GRASS VALLEY GROUP

PROFILE XP
SERIES
MEDIA PLATFORM

User Manual
Version 4.0

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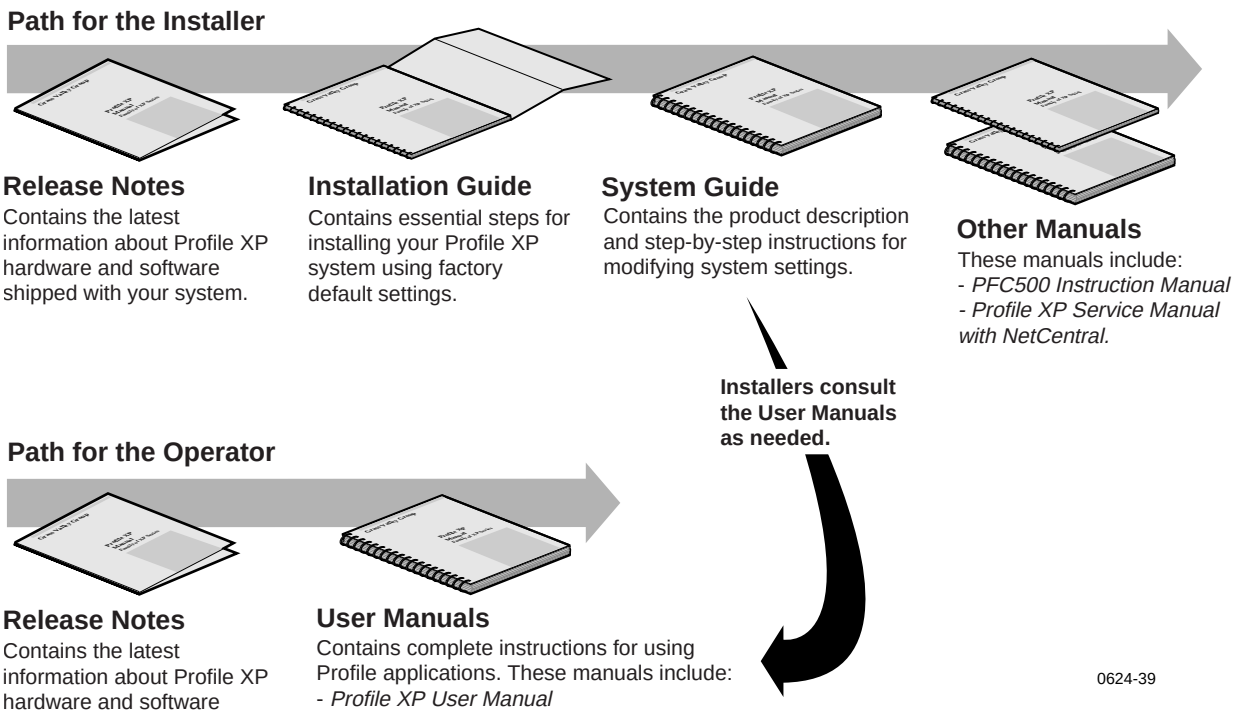
Preface

About this manual

This Profile XP User Manual describes the standard Profile XP applications used to manage the day-to-day operation of your Profile XP Media Platform This manual assumes you have already installed your Profile XP system using the *Installation Guide* and *Profile XP System Guide* shipped with your unit.

Using the Profile XP Documentation Set

This manual is part of a full set of support documentation for the Profile XP Media Platform. The following illustrates how to use the Profile XP documentation depending on the task you are performing.



Manual Descriptions

- **Installation Guide** (for your Profile XP Model) This guide provides step-by-step instructions for installing the Profile XP Media Platform using factory default settings for all record/play channels. Factory default settings are indicated within the guide. After installing the Profile XP system using this installation guide, you can refer to this *Profile XP System Guide* to customize system settings for your installation.
- **Profile XP User Manual** Contains complete instructions for using Profile applications to operate the Profile XP Media Platform.
- **Profile XP System Guide** This guide provides all the information you need to go beyond factory default settings and customize your system's comfiguration to meet your site-specific needs. This guide also provides an overview of your Profile XP system, and provides all the spscifications you need to integrate the Profile XP Media Platform into your operation.
- **Profile XP Service Manual with NetCentral** Contains information for servicing the Profile XP Media Platform, and includes procedures for the following tasks:
  - Problem analysis using symptom, problem, solution tables.
  - Running diagnostics locally and remotely
  - Set up and operation of Portals remote monitoring software.
  - Replacing field replaceable units.
- **Profile XP Release Notes** Contains the latest information about the Profile hardware and the software release shipped on your system. This information includes software specifications and requirements, feature changes from the previous releases, helpful system administrative information, and any known problems.
- **PFC500/E Instruction Manual** Contains information for servicing the Profile XP Fibre Channel RAID Storage Chassis (PFC500/E) including step-by-step procedures for replacing field replaceable units.

How this manual is organized

The *Profile XP® User Manual* supports Profile System software 4.0 for the PVS 1000 Profile Media Platform. The Profile XP Media Platform uses digital technology to store and produce broadcast-quality MPEG video and broadcast quality audio. This manual documents the standard software applications that are included on the Profile XP platform:

Chapter 1 - Introducing the Profile XP Applications
Introduces the standard and optional Profile XP applications. Each applicationis best suited for a specific task. This chapter helps you decide which application to use.

Chapter 2 - Using VdrPanel
Describes how to use the VdrPanel application to record and play back MPEG video and audio clips. It also tells you how to configure a channel for extermal control through an RS-422 port.

Chapter 3 - Using Media Manager
Media Manager manages clips and masters on disk. With Fibre Channel, you can use Media Manager to copy or move media between Profile systems. The Transcode Utility included in Media Manager converts media between different compression rates..

Glossary
This appendix explain terms used throughout this manual, and in the industry.

NOTE: This manual assumes that you are familiar with basic Microsoft® Windows™ operation.

Terminology and Conventions

Button (graphical)	Buttons shown in bold (**OK**, for example) that you click with the mouse pointer.
Button (mouse)	The two or three buttons on the top of the mouse.
Choosing	Choosing menu items, **File | Exit**, for example. (**File | Exit** means *choose the Exit menu item under the File menu.*)
Commands	Commands (**a:\setup**, for example) are shown in bold.
Clicking	Pressing and releasing the mouse button without moving the pointer.
Ctrl key	Hold **Ctrl** down while pressing other keys in a sequence.
Double-clicking	Pressing and releasing the left mouse button twice without moving the pointer.
Dragging	Pressing and holding the mouse button while moving the pointer.
Moving	Changing the location of the pointer on the screen by moving the mouse.
Pointer	An arrow or other graphic on the screen indicating the current cursor position for selecting or clicking.
Pointing	Positioning the pointer on an object on the display by moving the mouse.
Right-click	Pressing and holding the right mouse button.
Shift key	Hold **Shift** down while pressing other keys in a sequence.

Chapter 1

Introducing the Profile XP Applications

Profile XP Media Platforms store broadcast-quality MPEG video and audio on computer disk drives rather than on video tape, allowing almost instant access to any timecode location of your video and audio material.

A Profile XP system is more than just a one-for-one replacement of a VTR: it can have up to six record and eight playback video channels in various combinations. Clips are available on all channels at once, so you can play a clip on more than one channel at the same time, without making a copy of it. Since each channel is independent of the others, each playback can start at a different time and at a different place in the clip.

You can even start playing a clip while it's still being recorded. Just start capturing the clip on one channel, wait about five seconds, and then play the clip back on another channel. This kind of control makes the Profile XP system an ideal solution if you want to go to air with a clip before you have finished recording it.

What sets a Profile XP Media Platform apart from a VTR is its ability to be controlled by software applications. Grass Valley Group provides a set of standard and optional software applications, described later in this section, that provide basic tools for managing your Profile XP Media Platform.

While you can use any of these applications directly on your Profile XP system, most of them will also run on a remote PC. This allows you to control your media platform over an Ethernet connection from another room or another building. The NetCentral Plus application, described in the *Profiile XP Service Manual with NetCentral*, even lets you monitor the status of your Profile XP from a remote location.

If you don't find all the capabilities you want in any of the Profile applications, you can turn to one of Grass Valley Group's partners to find exactly the application you need. By using the Profile software development tools, described in the next section, these partners have developed tools such as automation systems, simple or sophisticated editors and live event controllers that exploit all unique features of your Profile XP Media Platform. These applications may run locally, over the Ethernet, or control your system through one of its RS-422 ports.

Profile Software Development

The Profile Software Development Kit (SDK) provides an application programming interface (API) for libraries of Profile functions. We recommend that you call these functions via Microsoft Visual C++ 5.0; however, it is possible to use other languages that permit calls to C declared functions (contact your Grass Valley Group representative for more information). Software developers can use the API to control the Profile system from third-party hardware devices, for example. The API consists of seven libraries:

- The TekCfg library provides an interface to the Profile configuration.
- The TekPdr library furnishes calls that inventory and manage movies in Common Movie Format (CMF), an internal file format standard for video, audio, and timecode.
- The TekRem library makes it possible for a remote Windows NT system to control a Profile disk recorder over an Ethernet LAN.
- The TekVdr library provides an interface for playing and recording video and audio clips.
- The TekVfs library supports low-level access to individual media files in the media file system.
- The TekVme library controls the optional video mix effects board.
- The TekXfr library supports media streaming of Fibre Channel connections.

Eight RS-422 serial ports come standard on a disk recorder. A disk recorder can issue serial commands or receive them from an external device via RS-422 communication lines. The Profile Protocol associates each API call with a specific number that can be sent over an RS-422 line. The ProLink application monitors Profile Protocol calls over an RS-422 link, allowing you to use compatible hardware devices, such as the PRC 100 Control Panel, to issue commands to a Profile unit.

Windows applications are also available to control the Profile system. Your media platform comes with several standard and optional applications. See “Starting and Closing Profile Applications” on page 14 for more information.

NOTE: Louth and Odetics RS-422 protocols are also supported, although there is not a one-to-one correspondence between these protocols and the Profile API. Louth and Odetics protocols do not allow you full access to the functionality of the Profile system.

Starting Your Profile System

Once the unit is properly installed and configured, you are ready to log in for day-to-day operations. For instructions on how to install and power-on a Profile XP system, see the *Installation Guide* and *Profile XP System Guide* that came with the unit.

To log in automatically:

Power up the Profile XP unit, and the start up routine begins. During normal start up, you are logged in automatically and the VdrPanel application starts. You can hold down the **Shift** key during start up to interrupt the automatic log in process.

NOTE: If you stop the automatic log in, or if it fails, the Windows NT log in dialog box appears. When logging in, remember that this dialog box is case-sensitive.

To manually log in:

1. At the Windows NT 4.0 log in window, enter the username: **profile** (However, you must log in as **administrator** when installing software, performing Windows NT administration, starting a service, or setting an Ethernet IP address.)
2. Use the Tab key to advance to the password field.
3. The password appears as asterisks (*) for password security. For the password, enter: **profile**
4. Use the Tab key to advance to the **From** field.
5. If your domain name or local computer name is not displayed in the box, click in the box to access a list of choices. Select your domain or local computer name from the list.
6. Click **OK** or press Enter.

***NOTE: If a log in error message appears, and all the information is correct, try deleting the password and clicking* OK.**

Starting and Closing Profile Applications

After logging into your Profile system, you see shortcut icons for the Profile applications on the Windows NT 4.0 desktop.

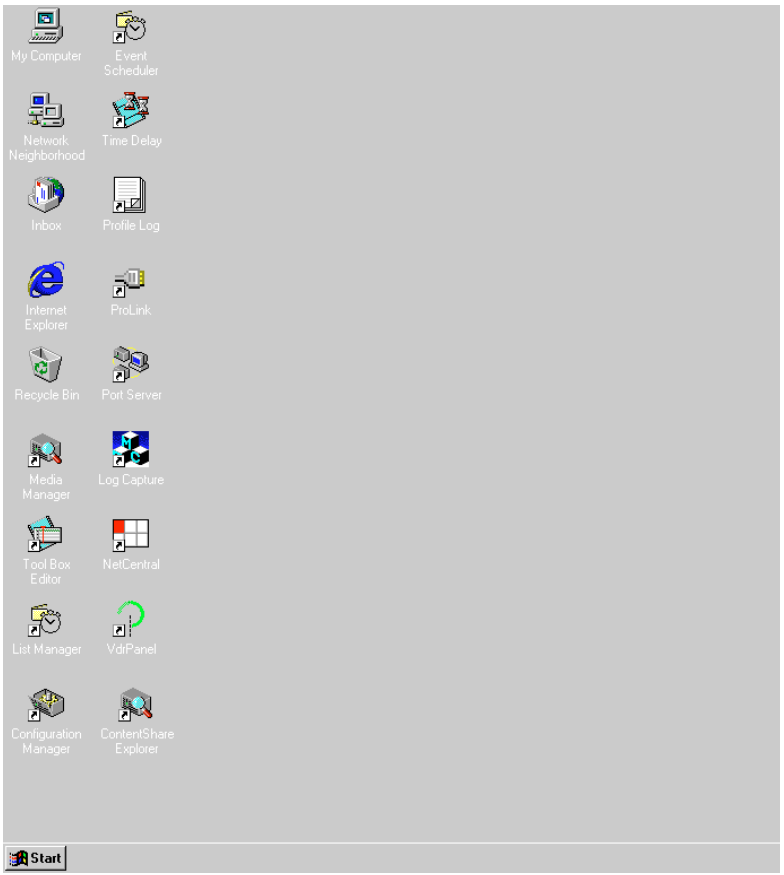


Figure 1. Profile Application shortcuts on the Windows NT 4.0 desktop

Starting an Application

To start a Profile XP:application—VdrPanel in these examples—using Windows NT 4.0:

- Double-click the shortcut icon on the Windows NT desktop.

Or:

- Choose **Start | VdrPanel**.

Or:

- Choose **Start | Programs | Profile Applications | VdrPanel**.

Viewing Help

To view the Help for an application:

- Choose **Help | Help Topics**.

Or:

- Click the **Help** button in a dialog box or a toolbar, if available.

To view version information (for VdrPanel in this example):

- Choose **Help | About VdrPanel**.

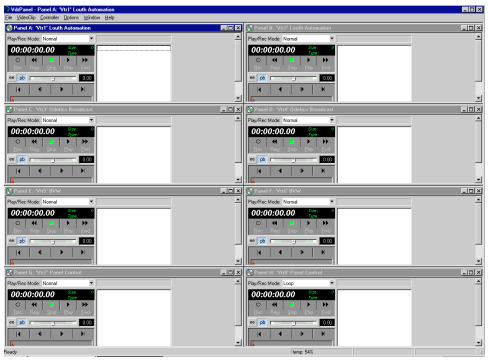
Closing an Application

To close Profile applications:

- Choose **File | Quit**, **File | Exit** or click the **Close** button.

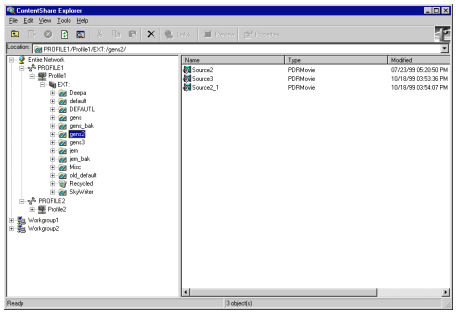
Standard Applications

The following software applications are installed at the factory on every Profile XP Media Platform. The short descriptions should help you understand when to use each application.



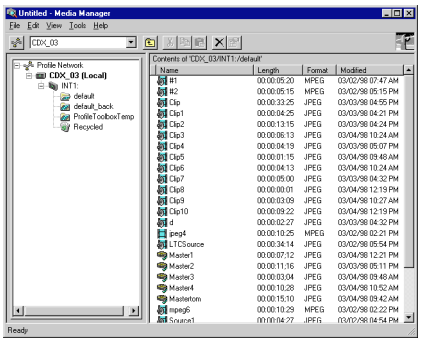
VdrPanel

VdrPanel lets you to capture and trim video and audio clips and then play them back. It also lets you configure your channels for control by external devices through the RS-422 ports. By default, VdrPanel starts automatically when you power-on your Profile system. For more information, refer to Chapter 2, “Using VdrPanel.”



ContentShare Explorer

The new ContentShare Explorer provides an evolving tool to manage your assets wherever they are. In this release, you can use the search engine to locate your clips and masters, then drag and drop to transfer assets between systems on your video network, and archive and restore clips on a Profile Network Archive system. As new capabilities are added, you’ll be able to track versions, manage security, and much more. Refer to *ContentShare User Guide* for more information.

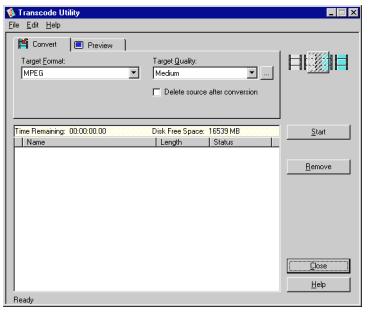


Media Manager

The Media Manager allows you to manage clips and masters on your local Profile XP Media Platform. You may also use Media Manager to launch the Transcode Utility, or archive and restore clips on a legacy Profile Library System directly attached to a Profile Video File Server (PDR). Refer to Chapter 3, “Using Media Manager.”

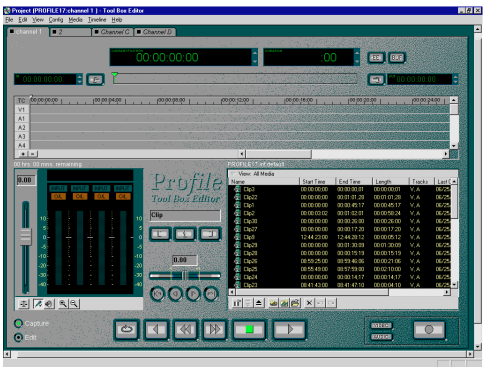
Transcode Utility

The Transcode Utility, which is started from Media Manager, creates new clips in the same compression format but different video quality. It can also convert clips from one compression format to another (JPEG to MPEG, for example) on Profile systems that support more than one compression format, such as the PDR 300. Refer also to Chapter 3, “Using Media Manager.”



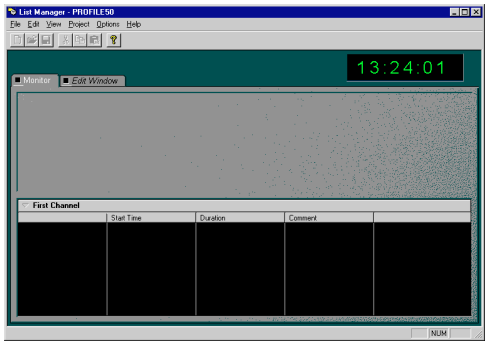
Optional Applications

The following optional software applications—Tool Box Editor, List Manager and TimeDelay—address specific needs that aren't covered by the standard Profile software applications. Tool Box Editor and List Manger are included in the Profile Tool Box package, and TimeDelay is available as a separate application.



Tool Box Editor

The optional Tool Box Editor lets you create new media by logging and capturing video and audio clips while also providing an inexpensive, cuts-only editing system. Refer to the *Tool Box User Manual*.



List Manager

The optional List Manager allows you to set up simple station automation. You can record incoming video at predetermined times, send incoming video directly to an output, or combine all of these functions to increase the automation level of you operations. Refer to *Tool Box User Manual*



TimeDelay

TimeDelay allows you to delay incoming video by an amount of time you specify. For more information, see *ToolDelay User Manual*.

Chapter 2

Using VdrPanel

Storing media on a Profile XP Media Platform rather than on tape opens the door to almost instant access to digital video and audio material. Media is available to all of the Profile XP Media Platform's channels at once, so you can play a video and audio clip on more than one channel at the same time. Since each of the channels is independent, playback can start at a different time and place in a clip. One of the best features of the Profile XP system is that you can start playing material while it's still being recorded.

The basic element of digitally stored video and audio is the *clip*. A clip is a reference to video, audio, and timecode material recorded in media files on the Profile XP media disks. A clip has a beginning and an end, and, when first recorded, the beginning and end correspond to the first and last frames stored in the media file. When you delete a clip, the media file that the clip refers to remains on disk if at least one other clip refers to it—only the reference to the media file is deleted, not the media itself.

A clip may refer to the entire media file or just part of it. You can mark in and out points in a clip. These marks change the effective beginning and end points of a clip, while not removing the associated material from the media file. On the other hand, you can trim media to remove material from either end of a clip, which also removes the information from the media file. Trimmed material is permanently removed from disk and is no longer available for use.

The default tool for creating and playing clips on the Profile XP system is VdrPanel. VdrPanel provides you with a VTR-like interface—complete with transport controls—to directly manage media operations. Once created with VdrPanel, clips are available for use with Profile XP applications, such as Tool Box Editor or the List Manager.

VdrPanel allows you to configure any or all of your channels for operation through a controller connected to an RS-422 serial port. These controllers may comply with Louth, Odetics, or BVW protocols.

Before using VdrPanel to capture clips, you must complete a few steps:

1. You must select a channel for use with each panel. At the same time, you must decide whether you want to use the Windows NT interface (called *Panel Control*) to capture and play clips, or if you want to use an external device to control your Profile XP system. If you select an external controller, you must select a port for use with the controller. See “Configuring a Panel” on page 21.

