduled Program - Microsoft Internet Explorer provided by Cisco S". The browser's address bar and navigation buttons are visible. The main content area displays the "Multimedia Source Information" configuration page. The page includes several sections of settings:

- Video Options:** (Recommended Values)
 - Preferred Video Format: MPEG1
 - Compression Quality: 8
 - Preferred Audio Format: MPEG
- Video Frame Size For 'MPEG4 - ISO' format (Width x Height):**
 - Predefined: 320 x 240
 - Customized: [] X []
- Play Options:**
 - Play Video
 - Play Audio
 - Play SlideCast
 - Play Web Presentation
- QoS and Transport Options:**
 - Enable QoS? [QoS Details...](#) (for Play Video, Play Audio, and Play SlideCast)
 - over H.261
 - over MPEG4: 640 x 480
 - Multicast content to client (required for ScreenCaster)
 - Serve over MPEG2 Transport
 - AudioPID: []
 - VideoPID: []
 - Share SlideCast with: None
 - Share Presentation with: None
- Bandwidth and Frame Rate:**
 - Audio/Video Bandwidth: 1150 (Kbits/sec)
 - Maximum Video Frame Rate: 30
- Start Page URL (Optional):** []
- Audio/Video Server:**
 - Select a server from this list
 - Select Capture Card: 1
 - Select a backup server from this list (Optional): None
 - Select Capture Card (for Backup Server): 1
 - Enter a new server name: []
- SlideCast/Web Presentation Server:**
 - Select a server from this list
 - Select a backup server from this list (Optional): None
 - Enter a new server name: []

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- Step 4** Choose the appropriate Multimedia Source Information options. [Table 8-1](#) describes Web Presenter options only. For all other options, see the “[Creating a Scheduled Program](#)” section on page 6-3.

Table 8-1 *Live-Capture with Live Presentation*

Option	Description
Play Web Presentation	Indicates whether or not the program includes a web presentation in addition to video and audio. ¹
Multicast HTML to Browser Cache	If checked (default), the HTML pages and embedded graphics files of the web presentation are uploaded to the browser of the client and cached. We recommend that you choose caching when the web presentation uses static content or a mixture of static and dynamic content. If only dynamic content is used, then uncheck this option.
Share Presentation with	Indicates whether or not the program you are defining includes the presentation stream from another program you chose from the adjoining pull-down list. ²
Start window URL (Optional)	Specifies the HTML page that the user goes to at the start of the presentation. The URL can be either an Internet address or the full path name of an HTML file on the local hard drive of the server, for example, http://www.cisco.com or <code>C:\BoardMtg\slide001.htm</code> . ³
SlideCast/Web Presentation Server	Specifies the name or IP address of the IP/TV Server that will play the SlideCast or web presentation portion of the program. In the case of a web presentation, the server can be the same server as the audio/video server. Choose a server from the list, or enter the name of a new server.

1. A scheduled program cannot contain both a web presentation and SlideCast.
2. The start and end times of the program you are defining must be within the range of the program that contains the presentation stream.
3. The URLs can be either absolute or relative. Relative URLs are recommended because the actual location of the files is not in the .asf file, which allows the files to be relocated easily. (See [Table 8-2](#).) If a URL does not contain a frame name or if the frame name is *main*, IP/TV Viewer or the plug-in treats it as if the frame name were *iptv_presenter*, which is the frame name used by the web pages generated by IP/TV Program Manager from the Review window for scheduled or on-demand programs. If a different frame name is used, be sure to author your own web pages using the same name. In this case, when the content is viewed using the Review feature, the presentation is displayed in a separate browser window.

Table 8-2 Web Presenter URLs Embedded in .asf Files

Option	Description
Absolute (full path) URLs	<p>Absolute URLs start with “file:” or “http:” and URL syntax. File URLs must have a file share server following the second slash:</p> <pre>file://server-name/fileshare/path-on-share/xyz.htm</pre> <p>If the URL does not have a server name, then the file must reside on the client IP/TV Viewer system, but the lack of a server name is unlikely. The following Microsoft syntax is also supported:</p> <pre>\\server-name\fileshare\path-on-share\xyz.htm</pre>
Relative URLs	<p>The web-based URL must be set in the program definition in IP/TV Program Manager. The syntax for the URL in the .asf file is just the filename, such as xyz.htm. The syntax allowed for the base URL includes both http: and the file, as described above, as in the following examples:</p> <pre>http://webserver-name/path-to-files</pre> <p>or</p> <pre>file://filesERVER-name/path-to-files</pre> <p>or</p> <pre>\\filesERVER-name\path-to-files</pre>

Step 5 You must complete all other sections in this window.

Step 6 Click **Create Program** at the bottom of the window to send the form to IP/TV Program Manager and create a live-capture scheduled program.

To create a scheduled program from a media file to be used in conjunction with a live presentation, follow these steps:

Step 1 Go to the New Scheduled Program window in IP/TV Program Manager.

Step 2 Choose the **Advanced Program (Show All Options)** option, and click **Create Program**. The New Scheduled Program window for an advanced program appears.

Step 3 Scroll to the Multimedia Source Information section. (See [Figure 8-2](#).)

