

Using IP/TV Viewer

This chapter describes how to use IP/TV Viewer. Topics include the following:

- Displaying program information
- Playing a program
- Playing Web Presenter and SlideCast programs
- Subscribing to a program
- Assigning favorite programs
- Searching for a program
- Using the Question Manager
- About advanced topics

Displaying Program Information

You can display detailed information about any scheduled or on-demand program either from the IP/TV Viewer main window or from the viewer window when watching a program. Program information includes the following: program description and administrator information, associated web files, schedule and subscription information, and video, audio, SlideCast, Question Manager, diagnostic, and SDP information.

Displaying Program Information

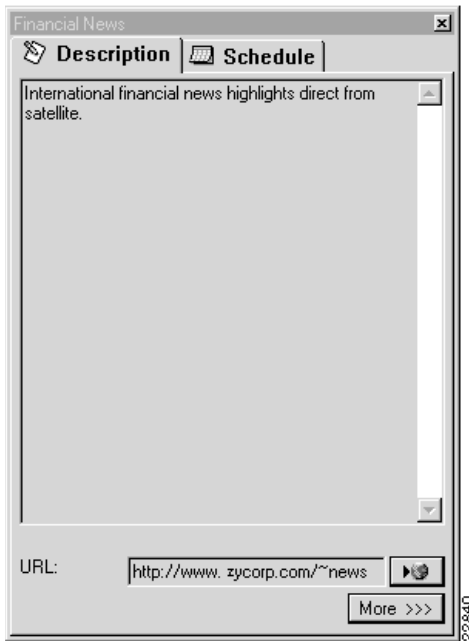
To display the Program Information window, perform the following steps:

- Step 1** On the IP/TV Viewer main window, highlight the program name whose information you want to view.
- Step 2** Click **View>Program Information**. Or, after highlighting the program name, click the right mouse key to display a popup menu and click **Program Information**. The Program Information window appears.

Program Description Information

The **Description** tab on the Program Information window displays the program description. If the program has a predefined URL, it is displayed in the URL field. Click **Web Info** to launch your default Web browser and jump to the URL location. The URL location is typically a web page that contains additional information about the program.

Figure 5-1 Description Tab Window

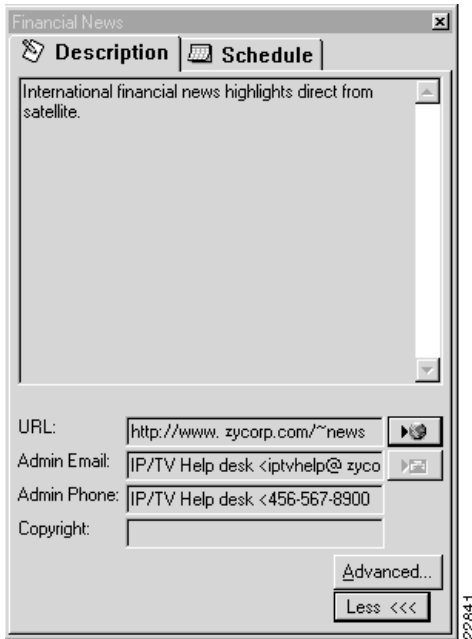


Click **More** to display more detailed information about the program. The detailed **Description** tab (see Figure 5-2) displays information such as the program administrator's name, phone number and E-mail address, if available.

Click **Send Mail** to send E-mail to the address displayed in the E-mail field.

Using the Send Mail button invokes your E-mail application. Your E-mail application must support the Mail Application Programming Interface (MAPI) to use this feature. If your mail application does not support MAPI, then send mail through your E-mail application directly.

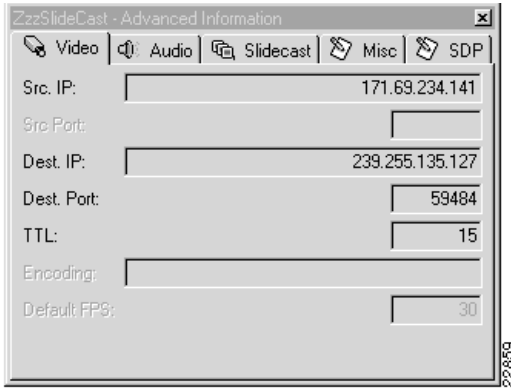
Figure 5-2 Detailed Description Tab Window



Video, Audio, and SlideCast Information

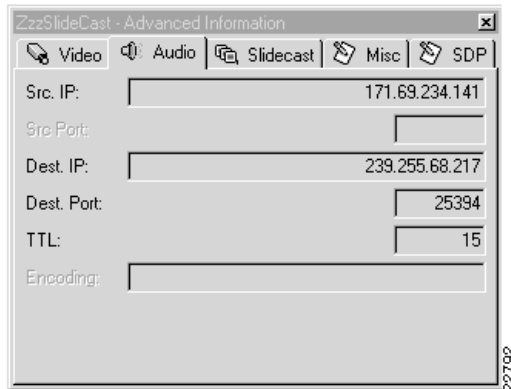
System administrators who want to view program video, audio, and SlideCast information click **Advanced** (see Figure 5-2) located on the detailed **Description** Tab window. The Advanced Information window appears with the **Video** tab on top (see Figure 5-3).