2. You can select timecode panel display, which timecode generators to use, and select drop-frame timecode. See “Selecting How to Display Timecode on a Panel” on page 24.

For information on how to start and close VdrPanel, see “Starting and Closing Profile Applications” on page 14.

The VdrPanel window is shown in Figure 2. By default, the VdrPanel window appears automatically at power-up, unless you log in manually. You display all available panels in the VdrPanel window—up to eight, depending on your system. Each panel is dedicated to one channel.

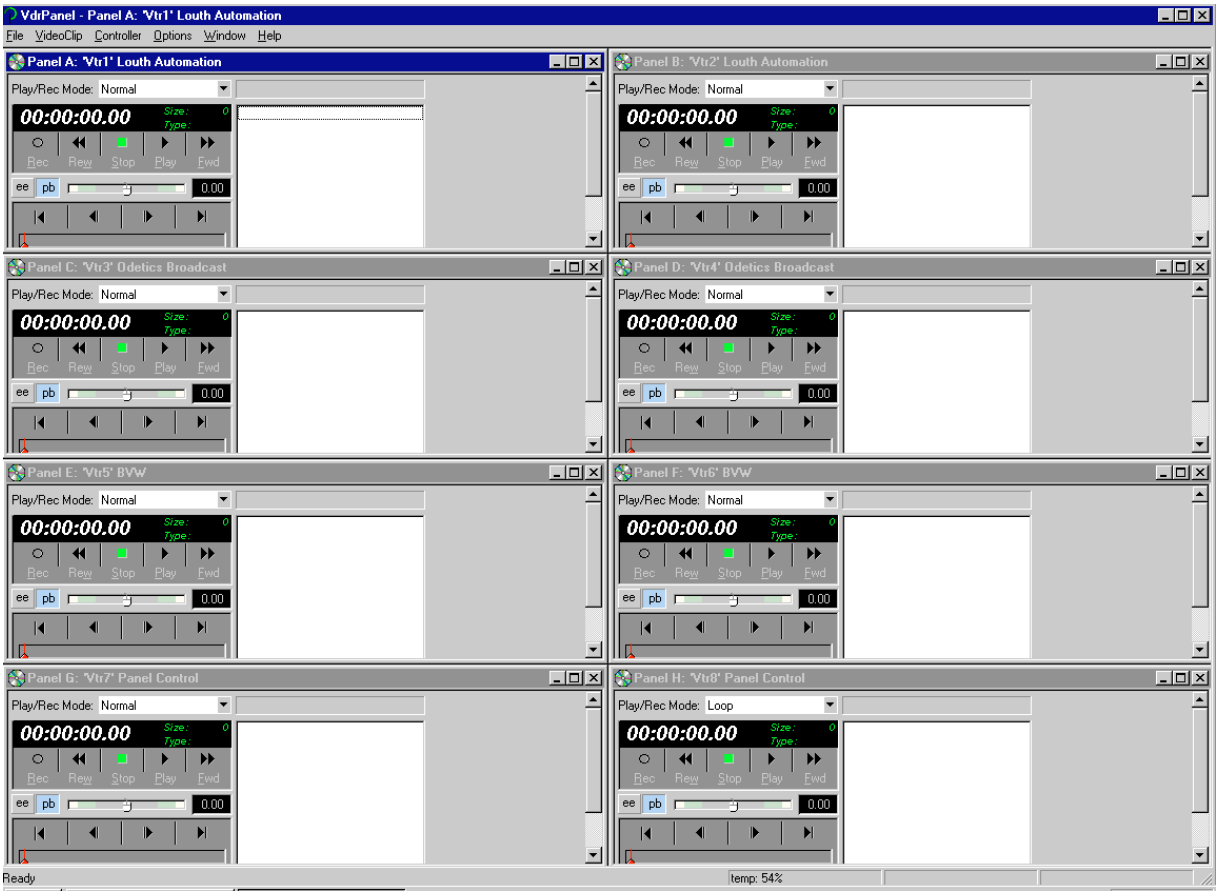


Figure 2. VdrPanel window

Configuring a Panel

Before you can use a panel, you must first configure it. You must select a protocol and a control port for your panel, or select Panel Control to use the VdrPanel to record and play back clips without using an external controller. You must also select the channel to use with the panel. A channel assigns resources such as video audio, and timecode inputs and outputs, as well as encoders and decoders to the panel. Channels are created or modified by Configuration Manager. See the *Profile XP System Guide* for more information about creating and modifying channels in Configuration Manager.

Selecting a Channel, Protocol, and Port

1. Click a panel to make it active.
2. Choose **Controller | Configure** to open the Channel Configuration dialog box (Figure 3).

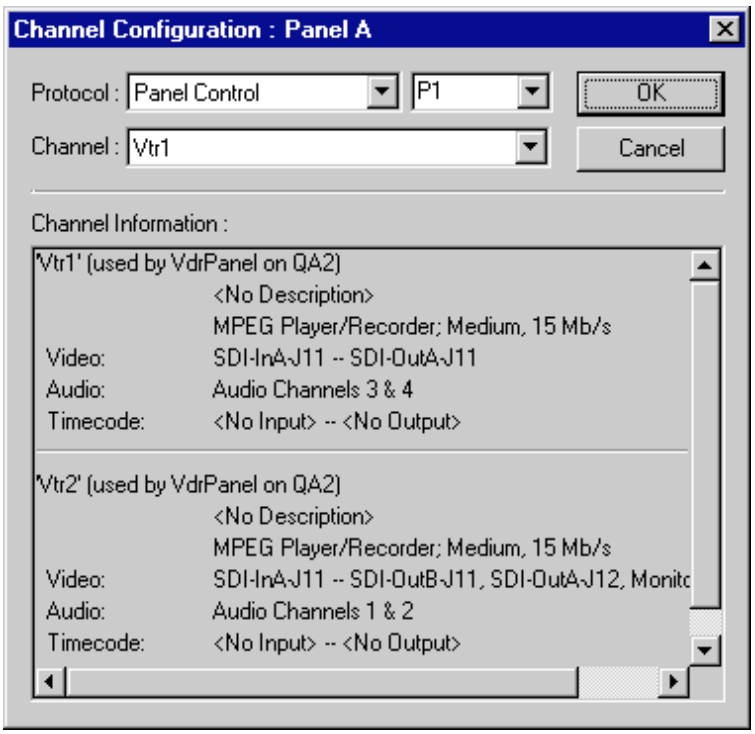


Figure 3. Channel selection dialog box

3. Select the Protocol for the channel, such as **Louth Automation**. Select Panel Control if you want to use only the Windows NT panel to record and play back clips.
4. If you selected a protocol other than Panel Control, select the communications port that is connected to the desired external controller. Ports P1 through P8 are available on the RS-422 Connector Panel. COM1 and COM2 are available on the unit's back panel (RS-232 DB-9 connectors).
5. Select a channel for use with the panel from the Channel drop-down list box. You can scroll through the Channel Information list to see what resources are specified by each channel.
6. Click **OK** to have your channel, protocol, and port selections take effect.

If you use Resource Manager to change a channel's name or resuorces, you must reselect the modified channel in VdrPanel for the change to take effect. You may also choose **Controller | Reacquire Channel** to update the channel for the current panel.

Selecting Clip Length (BVW Only)

If you have chosen a BVW controller, you can specify clip length by setting mark in and mark out points:

NOTE: The Set Clip Marks (clip length) dialog box shown here will not appear unless the panel controller is a BVW controller. This is not the same as setting clip length while in Loop mode.

1. Click a panel to make it active.
2. Choose **Controller | Clip Length**. The Set Clip Marks dialog box appears (Figure 4).

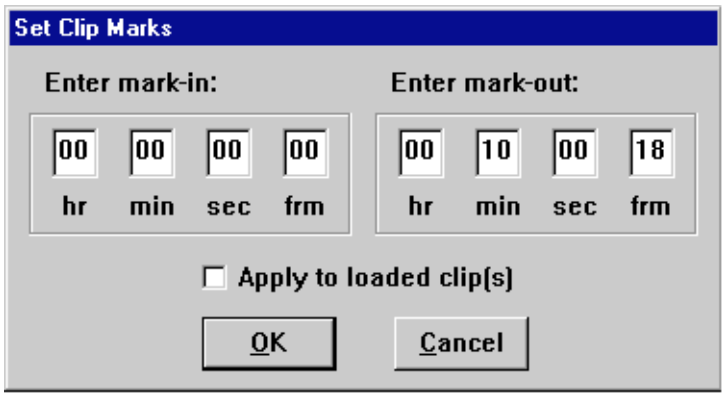


Figure 4. Set Clip Marks dialog box

3. Enter the mark-in and mark-out points by specifying the hour, minute, second, and frame settings. This applies to future clips only, unless you perform step 4.
4. Click **Apply to Loaded Clip(s)** if you want the mark-in and mark-out points to apply to existing clips as well as future clips.
5. Click **OK**.

Setting Louth Modes

If you use Louth Automation, you can set a panel to Louth modes. Normally, when a clip is cued, a freeze or confidence frame appears on the monitor instead of a regular video input feed. In Louth switcher mode, you do not see a confidence frame: you see video input from the feed until you play the clip. When the clip is done playing, you immediately see the regular video input again.

Without Louth end mode, you may see a few fields of a following clip, even if you don't intend to play it. Louth end mode ensures that after playing a clip in a list, timecode freezes at the first frame of the next clip in that list.

NOTE: Louth menu commands are available only when the panel controller is set to Louth Automation.

To set a panel to Louth switcher mode:

1. Click the panel to activate it. The panel controller must be Louth Automation. For information on how to set the controller to Louth Automation, see "Configuring a Panel" on page 21.
2. Choose **Options | Louth Switcher Mode**. A check mark appears next to Louth Switcher Mode in the Options menu to show that it is activated.
3. To return the panel to normal mode, choose **Options | Louth Switcher Mode** again.

To set a panel to Louth end mode:

1. Click the panel to activate it. The panel controller must be Louth Automation. For information on how to set the controller to Louth Automation, see "Configuring a Panel" on page 21.
2. Choose **Options | Louth End Mode**. A check mark appears next to Louth End Mode in the Options menu to show that it is activated.
3. To return the panel to normal mode, choose **Options | Louth End Mode** again.

Selecting How to Display Timecode on a Panel

The Timecode Setup dialog box enables you to set the timecode display and the timecode source on a channel to the values required for your application.

1. Click in a panel to select it.
2. Choose **Options | Select Timecode** to open the Timecode Setup dialog box. The Timecode Setup dialog box is divided into two groups: Display on Panel and Timecode Generator Settings.

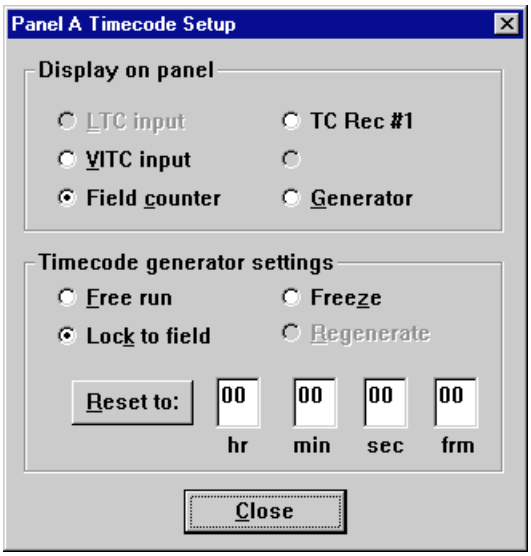


Figure 5. Timecode Setup dialog box

3. Select the timecode to be displayed on the panel from the Display on Panel group:
   - **LTC Input** is a separate signal input via the genlock card.
   - **VITC Input** is the timecode from the VITC input signal.
   - **Compute from Field Number** calculates the timecode directly from the field number of the recorded video. New clips start at 00:00:00:00.
   - **TC Rec #** displays the recorded timecode.
   - **Generator** displays the timecode from the generator for the channel.
4. Set up the timecode generator used by the panel with the Timecode Generator Settings group:
   - **Free Run** causes the timecode generator to continue to advance regardless of the current play or record mode of the panel.
   - **Freeze** locks the timecode at the current value. The value does not advance with time nor with changes in the play or record mode of the panel.
   - **Lock to Field Number** causes the generator to output a timecode locked to the current clip's timecode. When the panel is in stop, the value freezes. When the panel is in play or record, the timecode advances normally. During rewind or reverse shuttle, the timecode runs backward.

- **Regenerate** pertains to BVW controllers only. When the timecode position is changed to a new portion of the clip, and a record operation includes recorded timecode tracks (which happens with assemble edits from BVE and other controllers), the timecode generator is initialized to match the timecode read from the timecode track (VITC or LTC) before the record occurs.
- The **Reset To** button resets the timecode to the value entered in the box. The generator can be set to this value when **Free Run**, **Freeze**, or **Lock to Field Number** is selected.

5. Click **Close**.

Setting Drop-Frame Timecode

In NTSC and 525/60, you don't actually get 30 frames per second; the real number is about 29.97 fps. Timecode usually assumes 30 fps. To account for the discrepancy, drop-frame timecode skips or drops two timecode values at the beginning of every minute except every tenth minute. This allows timecode to exactly match a real-time clock on 525/60 systems. This correction is not needed on PAL or 625/50 systems because the frame rate is exactly 50 fps.

To set drop-frame timecode:

- Choose **Options | Drop-Frame** or **Options | Non-Drop-Frame**.

  NOTE: This setting applies to all open panels.

Panel Basics

In the VdrPanel application, you can display up to eight Panel dialog boxes at a time, one for each video channel. Each Panel dialog box has independent controls. A close-up view of a Panel dialog box is shown in Figure 6. A description of each Panel function follows.

***NOTE: If the panels are stacked, choose* Window | Tile Panels.**

The VdrPanel interface follows the same conventions as other Windows NT applications: the control menu box, title bar, menu bar, minimize and maximize buttons, mouse and keyboard all perform as expected. Refer to specific operating information about these items in the Windows NT manuals.

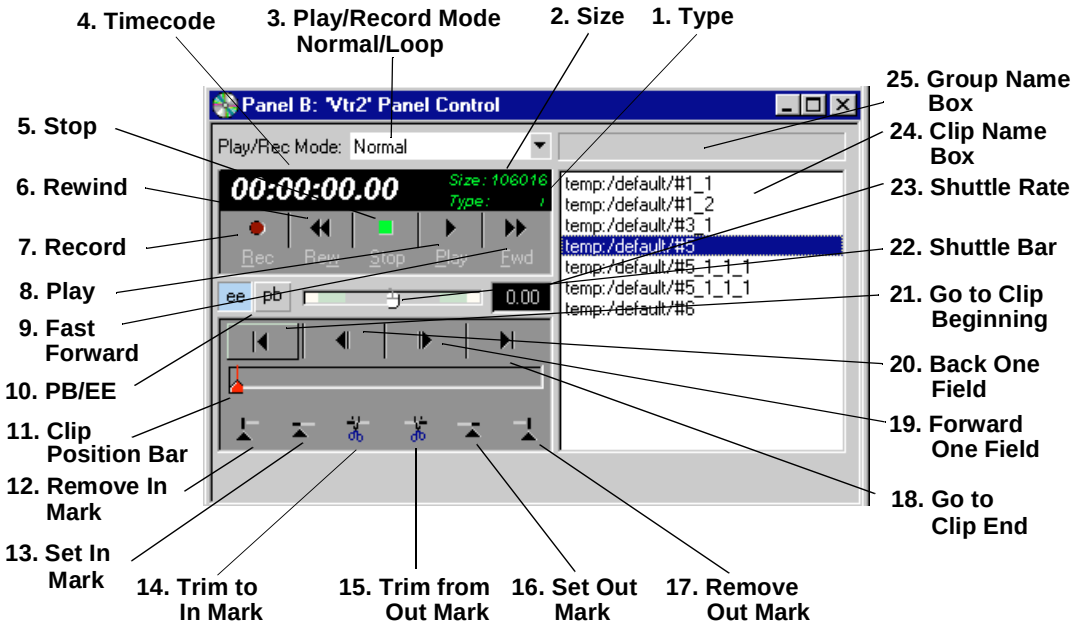
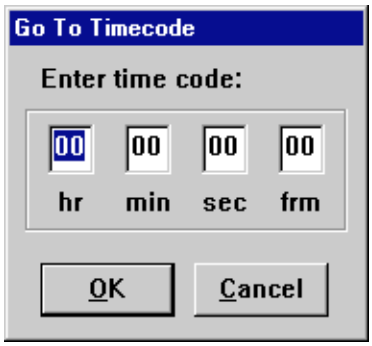


Figure 6. Panel dialog box

1. The **Type** box shows the type of pictures: **I** for Intra-coded (I-frame), **B** for Bidirectional-predictive coded, and **P** for Predictive-coded.
2. The **Size** box shows the number of bytes stored for the current frame. The more detailed the picture, the higher the number of bytes. The compression rate is set for the channel. Use Configuration Manager to change this setting.
3. The Play/Record mode allows you to choose how your clips will be recorded or played. Select **Normal** to play the selected clip or clip list to the end, freezing on the last field of the clip or of the last clip in the list. Select **Loop** to play the selected clip or clip list continuously, looping back to the beginning of the clip when the clip ends, or in the case of a clip list, looping back to the first clip in the list when the last clip ends. If you create a clip while in **Loop** mode, you are asked to enter a clip length in the form 00:00:00:00

(Hours:Minutes:Seconds:Frames). The **Record** operation will automatically stop at the specified timecode, thus protecting disk storage space.

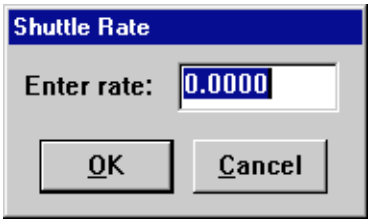
4. The **Timecode** box is the current timecode of the selected clip. To configure your timecode display, refer to "Selecting How to Display Timecode on a Panel" on page 24. For example, when you use slow motion replays from several camera angles, the timecode can free run or freeze. Clicking on the **Timecode** box brings up the Go To Timecode dialog box. Entering a new timecode value and clicking **OK** moves a clip to a specific timecode location. If there is no recorded timecode, VdrPanel displays a timecode calculated from the current position (00:00:00:00 or above).



5. The **Stop** button halts the current **Play**, shuttle, or **Record** function.
6. The **Rewind** button shuttles the clip backwards to the beginning (the first available field or in mark) of the selected clip. Use **Go To Clip Beginning** or enter a timecode value in the **Timecode** box to move directly to the beginning without shuttling. This button may not be available on panels configured as Recorder only.
7. The **Record** button starts storing the incoming video as MPEG streams and audio under the selected clip name. If no clip is selected, a default clip name (pound sign [#] followed by a number) is assigned. (See "Defining a New Clip" on page 33.) The record process continues until the disk decoder runs out of storage space or you click another command button, such as **Stop**. Recording does not start unless there is a video signal assigned to the selected panel and there is disk storage available. This button is not available on Play only channels.
8. The **Play** button runs the selected clip at normal speed. If there are multiple clips in the clip list, **Play** starts with the first selected clip and proceeds through the list. **Normal** and **Loop** modes determine how the clip or clip list is played. This button is not available on panels configured as Recorder only.
9. The **Fast Forward** button shuttles the clip forward to the end. Use **Go to Clip End** or enter a value in the Timecode box to move directly to the end of the clip without shuttling. This button may not be available on panels configured as Recorder only.
10. The **PB/EE (Playback/E to E)** button determines the action during **Stop** or **Record**. If you select **Playback**, the recorded image is displayed as a still during **Stop**, and audio is silenced. If **E to E** is selected, the input signal is routed through to the display during **Stop** or **Record**.
11. The **Clip Position Bar** displays the relative position of the current frame within the current clip. For example, if the **Clip Position Bar** is to the far left, the frame is at the beginning of the clip; if it is at the far right, the frame is at the end. Click on the bar to activate it or press **j** or ↓.