Figure 8-2 Media File with Live Presentation—Advanced Options

Multimedia Source Information

Capture Live Audio/Video Data
(Recommended Values)

Video Options:

Preferred Video Format: MPEG1

Compression Quality: 8

Preferred Audio Format: MPEG

Video Frame Size For 'MPEG4 - ISO' format (Width x Height)

Predefined 320x240

Customized [] X []

Play This File

Select media file []

Play Once and Stop

Loop for Program Duration

Play from Start to End

Play .rtp Offset [00]:[00]:[00] to [00]:[00]:[00] (hh:mm:ss)

Play Video Enable QoS? [QoS Details...](#)

Play Audio Enable QoS? [QoS Details...](#)

Play SlideCast Enable QoS? [QoS Details...](#)

over H.261 over MPEG4 640x480

Play Web Presentation

Multicast content to client (required for ScreenCaster)

Serve over MPEG2 Transport

AudioPID [] VideoPID []

Share SlideCast with [None]

Share Presentation with [None]

Audio/Video Bandwidth: [1150] (Kbits/sec)

Maximum Video Frame Rate: [30] (MPEG and Capture Live setting)

(Not Required if Sharing Web Presentation)

Capture Live Web Presentation Data

Start Page URL (Optional) []

Play Web Presentation from File

Base URL (Optional) []

Audio/Video Server:

Select a server from this list [None]

Select Capture Card [1]

Select a backup server from this list (Optional) [None]

Select Capture Card (for Backup Server) [1]

Enter a new server name []

SlideCast/Web Presentation Server:

(Not Required if Playing Slidecast/Web Presentation from File or Sharing)

Select a server from this list [None]

Select a backup server from this list (Optional) [None]

Enter a new server name []

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- Step 4** Choose the appropriate Multimedia Source Information options. [Table 8-3](#) describes Web Presenter options only. For all other options, see the “[Creating a Scheduled Program](#)” section in Chapter 6.

Table 8-3 Media File with Live Presentation

Option	Description
Play This File	Choose the name of the file that you want to use to create a scheduled program.
Play SlideCast	Indicates whether the program includes a SlideCast presentation. The Enable QoS? check box allows you to choose to enable QoS, if it is supported on your network.
Play Web Presentation	Indicates whether the program includes a web presentation in addition to video and audio. ¹
Multicast HTML to Browser Cache	If checked (default), the HTML pages and embedded graphics files of the web presentation are uploaded to the browser of the client and cached. We recommend that you select caching when the web presentation uses static or a mixture of static and dynamic content. If only dynamic content is used, then uncheck caching.
Share SlideCast with	Indicates whether the program you are defining includes the SlideCast program you choose in the adjoining pull-down list.
Share Presentation with	Indicates whether the program you are defining includes the presentation stream from the program you choose in the adjoining pull-down list. ²

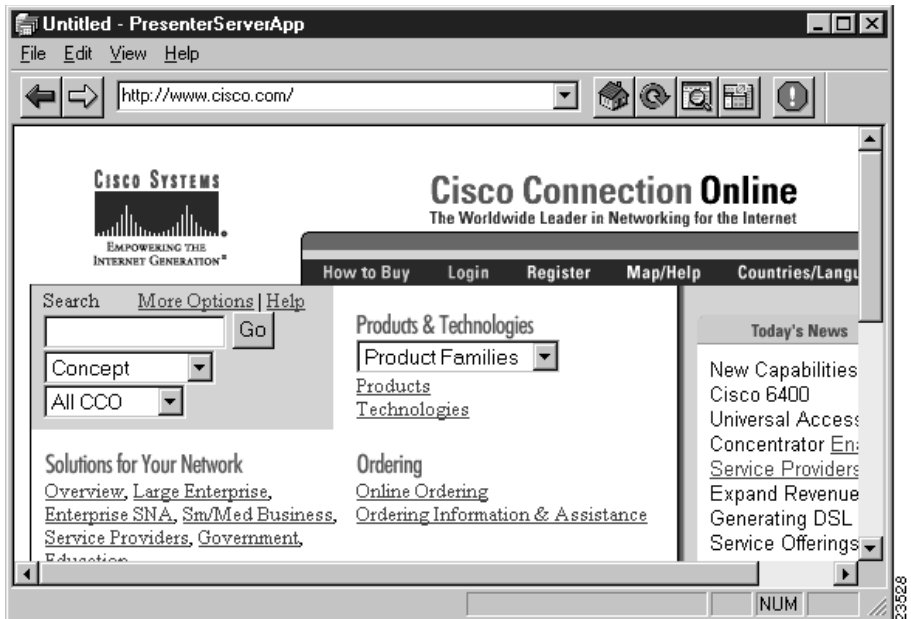
1. A scheduled program cannot contain both a web presentation and SlideCast.
2. The start and end times of the program you are defining must be within the range of the program that contains the presentation stream.

- Step 5** You must complete all other sections in this window.
- Step 6** Click **Create Program** to send the form to IP/TV Program Manager and create a scheduled program from a media file.

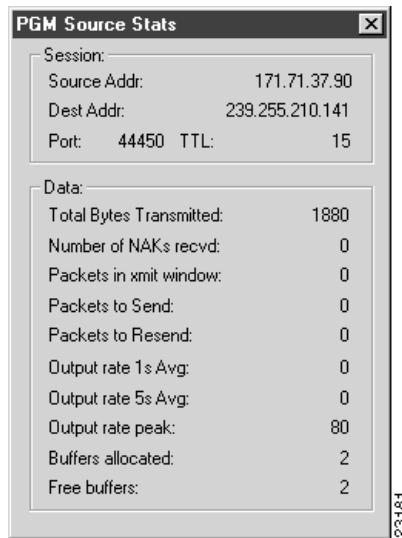
Directing the Presentation

Launch IP/TV Server on the same device that you plan to direct the live web presentation from. The Presenter Server (PresenterServerApp window) automatically launches at the time the designated web presentation program is scheduled to play. (See [Figure 8-3](#).)

Figure 8-3 PresenterServerApp Window



From this window, you browse URLs, control which HTML pages are transmitted to IP/TV Viewers while you are browsing, and view the Web Presenter PGM (Pragmatic Group Multicasting) source statistics. (See [Figure 8-4](#).)

Figure 8-4 PGM Source Stats Window

To browse URLs in real time, enter a URL in the PresenterServerApp window. Each time you enter a URL, it is added to the URL field drop-down list and added to your local cache. You can also click links within a web page to flip to another URL, or drag in shortcuts from Internet Explorer favorites, history, Explorer folders, or your desktop. You can also drag in links from an Internet Explorer window. You can also open HTML files stored on the local hard drive of the server.

[Table 8-4](#) lists and describes the toolbar button and menu commands in the PresenterServerApp window.