Figure 5-3 Advanced Information—Video Tab



To view audio information, select the **Audio** tab (see Figure 5-4).

Figure 5-4 Advanced Information—Audio Tab



Video, audio, and SlideCast information is described in Table 5-1.

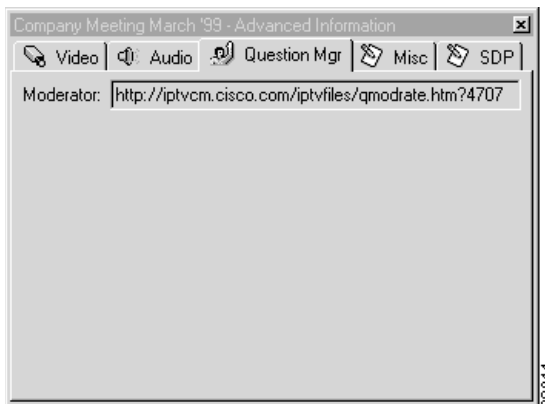
Table 5-1 Video and Audio Program Information

Field	Description
Src IP:	The IP address of the media server.
SRC Port:	The port number of the media server.
Dest IP:	The multicast IP address to which the media is sent.
Dest Port:	The port number associated with the Dest. IP.
TTL:	The “Time To Live” value.
Encoding:	The type of codec used.
Default FPS:	The default frames per second (video only).

Question Manager Information

To view Question Manager information about a program, select the **Question Mgr** tab on the Advanced Information window (see Table 5-2). The Moderator: field contains the moderator’s web page address.

Table 5-2 Advanced Information — Question Manager Tab



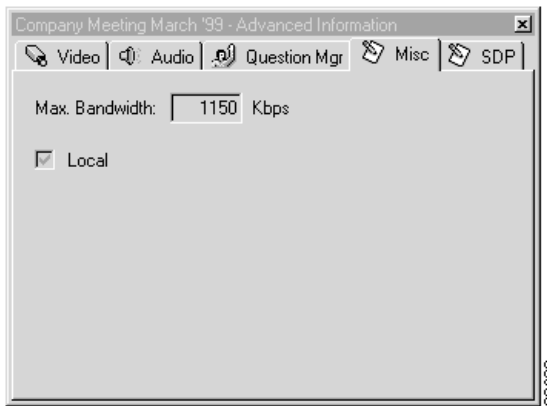
Setting Maximum Bandwidth

The system administrator enters the maximum bit rate value while creating the program using the Content Manager. This value is used by the IP/TV Server as an upper boundary of the network resources it is permitted to use for the total combined streams associated with the program. Types of streams include video, audio, and SlideCast bandwidth resources.

If you have a slow connection, you may want to know what the bandwidth required by the program in order to decide which media streams to receive.

To view a program's maximum bandwidth, select the **Misc** tab on the Advanced Information window (see Figure 5-5).

Figure 5-5 **Advanced Information—Misc Tab**



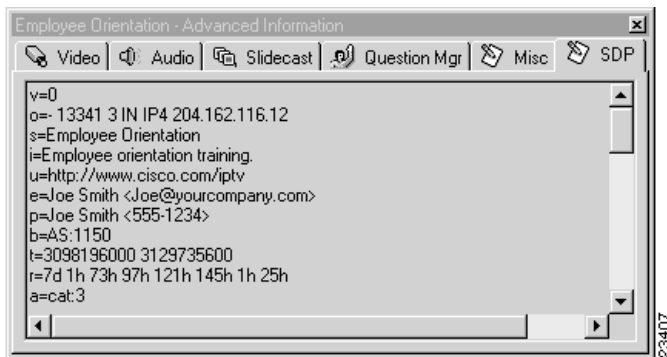
This tab also indicates if the program is a local intranet program.

SDP File Information

To view the program's **SDP** file information, click the **SDP** tab on the Advanced Information window (see Figure 5-6).

Note This information may be useful to Cisco Systems Technical Support staff.