12. The **Remove In Mark** button removes the in mark and restores the clip to its first available field.
13. The **Set In Mark** button sets the in mark for the current clip at the current timecode (you can also press **i**). When the clip is played, it starts at the in mark instead of the clip beginning; however, the portion before the in mark is not lost. Use **Remove In Mark** to remove the in mark. The in mark only affects this instance of the clip. If the clip repeats in the clip list or is used by another panel, this in mark is not automatically present.
14. The **Trim to In Mark** button removes the portion of the current clip preceding the in mark (you can also press **c**). This action affects all copies of this clip on all panels. The trimmed material is not retrievable. A warning message and verification prompt are displayed before the material is trimmed.
15. The **Trim from Out Mark** button removes the portion of the current clip following the out mark (you can also press **u**). This action affects all copies of this clip on all panels. The trimmed material is not retrievable. A warning message and verification prompt are displayed before the material is trimmed.
16. The **Set Out Mark** button sets an out mark for the current clip at the current timecode (you can also press **o** [not zero]). When the clip is played, it ends at the out mark; however, the portion after the out mark is not lost. Use **Remove Out Mark** to remove out mark. An out mark only affects this instance of the clip. If the clip repeats in the clip list or is used by another panel, the out mark is not automatically present.
17. The **Remove Out Mark** button removes the out mark and restores the clip to its last available field.
18. The **Go to Clip End** button jumps to the end of the current clip. You can also press **e**.
19. The **Forward One Field** button moves the current clip position forward one field. You can also press the → key. In addition, **Shift +** → advances the clip position 10 fields or 5 frames, and **Ctrl +** → advances the clip position 100 fields or 50 frames.
20. The **Back One Field** button moves the current clip position backward one field. You can also press the ← key. In addition, **Shift +** ← reverses the clip position 10 fields or 5 frames, and **Ctrl +** ← reverses the clip position 100 fields or 50 frames.
21. The **Go to Clip Beginning** button jumps to the beginning of the current clip. You can also press **t**.
22. The **Shuttle Bar** sets the shuttle rate. Use the mouse to drag the pointer to the desired shuttle rate (displayed in the **Shuttle Rate** box). When you click on the shuttle bar, the disk recorder enters shuttle mode. You can also press **h.**
23. The **Shuttle Rate** box displays the current shuttle rate. This number ranges from –16.00 to +16.00, with the positive numbers indicating forward motion, negative numbers reverse, and 0.00 still. This number can be set by clicking on the **Shuttle Rate** box to open the Shuttle Rate dialog box, entering a shuttle rate and clicking **OK**. You can also drag the **Shuttle Bar** to a desired position. If the shuttle rate is set faster than the

maximum rate for the controller, the maximum rate is displayed.



24. The **Clip Name** box lists the names of the clips in the current clip list.
25. The **Group Name** box lists the name of the current clip list.

The functions on the Panel dialog box can be accessed directly by clicking on the appropriate button with the mouse or by using the shortcut keys shown in Table 1. For example, pressing **Shift + R** starts recording in the active panel.

Table 1. VdrPanel shortcut keys

Shortcut Key	Function	Shortcut Key	Function
Shift + R	Record	**Ctrl** + →	Forward 100 Fields
w	Rewind	**Ctrl** + ←	Back 100 Fields
s	Stop	**j** or ↓	Jog controls
p or ↑	Play	**e**	Go to Clip End
f	Fast Forward	**h**	Shuttle controls
spacebar	Stop	**t**	Go to Clip Beginning
Ctrl + A thru **H**	Activate panel **A** thru **H**	**i**	Set Mark In
→	Forward 1 Field	**o**	Set Mark Out (not zero)
←	Back 1 Field	**c**	Trim to Mark In
Shift + →	Forward 10 Fields	**u**	Trim from Mark Out
Shift + ←	Back 10 Fields	**F1**	Start Help

Opening a Panel

If none of the panels are visible, here are the steps to open a panel:

1. Choose **Window | Open Panel**. The Open a Panel dialog box appears (Figure 7).

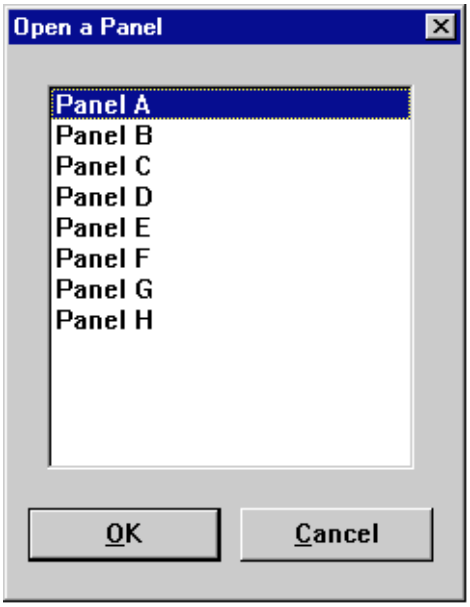


Figure 7. Open Panel dialog box

2. Select the panel you want to display, Panel A through H. Only panels that are not currently open appear in the dialog box. You can also press **Ctrl + A** through **Ctrl + H** to activate panels A through H.
3. Click **OK**.

Making a Panel Active

To make a panel active, such as Panel A, do either of the following:

- Click anywhere inside Panel A, if open.

Or:

- Choose **Window | 1 Panel A: Panel Control**.

Arranging Panels and Icons

If a panel is obscured by another panel, you can arrange the panels so that they are all completely visible. To arrange the panels in this way:

- Choose **Window | Tile Panels**.

If you have minimized the panels, you can arrange the icons with:

- Choose **Window | Arrange Icons**.

Viewing Record Capacity

The Record Capacity dialog box shows the amount of recording time remaining on the current media disk volume according to the current compression presets. To view the recording capacity:

1. Click a panel to make it active.
2. Choose **Window | Record Capacity**. A message box appears (Figure 8). In this instance, the message box shows the internal disks labeled *INT:*. The recording time remaining is represented in *Hours:Minutes:Seconds*. For more information on compression settings, see the *Profile XP System Guide*.



Figure 8. Message box showing record capacity

3. Click **Close**.

Viewing an Audio Monitor for a Panel

The Audio Monitor allows you to monitor the level of an audio signal for a panel. To view a panel's audio monitor:

1. Click a panel to make it active.
2. Choose **Window | Audio Monitor**. The Audio dialog box appears, as shown in Figure 9. There are only two channels in this example, but up to 32 channels are possible if the necessary boards are installed.

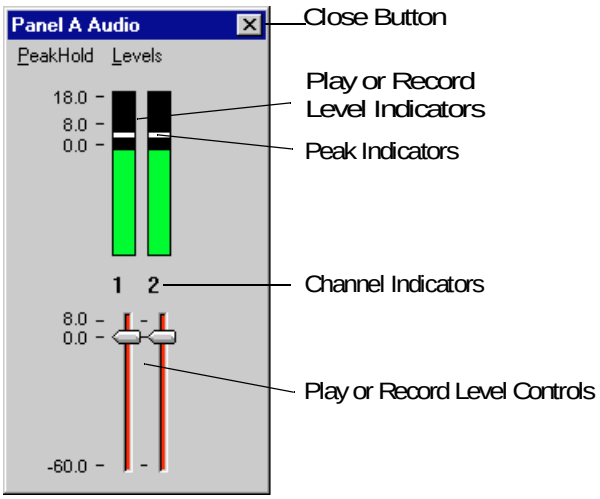


Figure 9. Audio Monitor dialog box

3. To turn peak hold on or off, choose **PeakHold | On** or **PeakHold | Off**. By default, peak hold is on. The peak indicators, the white bars in record level controls, indicates the audio peak you are currently recording.
4. To show the record level controls, choose **Levels | Show Record Level Controls**. To show play level controls, choose **Levels | Show Play Level Controls**. To hide the level controls, choose **Levels | Hide Level Controls**.
5. To work the record and play level controls independently, choose **Levels | Independent Controls**. To gang the controls, choose **Levels | Ganged Controls**.
6. Click **Close** ( ).

Using Clips

With VdrPanel, you can define, rename and delete a clip. You can load an existing clip or group of clips.

Defining a New Clip

There are two methods for defining clips:

- You can create and name an empty clip, then record to it (Name Clip First).
- You can start recording with an empty clip list, then rename the recorded clip to a meaningful name (Record Clip First).

Either method creates and stores a named clip. Use whichever method is most convenient for you. You can choose **VideoClip | Rename Clip** at any time to change a clip name.

Name Clips First

To define a clip by first naming the clip:

1. Click in a panel to select it.

Select **VideoClip | New Clip** to open the New Clip dialog box (Figure 10).

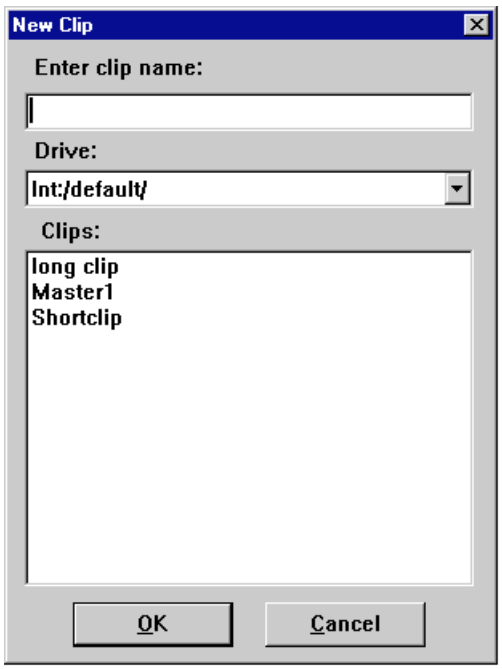


Figure 10. New Clip dialog box

2. Select a drive from the **Drive** list. The number of drives available depends on your hardware.
3. Enter a clip name, up to 32 characters long. Spaces and uppercase characters are acceptable; however, uppercase and lowercase characters will not distinguish clip names.
4. Click **OK**. The new clip is added to the clip list for the selected channel.

5. If the **Loop** button is pressed in the panel, a dialog appears asking you to specify the loop duration in the form *00:00:00:00.*
6. Click the **Record** button (in the selected Panel dialog box) to begin recording. The timecode and compression rate fields are updated.

   NOTE: A video input signal must be present on the selected channel for recording to start.

7. Click **Stop** to stop recording.

Record Clips First

To define a clip by recording and then naming the clip:

1. Click a panel to select it.
2. If any clips are listed in the **Clips** box, choose **VideoClip | Eject All Clips** to clear the clip list.
3. Click the **Record** button in the selected Panel dialog box to begin recording. A clip named **#1** (or other number for a unique clip name) appears in the clip list for the panel.
4. If you are in **Loop** mode, the clip is limited in size to either 1,000 fields or to the last clip length specified in the Loop Length dialog box.
5. Click **Stop** to stop recording.

   If you repeat these steps to record additional clips, they are named sequentially—one higher than the previous clip. For example, **#2**, **#3**, and so forth.

6. Choose **VideoClip | Rename Clip** to open the Rename Video Clip dialog box (see “Renaming a Clip” on page 36).
7. Click on the clip to be renamed (such as **#1**).
8. Enter the new name in the **To** field. Spaces and uppercase characters are acceptable; however, uppercase and lowercase characters will not distiguish clip names.
9. Click **OK**.

Loading and Playing a Clip

To load and play a clip:

1. Click in a panel to select it.
2. If the clip is already loaded, select it from the Clips box and go to step 7.
3. If the clip is not loaded, choose **VideoClip | Load Clip** to open the Load Clip dialog box.
4. If the clip you want to load is on a different drive, select a different disk drive in the **Drive** box.
5. Select the clip to load—*Richter* in this example (see Figure 11).
6. Click **OK**.
7. Click the **Play** button in the selected Panel dialog box to begin playing the clip.
8. The **Normal** or **Loop** modes determine how play back occurs:
   - **Normal** mode plays the selected clip or clip list to the end, freezing on the last field of the clip or of the last clip in the list.
   - **Loop** plays the selected clip or clip list continuously, looping back to the beginning of the clip when the clip ends, or in the case of a clip list, looping back to the first clip in the list when the last clip ends.

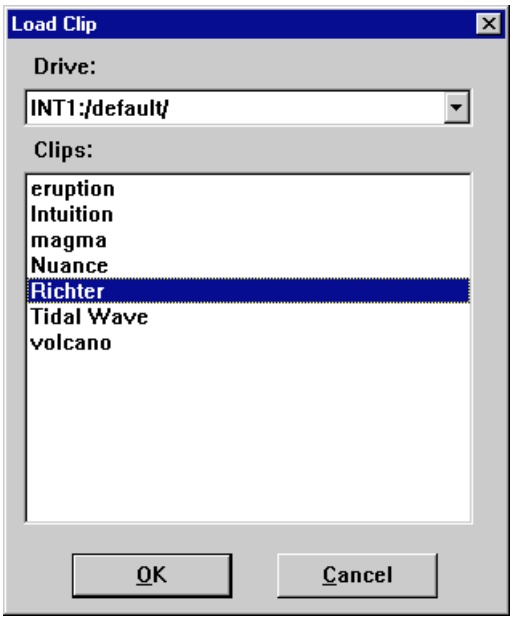


Figure 11. Load Clip dialog box

Renaming a Clip

To rename a clip:

1. Choose **VideoClip | Rename Clip**. The Rename Video Clip dialog box appears.

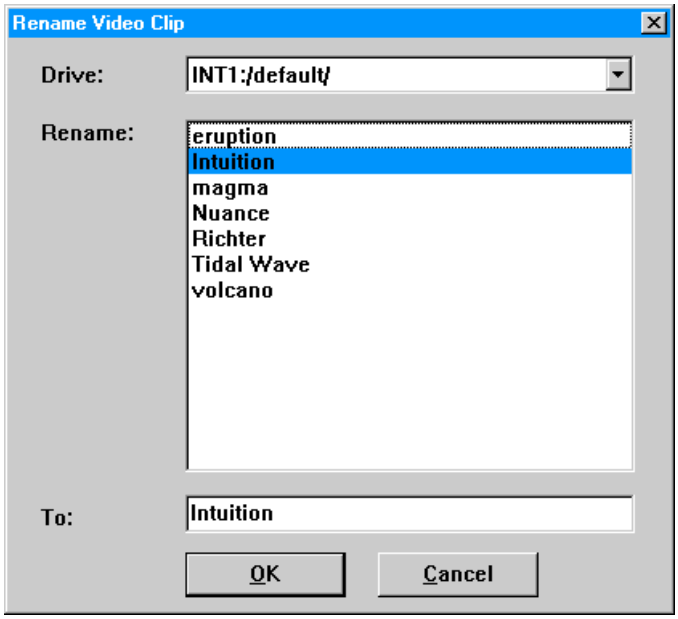


Figure 12. Rename Video Clip dialog box

2. If the clip you want to rename is in a different list, select it from the Drive box.
3. Select a clip from the Rename box. The clip name appears in the To box.
4. Edit the current name or delete the name and enter a new one. Clip names can have up to 32 characters. Spaces and uppercase characters are acceptable; however, uppercase and lowercase characters will not distiguish clip names.
5. Click **OK**.

Setting Clip Protection

To set clip read-only protection:

1. Choose **VideoClip | Set Clip Protection** and the Set Clip Protection dialog box appears.

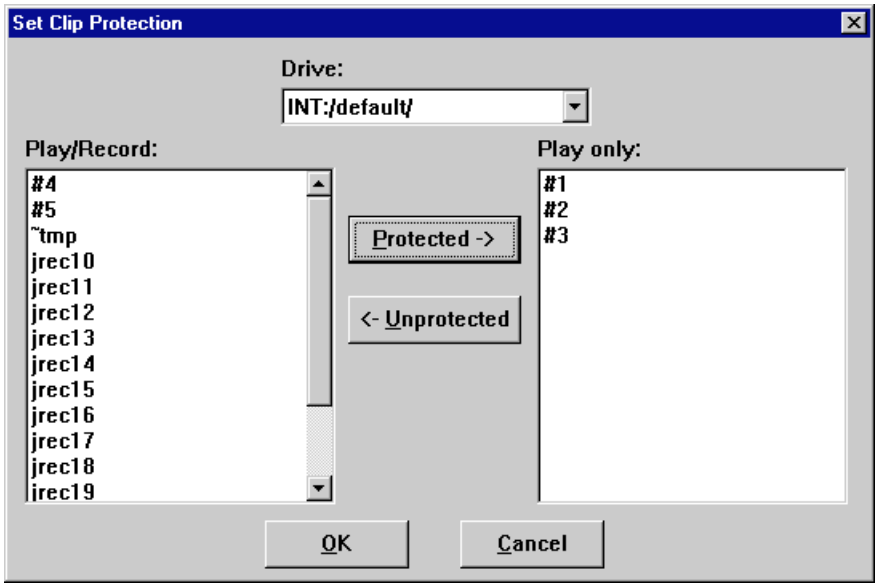


Figure 13. Set Clip Protection dialog box

2. If the clip you want to protect is in a different list, select it from the Drive box.
3. To protect a clip, select a clip in the Play/Record box and then click **Protected**. The clip is now protected as read-only.
4. To unprotect or unlock a clip, select a clip in the Read Only box and then click **Unprotected**. The clip is no longer protected.
5. Click **OK**.

Striping a Clip

Striping timecode with VdrPanel allows you to complete a striping process faster than real time. For example, on a traditional VTR, it might take you an hour to stripe a one-hour clip. But with VdrPanel, you can stripe a one-hour clip in a matter of minutes.

To stripe timecode on a previously recorded clip:

1. Choose **VideoClip | Stripe Clip** and the Stripe Timecode dialog box appears.

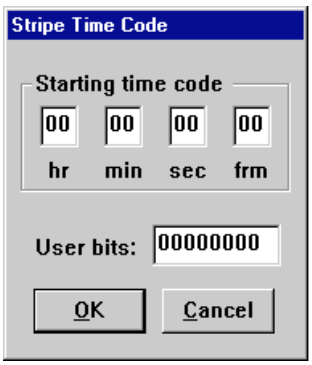


Figure 14. Stripe Timecode dialog box

2. Enter the timecode you want to start the clip with, in the form *00:00:00:00*.
3. Enter up to eight digits to mark the clip with user bits.
4. Click **OK** when complete.

Setting Long or Short Clip Names

Long clip names display the full path name of the clip, for example, *INT1:\default\clipname*. Short clip names display only the clip name. Clip names are shown in **Clip Name** box in a **Panel**.

To set the clip name to be short or long:

- Choose **Options | Display Short Name** or **Options | Display Long Name**.

  NOTE: This setting only applies to the current panel. Each panel can have a different setting for clip name length.

Ejecting All Clips

To eject all clips:

1. Choose **VideoClip | Eject All Clips**.
2. All clips in the **Clips** box in the **Panel** are ejected immediately.

Deleting a Clip

To delete a clip:

1. Choose **VideoClip | Delete Clip** to open the Delete Clip dialog box.

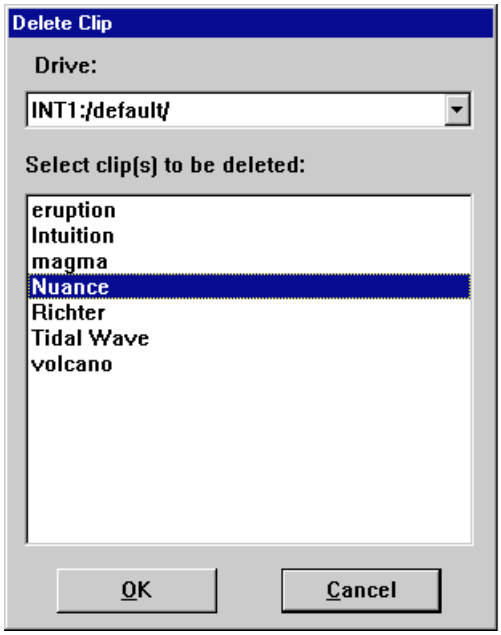


Figure 15. Delete Clip dialog box

2. If the clip you want to delete is on a different drive, select it in the **Drive** box.
3. Select the clip or clips you want to delete.
4. Click **OK** when complete. A message box appears telling you which file is being deleted.

Clip Lists

You can save and organize clips into lists (also called groups). You can load a saved group of clips. You can also save an existing group of clips under a different name. You can also create and later edit a list of clips. The groups that you save can be used in VdrPanel, but not in any other Profile XP application.

Saving a Group of Clips in a Clip List

A clip list can be saved and loaded later. To save a clip list as a group:

1. Click within the specific Panel dialog box to select the panel where the clip list is currently displayed.
2. Choose **File | Save Group of Clips** and the current list of clips, as shown in the **Clips** box, is saved in the current group (*.grp*). If the clips have not been saved in a group previously, the Save Group of Clips dialog box appears.



Figure 16. Save Group of Clips dialog box

3. If you have not already saved the group, choose **File | Save Group of Clips As.**
   The **Save As** command enables you assign a different name to an already named group of clips, preserving the contents of the original group. The saved group can be loaded at any time with **VideoClip | Load Group**.

Playing a Clip List

To play a list of clips:

1. Click within the specific Panel dialog box to select the panel.
2. Choose **VideoClip | Load Group** if the clip list you want to play is not currently loaded.



Figure 17. Load Group of Clips dialog box

3. Select the group and click **OK**. In this example, the group is *Seismic.grp*.
4. Click on the first clip in the clip list.
5. Click **Play** to start playing the clip list.

Editing a Clip List

To edit a clip list (group of clips):

1. Click a panel to select it.
2. Choose **Video Clip | Load Group** if the clip list to be edited was previously saved as a group. Select the group and click **OK.**
3. Choose **VideoClip | Edit Clip List** to open the Edit Clip List dialog box.