Table 8-4 PresenterServerApp Window Icons and Menu Items

Toolbar Button or Menu Command	Description
Back/Forward buttons	Allows you to return to the previous web page or forward to the next web page.
Home button	Displays the HTML web page that is defined as your home page on the local browser.
Refresh button	Reloads the current page from the web.

Table 8-4 *PresenterServerApp Window Icons and Menu Items*

Toolbar Button or Menu Command	Description
Search button	Displays the search page as configured in Internet Explorer options.
Full Screen button	Toggles between maximized and normal PresenterServerApp window sizes.
Stop button	Stops the current program.
Open command	Choose File > Open to open a local .htm, .html, .gif, or .jpg file that you may want to use in your presentation.
Print command	Choose File > Print to print the current page.
Stop button	Stops loading the current HTML page from the web and prevents it from being sent to viewers.
Browse Online menu command	Choose File > Browse Online. Controls whether you are browsing from the network or local cache. The default is ON.
Transmit while Browsing menu command	Choose File > Transmit while Browsing. Controls whether you can transmit pages to IP/TV Viewers while you are browsing. The default is ON.
Presenter Stats menu command	Choose View > PGM Source Stats to display the PGM Source Stats window. (See Figure 8-4 .) PGM is a reliable multicast streaming protocol. This information is provided for network administrators who may need it for diagnostic purposes.

Viewing the Presentation Using IP/TV Viewer

From IP/TV Viewer, choose the desired web presentation program from the Program Listings window. A viewer window launches and begins to play the audio and video program. Simultaneously, the Presenter Client window appears and displays the presentation. If the Presenter Server has not yet sent a URL, then no Presenter Client window appears on the client side.

Creating a Playback-from-File Presentation

The Web Presenter feature lets you create a playback-from-file presentation. A playback-from-file web presentation consists of an audio and video program that has an embedded URL track in an .asf or .mpg4 file.

MP4 File

A live program containing audio, video, and a web presentation can be recorded to a local MP4 media file.

**Note**

The web presentation portion of the live program can consist of the HTML content browsed in the Web Presenter application or content captured from the screen using the ScreenCaster feature of Web Presenter.

**Note**

The live encoded streams must be ISO MPEG-4 for video and AAC or MP3 for audio. Also, both the video and audio server and the Web Presenter server must be the same.

For information about how to record a live program containing audio, video, and a web presentation to a local MP4 media file, see the “[Recording a Scheduled Program](#),” section in Chapter 6.

To create and view a playback-from-file web presentation using an .mp4 file, follow these steps:

-
- Step 1** Create or choose the prerecorded .mp4 file containing the embedded URL track that you want to use in your web presentation. The .mp4 file must be a recording of a live program that contains ISO MPEG-4 video, AAC or MP3 audio, and a web presentation.
 - Step 2** Using the IP/TV Program Manager, create a scheduled or on-demand program to play back the .mp4 file.

- Step 3** View the web presentation using IP/TV Viewer. See the “[Viewing the Playback-from-File Presentation Using IP/TV Viewer](#)” section later in this chapter.
-

ASF File

To create and view a playback-from-file web presentation using an .asf file, follow these steps:

- Step 1** Create or choose the prerecorded file that you want to use in your web presentation (the file must be in .asf format), or start with an .avi or a .wav file.
- Step 2** Convert the non-ASF media file to .asf format using the Windows Media Encoder tool.
- Step 3** Insert URLs into the .asf file using the Windows Media ASF Indexer tool. Refer to the Windows Media Technologies (WMT) documentation for more information.



Note When you specify a URL ScriptCommand in an .asf file, make sure that you enter the complete (absolute) URL, for example, **http://www.nbc.com**. You must use http:// to distinguish between an absolute and a relative path. Also, when you specify a frame name in ScriptCommand, the frame name is case sensitive.

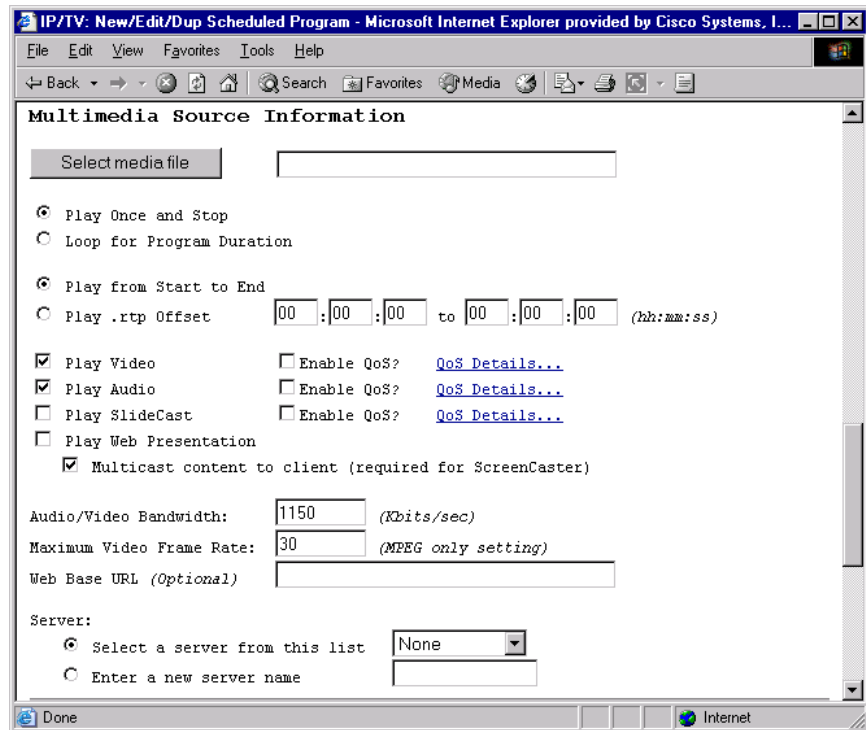
- Step 4** Using IP/TV Program Manager, create a scheduled or on-demand program to play back the .asf file. See the next section, “[Creating a Scheduled or On-Demand Program from an .asf or .mp4 File](#).”
- Step 5** View the web presentation using IP/TV Viewer. See the “[Viewing the Playback-from-File Presentation Using IP/TV Viewer](#)” section later in this chapter.
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Creating a Scheduled or On-Demand Program from an .asf or .mp4 File

To create a scheduled program from an .asf or .mp4 file and set the web presentation options, follow these steps:

- Step 1** Go to the New Scheduled Program window in IP/TV Program Manager.
- Step 2** Choose the **Basic Media File Program** option, and click **Create Program**. The New Scheduled Program window for a media file appears.
- Step 3** Scroll to the Multimedia Source Information section. (See [Figure 8-5](#).)