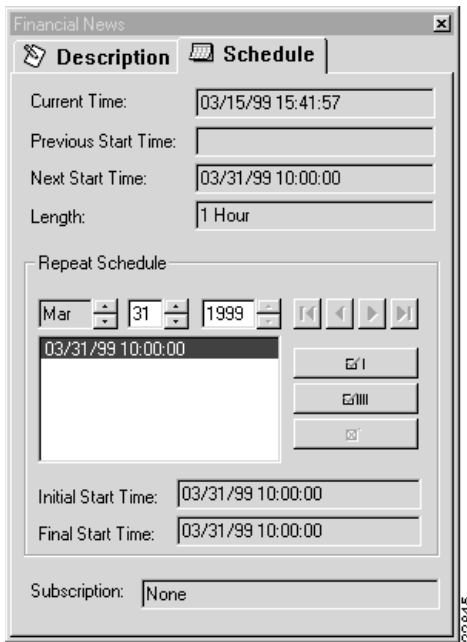
Figure 5-6 **Advanced Information—SDP Tab**



Schedule and Subscription Information

You can view schedule and subscription information about a scheduled program. Do this by clicking the **Schedule** tab on the Program Information window (see Figure 5-7).

Figure 5-7 **Schedule Tab**



Schedule and subscription information is described in Table 5-3. Refer to the “Subscribing to a Program” section for information about how to subscribe to scheduled programs.

Table 5-3 **Schedule and Subscription Program Information**

Field	Description
Current Time:	The current system time.
Previous Start Time:	The previous time the program was scheduled to begin.
Next Start Time:	The next time the program is scheduled to begin.
Length:	The length of the program in terms of days, hours, minutes.
Repeat Schedule	Date and times the program is scheduled to play.
Initial Start Time:	First time the program played.
Final Start Time:	The last time the program will play.
Subscription:	The user's current subscription to this program. Values are: None, All, or a specific date and time.

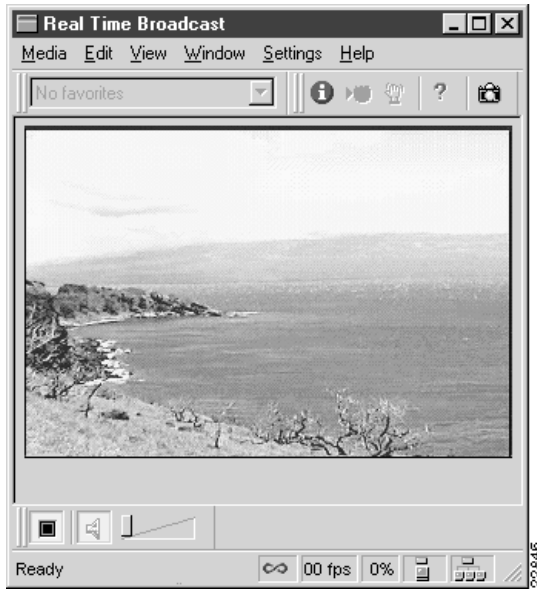
Playing a Program

You can play a scheduled program by selecting it from the Program Listings pane or subscribing to it. You can play an on-demand program by selecting it from the Program Listings pane or the OnDemand Playlist window. You can also play both types of programs by selecting them from the Favorites window.

Figure 5-8 shows a scheduled program being played. Figure 5-9 shows an on-demand program being played. Both program windows contain identical Change Program lists, toolbar buttons, and status bar information. The Change Program list, lists all the programs that you have assigned to the Favorites window. Use this list to quickly find your favorite programs.

Note The Frame Rate Statistics box, located on the status bar, is disabled for programs that are served by Windows Media Services.

Figure 5-8 Scheduled Program Playing



Note, however, that the program windows have different Video Cassette Recorder (VCR) controls. VCR controls let you stop or play the program, control the audio, and in the case of on-demand programs set the position of the video. See the “Controlling Audio and Video” section for more information on VCR controls.

Figure 5-9 On-Demand Program Playing



Controlling Audio and Video

You can control the audio and video portions of a program while it is playing by using the VCR controls located at the bottom of the viewer window. You can also control the media streams that are received by the program, however, you must select them before playing the program.

Adjusting Audio Level

Adjust the volume on both a scheduled and on-demand program by moving the slider to the right or left. The Mute Audio button mutes (a red slash through the icon) or resumes (no red slash) the audio portion of the program (see Figure 5-8).

Controlling and Setting the Media Position

Control the position of the video for an on-demand program while you are watching it by using the following on-demand VCR controls:

- Jump To Beginning button
- Jump Back button
- Jump Forward button
- Jump To End button
- Position Control slider bar
- Change Play Position option

The Jump To Beginning button positions the video back to its beginning with a time offset of zero. Refer to the “Menu Bar and Tool Icon Reference” appendix for a graphic and description of the VCR controls.

Note You may not be able to always view the actual or true beginning of the video until audio and video synchronization is achieved.

The Jump Back button positions the video back in time 10 percent of the overall duration of the program. If there is less than 10 percent preceding the current position, the program is set to position zero.

The Jump Forward button positions the video forward in time 10 percent of the overall duration of the program. If there is less than 10 percent remaining from the current position, the program is set to its end.

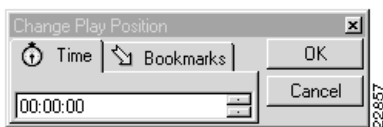
The Jump to End button positions the video to its end.