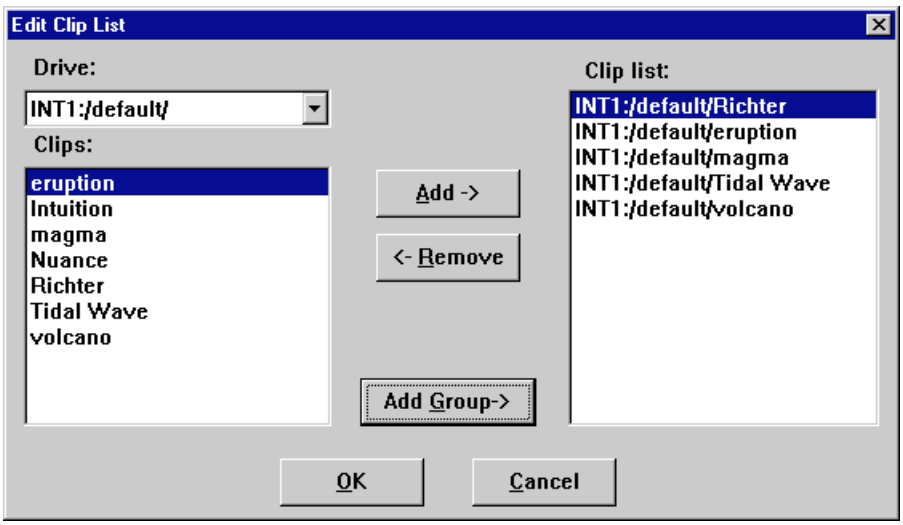


Figure 18. Edit Clip List dialog box

4. To add a clip to the current list loaded in step 1, select a clip in the Clips box and then click **Add**. It is added to the Clip List box (with a long clip name).
5. To remove a clip from the current list, select a clip from the **Clip List** box, and click **Remove** to remove the clip from the list. This does not delete the clip from disk—it simply removes a reference from the clip list.
6. To edit a different group, click **Add Group** to bring up the Load Group of Clips dialog box.
7. Click **OK** when complete.

Setting In and Out Marks in Clips

You can set a temporary beginning and ending to a clip by marking an in point, an out point or both. The video and audio data is not lost, however: it simply is not used when the clip is played. For example, if you set a mark-in point five seconds into a clip, it plays at the five second mark instead of at the beginning, but if you remove a mark-in, it returns the beginning of the clip to the actual clip start.

NOTE: Setting in and out marks applies to Panel Control only. It is* not *recommended for other protocols.

Setting Marks

To set a new in mark and out mark in a clip:

1. Click a panel to select it.
2. Create a clip, load a clip, or load a clip list and then select a clip from the list. The **Clip Position Bar** is all the way to the left and the **Timecode** is 00:00:00:00.
3. Use the transport controls, drag the **Clip Position Bar**, or click on the **Timecode** display to enter a timecode to locate the frame where you want to set the in mark.



4. Click **Set In Mark**. The **Timecode** display remains the same, but the **Clip Position Bar** jumps to the far left, indicating the mark-in point on the clip.
5. Use the transport controls, drag the **Clip Position Bar**, or click on the **Timecode** display to enter a timecode to locate the frame where you want to set the out mark.



6. Click **Set Out Mark**. The **Timecode** display remains the same, but the **Clip Position Bar** jumps to the far right, indicating the mark-out point of the clip.
7. Drag the **Clip Position Bar** to the beginning of the clip.
8. Click **Play**. The clip starts at the in mark and stops at the out mark.

Removing Marks

To remove in and out marks from a clip:

1. Select a clip containing marks in the **Clip Name** box.



2. Click the **Remove In Mark** button to remove a mark-in point and reset the clip beginning to the actual start of the clip.



3. Click the **Remove Out Mark** button to remove the mark-out point and reset the clip ending to the actual end of the clip.

Trimming Clips

You can trim a clip from the beginning of the clip to the in mark or from the out mark to the end of the clip. This action affects all copies of the clip on all panels. The trimmed material is not retrievable. A warning message and verification prompt are displayed before the function completes.

To trim a clip:

1. Select a clip with either in or out marks or both in the **Clip Name** box.



2. Click the **Trim to Mark** button to remove the portion of the current clip preceding the in mark.



3. Click the **Trim from Out Mark** button to remove the portion of the current clip following the out mark.

Chapter 3

Using Media Manager

The Profile Media Manager allows you to have access to digitally stored media and provides tools for managing that media—such as explore, cut, copy, paste, and delete. Media may be stored locally your Profile XP system, or it may be on a remote Profile system or its directly attached library system. You can also transfer media stored on any Profile system on your Profile network via a Fibre Channel connection.

Digital video and audio media may be stored in volumes. A volume is a disk set or file system on one of the following machines, including attached external media drives:

- PVS 1000 Media Platform
- PDR 200, PDR 300 or PDR 400 Video File Server
- PDR 100 Professional Video Disk Recorder

Video and audio clips can also be stored on digital tape cartridges in the PLS 20 and PLS 200 Profile Library Systems, or on any other supported directly attached digital tape library.

If you move media between Profile systems, keep in mind the capabilities of your machines. For example, you can transfer a DVCPRO 25 clip from a PDR 400 to a PVS 1000, but you cannot play it on that machine. PVS 1000 systems play and record MPEG clips only.

With Media Manager, you view media in a tree structure. On disk, media may consist of video and audio clips and masters. Clips and masters are organized into bins that are kept on a volume or file system. A bin is a container for clips and masters, similar to a directory on a computer. A clip refers to segments or portions of a media file or a media file in its entirety. A master is an edited sequence of clips. On a cartridge in a library system, media also consists of clips and masters. Cartridges are divided into one or more partitions.

Starting and Exiting the Media Manager

To start the Media Manager application with Windows NT:

- Double-click the Media Manager shortcut icon.

Or:

- Choose **Start | PDR Applications | Media Manager**.

The Media Manger window appears (see Figure 19). The tree pane is on the left and the contents pane is on the right. What appears in the contents pane depends on what you select in the tree pane. For example, if you select the volume icon **INT:** in the tree pane, the Recycled and default bins appear in the contents pane. If you select a bin, the masters and clips in that bin appear in the contents pane. Masters and clips will only appear in the contents pane.

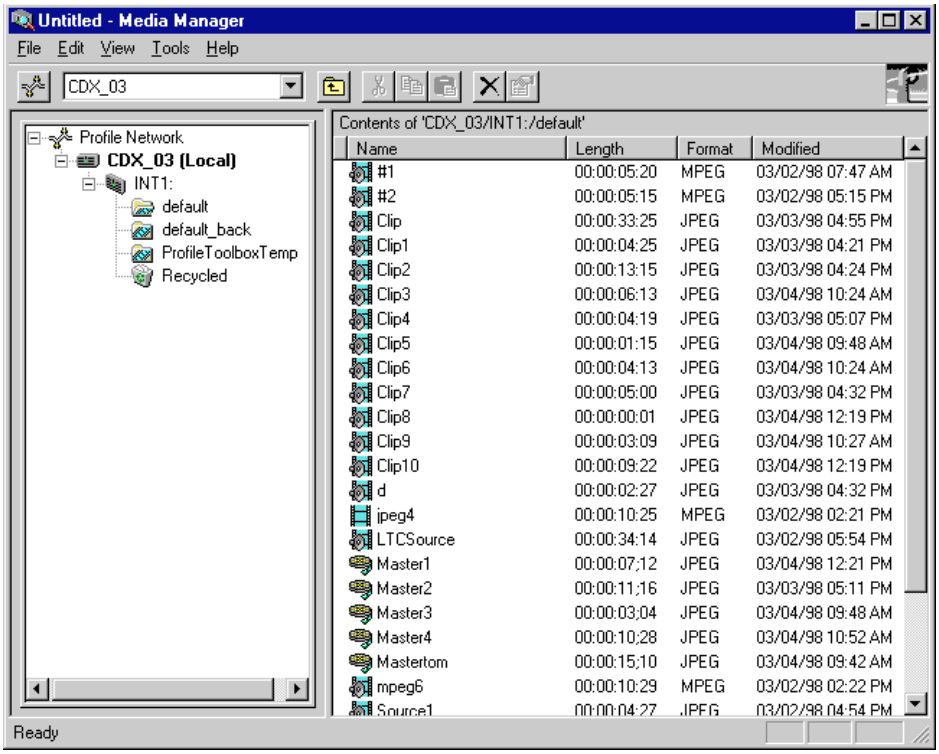


Figure 19. Media Manager window

To exit the Media Manager, choose **File | Exit**.

A message box is displayed, asking you to confirm that you really want to exit the Media Manager application. Click on the **Yes** button to confirm the exit or the **No** button to cancel the quit command.

Whenever you start the Media Manager, a Hardware Communication Monitor is also started, if it is not already running. This program makes calls to the disk recorder and keeps track of the Profile host file (*profile.hst*) which lists Profile systems on the network. The Hardware Communication Monitor is normally invisible in its operation, but is essential to the operation of Media Manager. It appears in the Processes tab of the Windows NT Task Manager as VMHWCOM.EXE; ending this process will stop Media Manager as well.

Starting Other Applications from the Tools Menu

You can start other tools and applications from Media Manager's **Tools** menu:

- Choose **Tools | Transfer Monitor** to start the Transfer Monitor tool. See "Viewing the Transfer Monitor" on page 84.
- Choose **Tools | Media Manager** to start another instance of the Media Manager.
- Choose **Tools | Tool Box Editor** to start the optional Tool Box Editor, if available. See the *Profile Tool Box User Manual*.
- Choose **Tools | List Manager** to start the optional List Manager, if available. See the *Profile Tool Box User Manual.*
- Choose **Tools | Transcode** to start the Transcode Utility. This utility converts media between different compression formats, such as from JPEG to MPEG. You can also use the Transcode Utility to create a new clip with the same compression format, but a different compression setting. See "Using the Transcode Utility" on page 63.

When an application is started from the Media Manager, it initially connects to the machine that was selected in the Media Manager's machine list box. If the application is not installed, an error occurs.

Viewing and Hiding the Toolbar and Status Bar

By default, the toolbar is visible. To hide it:

- Choose **View | Toolbar**.

To make it visible again, choose **View | Toolbar** again.

By default, the status bar is visible. To hide it:

- Choose **View | Status Bar**.

To make it visible again, choose **View | Status Bar** again.

To refresh the tree and contents panes:

- Choose **View | Refresh** or press **F5**.

Viewing Help and Software Version Information

To view Help topics on Media Manager:

- Choose **Help | Media Manager Help Topics.**

To view program and software version information and copyright:

- Choose **Help | About Media Manager.**

Connecting to a Remote Machine

You can connect from your local Profile XP machine to any remote Profile machine. You can also connect remotely from any PC running Windows NT 4.0. A local Profile machine refers to a Profile system on which you are currently using Media Manager. A remote Profile machine refers to a Profile system that is connected to your local system via an Ethernet local area network (LAN).

The Hardware Communication Monitor makes calls to the disk recorder, manages the contents of the Profile host file (*profile.hst*), owns connections to the machines listed in the host file, and passes on change notifications received from each of these machines when other applications—such as other instances of Media Manager—are running simultaneously.

While Hardware Communication is initializing, Media Manager shows the Hardware Communication Monitor message box. If you click the **OK** button, this message box is minimized.

To connect to a remote Profile machine on your Profile network:

1. Choose **Add/Remove Machine** from the **File** menu or from the shortcut menu with a right-click on a machine, volume, or network icon in the tree pane. You can also click the **Add/Remove Machine** button on the toolbar. The Add/Remove Machine dialog box appears (see Figure 20). The label *Local* appears after the name of the local Profile machine.

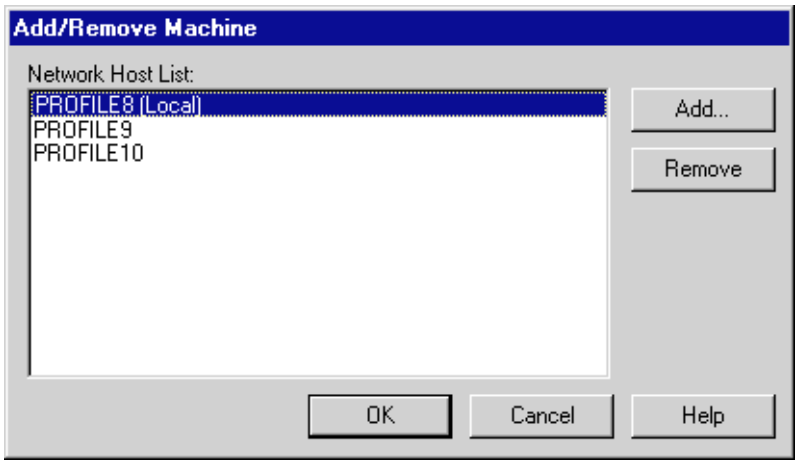


Figure 20. Add/Remove Machine dialog box

2. To add a remote Profile machine to the network host list, click **Add**. The Add Network Host dialog box appears.

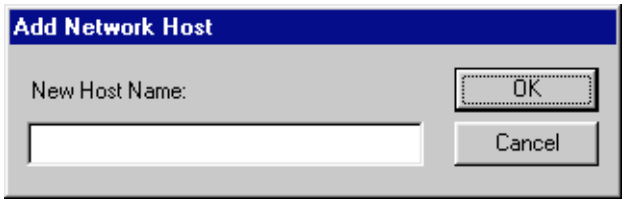


Figure 21. Add Network Host dialog box

3. Enter the name of the machine in the New Host Name box. This can be the host name or the machine's IP address (such as 128.161.37.138).
4. Click **OK**. The new host name is added to the network host list. You can click the **Add** button again to add as many machine names as you want.
5. Click **OK**. The connection status message box appears to show the progress of new connections.

To remove a Profile machine from the network host list:

1. Choose **Add/Remove Machine** from the **File** menu or from the shortcut menu with a right-click on a machine, volume, or network icon in the tree pane. You can also click the **Add/Remove Machine** button on the toolbar. The Add/Remove Machine dialog box appears.
2. Select the name of the machine you want to remove in Network Host List box.
3. Click **Remove**.
4. Click **OK**.

Viewing the Media Hierarchy

The Media Manager window is divided into two main sections: the tree and contents panes. Clips and masters appear in the contents pane. Items are listed alphabetically.

In the tree pane, you can expand or collapse the tree hierarchy by clicking on the + (plus) or – (minus) control buttons, as shown in Figure 22. If you click on a + button, the tree hierarchy is expanded or opened so you can see the branch. For example, under a volume, you see bins. Clicking on the – button collapses or closes the associated branch of the tree, hiding the bins under the volume.

To explore the contents of an item, select the icon representing it and then choose **Explore** from the shortcut menu which is displayed with a right-click. If present, clips and masters are displayed in the contents pane. In this pane, you see information about the media:

- The name of the clip or master.
- The length of the media in the form **00:00:00:00** (Hours:Minutes:Seconds:Frames).
- The compression format of the media: **MPEG, DVCPRO** or **JPEG**.
- The date and time the media was last modified, in the format: **12/2/94 9:40 PM** (Month/Day/Year Hours:Minutes AM/PM).

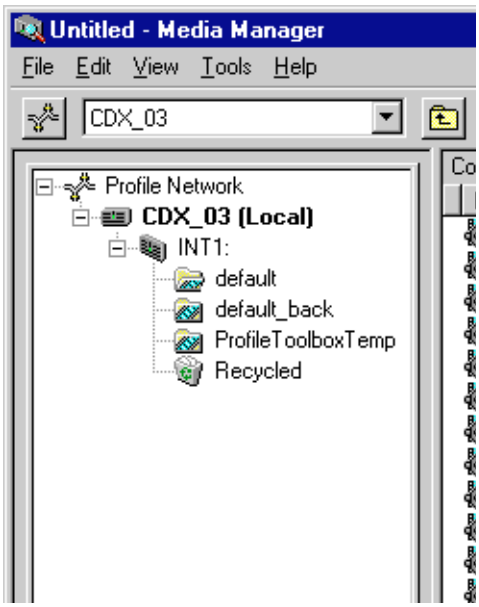


Figure 22. The Media Manager tree pane

The icons shown in tree pane are explained in more detail here.

The Profile network icon is the root for all other items in the tree pane.

Profile machines. Each icon is labeled with the Profile machine's name. A Profile can be a local machine or one connected via Ethernet alone.

A Profile machine connected via Ethernet and Fibre Channel.


An unconnected machine icon. Appears if no connection could be made. This icon cannot be expanded.


A non-Profile server that recognizes Media Manager connection requests. Media may be copied to this server from other machines on the Fibre Channel network.


A volume. A machine's storage is divided into one or more volumes. The volume icon represents a physical set of disks. A Profile XP has a single volume comprised of all of its connected RAID disks. Older Profile systems may have several —either an internal disk set, and external expansion box (such as the PDX208), or a RAID disk array (PRS250).


A closed bin.


An open bin.


A Recycle bin appears below each volume.


A master.


A locked master.


Clips and archived clips with audio and video.


Locked clips and archived clips with audio and video.


Clips and archived clips with no audio.


Locked clips and archived clips with no audio.


Clips and archived clips with audio only (no video).


Locked clips and archived clips with audio only (no video).


An item in the Profile clip database that Media Manager does not recognize.


A library system – appears after volumes. The library icon appears only on machines directly connected to a Profile library system.


A cartridge – appears below the library icon.


A cartridge that is out of the library.


A cleaning cartridge – may appear anywhere in the cartridge list.


An unformatted cartridge.


An unformatted, out-of-library cartridge.


Cartridges that are in an unknown state.


An unknown, out-of-library cartridge.


A partition – appears under cartridges. This is a closed partition.


An open partition.

Toolbar

The Media Manager toolbar provides one-button access to commands:


Add/Remove Machine: Opens the Add/Remove Machine dialog box.


Select Current Machine box: Expands the machine item in the tree.


Up One Level: Goes to the folder one level up.


Cut: Removes the selected items and copies them onto the clipboard. Use **Paste** to put them in the new location.


Copy: Copies the selected items to the clipboard. Use **Paste** to put them in the new location.


Paste: Inserts the items you have copied or cut into the selected location.


Delete: Deletes the selected items.


Properties: Displays the properties of the selected item.

Copying Media

To copy one or more clips or masters:

1. In the contents pane, select a clip or master. To extend the selection, press Shift-Up Arrow or Shift-Down Arrow. Choose **Edit | Select All** or Ctrl-A to select all the media in the contents pane.
2. Choose **Copy** from the **Edit** menu or from the shortcut menu with a right-click. You can also click the **Copy** button on the toolbar.
3. Select the location where you want to paste the item. This can be another bin or anywhere in the contents pane when a bin is selected. The selected location may even be in another Media Manager window. If both the source and the destination locations reside on machines connected to the Fibre Channel network, you may copy between machines.
4. Choose **Paste** from the **Edit** menu, or from the shortcut menu with a right-click. You can also click the **Paste** button on the toolbar. A clip may be pasted into the same bin it was copied from. In this case the clip is automatically renamed. Media Manager automatically suggests a new name that does not conflict with any other item at the selected location. The new name is based on the old name with the addition of a number: *source* becomes *source_1*. When you are copying clips to a volume other than the source volume on a Profile system or an library system, **Paste Special** is available as an option on the **Edit** and right-click shortcut menus.

   NOTE: It is possible to play clips or masters with VdrPanel or Tool Box Editor while they are being copied over Fibre Channel.

To copy a bin:

1. In either the tree pane or the contents pane, select a bin.
2. Choose **Copy** from the **Edit** menu or from the shortcut menu with a right-click. You can also click the **Copy** button on the toolbar.
3. Select another bin into which you want to paste the first bin's contents. The selected location may even be in another Media Manager window. If both the source and the destination locations reside on machines connected to the Fibre Channel network, you may copy between machines.
4. Choose **Paste** from the **Edit** menu, or from the shortcut menu with a right-click. You can also click the **Paste** button on the toolbar. The bin may be pasted into the same bin it was copied from. In this case the bin is automatically renamed. Media Manager automatically suggests a new name that does not conflict with any other item at the selected location. The new name is based on the old name with the addition of a number: *source* becomes *source_1*.

   NOTE: Copying a bin means that all clips and masters in the bin are copied to the new location.

Using Paste Special

Paste Special is a method of pasting clips or masters that are currently on the clipboard as a result of a copy or cut operation. **Paste Special** is enabled only when you have selected a bin on a different volume a bin on a remote machine, or a partition in a library system.

Unlike **Paste**, which always copies the material between a clip's mark in and out points, **Paste Special** offers you the option of copying all the media that the clip references. To use **Paste Special** after placing media on the clipboard, choose **Paste Special** from the **Edit** menu or the right-click shortcut menu. When the Paste Special dialog box appears, click the button for the paste option you prefer, then click **OK**.

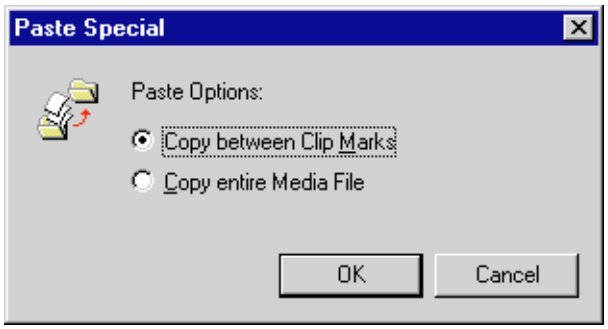


Figure 23. The Paste Special dialog box

Moving Media

To move a clip or master to another bin:

1. In the contents pane, select a clip or master. To extend the selection, press Shift-Up Arrow or Shift-Down Arrow. Choose **Edit | Select All** or **Ctrl-A** to select all the media in the contents pane.
2. Choose **Cut** from the **Edit** menu or from the shortcut menu with a right-click. You can also click the **Cut** button on the toolbar.
3. Select the location where you want to paste the media. This can be another bin or anywhere in the contents pane when a bin is selected. The selected location may even be in another Media Manager window. If both the source and the destination locations reside on machines connected to the Fibre Channel network, you may copy between machines.
4. Choose **Paste** from the **Edit** menu, or from the shortcut menu with a right-click. You can also click the **Paste** button on the toolbar. Pasting media into the same bin has no effect.