Figure 8-5 Playback-from-File Program with Embedded URLs—Scheduled Program



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- Step 4** Click **Select media file**, and choose either .asf or .mp4 file from the listing in the IP/TV Browse Media Files window. Most multimedia source information options are automatically checked. If the file contains URLs, the Play Web Presentation option is checked. Or, you can enter the full media file path and manually choose the multimedia source information options. [Table 8-5](#) describes Web Presenter options only.

Table 8-5 *Playback-from-File Program with Embedded URLs—Scheduled Program*

Option	Description
Select media file	Choose the name of the file that you want to use to create a scheduled program. Make sure to enter the full path name of an .asf file.
Play Web Presentation	Indicates whether the program includes a web presentation in addition to video and audio. ¹
Multicast HTML to Browser Cache	If checked (default for scheduled programs), uploads and caches the pages and embedded graphics files of the web presentation in the browser of the client. ²
Web Base URL (optional)	Base portion of the URL that identifies the web server or local file path. The web base URL is required for .asf files if the .asf file was created using relative URLs. This option is not required for .mp4 files.

1. A scheduled program cannot contain both a web presentation and SlideCast.
2. We recommend that you check this check box when the web presentation uses static programs or a mixture of static and dynamic programs. If only dynamic content is used, then uncheck the check box.

- Step 5** You must complete all other sections in this window.
- Step 6** Click **Create Program** at the bottom of the window to send the form to IP/TV Program Manager and create a scheduled program from an .asf or .mp4 file.

To create an on-demand program from an .asf or .mp4 file, follow these steps:

- Step 1** Open IP/TV Program Manager, and go to the New OnDemand Program page.
- Step 2** Scroll to the Multimedia Information section. (See [Figure 8-6](#).)

Figure 8-6 *Playback-from-File with Embedded URLs— On-Demand Program*

The screenshot shows the 'Multimedia Information' section of the IP/TV configuration page. It includes a 'Select media file' button and a text input field. Below are several checkboxes for 'Play Video', 'Play Audio', 'Play SlideCast', 'Play Web Presentation', and 'Transfer HTML to Browser Cache'. There are also three 'Enable QoS?' checkboxes with links to 'QoS Details...'. The 'Media length' is set to 00:00:00. 'Audio/Video Bandwidth' is 0 Kbits/sec, 'Maximum Video Frame Rate' is 0 (MPEG only setting), and 'Web Presentation Bandwidth' is 256 Kbits/sec. The 'Web Presentation Base URL' is an empty text field. A table below lists server configurations:

Clusters	OnDemandServers	File Present	Play
default	10.77.140.84	<input type="checkbox"/>	<input type="checkbox"/>

At the bottom, there are radio buttons for 'Auto Distribute File(s) to Selected Server(s)', 'Transfer file(s) now (FTP will start within the next 5 minutes)', and 'Transfer file(s) on' with a date and time selector set to May 15, 2003 at 12:00 PM.

- Step 3** Click **Select media file**, and choose an .asf or .mp4 file from the list in the IP/TV Browse Media Files window. Most multimedia information options are automatically checked. If the file contains URLs, the Play Web Presentation option is checked. [Table 8-6](#) describes Web Presenter options only.

Table 8-6 *Playback-from-File Program with Embedded URLs—On-Demand Program*

Option	Description
Play Web Presentation	Indicates whether the program includes a web presentation in addition to audio and video.
Transfer HTML to Browser Cache	If checked (the default), uploads and caches the pages and embedded graphics files of the web presentation in the browser of the client.
Web Presentation Bandwidth	Sets the audio/video bandwidth in kbps. The default is 256.
Web Presentation Base URL (optional)	Base portion of the URL that identifies the web server or local file path. The web presentation base URL is required for .asf files if the .asf file was created using relative URLs. It is not required for .mp4 files.

- Step 4** You must complete all other sections in this window.
- Step 5** Click **Add OnDemand Program** to send the form to IP/TV Program Manager and create an on-demand program.

Viewing the Playback-from-File Presentation Using IP/TV Viewer

From IP/TV Viewer, choose the web presentation program from the Program Listings window. A media window launches and begins to play the audio/video program. Simultaneously, a Presenter Client window appears and displays the web presentation portion. The web presentation consists of HTML pages that are flipped in a designated sequence and at a designated time as determined by the URLs embedded in the .asf file of the program.

Using ScreenCaster

ScreenCaster provides a more flexible and more powerful alternative to SlideCast. It allows you to perform screen captures while you use the Presentation Server for a live or archived slide presentation. This section describes the features and benefits that ScreenCaster provides and how to configure and use it.

ScreenCaster Features

ScreenCaster enables you to do the following:

- Add dynamically captured screen shots to a Web Presenter broadcast from various applications running in real time.
- Include screen shots of any size, up to the full desktop.
- Broadcast a web-based version of a PowerPoint presentation without preprocessing.
- Broadcast a PowerPoint presentation in native format, including animation and transition effects.

You can use ScreenCaster when it is inconvenient to perform preprocessing steps or to limit the slide size or scale slides down to a possibly unreadable size. ScreenCaster solves these problems by integrating a screen capture feature with Web Presenter. Using ScreenCaster you are not limited to Standard Image Format (SIF) format. Instead, you can capture a window of any size, up to the entire desktop.