The Position Control slider bar lets you seek forward or rewind video segments while watching the program. Slide the bar to the right to fast forward, or slide it to the left to rewind. The highest possible precision of the slider is measured in seconds. Whenever you move the mouse over the Position Control slider bar, the Position button appears above the control. This button shows the time (hh:mm:ss) in terms of video location. Moving the slider bar updates the time shown on the Position button. Releasing the slider bar causes the program to seek that new location in time.

Note There is a slight delay, typically two to three seconds, in the video when you change position until the IP/TV Server and IP/TV Viewer resynchronize through the network. Network traffic may also affect response time.

To set the position of the video in terms of time, click **Select Position** to display the Change Play Position dialog box (see Figure 5-10).

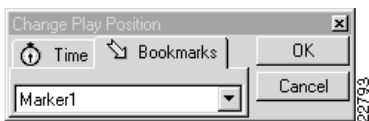
Figure 5-10 Change Play Position Dialog Box—Time Tab



To set the position of the video, click the **Time** tab and enter valid entries by hours, minutes, and seconds into the hh.mm.ss fields and click **OK**. The video's position is changed to the selected time and the dialog box closes.

The **Bookmarks** tab appears only if the author of the program used an .asf file that contains markers (see Figure 5-11). A marker is a pointer to a specific time in an .asf file. Markers allow you to move through an .asf file any way you want. You can go ahead or go back to a previous marker to view a portion of the video. To change the position of the video, select the desired marker and click **OK**.

Figure 5-11 Change Play Position Dialog Box—Bookmarks Tab



Selecting Media Streams

The Select Stream command lets you control the streams that are received by a given program. Media streams can be video, audio, SlideCast, or Web Presenter.

To select the media streams for a program, select the program whose streams you want to set. Then select the **Select Stream** command from the View menu on the IP/TV Viewer main window. The Select Streams dialog box appears (see Figure 5-12).

Figure 5-12 Select Streams Dialog Box



Select the **Audio** check box to enable audio, select the **Video** check box to enable video. To save memory or bandwidth you can clear the Audio checkbox if you only want to watch a program, or clear the Video checkbox if you only want to listen to a program.

If you want to enable the SlideCast feature, then select the **Slidecast** check box if available. You may want to clear the **Slidecast** check box if you only want to watch or listen to a program. See the “Playing a SlideCast Program” section in this chapter.

To enable the Web Presenter feature, select the **URL Flipping** check box if enabled. For more information, see the “Playing a Web Presenter Program” section.

Note How you set the Default Media option on the Options dialog box affects the default streams selected. You can select either Slidecast or URL Flipping, but not both.



If the program is scheduled and you want to subscribe to it, click **Subscribe**. The program is automatically listed on the Subscriptions window. For more information about subscribing to programs see the “Subscribing to a Program” section.

Note You can only subscribe to scheduled programs.

Monitoring Reception Quality and Status

Two reception quality indicators, located on the Reception toolbar on the viewer window, indicate reception quality levels (see Table 5-4).

Table 5-4 Reception Quality Indicators

Icon	Description
	Shows the level of reception quality on your computer as detected by IP/TV Viewer.
	Shows the level of reception quality as detected by other workstations on the network that are viewing the same program. This receptor applies only to scheduled programs and not on-demand programs.

These indicators change colors to reflect varying reception quality (see Table 5-5).

Table 5-5 Indicator Colors

Color	Meaning
Green	Reception quality should be good. Video should be smooth and audio clear. If not, then the problem is usually the local machine or the content itself.
Yellow	Reception quality is fair. Video may be slightly jerky and audio may not be clear.
Red	Reception quality is poor. Video may be very jerky and audio may not be clear.
Gray	Insufficient data has been reported for IP/TV to display quality levels. This indicator turns gray for a few seconds after a video window is opened, or if transmission is interrupted.

When IP/TV Viewer's performance degrades for no apparent reason, you can use the reception quality indicators to determine whether the problem is local to your computer or common to other computers viewing the same program:

- If both indicators show poor reception quality levels, the problem is also detected by most or all of the computers viewing the same program. The problem is probably caused by a fault either in the server that is transmitting the program or in the network itself.

Contact the system administrator responsible for the server or a network manager for assistance.

Note If the program is an Internet accessed Mbone session, the cause of poor reception might be external to your corporate network, and thus beyond the ability of your system administrator or network manager to correct.

- If the left indicator shows low reception levels, while the right indicator shows normal levels, the problem is likely due to a fault somewhere with the local network or your computer.

Note If your computer does not meet the hardware requirements listed in the "Requirements" chapter, your system may have insufficient processing power for the program you are viewing.

If these tips do not resolve the problem, contact your system administrator for assistance.

Viewing Modes

You can watch a program in one of three viewing modes: normal view, minimal view, and full screen view.

Normal View

The first time a program is selected, the program appears in a viewer window that is in normal view mode. This viewer window includes the menu bar, toolbar, VCR controls (on-demand programs only), and status bar, along with the video image area. Figure 5-8 is in the normal view mode.