To move a clip or master using **Paste Special**:

1. In the contents pane, select a clip or master. To extend the selection, press Shift-Up Arrow or Shift-Down Arrow. Choose **Edit | Select All** or **Ctrl-A** to select all the media in the contents pane.
2. Choose **Cut** from the **Edit** menu or from the shortcut menu with a right-click. You can also click the **Cut** button on the toolbar.
3. Select the location where you want to paste the media. To use **Paste Special**, you must select a bin on a different volume, a bin on a remote machine, or a partition in a library system.
4. Choose **Paste Special** from the **Edit** menu, or from the shortcut menu with a right-click.

When the Paste Special dialog box appears, click the button for the paste option you prefer, then click **OK**.

To move a clip or master using drag and drop:

1. In the contents window, select one or more clips or masters.
2. Drag the selection and drop it at the appropriate location. This can be a bin or anywhere in the contents pane when a bin is selected. The selected location may even be in another Media Manager window. The tree pane will automatically scroll when dragging a bin to the very top or bottom of the tree.

If you hold down the **Ctrl** key when you drop the item, the item is copied to the new location, not moved. Dragging a clip or a master to a different machine or volume always results in a copy—the original clip is not deleted.

When copying or moving clips to a new location, if a clip or master with the same name already appears at that location, you will be prompted to change the name or cancel the operation, as shown in Figure 24.

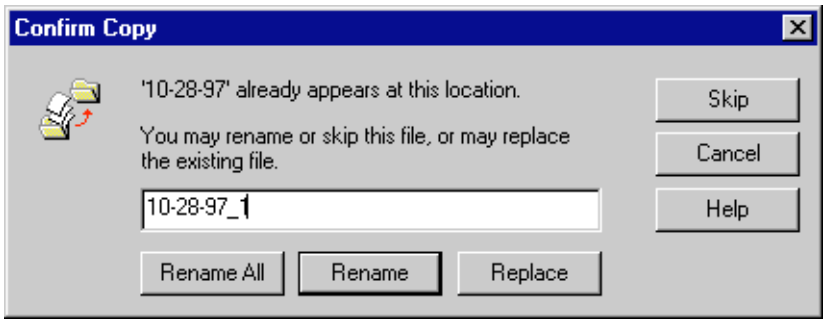


Figure 24. Confirm Copy dialog box

Duplicating Media

To *duplicate* media means that you copy a clip or master and the underlying media files that the clip or master reference. A normal copy operation between locations on the same Profile machine does not copy the associated media files, only references to those media files.

NOTE: You can play clips or masters with VdrPanel or Tool Box Editor while Media Manager is duplicating the clip or master. This is only practical for longer media.

To duplicate a clip or master:

1. In the contents pane, select the clip or master you want to duplicate.
2. Choose **Duplicate** from the **Edit** menu or from the shortcut menu with a right-click. The Duplicate operation always automatically renames the new clip.

Creating, Renaming and Deleting Bins

A bin can have a name up to 32 characters long. Spaces are legal characters, but count for two characters. Colons (:) and slashes (/) are illegal. Tildes (~) are illegal as a first character in a bin name.

To create a new bin:

1. In the tree pane, select the machine or volume where you want to create the new bin. When a volume icon is selected, the new bin is added to that volume. When a machine icon is selected, a new bin is created in the first volume in that machine.
2. Choose **New Bin** from either the **File** menu or from the shortcut menu with a right-click.
3. A new bin called *NewBin* is placed in the tree. The bin name is highlighted so you can change it. Accept the new bin name by pressing **Enter**.

NOTE: Renaming a bin involves modifying the path of every clip or master in the bin to reflect the new name. If a clip or master cannot be renamed because it is locked or in use, you end up with two bins: one with the old name and one with the new one. The clip that could not be modified remains in the bin with the old name.

To rename a bin:

1. Select the bin in either the tree or contents pane.
2. Choose **Rename** from either the **File** menu or from the shortcut menu with a right-click. You can also select the bin a second time.
3. The name of the bin is highlighted. Type a new name for the bin and press **Enter**.

NOTE: Deleting a bin involves deleting every clip or master currently in the bin. If a clip or master cannot be deleted because it is locked or in use, the bin is not deleted either—it will only contain those clips or masters that could not be deleted. The rest go to the* Recycle *bin or are deleted directly.

To delete a bin:

1. Select the bin or bins in either the tree or contents pane.
2. Press **Delete**, **Backspace**, choose **Edit | Delete** or with a right-click, choose **Delete** from the shortcut menu. Press **Shift-Delete** to skip the **Recycle** bin and delete the bin or bins immediately.
3. The bin icon disappears from the tree and the contents of the bin are moved to the **Recycle** bin.

Renaming Clips and Masters

A clip or master can have a name up to 32 characters long. Spaces are legal characters, but count for two characters. Colons (:) and slashes (/) are illegal in clip and master names. Tildes (~) are only illegal as first characters.

To rename a clip or master:

1. Select the clip or master in the contents pane.
2. Choose **Rename** on the **File** menu or with a right-click. You can also select the item a second time.
3. The name of the clip or master is highlighted. Type a new name for the clip or master and press Enter.

Deleting Clips and Masters

When a clip or master is deleted, it is just moved to the **Recycle** bin. It is permanently deleted when the **Recycle** bin is emptied.

To delete a clip or master:

1. Select the clip or master in the contents pane.
2. Press **Delete**, **Backspace**, or choose **Delete** on the **File** menu or from the shortcut menu with the right-click. Press **Shift-Delete** to skip the **Recycle** bin and delete the material immediately.
3. The clip or master icon disappears from the tree and is moved to the **Recycle** bin.

Emptying the Recycle Bin

When a clip or master is deleted, it is moved to the **Recycle** bin and is permanently deleted when the **Recycle** bin is emptied. If an item of the same name is in the **Recycle** bin, the new item is automatically renamed.

To empty the **Recycle** bin:

1. Select the bin labeled Recycled in the tree pane.
2. Choose **Empty Recycle Bin** with a right-click or from the **File** menu.

To always delete media immediately, avoiding the **Recycle** bin:

1. Select the bin labeled **Recycled** in the tree pane.
2. Choose **Properties** with the right-click or from the **File** menu. The Recycle Bin Properties dialog box appears (see Figure 25).
3. Click the **Options** check box to enable immediate removal of deleted items.
4. Click **OK**.

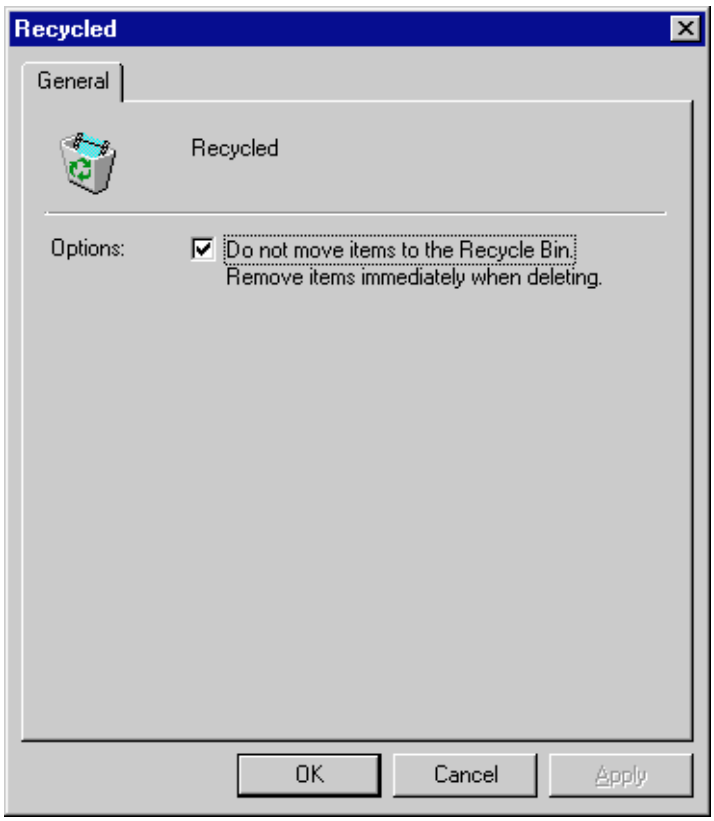


Figure 25. Recycle Bin properties dialog box

Viewing Properties

Media Manager lets you view the properties of a volume, media properties for clips and masters, and properties for a library system (see “Viewing Library, Cartridge and Archived Clip Properties” on page 79).

To view volume properties:

1. Select a volume in the tree pane.



2. Choose **Properties** from the **File** menu or from the shortcut menu with a right-click. You can also click the **Properties** button on the toolbar. The Properties dialog box for volumes appears (see Figure 26).

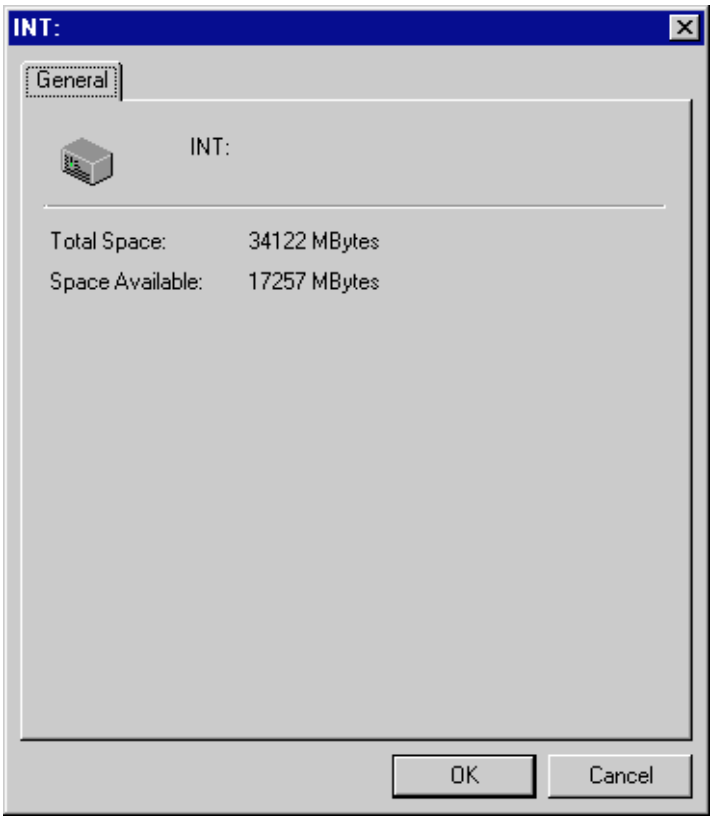


Figure 26. Properties dialog box for volumes

To view media properties:

1. Select a clip or master in the contents bin.



2. Choose **Properties** from the **File** menu or from the shortcut menu with a right-click. You can also click the **Properties** button on the toolbar. The Properties dialog box for clips or masters appears (see Figure 27).

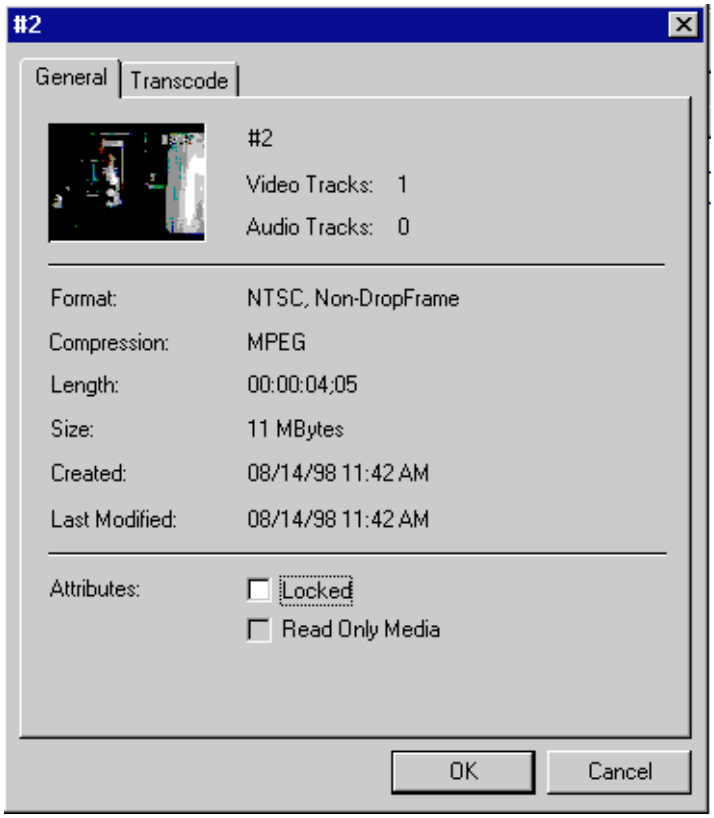


Figure 27. Properties dialog box for clips or masters

3. Click the **General** tab to view these properties:

   - A preview frame of the clip or master to help identify it. Preview frames are not available for MPEG masters.
   - The name of the clip or master.
   - How many tracks the clip or master uses for both audio and video.
   - The video format, either NTSC or PAL. NTSC clips are recorded with either drop-frame or non-drop-frame timecode.
   - The compression format, either MPEG, DVCPRO, or JPEG.
   - The length of the clip or master. The length is shown in timecode format: **00:00:00:00** (Hours:Minutes:Seconds:Frames).
   - The size of the media in megabytes (MBytes).
   - The date and time that the media was created and the date and time it was last

changed. The date and time the media was created or last changed is shown in the format: **12/2/94 9:40 PM** (Month/Day/Year Hours:Minutes AM/PM).

4. Click the **Locked** box to lock (or unlock) the media under Media Manager. Clips and masters with the locked attribute cannot be renamed, deleted, or modified in any way.

   If the **Read Only Media** box is checked, it means that the media is protected under VdrPanel and cannot be deleted or rerecorded, but you can change marks. See "Setting Clip Protection" on page 37.

5. Click the **Transcode** tab to view the transcode history (shown in Figure 28) for the master or clip. Each entry on the history page contains the date and time of the conversion, user description, target format, and when applicable, data rate, chrominance value, and GOP structure.

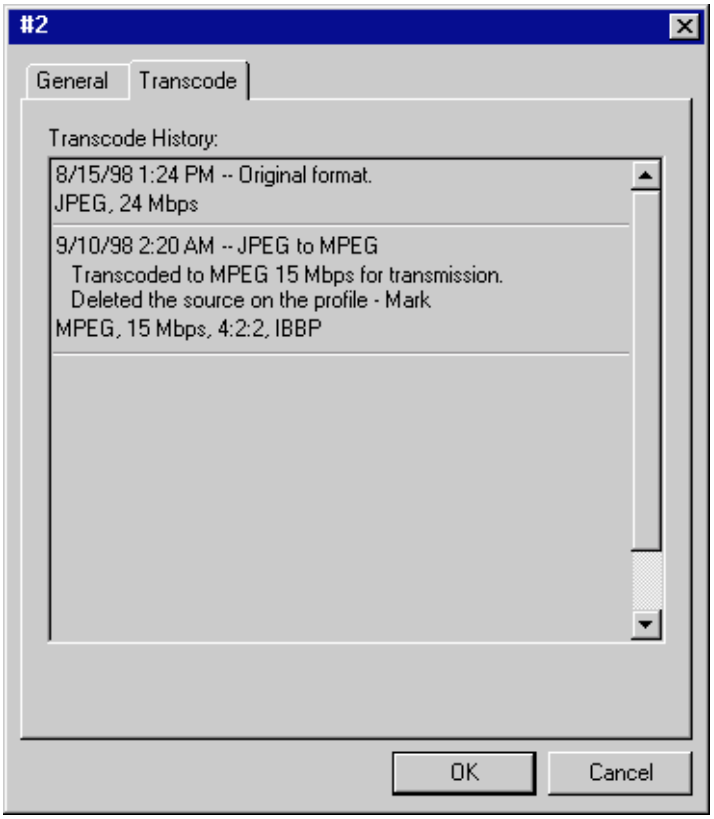


Figure 28. The transcode history page

Finding Clips and Masters

You can locate clips and masters anywhere on the Profile network. If you select the Profile Network icon, you will search all machines and libraries on the network. If you select a machine, your search will be limited to that machine's volumes and attached library. If you select a cartridge in a library, your search includes all partitions in the cartridge.

1. Select the item where you want to begin your search in either the tree or contents panes.
2. Choose **Find** on the **Edit** menu or from the shortcut menu with a right-click. The Find dialog box appears (see Figure 29).

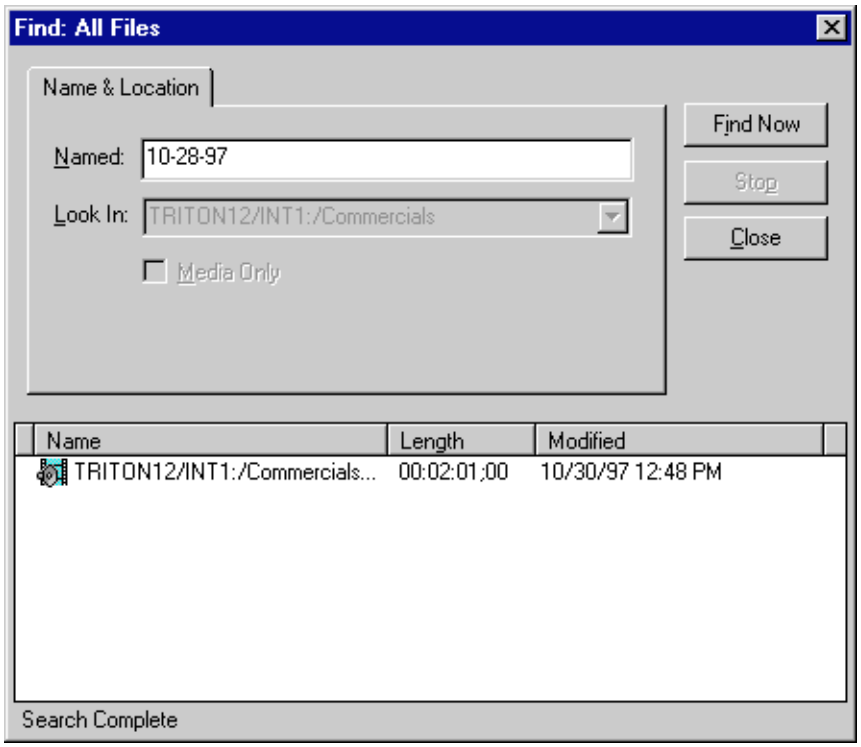


Figure 29. Find All Files dialog box

3. Enter the name of the clip or master in the Named box—in this example, *10-28-97*. The Look In box indicates where the search will begin.

   NOTE: Wildcards are not supportedas search items. You must provide the exact name of the item.

4. Click **Find Now**. Click **Stop** to end the search. When a match is found, the result is displayed in the box at the bottom of the Find All Files dialog box, as shown in Figure 29.
5. If you double-click an item in the list of found items, the tree pane is expanded and the item is selected in the contents pane.
6. You can copy an item from the found list by holding the **Control** key and dragging the item to the desired location, or you can move it by dragging it without the **Control** key.
7. Click **Close** when you have completed your search.

Using the Transcode Utility

If you have different types of codecs or encoders and decoders in your Profile system, you may wish to convert clips from one compression format to another, such as from JPEG to MPEG on a PDR 300. If your Profile system supports only one compression format, such as MPEG on a PVS 1000, you can use the Transcode Utility to create new clips with a different video quality. The Transcode Utility is a tool that makes format conversions easy. The Transcode Utility converts media files—clips and masters—in several different ways. For example, depending on the Profile system's capabilities, you may be able to convert:

- From MPEG to MPEG using a different video quality
- From JPEG to JPEG using a different video quality
- From JPEG to MPEG
- From MPEG to JPEG
- From JPEG to DVCPRO
- From DVCPRO to JPEG

NOTE: Converting a low-quality video clip to a higher quality (higher bit rate) will not improve the video quality of the clip, though it will consume more disk space.

The Transcode Utility is started from the **Tools** menu in Media Manager.

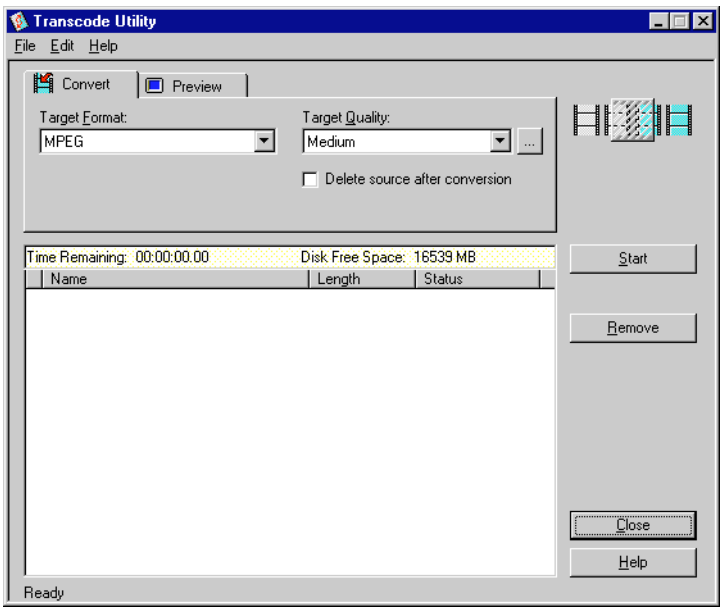


Figure 30. Transcode Utility window

To convert clips or masters:

1. Select one or more clips or masters that you want to transcode in Media Manager's contents pane.
2. In Media Manager, choose **Tools | Transcode**. The Transcode Utility dialog box appears with the selected media in the transcode list.