ScreenCaster uses the JPEG format, which is supported by Web Presenter. The window capture feature can be used at any time in conjunction with the normal operation of Web Presenter. This combination allows you to add screen captures from various applications in real time.

ScreenCaster has a special mode of operation when the source window is a PowerPoint presentation. In this mode each PowerPoint slide is captured as the presenter changes slides. The PowerPoint slide show can be presented in either full-screen mode or a smaller window.

You can also use ScreenCaster to broadcast PowerPoint slides in native PowerPoint format. In this case, the PowerPoint file itself is pushed to the viewing audience (or can be downloaded in advance), and the presentation is controlled by the presenter from the IP/TV Server where ScreenCaster is launched.

The audience uses the PowerPoint viewer or the PowerPoint application to view the slides, with the full benefits and features of PowerPoint, including transition effects and animations.

**Note**

For ScreenCaster native PowerPoint to work, PowerPoint Version 8.0 (part of Office 98 and Office 2000) must be installed. The required file is pptview32.exe, which is included on the Cisco IP/TV Installation CD.

Capturing Screens in Real Time

To start capturing screens with ScreenCaster, follow these steps.

Step 1 Choose **File > ScreenCaster** from the Presenter Server main menu.

Figure 8-7 ScreenCaster Dialog Box



Step 2 Perform one of the following actions to begin capturing the display:

Use the mouse to capture a region in your window.

- Point to the title bar or client area to select the whole window or a client window, respectively.
- Click **Capture Screen** to select the entire desktop, including the taskbar.



Note When you perform one of these actions, the ScreenCaster dialog box disappears so that it does not obstruct the capture.

You can resize or minimize the PresenterServerApp main window to make room for the window that you want to capture.

After transmission has begun, you can retransmit the selected region or window by clicking the mouse anywhere on the screen. ScreenCaster automatically compares the previously captured bitmap to the current contents of the window or region. If the display has changed, ScreenCaster automatically recaptures and retransmits the selected window or region. To configure the amount of change in the window or region that triggers a recapture, see the [“Configuring ScreenCaster” section on page 8-25](#).

To redisplay the ScreenCaster dialog box, hold the mouse over the upper-right corner of the screen. You can also redisplay the main Presenter Server window and the dialog box by clicking the application icon in the Windows taskbar.

You can also use a function key (the default is F9) to restart the capture process. ScreenCaster captures the window that contains the mouse cursor. To change the function key used for screen capture, see the [“Configuring ScreenCaster” section on page 8-25](#).

Once the window selection is done, the window is captured as a bitmap, encoded as a JPEG file, and sent to the destination where viewers use IP/TV Viewer or the IP/TV browser plug-in to view the presentation.

The URLs are recorded to the marker text file. You can postprocess the marker text file, produce an .asf file, and upload the results to a web server as an on-demand offering.

Broadcasting a PowerPoint Presentation

You can use ScreenCaster to broadcast a PowerPoint presentation in any of the following ways:

- Broadcast a web-based version of the PowerPoint slides (in JPEG format).
- Broadcast slides in native PowerPoint format, including animations and transition effects.
- Capture individual slides using the window capture feature.

**Note**

For ScreenCaster to work when using native PowerPoint mode, PowerPoint Version 8.0 (part of Office 98 and Office 2000) must be installed. The required file is pptview32.exe, and it is included on the Cisco IP/TV installation CD.

To capture and broadcast a web-based version of a PowerPoint presentation, open the PowerPoint file through the URL text entry field, standard web navigation in the Presenter Server browsing context, or the File > Open command in the Presenter Server.

Use the usual PowerPoint user interface for advancing each slide in the presentation. When the slide changes, ScreenCaster automatically broadcasts the necessary command to the PowerPoint Viewer or application on the receiving systems.

When you open a PowerPoint slide show through Web Presenter, it is automatically placed in window mode. You can resize the window to the size desired for viewing by IP/TV clients, or you can change to full-screen mode.

When the Presenter Server broadcasts the presentation in native PowerPoint format, the Presenter Server transfers the .ppt file itself, and the slide changes are sent automatically to the client.

PowerPoint Files with Animations

PowerPoint files containing animations may not appear correctly on the viewer side. To present PowerPoint files in native PowerPoint mode using Cisco IP/TV Web Presenter, you must save PowerPoint files with animations disabled. To disable animations, open the PowerPoint file and from the top menu choose Slide Show > Setup Show, check the Show without animation check box, and then save the file.

If this item is not chosen, the file appears properly on the server side during a live Web Presenter session, but is not properly displayed on the viewer side. The user sees the start of each slide before the animations have been applied, but never sees the end state of the slide after the animations have occurred.

There is currently no way to step through the animations with Cisco IP/TV Server and Cisco IP/TV Viewer synchronized because the PowerPoint automation application programming interfaces (APIs) do not provide this feature. You can create your presentation with this in mind, with each intermediate animation state as a separate slide.