You can click **System menu** to display the system menu commands. In normal view mode, the system menu contains only standard Windows commands such as: Restore, Move, Size, Minimize, Maximize, and Close.

Minimal View

In minimal view mode, only the video image is present in the viewer window. The menu bar, toolbar, VCR controls, and status bar are hidden (see Figure 5-13).

Figure 5-13 Minimal View Mode



In this mode, the System menu button contains additional commands that are only accessible through the menu bar, toolbar, and VCR control bar.

Select **Restore** on the Window menu to return to normal view mode, or press the **Page Up** keyboard key.

Note You cannot select minimal view for audio only programs because they do not have video image areas.

Full Screen View

To watch a program in full screen view, select the **Full Screen** command on the View menu or press the **Ctrl+PgUp** keys. The window borders will disappear. To return to normal view mode from full screen, click the left mouse button anywhere on the screen or press any key on the keyboard.

Note Full screen view is not supported in viewer windows with SlideCast or Web Presenter streams.

Using Multiple Windows

IP/TV supports multiple viewer windows for both scheduled and on-demand programs. You may navigate among active IP/TV Viewers by clicking the window or pressing the **Alt+Tab** keys. The audio will follow the active window.

Up to four viewer windows that are open at the same time are supported. However, IP/TV does not limit the number of viewer windows you can open at one time. If you have subscribed to more than four programs that run simultaneously, you will only receive four programs at one time. When one program ends and you close that viewer window, another program will begin playing.

Note Displaying multiple IP/TV viewer windows may result in poor video performance, especially on less powerful computers. If you want the best possible quality, stop playing all IP/TV programs you are not watching and close other applications that you are not using.

IP/TV Viewer performs best on faster machines, and when receiving data through less congested networks. When these conditions are not met, IP/TV gracefully degrades to a lower quality reception.

If video you are watching appears jerky and you notice that your computer has a lot of disk activity, your computer may be running low on memory.

Here are a few suggestions on how to get the best performance from IP/TV Viewer on your computer:

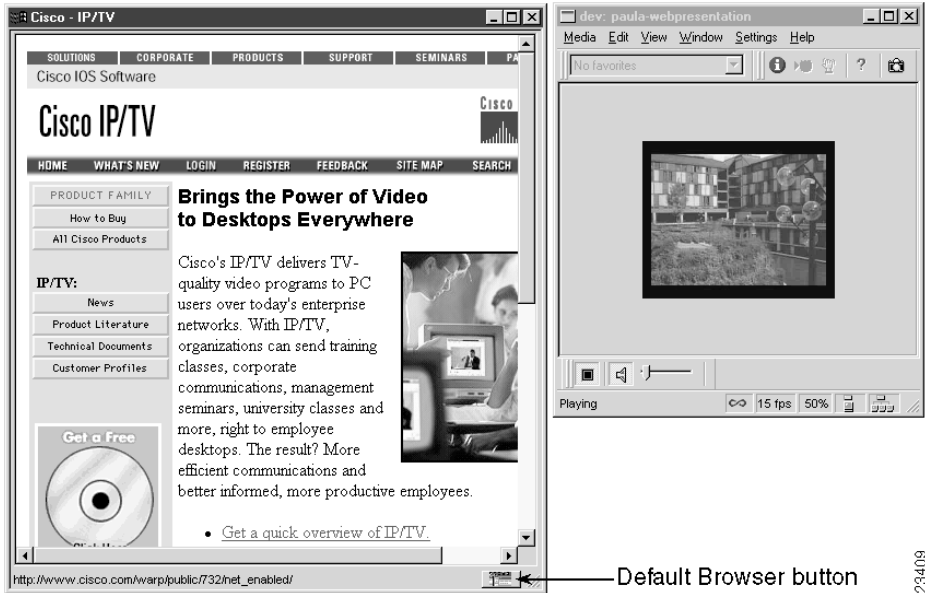
- Close applications you are not using, especially applications that require a lot of bandwidth on your local network.
- IP/TV supports multiple windows; however, you may want to close these windows rather than minimize them to receive multimedia streams.
- Trade sound quality for better video quality.
- If you only want to listen to a program while you are working in another program, you may want to disable the video. See the “Advanced Topics” section.
- If the program is an MBone session, the cause of poor reception might be external to your corporate network, and thus beyond the ability of your system administrator or network manager to correct. Refer to the contact person on the MBone program contact list regarding the quality of the MBone program.
- Use the Pause button if video is not needed.

Playing a Web Presenter Program

When you play a program that contains a web presentation, the viewer window launches and plays the audio or video file. The Presenter Client window, which displays Web pages, also appears at the same time.

The web-based slides are HTML pages that are flipped in a designated sequence and at a designated time. The web-based slide presentation portion can be real-time web browsing, which is controlled by the person who is flipping the URLs. Or, the presentation can consist of a recorded .asf file that contains URL markers.