3. You may add more clips or masters to the transcode list by dragging them from Media Manager and dropping them on the list. You can also transfer media using **Copy** and **Paste** commands.

4. In the **Convert** tab, select the target format, either MPEG, DVCPRO, or JPEG.

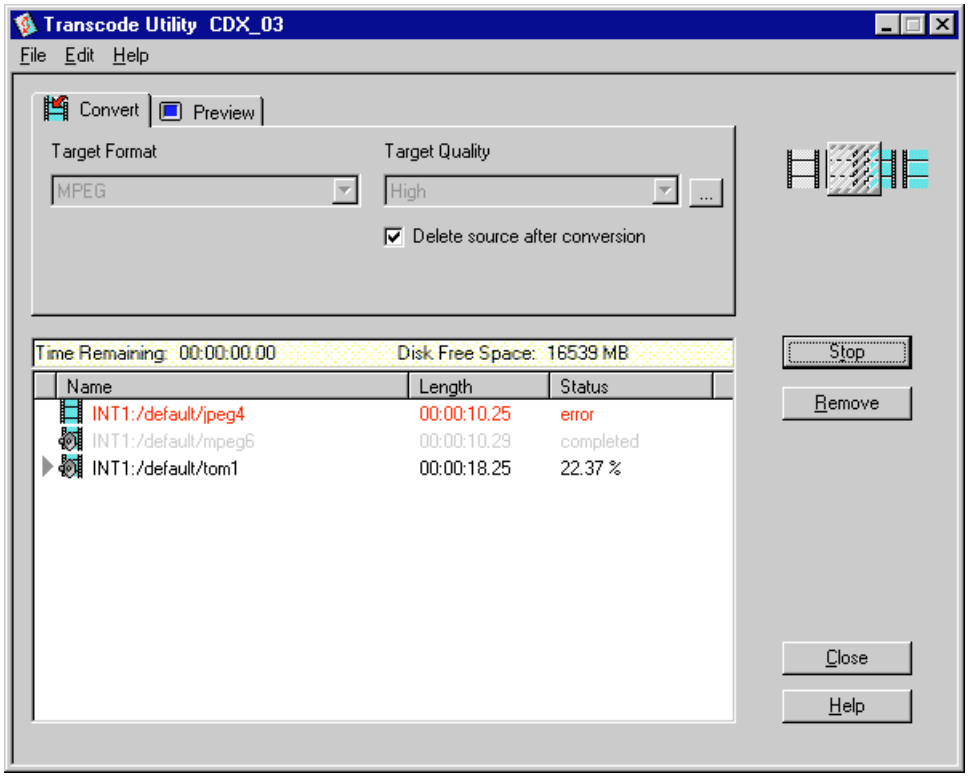


Figure 31. Transcode Utility dialog box, Convert tab

5. In the Video Quality box, select a video quality if you want something other than the default (Medium). The higher the quality, the more disk space is used.

6. To change a custom quality setting, click the button next to the Video Quality list box, and the Custom Video Quality Settings dialog box appears. Select either **Custom1** or **Custom2** in the Video Quality list box. When selected, you can change the name of a custom setting. Click **Undo** to cancel changes and **OK** when done.

- For JPEG (see Figure 32 and Table 2) select a video quality with the slider. You can move the slider with the mouse or arrow keys.

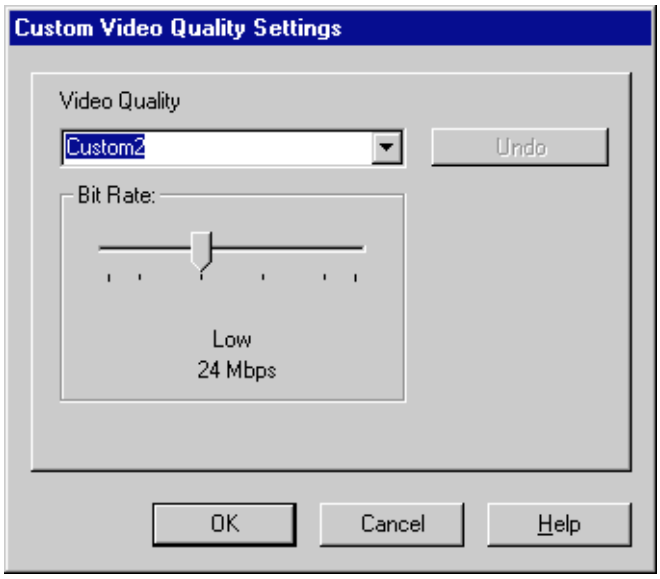


Figure 32. JPEG Custom Video Quality Settings dialog box

Table 2. JPEG video quality (compression)

Quality Settings	Compression in Mbps
Draft	12
Low	24
Medium (default)	36
High	48
Custom 1 or 2	6–54

- For MPEG (see Figure 33 and Table 3) select a chrominance value, either **4:2:0** or **4:2:2**. Then move the diamond on the grid or click the High, Medium, Low, or Draft button—the corresponding bit rate and picture structure is shown on the right side of the dialog box.

NOTE: You can edit I-frame clips only. To make an MPEG clip I-frame, drag the diamond to the far left side of the grid.

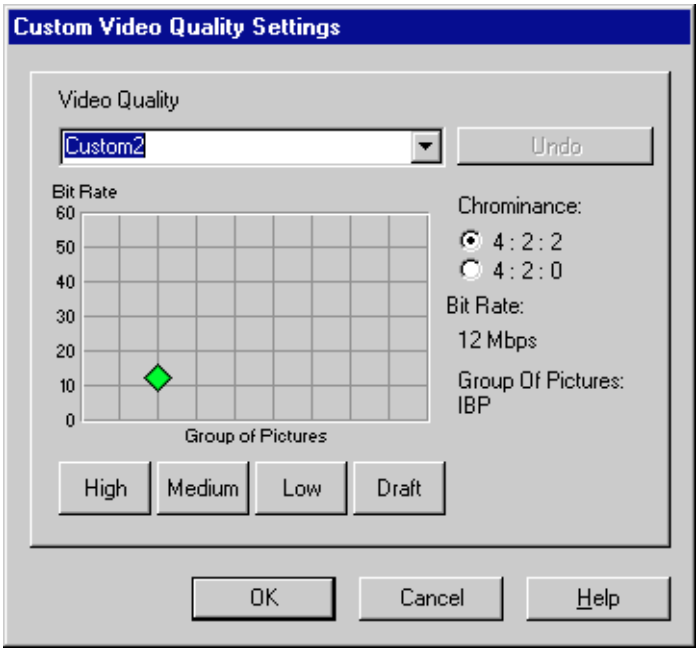


Figure 33. MPEG Custom Video Quality Settings dialog box

Table 3. MPEG Video quality (compression)

Quality Settings	Compression in Mbps	Chrominance
Draft	4	4:2:0
Low	8	4:2:0
Medium (default)	15	4:2:2
High	24	4:2:2
Custom 1 or 2	4–44	4:2:2

7. In the **Preview** tab, select a video output for the source clip or master from the Source Video Output box. This allows you to watch the source media play out on the monitor during the conversion. (See Figure 34.)

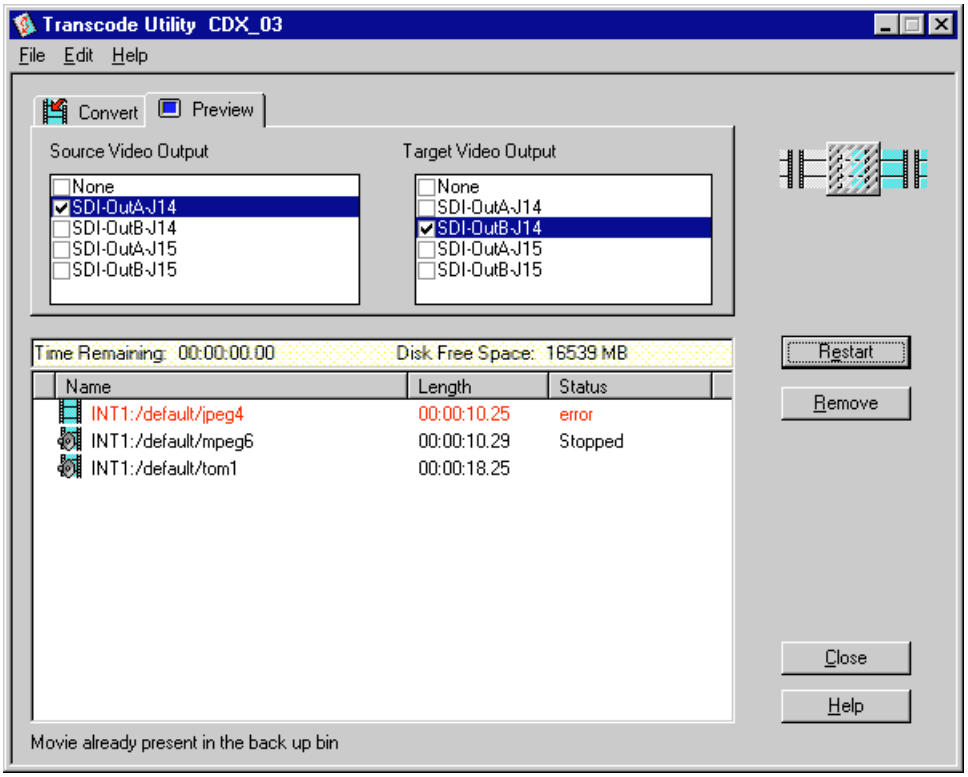


Figure 34. Transcode Utility dialog box, Preview tab

8. From the Target Video Output box, select a video output for the target clip or master. This allows you to compare video quality by watching the target media play out on a monitor during the conversion, with a few seconds delay from the source media.
9. If there is media in the list that you have decided not to convert, select it in the media pane, then click **Remove**.
10. If you want to delete the original clip or master automatically after it is converted, click **Delete source after conversion**. This will save disk space.

    NOTE: A deleted clip or master cannot be restored.

11. Click **Start**. The Transcode Description dialog box appears. Enter a descriptive message to be stored as part of the transcode history and when done, click **OK** to continue the conversion**.**

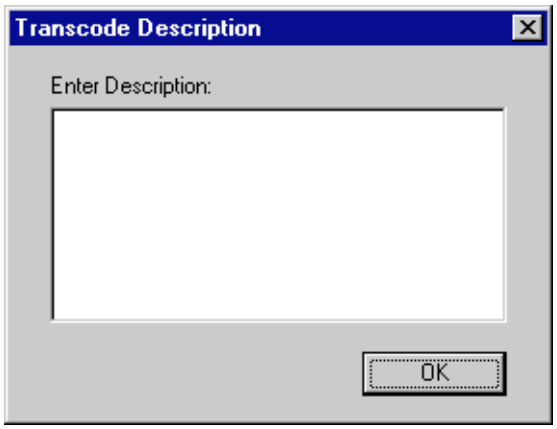


Figure 35. The Transcode Description dialog box

The conversion starts with the first clip or master in the list and continues to the last. If the media are not deleted (see step 10) the source clips and masters are moved to a backup bin. For example, if the source media is in the **default** bin, the original source is moved to a bin called **default_bak** (bin basename plus **_bak**). You can stop the conversion process at any time by clicking **Stop**. Start the process again by clicking **Restart**.

NOTE: An error occurs (listed in the Status column) when a clip is the wrong video standard, is already present in the _bak bin, or cannot be opened, among other faults.

12. Click **Close** or choose **File | Exit**.

Using a Library System

Media Manager supports both the PLS 20 and the PLS 200 library systems. The PLS 20 Profile Library System is a stand-alone drive for reading and writing to individual magnetic tape cartridges. The PLS 200 Profile Library System is a robotic library that stores up to 80 magnetic tape cartridges. The PLS 200 is a cost-effective mechanism for spot or news storage and management, plus a solution and method for the long-term archival of material. Total storage capacity is determined by the number of tape cartridges available and the video compression method used (MPEG, DVCPRO, or JPEG).

Archiving a Bin or Clip

To archive a clip means to copy it from disk to a cartridge in the library system. Clips are always copied into the library when archived: they are never moved. To archive a bin means to copy all the clips and masters in the bin to the library system without having to individually select each clip or master.

> ***NOTE: The archiving operation copies the data to the tape cartridge, but does not update the cartridge directory. Updates can occur when you export the tape, or when you specifically perform an update. See "Exporting a Cartridge" on page 73, and "Updating and Inventorying Cartridges" on page 74.***

To archive a bin or clip using a copy command:

1. Select the bin in the tree pane or the clip in the contents pane that you want to archive. To extend the selection, press Shift-Up Arrow or Shift-Down Arrow. Choose **Edit | Select All** or Ctrl-A to select all the media in the contents pane.
2. Choose **Copy** either from the **Edit** menu or from the shortcut menu with a right-click. You can also click the **Copy** button on the toolbar.
3. In the tree pane, select the partition icon where you want to archive the bin or clip.
4. Choose **Paste** or **Paste Special** either from the **Edit** menu or from the right-click shortcut menu. You can also click the **Paste** button on the toolbar.

If there is a bin or clip with the same name in the partition where you want to archive it, you are prompted to change the name or cancel the operation. Also, a clip can only be added to a partition if there is enough space for it.

To archive a clip or bin using drag and drop:

1. In the tree pane, click the cartridge icon where you want to archive a clip. This expands the tree pane to reveal the partition icon or icons.
2. Click on the bin that you want to copy or from which you want to copy a clip. The clip icons from the bin appear in the contents pane.
3. In the tree pane select the bin icon, or in the contents pane select the clip icon that you want to archive. Hold the left mouse button and drag the selected icon to the partition icon in the tree pane where you want to archive the bin or clip.
4. If you want to check on the progress of an archive operation, click on the Profile logo or choose **Tools | Transfer Monitor** to view the Transfer Monitor.

Restoring a Bin or Clip

To restore an archived clip means to copy it from a partition in a cartridge in the library system to disk. Clips are always copied out of the library when restored: they are never moved.

To restore an archived clip using the copy method:

1. In the tree pane, click the cartridge icon from which you want to restore a clip. This expands the tree pane to reveal the partition icon or icons.
2. Click the partition in the tree pane from which you want to restore to reveal the clips in the contents pane.
3. In the contents pane, select the archived clip you want to restore. To extend the selection, press Shift-Up Arrow or Shift-Down Arrow. Choose **Edit | Select All** or Ctrl-A to select all the media in the contents pane.
4. Choose **Copy** on the **Edit** menu or from the shortcut menu with the right-click. You can also click the **Copy** button on the toolbar.
5. Select the location where you want to restore the archived clip. This can be a bin or anywhere in the contents pane when a bin is selected. The selected location may also be in another Media Manager window.
6. Choose **Paste** on the **Edit** menu or from the shortcut menu with a right-click. You can also click the **Paste** button on the toolbar.

If there is a clip with the same name in the bin where you want to restore it, you are prompted to change the name or cancel the operation.

To restore a clip using the drag and drop method:

1. In the tree pane, click the cartridge icon you want to restore a clip from. This expands the tree pane to reveal the partition icon or icons.
2. Click the partition in the tree pane that you want to restore from to reveal the clips in the contents pane.
3. In the contents pane, click on the clip icon or icons you want to restore, hold the left mouse button, and drag it to the bin icon in the tree pane where you want to restore the clip.
4. If you want to check on the progress of a restore operation, click on the Profile logo or choose **Tools | Transfer Monitor** to view the Transfer Monitor.

Renaming an Archived Clip

A clip can have a name up to 32 characters long. Spaces are legal characters, but count for two characters. Colons (:) and slashes (/) are illegal in clip names. Tildes (~) are only illegal as a first character in a clip name.

To rename an archived clip:

1. In the tree pane, select the library, cartridge, and partition where the archived clip is stored.
2. In the contents pane, select the archived clip you want to rename.
3. Choose **Rename** from the **File** menu or from the shortcut menu with a right-click. You can also select the clip's name a second time.
4. Type the new name and press Enter.

NOTE: The renaming operation does not take permanent effect until after an update operation (see "Updating and Inventorying Cartridges" on page 74).

Deleting an Archived Clip

To delete an archived clip:

1. In the tree pane, select the library, cartridge, and partition where the archived clip is stored.
2. In the contents pane, select the archived clip or clips you want to delete.
3. Press the **Delete** or **Backspace** key, or choose **Delete** from the **File** menu or from the shortcut menu with a right-click.

When an archived clip is deleted, it is not moved to the **Recycle** bin. It is removed from the library database's record of archived clips. Also, since tape is not a random access medium, the storage space is not reclaimed as it is on the disk drives, and the space cannot be reused until all clips in a partition have been deleted.

NOTE: The delete operation does not take effect until after an Update operation (see "Updating and Inventorying Cartridges" on page 74).

Importing a Cartridge

To *import* a cartridge is to insert or add it into the library system:

1. In the tree pane, select the library icon. If you have a stand-alone drive, you must insert the cartridge you are importing into the drive.
2. Choose **Import** either from the **File** menu or from the shortcut menu with a right-click. The Import Cartridge dialog box appears (see Figure 36). If you have two or more PLS20 systems connected simultaneously, you must enter a drive number when prompted.

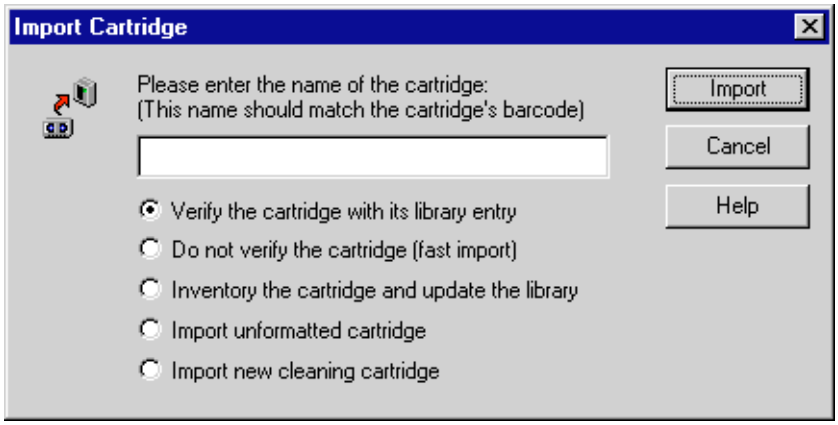


Figure 36. Import Cartridge dialog box

3. Enter a unique label name (number) for the cartridge. This name must match the barcode on the cartridge—for example, **00000015**. If the label is not unique or matches a label already in the library, the cartridge is rejected.
4. Click a button to tell Media Manager how you want to import the cartridge:
   - If you want to verify the contents of the cartridge, click **Verify the cartridge with its library entry**. If the label (barcode) matches the one in the library and the directory entries match, the cartridge is imported. If the label matches but the directory entries do not, the cartridge is rejected. If the library system can find no record of the barcode label, the cartridge is stored as an unknown cartridge.
   - For a fast import with no verification of the cartridge's contents, click **Do not verify the cartridge (fast import)**. As long as the label matches one in the library, the cartridge goes directly into an available slot. If the library system can find no record of the barcode label, the cartridge is stored as an unknown cartridge.
   - To inventory the cartridge, click **Inventory the cartridge and update the library**. The cartridge is loaded into a transport and its contents are inventoried. The database is updated if it did not match what was inventoried.
   - To import an unformatted cartridge, click **Import unformatted cartridge**. The cartridge is put into the first available slot and appears in the media tree with an unformatted cartridge icon.
   - To import a new cleaning cartridge, click **Import new cleaning cartridge**. The library system cannot differentiate between a cleaning cartridge and an ordinary cartridge. It must be told when a cleaning cartridge is imported. If you provide a unique tape label, the cleaning cartridge is stored in a cleaning cartridge bin.
5. Click **Import**.

6. A prompt appears requesting that you physically insert the cartridge into the library. Once the robot is in position and you insert the cartridge, press any button on the library's control panel.
7. The Importing Cartridge dialog box remains on the screen until the robot puts the cartridge in the available slot. Since this is done in the background, click **OK** at any time.

When the robot retracts with the imported cartridge, it scans the cartridges's barcode. If the barcode does not match the name that was entered for the import, it is rejected.

Exporting a Cartridge

To *export* a cartridge is to eject or remove it from the library system:

1. In the tree pane, select the icon for the cartridge you want to export.
2. Choose **Export Cartridge** from the **File** menu, or from the shortcut menu with a right-click, and the Export Cartridge dialog box appears. By default, the cartridge location is *Out of library*.