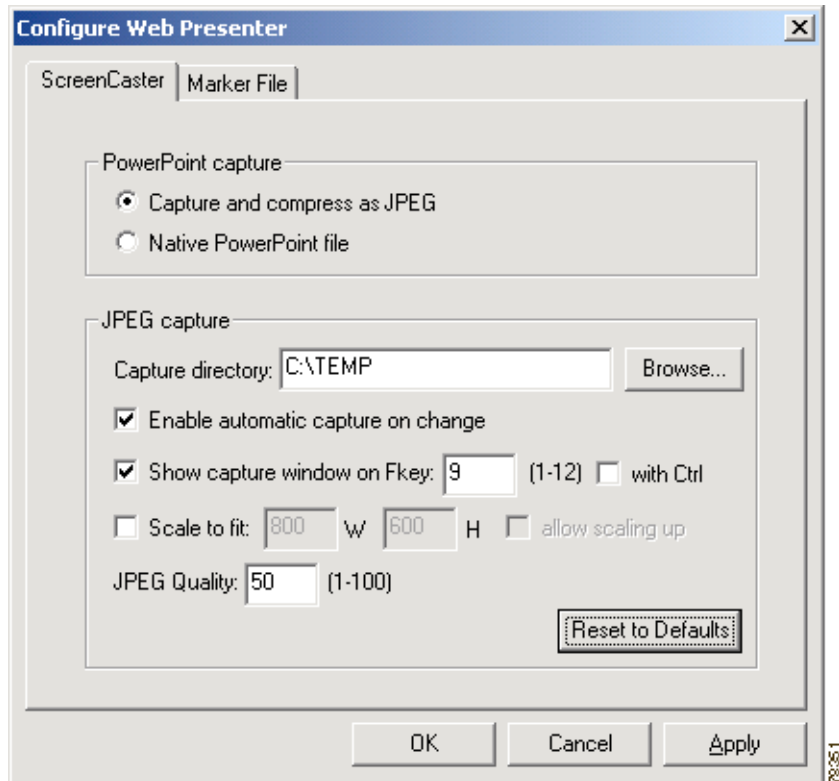
Alternatively, you can use the JPEG capture mode instead of the native PowerPoint mode. (See the PresenterServerApp Options menu.) In this case, animations do work because each intermediate state is captured as a separate JPEG image file. In this case, do not disable animations and do not choose File > Open on the PresenterServerApp menu to open the PowerPoint presentation. Instead, double-click the .ppt file or open it after launching PowerPoint.

Configuring ScreenCaster

To configure the options available for running ScreenCaster, choose File > Options from the Cisco IP/TV Server main window. The system displays the Configure Web Presenter window. (See [Figure 8-8](#).) After changing any settings, click the OK button to save your changes, and close the Configure Web Presenter window.

[Table 8-7](#) summarizes the meaning of each option on the ScreenCaster tab.

Figure 8-8 ScreenCaster Tab



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Table 8-7 **ScreenCaster Configuration Options**

Option	Description
Capture and compress as JPEG	Broadcasts PowerPoint presentations using JPEG versions of the PowerPoint slides.
Native PowerPoint file	Broadcasts PowerPoint presentations using native PowerPoint format.
JPEG Capture directory	When you enter the directory path, saves the JPEG files that are generated when you choose to broadcast PowerPoint in JPEG format. The captured windows or PowerPoint slides are saved to the system temp directory by default.
Enable automatic capture on change	When you choose this option, after transmission begins, retransmits the current selected region or window when you click the mouse anywhere on the screen. If the display has changed, ScreenCaster automatically recaptures and retransmits the selected window or region.
Change threshold to trigger recapture	Percentage of the bitmap pixels that have to be different to trigger a recapture. Even if you choose the value “0,” retransmission has a minimum threshold that prevents retransmission from being triggered by a small animation or a blinking cursor.
Frequency of comparison for recapture	Start interval for comparing the previously captured version and the current contents of the window or region. After the initial interval, the interval increases exponentially (to avoid capturing a window too frequently and to reduce CPU overhead in doing frequent comparisons). The default is 1 second.
Capture window on Fkey	Enables screen capture using a function key.
1-12	Function key number used for initiating screen capture.
With Ctrl	Requires pressing the Ctrl key at the same time as the specified function key.

Table 8-7 ScreenCaster Configuration Options (continued)

Option	Description
Scale to fit	Enables scaling of captured regions or windows. Bitmaps that are larger in one or both dimensions are scaled down to the best fit (best match for the width/height ratio). This option is normally used for scaling down to 640 x 480 or 800 x 600 to match the expected “least capable” viewers and to reduce the file size and manage the bandwidth required. Minimum scaled values are 256 W x 192 H; maximum values are 1536 H x 1154 W.
W	Width to which to scale screen captures that are too wide or too narrow.
H	Height to which to scale screen captures that are too tall or too short.
Allow scaling up	Enables scaling up, in which case bitmaps that are smaller than the specified size are enlarged proportionally.
JPEG Quality	Sets the quality for JPEG compression. The permitted range is 1 to 100; the default value is 50. Note that below 30, quality is very poor. Above 75, quality does not improve substantially.
Reset to Defaults	Restores the settings to the default values.

Using SlideCast

The SlideCast feature allows you to capture screen information for transmission over a network.

SlideCast enables IP/TV Server to serve the following:

- Live or prerecorded video and audio together with a separate SlideCast presentation (requires two servers)
- SlideCast together with the audio of the presenter
- Audio of the presenter with alternating SlideCast and live video



Note

If one server is used for both SlideCast and live capture, the video card must be compatible with Video for Windows.



Note

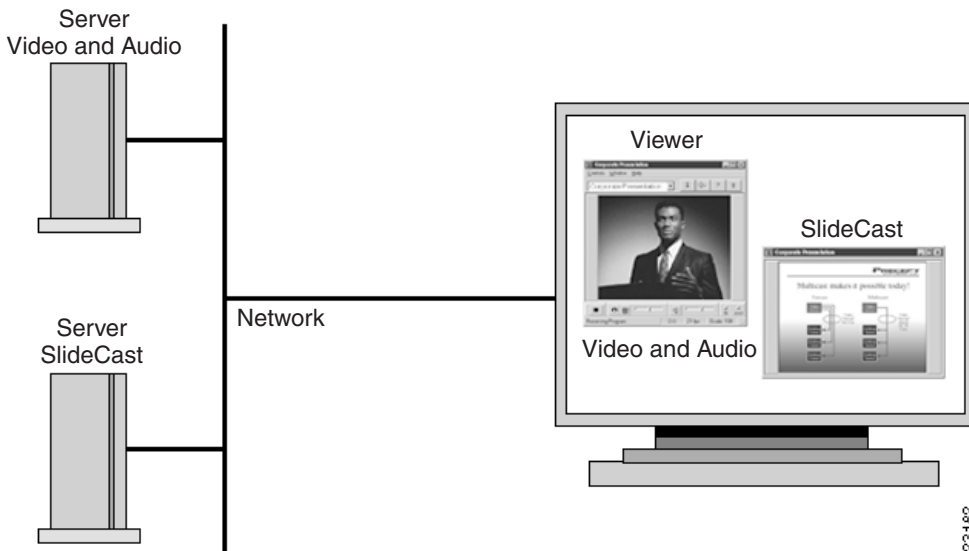
If you are using media streams from two servers for a recording, make sure that both servers have the same time settings. If the clocks on the servers are not synchronized, your program may show synchronization problems, such as the streams becoming unsynchronized. To synchronize clock settings on different devices running Microsoft Windows, use authoritative time server (ATS) settings in Windows. For more information about this topic, refer to the Microsoft Support website.