Figure 5-14 Viewing a Web Presenter Program



The viewer window behaves in the same way as it does when you are watching any type of scheduled or on-demand program. If desired, you can open your default browser in another window by clicking the **Default Browser** button.

Note Web Presenter does not support full screen view.

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Playing a SlideCast Program

IP/TV Viewer lets you play SlideCast presentations, which provide the following features:

- Display an IP/TV Viewer with both audio and video together with a SlideCast presentation.
- Display an IP/TV Viewer with SlideCast and audio.
- Display an IP/TV Viewer with audio, and alternating video and SlideCast images.

Figure 5-15 shows an IP/TV Viewer with both audio and video.

Figure 5-15 Viewer Audio/video with SlideCast



Figure 5-16 shows an IP/TV Viewer with SlideCast and Audio.

Figure 5-16 IP/TV Viewer with SlideCast and Audio

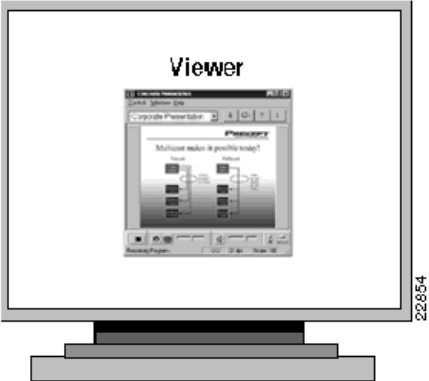


Figure 5-17 shows IP/TV Viewer with audio and alternating video SlideCast.

Figure 5-17 Viewer with Audio and Alternating Video Slidecast



Subscribing to a Program

The SlideCast window contains two toolbar buttons: **Stop** and **Play** button and the **Pause** and **Restore** button. Their functions are identical to the viewer window toolbar buttons.

Note SlideCast does not support full-screen mode.

Subscribing to a Program

The easiest way to launch a scheduled program that is not currently playing is to subscribe to that program. When you subscribe to a program, IP/TV Viewer saves the information about the program you want to view and automatically launches a viewer window when it is time for the program to begin.

Note IP/TV Viewer must be running to automatically launch a subscribed program. You can only subscribe to scheduled programs.

To subscribe to a scheduled program:

- Step 1** From the IP/TV Viewer main window, display scheduled programs on the Program Listings pane.
- Step 2** Select the program you want to subscribe to and click the right mouse button to display the right popup menu. Select the **Subscribe** command. The selected program is now listed on the Subscriptions window. You can also click **View>Select Stream>Subscribe**.

A viewer window automatically launches and begins to play the program according to its play schedule.

To learn if the program has scheduled repeated showings and to subscribe to one or more of the repeated showings:

Step 1 Select the scheduled program you want to subscribe to on the Program Listings pane.

Step 2 Click **Program Information** to display the **Schedule** tab (see Figure 5-7).

In the Repeat Schedule section of this tab are the date and times the program is scheduled to play. The initial and final start times of the program are also listed. The Repeat Schedule list displays a list of all repeats. Use the date range control arrows to move through the entire list.

Step 3 To subscribe to one repeat showing, select the desired repeat date from the list and click **Subscribe to one**. To subscribe to all repeats, click **Subscribe to all**.

Assigning Favorite Programs

You can create a customized list of favorite programs you watch frequently, and define a personal playlist of on-demand programs to play in succession.

Creating a Favorites List

All scheduled and on-demand programs you assign to the Favorites window will be listed on the Program Change list on the viewer window when watching a program. Use this list to quickly access your favorite programs.

To create a list of your favorite scheduled and on-demand programs:

Step 1 From the IP/TV Viewer main window, click **Favorites**. The Favorites window appears.

Step 2 Drag the desired program from the Program Listings pane directly to the Favorites window. You can add as many programs as you want to this window. You can drag both scheduled and on-demand programs (see Figure 5-18).

Figure 5-18 Favorites Window With Sample Programs



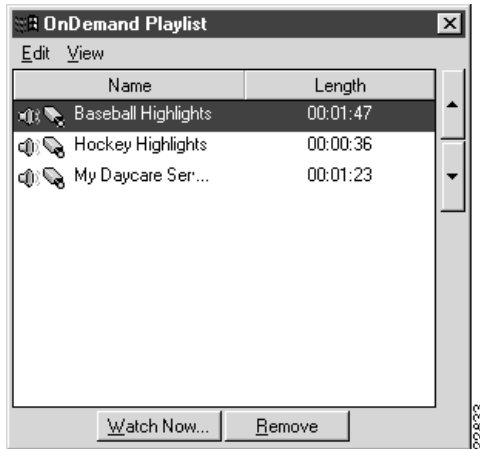
- Step 3** To remove a program from the list, highlight the program you want to remove and click **Remove**.