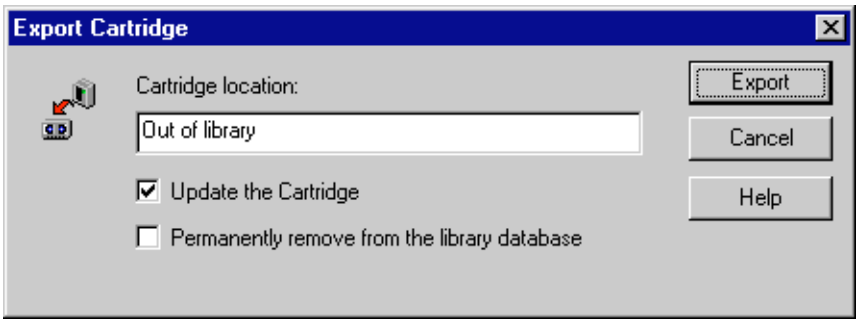


Figure 37. Export Cartridge dialog box

3. Select the appropriate box:
   - If you select **Update the cartridge**, the cartridge is loaded into a transport and its directory is updated to reflect clip name changes or deletions. Then the cartridge is ejected.
   - If you select **Permanently remove from the library database**, all references to the cartridge are deleted from the library database, then the cartridge is ejected.
   - If you select both boxes, the cartridge is loaded into a transport and its directory is updated to reflect clip name changes or deletions. This information is saved on the cartridge. Then all references to the cartridge are deleted from the library database and the cartridge is ejected.
4. Click **Export**.
5. A prompt appears requesting that you physically remove the cartridge from the library. Once the robot is in position and you remove the cartridge, press any button on the library's control panel.
6. The Exporting Cartridge dialog box remains on the screen until the robot ejects the cartridge. Since this is done in the background, click **OK** at any time. If you are using a PLS20, you must manually remove the cartridge from the drive.

Updating and Inventorying Cartridges

Using the Media Manager to archive, delete, or rename bins or clips simply updates the library database—not the cartridge directory. This is why delete and rename operations are so fast: the cartridge is not loaded into a transport. Archive operations do copy data to a cartridge, but the cartridge directory is not updated. Once a bin or clip is archived, deleted, or renamed, the library database and the cartridge's physical directory are out of synch.

The update and inventory operations allow you to resynchronize the cartridge directory and library database. The update operation rewrites the cartridge directory with the library database's record of what should be on that cartridge. Conversely, the inventory operation reads the cartridge directory and rewrites the library database's entry for that cartridge.

>>> ***CAUTION: It is very important that you update a cartridge before you inventory the cartridge. Updating prior to inventorying ensures that the cartridge directory reflects all archivals, renamings and deletions since the last update. If you inventory the tape before you update it, any changes to the tape since the last update are effectively lost.***

To update one or more cartridges:

1. In the media tree or contents pane, select one or more cartridge icons.
2. On the **File** menu, or from the shortcut menu with a right-click, click **Update**. Since the update takes several minutes to complete, you are asked to confirm the operation, as shown in Figure 38.

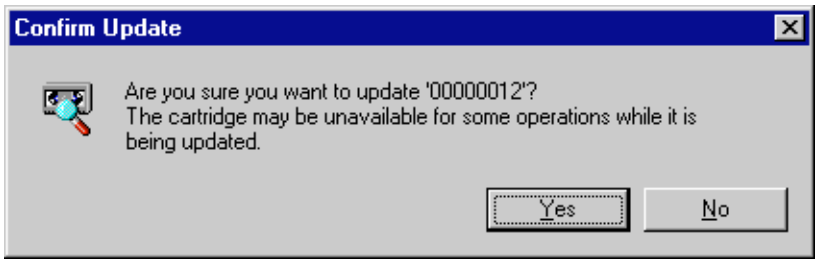


Figure 38. Confirm Update dialog box

3. Click **Yes** to update the cartridge or cartridges.

To inventory one or more cartridges:

1. In the tree or contents pane, select one or more cartridge icons.
2. Choose **Inventory** either from the **File** menu or from the shortcut menu with a right-click. Since the inventory takes several minutes to complete, you are asked to confirm the operation, as shown in Figure 39.

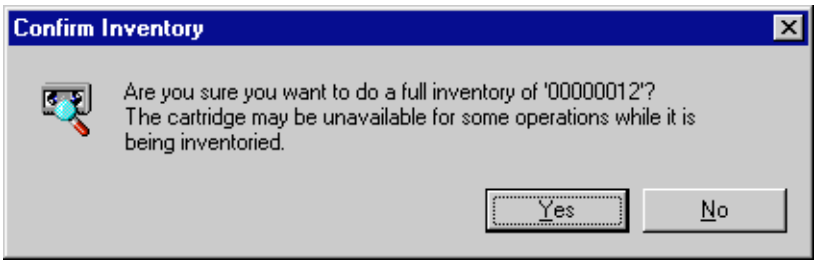


Figure 39. Confirm Inventory dialog box

3. Click **Yes** to inventory the cartridge.

Inventorying the Library

There are times when the contents of the library system do not match the record of those contents in the library database. This usually occurs when the cartridges have been added or removed by hand without appropriate inventories, which is not recommended. The inventory operation rescans the barcodes of the cartridges in the library and updates the database to the actual library contents.

To inventory the contents of the library:

1. Select a library icon in the tree pane.
2. Choose **Inventory** from the **File** menu or from the shortcut menu with a right-click. Since this operation may take several minutes, Media Manager asks you to confirm that you want to inventory the entire library.

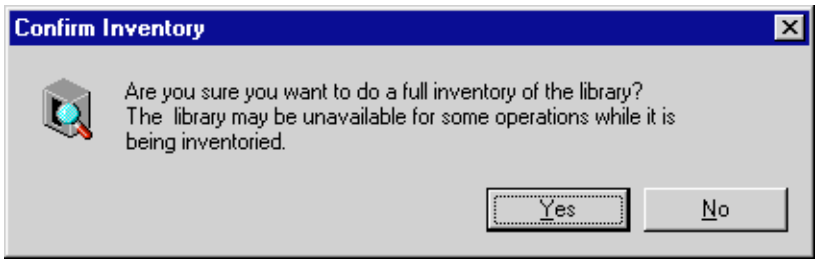


Figure 40. Confirm Inventory dialog box

3. Click **Yes** to inventory the entire library.

The inventory operation, like all library operations, is processed in the background. This allows you to continue working with the Media Manager while the operation is being performed. The Transfer Monitor tool is used to view background transactions. To view the Transfer Monitor, click the Profile logo or choose **Tools | Transfer Monitor**.

Formatting Cartridges

When you format one or more cartridges, all storage space is reallocated and the cartridge is prepared to accept new data.

To format one or more cartridges:

1. Select the cartridge icon or icons in the tree pane
2. Choose **Format** from the **File** menu or from the shortcut menu with a right-click. The Format dialog box appears (see Figure 41). The Name field shows the name or names of the cartridges to be formatted. If more than one cartridge is selected, the number of cartridges is shown (see Figure 42).

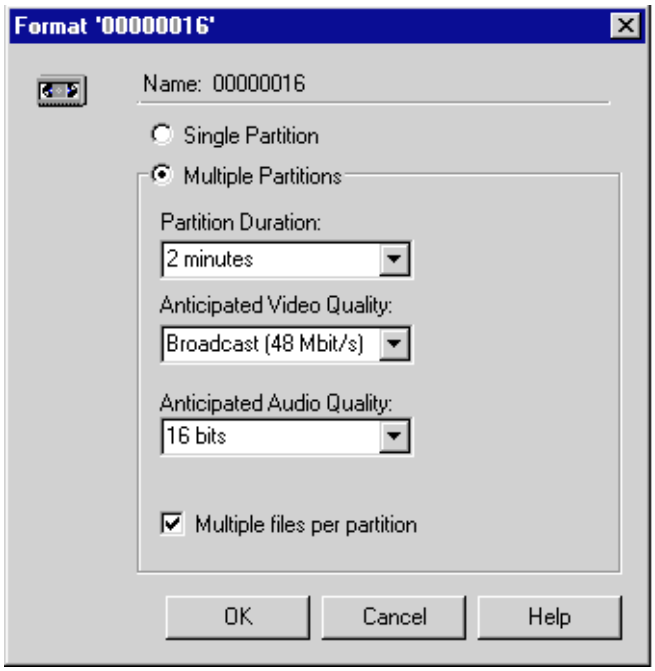


Figure 41. Format Cartridge dialog box

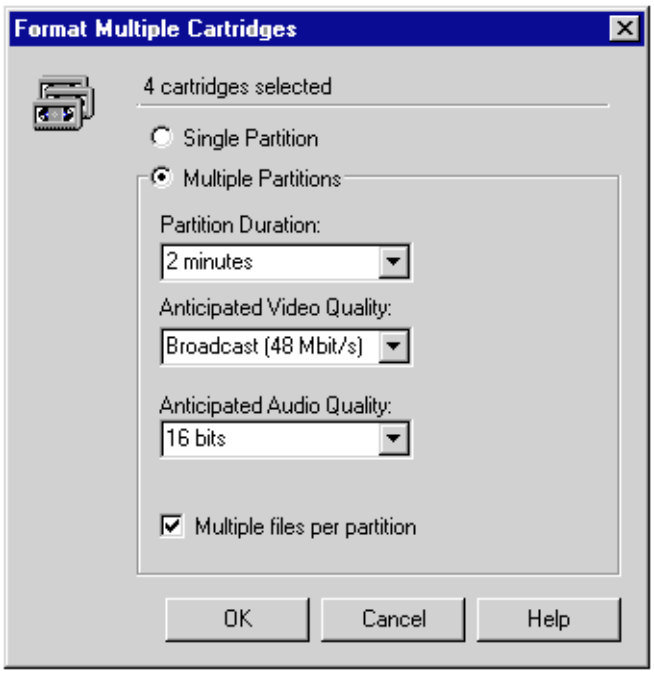


Figure 42. Format Cartridge dialog box

3. Click **Single Partition** or **Multiple Partitions**. With a **Single Partition**, the cartridge or cartridges will have one partition when formatted and all clips are archived to the same partition. With **Multiple Partitions**, the cartridge or cartridges will have two or more partitions, depending on other settings. You do not actually set the duration of clips, or video and audio quality: you simply approximate based on how you anticipate using the cartridges. You cannot set the number of partitions directly. If you choose **Multiple Partitions**:

   - To set the anticipated length (time duration) of clips under the partitions, select the number of seconds or minutes in the Partition Duration box. Selecting Custom opens the Custom Duration box. In the Custom box, enter the duration of seconds in the range 1 to 9999.
   - To set the anticipated quality of the video that you will use with these cartridges, select a video quality from the Anticipated Video Quality box. If you anticipate using higher video quality, you will use more tape to store media. This causes the format operation to create larger and fewer partitions.
   - To set the anticipated audio resolution that you plan to use with these cartridges, select either 16 bits or 20 bits from the Anticipated Audio Quality box. Different audio qualities affect the amount of tape used and therefore the number of partitions that will be created.
   - To allow more than one file (clips) under a partition, click Multiple files per partition. If unselected, only a single clip may be archived per partition.

4. Click **OK**.

Viewing Library, Cartridge and Archived Clip Properties

To view the properties for the library:

1. Select the library icon in the tree pane.



2. Choose **Properties** either from the **File** menu or from the shortcut menu with a right-click. You can also click the **Properties** button on the toolbar. The library properties dialog box appears.

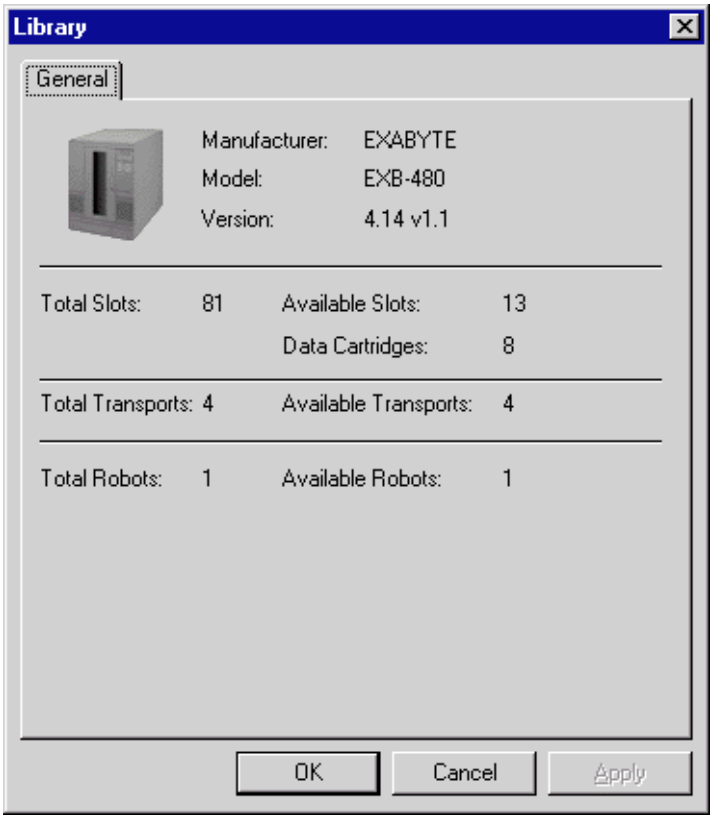


Figure 43. Properties dialog box for the library

3. Click **OK** when you are done viewing the library properties.

To view the properties for a cartridge:

1. Select a cartridge icon in the tree pane.



2. Choose **Properties** from the **File** menu or from the shortcut menu with a right-click. You can also click the **Properties** button on the toolbar. The cartridge properties dialog box appears.

Because the size in megabytes is constant, the available time is an approximation based on the settings in the Anticipated Video and Audio Quality boxes. The higher the quality, the less time is available for storage.

3. Click **OK** when you are done viewing the cartridge properties.

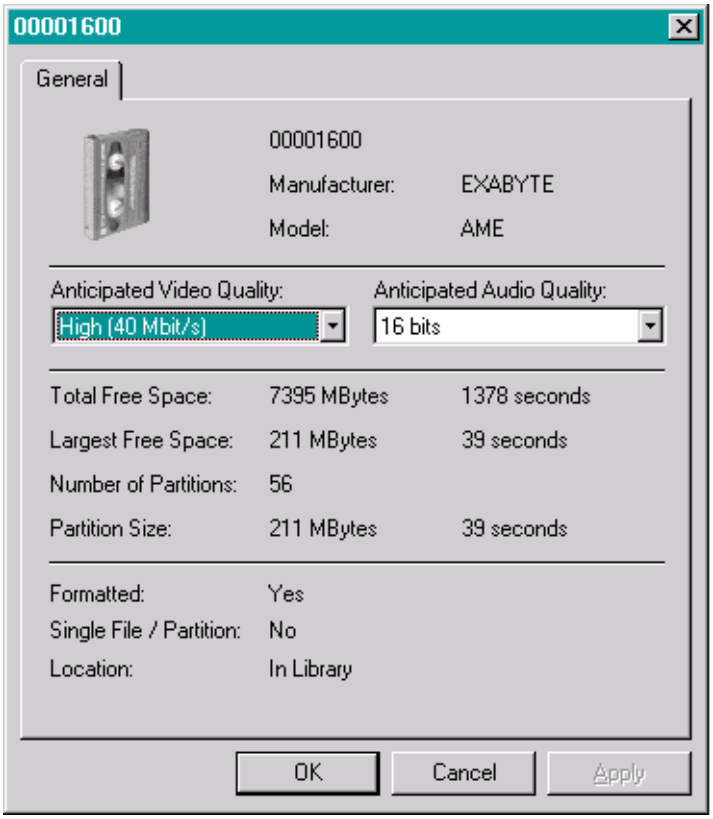


Figure 44. Properties dialog box for a cartridge

To view the properties for a archived clip on a cartridge:

1. Select a clip icon in the contents pane.



2. Choose **Properties** from the **File** menu or from the shortcut menu with a right-click. You can also click the **Properties** button on the toolbar. The clip properties dialog box appears.

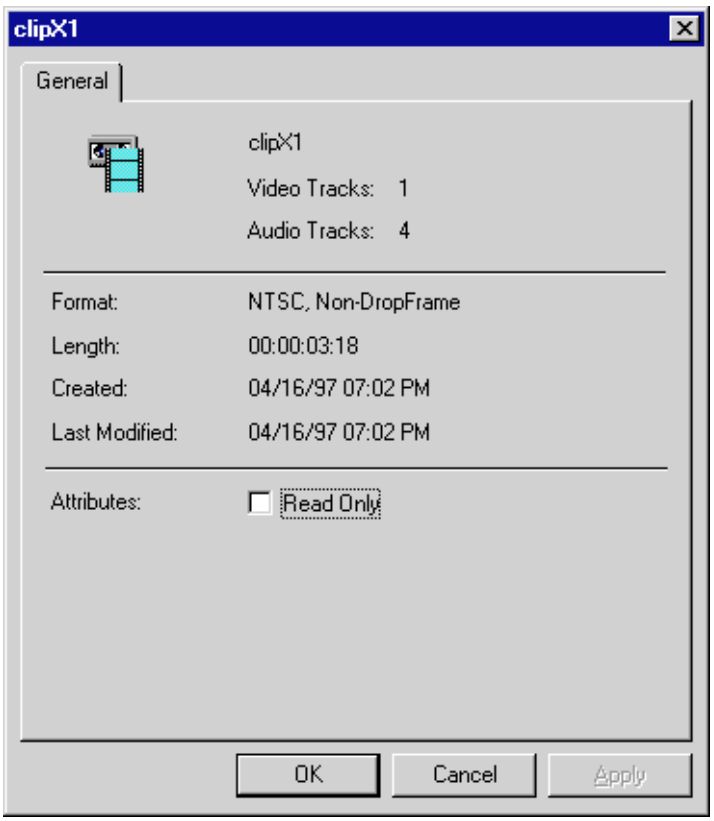


Figure 45. Properties dialog box for an archived clip

3. Click **Read-only** if you want to prevent modifying, renaming, or deleting the clip.
4. Click **OK** when you are done viewing the clip properties.

Viewing Tape Transport Status

To view the status of the tape transports in the library:

1. Choose **Tape Transport Status** from the **File** menu or from the shortcut menu with a right-click. The Tape Transport Status dialog box appears.

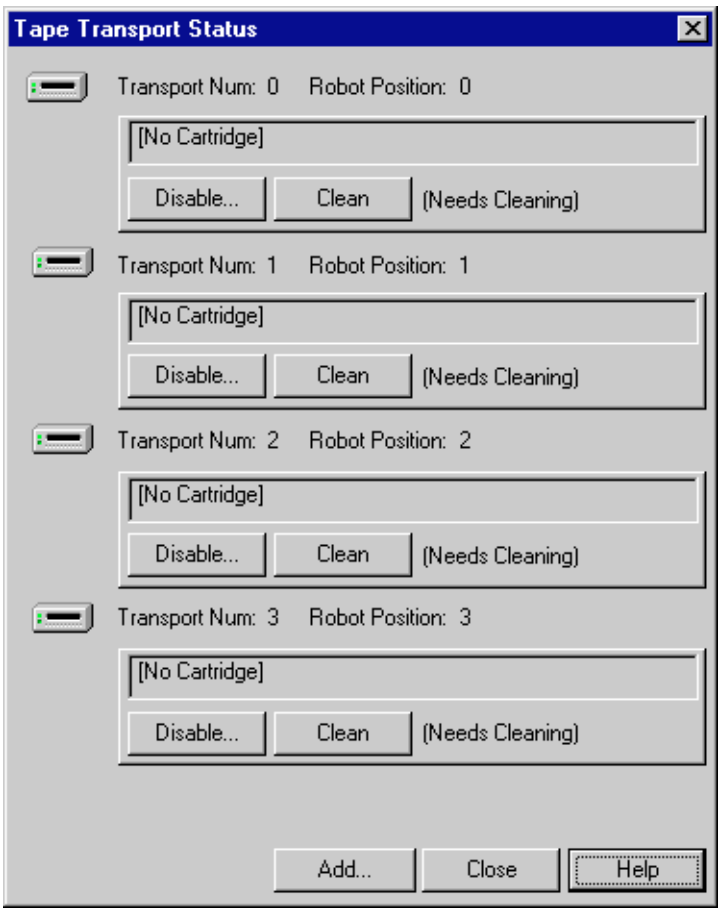


Figure 46. Tape Transport Status dialog box

The labels in the dialog box are explained here:

Transport Icon 	A transport icon is shown for each active transport in the library. The order of transports in this dialog does not necessarily reflect the order they appear in the library system.
Transport Number	This is the logical identifier for the transport. It is a number from 0–255.
Robot Position	This is the physical transport identifier. It is a number from 0–3.
Cartridge Name	A cartridge name is shown if one is currently loaded into the transport.
Disable	Removes a transport from service. Click Add to re-enable the transport.

Clean	Loads a cleaning cartridge and cleans the transport
Cleaning Message	The message **Needs Cleaning** appears when the transport is due for cleaning.
Add	Adds a transport to the list of available transports.
Close	Close the Tape Transport Status dialog.
Help	Opens the help topic on the Tape Transport Status dialog.

To add a transport to the list of active transports:

1. In the tree pane, select the appropriate library icon.
2. Choose **Tape Transport Status** from the **File** menu, or from the shortcut menu with a right-click. The Tape Transport Status dialog box appears.
3. Click the **Add** button. The Add Tape Transport dialog box appears, as shown in Figure 47.