SlideCast with Live or Prerecorded Audio and Video

SlideCast allows IP/TV Server in live-capture mode to show either a presenter speaking or to show computer-based presentation materials (such as a Microsoft PowerPoint presentation or even a computer screen to demonstrate software) for a presentation, or it may show both. You specify whether a server will use SlideCast and the SlideCast server address in IP/TV Program Manager. See Chapter 6, “[Managing Scheduled Programs](#),” for more information.

Figure 8-9 shows SlideCast with live or prerecorded audio and video.

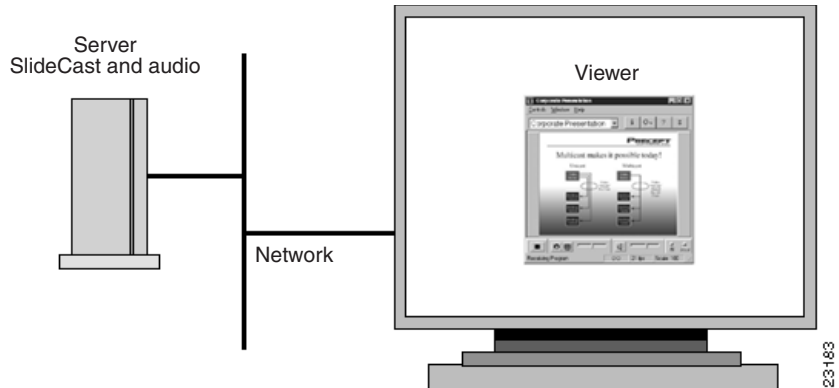
Figure 8-9 SlideCast Together with Live or Prerecorded Audio and Video



SlideCast with Live Audio

You can use the same server to serve both SlideCast and live audio. (See [Figure 8-10](#).)

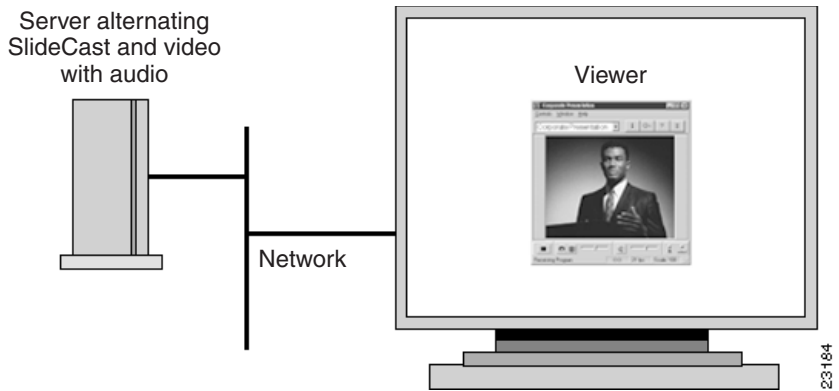
Figure 8-10 SlideCast with Live Audio



Audio with Alternating SlideCast and Video

You can use one server and manually alternate between live video and SlideCast while using one audio track. (See [Figure 8-11](#).) A good analogy for this scenario is a television studio switching from camera one to camera two.

Figure 8-11 Server Shows Audio Alternating with SlideCast and Video



Maximum SlideCast Presentation Capability

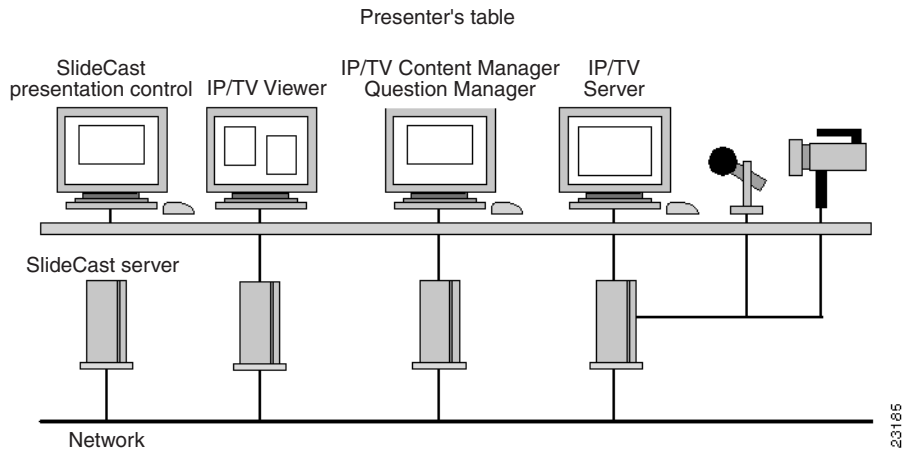
You can use the same server to serve both SlideCast and live capture, or you can use different servers. If you use one server to serve both SlideCast and live capture, the client sees both video and SlideCast in the same window. You must toggle between live capture and SlideCast on the server computer. If you use different servers, both windows can be viewed simultaneously.

Figure 8-12 shows an example of maximum SlideCast presentation capability. The presenter would be to the right, making eye contact with the live audience and speaking into the camera and microphone for both the live and the remote audience. Using Question Manager, the presenter would respond to queries from the live or the remote audience members. The assistant of the presenter would have a passive IP/TV Viewer to confirm that the audience is receiving the desired image or images. Also, the assistant could alternate between live video, recorded video, and SlideCast presentations at the IP/TV Server console.