Creating an OnDemand Playlist

To create a list of on-demand programs that you want to play in succession:

- Step 1** From the IP/TV Viewer main window, click **OnDemand Playlist**. The OnDemand Play List window appears.
- Step 2** Make sure that the on-demand programs you want to add to the playlist are displayed on the Program Listings pane.
- Step 3** Drag the desired programs, one by one, from the Program Listings pane to the OnDemand PlayList pane (see Figure 5-19).

Figure 5-19 OnDemand Playlist Window With Sample Programs



- Step 4** Select the program you want to watch and click **Watch Now**. Only programs that appear below the selected program on the list will play in succession. Use the up and down arrows to change the order of the programs in the list.
- Step 5** To remove a program from the list, highlight the program you want to remove and click **Remove**.

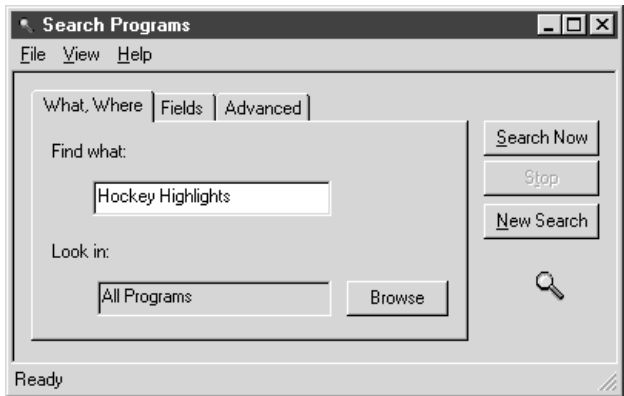
Searching for a Program

The IP/TV Viewer search feature lets you find a program listing by searching for selected keywords by field. The search feature is useful when you want to quickly locate a scheduled program and avoid scrolling through the program listings, or locate an on-demand program when you do not know under which category it is listed.

To search for a scheduled or on-demand program listing:

Step 1 On the IP/TV Viewer main window, click **Edit>Find**. The Search Programs dialog box appears with the **What, Where** tab on top.

Figure 5-20 Search Dialog Box—What, Where Tab



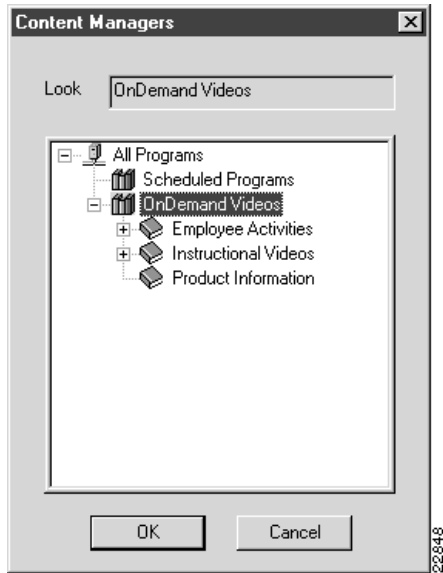
Step 2 Enter a string in the **Find What:** field.

Note A string can be a word, phrase, or number against which the contents of a program listing are matched.

Step 3 Select the Content Manager categories you want searched in the **Look in:** field. You can search all or only specific categories.

To select all programs, leave the Look in field as is. The default is All Programs. Or, to select a specific program category, click **Browse**. The Content Manager dialog box appears (see Figure 5-21). Select the desired program server and click **OK**.

Figure 5-21 Select Programs Dialog Box



Step 4 Select the **Fields** tab. Check the fields where you want to search for a matching string. All field information originated at the time the program was created in the Content Manager (see Figure 5-22). Click **Check All** to select all fields. Click **Clear All fields** to clear all fields (see Table 5-6).

Figure 5-22 Search Programs Dialog Box—Fields Tab

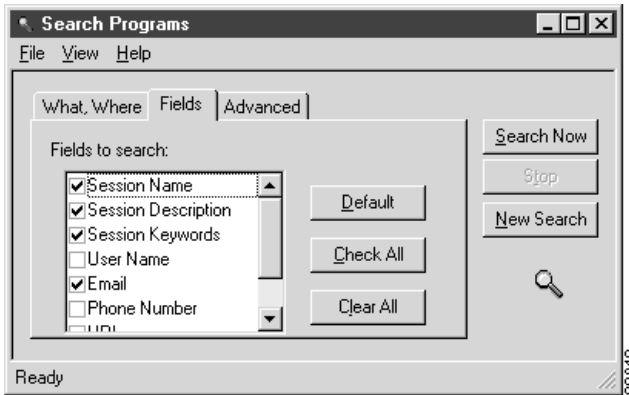
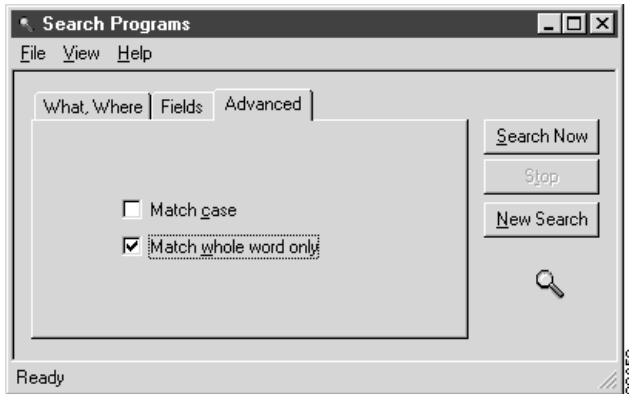


Table 5-6 Field Types

Field	Description
Session Name	The program name as set up in the Content Manager.
Session Description	Description of the program as set up in the Content Manager.
Session Keywords	The session keyword as set up in the Content Manager.
User Name	The user name as set up in the Content Manager.
Email	The program administrator’s e-mail address.
Phone Number	The program administrator’s phone number.
URL	The URL path name, if specified in the Content Manager.
Copyright	The copyright as set up in the Content Manager.
Administrator	The program administrator’s name.

Step 5 Select the **Advanced** tab (see Figure 5-23). Check the Match Case option if you want to match a string with specific capitalization. Check Match whole word only to match the whole string and not a subset.

Figure 5-23 Search Programs Dialog Box—Advanced Tab



- Step 6** Click **Search Now**. All programs that match the string are listed by name, media type, and description.
- Step 7** You can watch a program, display program information, or select media streams by selecting the desired program listing and choosing one of the commands from the View menu.

Using the Question Manager

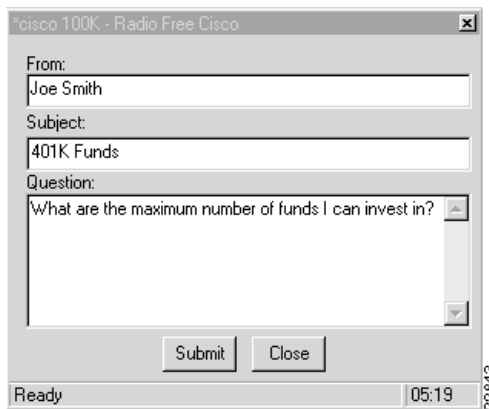
Question Manager is an integrated feature that lets you interact with the moderator of an IP/TV program. It is useful for environments such as distance learning and training. It allows remote users to participate in the Question and Answer portion of the presentation. Question Manager lets you send questions to a moderator, but does not return answers to you.

The moderator can view the questions that apply to the program over the intranet, sort the questions, answer the questions as part of the presentation, export the questions to be stored, or delete the questions after the presentation.

To use Question Manager while viewing a program, the Question Manager must be enabled. The Ask a Question toolbar button is active when enabled, and grayed out when disabled (see Figure 5-24).

Note Question Manager can only be used for scheduled programs.

Figure 5-24 Ask a Question Window



To use Question Manager, do the following:

- Step 1** While viewing a program that has the Question Manager enabled, click **Ask a Question** on the IP/TV viewer window. The Ask a Question dialog window appears next to the viewer window with your user name if entered previously in the Options dialog box.
- Step 2** Enter your topic in the **Subject:** field and your question in the **Question:** field.
- Step 3** The e-mail address and user name that you entered on the IP/TV Viewer User Information dialog box is received by the moderator. If no e-mail address or user name was entered, then the moderator will receive the question from anonymous.
- Step 4** Click **Submit**. The question is sent to the Question Manager moderator.

Advanced Topics

System administrators can choose from a list of DirectShow Filter Property windows and set operating parameters, perform advanced diagnostics, or adjust FlashWare options that can affect IP/TV Viewer performance. The list of properties windows is available when a program is playing and differs depending on the codec used.

On the viewer window, click **Edit>Advanced Options**. The DirectShow Filter Property windows for filters that are installed with IP/TV are described. Property windows for other third-party filters, such as a hardware MPEG decoder, also will be shown.

Click **Controls>Advanced Options**. The DirectShow Filter Property windows for the filters that are installed with IP/TV are: MPEG Video Decoder, MPEG Audio Decoder, and the Flashware Source Filter. Property windows for other third-party filters, such as a hardware MPEG decoder, will also be shown:

- MPEG Video Decoder

This property window lets you select either monochrome or color as the default setting. It also shows read-only information about the video stream, such as video settings, frame rate, and bit rate.

- MPEG Audio Decoder

This property window allows you to adjust the sound quality and stereo/mono settings. Lower quality audio settings allow the CPU to spend less time processing audio and more time processing video, resulting in improved video quality. For best overall performance on most computers, we recommend setting audio to AM radio/mono.

- Flashware Source Filter

This property window allows you to adjust various performance options, view an advanced Statistics Windows, and adjust audio and video synchronization.

Note When a Filter Property window is closed, all audio and video streams will momentarily pause and then resume.