Note

Question Manager is a feature that allows audience members to ask questions to the presenter.

Figure 8-12 Maximum SlideCast Presentation Capabilities

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Setting Up a SlideCast Presentation

The Capture Options window, accessed through IP/TV Server, is used to control the area of the screen captured and sent by SlideCast. If you have set up a server for SlideCast, the Capture Options window automatically opens when IP/TV Server starts serving the program.

To access the Capture Options window in a live-capture program, follow these steps:

-
- Step 1** Right-click the scheduled live-capture program.
 - Step 2** Click **Program Details**.
 - Step 3** Choose **Window > Capture Options**.
-

[Table 8-8](#) describes the options in the Capture Options window.

Table 8-8 Capture Options Window Information

Option	Description
Audio/Video	Allows you to switch between live-capture and screen capture options. Only available on live-capture programs.
SlideCast Partial Screen	Captures a partial screen. Use this option when clarity is more important than full-screen viewing.
SlideCast Full Screen	Captures the full screen. Note that the quality of a slide may degrade depending on the type of compression being used.
Select Capture Region	Outlines the area to be captured, which you select by moving your mouse. This option takes effect only if the SlideCast Partial option is also chosen.

To set up a SlideCast presentation, follow these steps:

-
- Step 1** Start your computer presentation tool on the SlideCast server computer, and load the first slide into the window.
 - Step 2** Click **Select Capture Region**. The capture region appears in a partial window. A box appears that you can use to select the area that you want to capture by moving your mouse.
 - Step 3** Left-click to lock in the desired position.
 - Step 4** Proceed with your presentation.
-

For a SlideCast-only server, no capture card is required. The server desktop must be set to use 16-bit or 24-bit color to use SlideCast.

Active Streaming Format Marker File Feature

The Web Presenter feature lets you create a playback from a live presentation using marker files. When you enable the marker file feature, all URL or PowerPoint slide changes (flips) that occur during a live presentation are recorded in the marker file. The marker file records the time that each slide is flipped, along with the title of the PowerPoint slide or the URL path name. Marker files use a specified format that can be used with an Active Streaming Format (.asf) media file to create a scheduled or on-demand program.

**Note**

The media file must be in ASF format.

Creating a Playback from a Live Presentation

You need to enable the Marker File option to capture the slide timings from a live web or PowerPoint presentation. The following steps are general guidelines for creating a marker file.

Step 1 Launch IP/TV Server, and choose **Settings > Configure > IP/TV Server > Marker File** to display the Marker File tab.

See [Table 8-9](#) for a description of Marker File tab options.

**Note**

See the next section, “[Marker File Format](#),” for more information about the marker file format.

Step 2 Launch IP/TV Server (with the Marker File option enabled) and direct the live Web Presenter session. The ASF Marker Script file is automatically generated when you disable the Web Presenter session. The marker file is located in the directory you selected on the Marker File tab.

The name of the marker file is automatically created and cannot be changed by the user. It appears as the following string:

```
<ProgID>_YYMMDD_HHMM.txt
```

where <ProgID> is the decimal program identification given to the program on IP/TV Program Manager, YY is the last two digits of the year, MM is the two-digit month, DD is the two-digit day, HH is the hour on the 24-hour scale, and MM is the minute the program began.

- Step 3** Open the Windows Media ASF Indexer tool, and choose **File > Open**. Open the ASF media file, into which you will import the marker file.
- Step 4** Choose **File > Import** from the script file, and import the generated marker file into the ASF file.
- Step 5** Save the ASF file, and exit the Indexer tool.
- Step 6** Using IP/TV Program Manager, create a scheduled or on-demand program to play back the ASF file.
- Step 7** View the web presentation using IP/TV Viewer.

Table 8-9 **Marker File Tab Options**

Option	Description
Create Marker File	If checked, indicates a marker file will be created that logs all the URLs or PowerPoint slide changes.
Folder to store marker files	Location where the marker file is stored. Use the default location or choose your own location.
Program Rating	Rating value of the presentation. The permitted values are G, PG, PG-13, R, and NC-17. The default value is G.

Table 8-9 Marker File Tab Options (continued)

Option	Description
Default Script Command	<p>Used when capturing PowerPoint slide changes from a browser. Use the following default script command:</p> <pre>URL slides/<FILE>&&rightframe</pre> <p>The output in the script command section of the marker file looks similar to this:</p> <pre>00.00.00.5 URL slides/sld00.htm\$\$rightframe</pre> <p>where 00.00.00.5 is the time that the slide was changed plus 0.5 seconds, and URL slides/sld00.htm is the location and .htm filename of the slide.</p> <p>The macro <FILE> is replaced by default with the filename portion of the URL. That is the portion after the final forward slash (/). PowerPoint slides are recorded as sld<#>.htm with the pound sign (#) being replaced by the slide number.</p>
User Defined Script Command	<p>Used when capturing URL slide changes. Change the default script command to the following:</p> <pre>URL <URL>&&rightframe</pre> <p>The output in the script command section of the marker file looks similar to this:</p> <pre>00.00.00.5 URL http://www.cisco.com/products&&rightframe</pre> <p>where 00.00.00.5 is the time that the slide was changed plus 0.5 seconds, and URL http://www.cisco.com/products is the absolute path name of the web page.</p> <p>The macro <URL> is replaced by default with the absolute URL recorded.</p>

Marker File Format

The ASF marker file has three sections: program information, markers, and script commands.

- The program information section contains information about the program such as title, creator, description, and copyright. This information is derived from the entries in the Program Information section when the program was created in IP/TV Program Manager.
- The marker section contains a time-indexed list of titles for the web page or PowerPoint slide accessed.
- The script command section contains a time-indexed list of commands. Times in this section are 0.5 seconds later than each time in the marker section. Each command contains information about the change of the URL slide, such as if it is a PowerPoint slide within the browser or a URL web page.