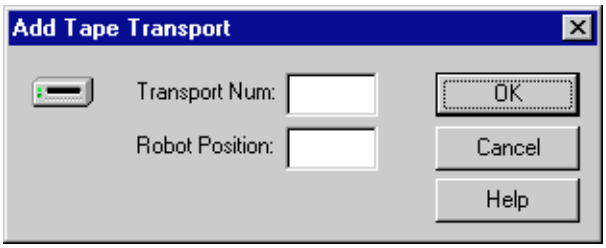


Figure 47. Add Tape Transport dialog box

4. Enter the logical transport number (0–255).
5. Enter the physical robot position (0–3).
6. Click **OK**.
7. Click **Close** when you are done viewing the transport status.

To remove a tape transport from service:

- Click the appropriate **Disable** button.

To clean a tape transport:

- Click the appropriate **Clean** button. A tape transport does not need cleaning until the "Needs Cleaning" message appears beside the **Clean** button. The library system will find the first available cleaning cartridge in the system and use it to clean the selected transport. If the library system is unable to find the cleaning cartridge—that is, there is no cleaning cartridge in the library—you will get a message stating that no cleaning cartridge was found.

Viewing the Transfer Monitor

When clips are copied to a different machine, the media that is referenced by those clips is also copied. This is made possible by using a combination of Ethernet and Fibre Channel networks. Ethernet is used for lower-speed database transfers and queries. The high speed Fibre Channel network is used for transferring the actual media between machines.

Copying media is done in the background to allow you to continue with your work. Adding to and restoring from an archive also is done in the background. Since this may result in more than one transfer occurring at the same time, the Transfer Monitor is used to keep track of these background tasks. Each time a media transfer is started, a new entry appears in the Transfer Monitor.

The Transfer Monitor can be opened at any time. It consists of two tabs: the Network tab which shows all copies over Fibre Channel and Duplicates in progress; and the Library tab which shows any ongoing library transactions.

To track background operations with the Transfer Monitor:



- Choose **Tools | Transfer Monitor** or click the Profile logo on the toolbar. The Transfer Monitor dialog box appears.

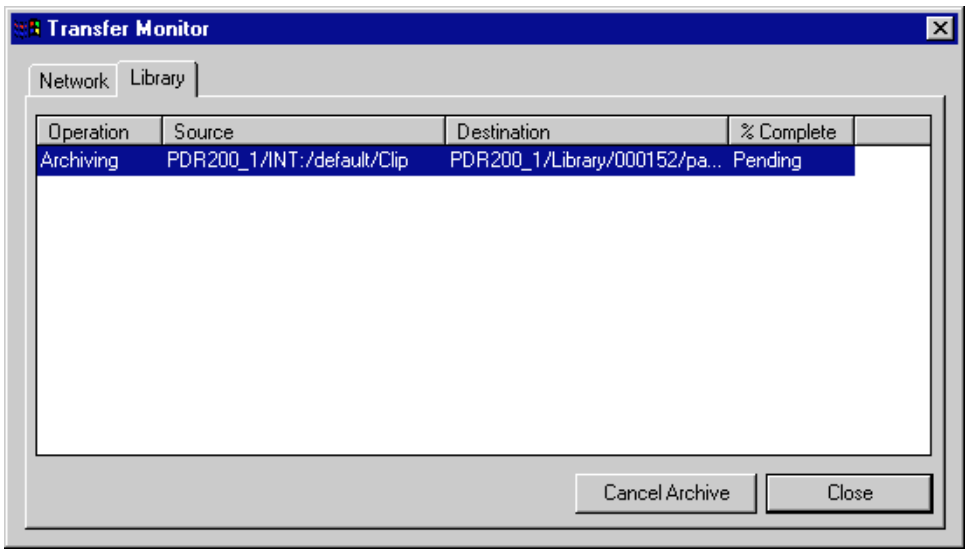


Figure 48. Transfer Monitor dialog box

The Profile logo on the Media Manager toolbar is animated whenever there is an archive item in the Transfer Monitor, whether the Transfer Monitor is open or not. If there are only error items in the Transfer Monitor the error logo appears, without animation.

The **Network** tab divides entries into four columns: source, destination, percent complete, and average megabytes per second. When copying, source and destination paths are constructed using the *machine/volume/bin/clip* names. A destination clip name may be different from the source clip name if the clip was renamed when pasted or moved to the new location (which has to be done when a clip with the same name already appears at the new location).

The **Library** tab divides entries into four columns: operation, source, destination, and percent complete. Library operations that occur in the background include archive, restore, inventory, update, format, delete, import, clean, and export. The destination column is only filled in for the archive and restore operations. The percent complete column will show *Pending* while a cartridge is being loaded into a transport and cued to the correct tape position.

NOTE: Only network, library archive, and library restore transactions can be cancelled.

To interrupt a transfer do the following:

1. Click the Network or Library tab depending on the type of transfer you wish to interrupt.
2. Select the transaction you wish to interrupt.
3. Click the **Cancel Transaction** button. (This button is unavailable unless the transaction is highlighted.)

The label for this button is context specific. If an archive transaction was selected, the button is labeled **Cancel Archive**. If a network copy was selected, the button is labeled **Cancel Transfer**.



Occasionally an error will occur while a transfer is in progress. The destination machine may have unexpectedly run out of storage, the network connection may have gone down, there may have been trouble reading an archive library cartridge. An error is indicated by a change in the Profile logo.

In the Transfer Monitor, entries that could not complete due to error are displayed in red and their percent complete shows *Error*. When the entry is selected, a short description of the error is shown at the bottom of the window. To remove the entry, select it and then click the **Remove** button.

Glossary

Access Time

The time it takes to find and retrieve digital information, generally from hard disk storage.

AES/EBU

Acronym for Audio Engineering Society/European Broadcasting Union, an industry standard for the transmission of serial digital audio information. The standard specifies the physical attributes of the link, as well as how the information is transmitted along it.

A to D

Analog-to-digital converter. An electronic component that converts incoming analog signals into its digital representation.

Analog video

Video represented as a continuously variable electrical signal. Consumer TV and domestic VCRs are analog video devices. Analog video can be converted to digital format to be stored and manipulated by computer or other digital devices.

Archive library

The archive library is an automated tape storage device used to supplement a machine's disk storage. The library consists of digital tape cartridges and, in some cases, robot that moves cartridges to and from tape transports.

Audio board

The audio board on the Profile XP that provides 16 channels of analog, embedded digital, and AES/EBU digital audio. You can install up to two audio boards in a Profile XP for 32 channels of audio.

Assemble record mode

Video and all audio tracks assigned to a machine are recorded simultaneously, along with timecode, and any previous contents are overwritten. Traditionally this mode is used when appending to a master tape that has not had black, timecode, and control track previously recorded before editing.

Audio I/O

The audio path through the Profile XP Media Platform video disk recorder, especially the crosspoint circuitry that routes the audio within the Profile system.

Auto Start

A feature that lets you enter a timecode and have the record buffer start recording at that timecode.

Bit rate

The rate at which video streams in megabits per second (Mb/sec). The bit rate is a reflection of quality—the higher the bit rate, the higher the quality of video. However, video data stored at a high bit rate consumes more disk storage space than data stored at a lower rate. Bit rates can be as low as 6 Mb/sec and as high as 54 Mb/sec. The default video quality bit rate is 24 Mb/sec, which is broadcast quality.

BNC

Connector used in professional A/V components. The BNC connection provides optimum shielding between the video input signal lines to provide the best possible performance. BNC was recently adopted as an alternate AES signal connector.

B Picture

A B picture is a bidirectionally-predictive picture used in MPEG video compression. MPEG uses motion prediction to increase efficiency, that is, it reduces data by not duplicating pixels that do not change from frame to frame. A B picture relies on data from both forward and backward motion vectors to determine how a future frame will be composed. *See* GOP, I-frame, P Picture.

Button (on the display)

A small display box that has a raised appearance and contains text. Generally, clicking on a button activates a function or performs some action. *See* Clicking.

Button (on the mouse)

The two or three buttons on the top of the mouse.

Capture

Generally, the act of storing digital audio and video in memory or on a disk. The process may involve converting an analog signal to a digital one. Some compression of the digital data may be involved.

Cartridge tape

A tape used in the library that stores video and audio in digital form.

CD-ROM

Compact Disc-Read-Only Memory, the preferred medium for multimedia storage because of its large capacity, high quality, ease of use, and low cost.

Channel

A collection of video, audio, and timecode resources used for either playing or recording.

Chroma

A term that describes the saturation or vividness of a color. A chroma of 0 describes a neutral, gray color. Chroma ranges to the most vivid color a screen or printer generates for a specific hue and value. *See* Hue.

Cleaning cartridge

A special tape cartridge that cleans tape transports on demand.

Clicking

Quickly pressing and releasing the left mouse button (usually) without moving the pointer.

Clip

A clip is a reference to recorded video or audio tracks from a single source, and may include timecode. If a clip includes both video and audio, they must be synchronous. A reference to several clips edited together is called a master. Deleting a clip will delete its associated material only if that material is not used by another clip or master.

Clip position

Clip position refers to the current location in a clip, denoted by timecode.

CODEC

CODEC is an acronym for Coder/Decoder, a device which encodes and decodes a specific data type. For example, a JPEG codec compresses CCIR 601 digital component video for storage on disk, but can also decompress the stored data and return it to its original CCIR 601 digital componnet format.

Command line

The line that you type to invoke a program or initiate an action. A command line usually contains the application program name, along with optional arguments known as command-line options.

Composite video

A single video signal composed of combined luminance and chrominance information.

Component video

Typically the transmission or storage of video as a separate luminance and chrominance information, such as Y, B–Y, R–Y, or Y, Cr, Cb.

Compression, video

A technique for reducing the amount of space needed to store images or sequences of images. DVCPRO 25, JPEG, Motion-JPEG (M-JPEG) and MPEG are examples of video compression techniques.

Data cartridge

A digital tape cartridge that is capable of storing media in large quantities.

dB

Decibel. In theory, the minimum change in sound intensity that the human ear can distinguish; also, a relative unit used to compare the strength of acoustic signals.

Default

A value that is automatically assigned or used in the absence of any other input. For example, a new Profile system shipped from the factory is zero-timed by default while E to E mode is the nondefault setting.

Dialog box

A box displayed in a computer application's graphical user interface where you choose options and enter information. Use the mouse or keyboard to move from field to field, click on buttons and position the text insertion point. Enter information with the keyboard.

Digital

In digital audio/video systems, sounds and images are converted into a series of binary values (ones and zeros).

D to A

Digital-to-analog converter. A device used to convert digital signals into an analog form. For example, compact disc players use D to A convertors to convert the digital information on the CD into analog audio suitable for amplification.

Disk expansion unit

A product (PDX208 and PDX218) that adds disk storage to a Profile video disk recorder (PDR).

Disk Utility

The Profile Disk Utility tool is used to maintain Profile hard drives. This includes formatting and labeling disk volumes, eliminating bad blocks, and updating hard drives with new microcode.

Display

A device that receives video output from a display adapter such as VGA card and displays the video output on a screen.

Dragging

Pressing and holding down the left mouse button while moving the pointer. The mouse pointer must be over an object such as a file.

Drop-frame

In NTSC, you don't actually get 30 frames per second; the real number is about 29.97 fps. Timecode usually assumes 30 fps. To account for the discrepancy, drop-frame timecode skips or drops two timecode values at the beginning of every minute except every tenth minute. This allows timecode to exactly match a real-time clock on 525/60 systems. This correction is not needed on 625/50 systems because the frame rate is exactly 50 fps.

E to E (EE)

Electronics to Electronics mode routes audio and video input directly to output.

Edit

The process of creating or refining a sequence of media (clips) in a specific order.

EDL

An Edit Decision List is a list of events that include the source to be recorded, and where to record it. In addition, an EDL can include information about transitions (cuts, dissolves, wipes), transition durations, effects, etc.

Factory default

The value assigned to a parameter as delivered from the factory. *See* Default.

Field

A part of the total number of lines that represent a video image, scanned in two passes. For example, an NTSC 525-line frame is divided into 262.5-line fields. *See* Frame.

Firmware

Software instructions that are permanently stored in the memory of a computer and are not lost when you turn the power off.

fps

The abbreviation for frames per second, the standard way of measuring the speed of video playback. Thirty fps is considered real-time playback in NTSC, 25 fps in PAL. 24 fps is standard for film and is considered animation speed playback. In the range of 12 to 15 fps, the human eye can detect the difference between one frame and the next; visually this appears as a jerky motion, or flicker.

Frame

The standard unit of measure for film and video. One frame represents one complete still image, divided into two fields.

Frequency response

The frequency range which an electronic component can accurately reproduce. Humans (some) can hear from 20 Hz to 20,000 Hz (20 KHz). An ideal audio component would have a frequency response, totally flat and without any deviation, from 20 Hz to 20 KHz. Frequency response specifications are measured in decibels (dB), based on how closely an output's response resembles that of the input.

Genlock

This term defines the relationship between video paths. Two video signals that are exactly synchronized are said to be genlocked.

GUI

A Graphical User Interface (GUI) provides a visual way to interact with computer software. GUIs allow people to control an application by using a pointing device such as a mouse to perform operations. The usual alternative to a GUI is a command-line interface, which requires people to type in application-specific commands following precise rules of syntax. GUIs are considered easier to use than command-line interfaces.

Group

In audio terms, this provides the ability to group tracks to perform functions across several tracks at the same time, such as gain, mute, etc.

GOP

A Group of Pictures (GOP) is part of the video compression scheme used by MPEG. MPEG uses motion prediction to increase efficiency, that is, it reduces data by not duplicating pixels that do not change from frame to frame. It does so by relying on a GOP. A GOP is composed of I-frames, B pictures, and P pictures. *See* B Picture, I-frame, P Picture.

Hard disk

Computer systems use hard disks as permanent storage devices. Information is magnetically recorded on spinning platters for quick access.

Hardware

The physical parts of a system, such as a computer, display monitor, or keyboard.

Help

Profile software applications come with on-line help manuals that include examples, demonstrations, and reference information about using the application. The manual, and the Help window it is displayed in, follow the Microsoft standard.

Hertz (Hz)

Hertz is the unit of frequency named after the physicist Heinrich Hertz (1857–1894). One hertz (Hz) is equal to 1 cycle/second.

Hue

A term that describes a color family (for example, red or yellow). Hue is a polar coordinate—that is, it moves in a circular motion around the color spectrum—and ranges from 0 to 360, with 0 being red. Hue is measured in degrees. *See* Chroma.

I-frame

MPEG uses motion prediction to increase efficiency, that is, it reduces data by not duplicating pixels that do not change from frame to frame. It does so by relying on a GOP. A GOP is composed of I-frames, B pictures, and P pictures. An I-frame (or Intra-coded picture) is analogous to a JPEG frame in that it is a self-contained picture. It does not use motion vectors as do the B picture and P picture. *See* B Picture, P Picture.

Input device

A device that allows you to send information to a software application. Typical input devices include keyboards, mice, tablets, and trackballs. *See* Pointer and Pointing Device.

Insert record mode

In insert record mode, audio and video material can be recorded independently. New material can replace existing material anywhere in the program. Insert record mode requires timecode on the destination.

Interface

A common connection that is used for sending or accepting information and control between programs and machines.

Keyboard

An alphanumeric input device that allows communication with software applications.

Library system

The Profile Library System (PLS 200) is a robotic tape library that provides affordable mass storage for the Profile video disk recorder. Profile Library Systems attach directly to the external SCSI-2 bus on Profile video disk recorders (PDRs). Profile Library Systems may not be connected to Profile XP Media Platforms.

LTC

Longitudinal Time Code is typically an analog audio track or a dedicated address channel on a tape. LTC can't be read in still mode, and may not be reliable during low-speed shuttle operations.

Media files

Audio, video, and timecode sources that have been captured by the Profile disk recorder are considered media. Media is stored on disk as media files. Audio and video clips do not contain media, but instead reference positions in a media file.

Memory

A component of a computer system used for virtually instantaneous temporary storage and retrieval of information (data) or instructions (programs). Information in memory is volatile, and is lost when the computer is shut down. Storing information on a permanent storage device such as a hard disk or a tape allows for retrieval during another work session.

Menu

A list of commands or functions that you select with a pointer. A menu is normally displayed in a small window.

Monitor

Two-channel audio output of selected machine tracks. Generally, audio systems or video displays used in a studio environment to control quality. Also, a video display device, without audio capabilities.

Mouse

An input device that, when moved across a flat surface, causes the pointer to move across a screen. The mouse usually has buttons that you press to send signals. These signals, in turn, accomplish certain functions. The representation of the mouse on the screen is called the pointer. *See* Pointer.

MPEG

MPEG (Moving Picture Experts Group) is a set of standards used for compressing digital video and audio. MPEG uses compression methods that maintain high quality while requiring smaller bandwidths to transport video and audio streams.

NTSC

The standard composite color format used in North America and Japan that was developed by the National Television Standards Committee.

Off-line cartridge

The archive library has immediate access of up to a limited number of cartridges. However the library database can contain information about any number of cartridges. A cartridge is considered off-line when it has been ejected from the library storage device, but remains in the library database.

PAL

The Phase Alternate Line standard is used to encode color information in Western European composite video.

Panel

The graphical representation of a channel. in Profile applications such as VdrPanel and TimeDelay. A record panel shows controls for the record channel. A player panel shows controls for a play channel.

Partitions

To give the archive tape transports some degree of random access, a data cartridge is divided into an number of partitions. Media may be added to a partition until that partition is full. Deleting media from one partition does not affect any other partition.

Parameter

A variable that is given a specific value. This value is passed to a program before execution.

Pixel

The smallest part of a display memory that can be addressed.

Playback

Playback is the act of playing a clip, track or master loaded on a machine at any rate.

Playback delay

The amount of time that the playback channel is behind the record channel.

Pointer

The pointer allows you to make selections in menus, to size and position windows and icons, and to select the window where you want to send the input. The window manager, such as Windows NT, determines the shape of the pointer. *See* Pointing Device.

Pointing device

Typically a mouse, tablet, or some other device with effective dimensional motion. *See* Pointer.

Port

A physical connection (such as a multi-pin connector or coaxial connector) and its associated firmware, that permits one computing device to communicate data and control information with another computing or peripheral device.

P Picture

A P picture is a predictive-coded picture used in MPEG video compression. MPEG uses motion prediction to increase efficiency, that is, it reduces data by not duplicating pixels that do not change from frame to frame. A P picture relies on data from forward-moving motion vectors to determine how a future frame will be composed. *See* B Picture, GOP, I-frame.

Protocol

A set of rules that allows computers to transfer information across a network to other computers.

Read-only memory (ROM)

Memory that is not erased when power is turned off. It is also called firmware. The firmware in a computing device allows it to boot without being connected to a host computer.

Real-time

Generally considered to be 30 fps in NTSC, 25 fps in PAL, 24 fps for film. In computer terms, processing information as it becomes available, rather than storing for processing at a later time.

Record Buffer

Determines the length of the Time Delay clip that the record buffer loop records on.

Resource

A resource is a Profile input, MPEG encoder, or output. You allocate resources for exclusive use by any application, such as Tool Box Editor, List Manager, and VDRPanel. You should free up (deallocate) unneeded Profile resources whenever possible to that they can be used by other applications.

RGB

An additive method of combining percentages of red, green, and blue primary colors to form other colors.

ROM

See Read-Only Memory.

RS-232-C

A standard serial communications interface for data communications, commonly used for communications between a computer and modem, or to control automated devices which don’t have a conventional computer operating system.

RS-422

A standard serial communications interface for data communications, similar to RS-232-C, but good for longer distance cabling. It is typically used for communications in a broadcast or post-production environment between devices such as VTRs, mixers, and controllers.

SCSI Channel (Small Computer System Interface)

The interface between the Profile processor and the disk array or library system. It is fast and wide and provides for speeds up to 20 Mbytes/second on a 16-bit bus.

SDI

An acronym for Serial Digital Interface, a standard for transmitting CCIR 601 digital video over a pair of conductors (coaxial cable).

SECAM

France and Russia use the *Séquence Couleur À Mémoire* standard color format.

Serial port

Usually, the standard RS-232-C of a personal computer. Attach a serial cable to communicate with a peripheral device such as a modem or printer.

S/N Ratio

The Signal-to-Noise Ratio, measured in decibels, is the ratio between the maximum signal level and the noise level with no signal present. The higher the value, the better the sound reproduction.

Source

In Profile operations, a source is any signal (video, audio, or timecode) presented to the machine inputs. A VTR output, a satellite downlink, a camera output, and a facility router output are all examples of sources.

Status bar

The status bar at the bottom of most windows provides status information, short explanations of commands and errors.

Tape

See Cartridge Tape.

Text insertion point

The I-shaped pointer which appears in a text input area. Clicking the mouse in a text input area causes the text cursor to appear in that area. Whatever information you type on the keyboard appears in the text input area displaying the text cursor.

Timecode Source

LTC, VITC, Timecode generator

TimeDelay

The name of the application and the amount of time that elapses between the start of the record channel and the start of the playback channel.

Tool Tips

A tool tip is a small pop-up window that displays a single line of text describing the purpose of a control in a window. A tool tip is hidden most of the time, appearing only when the user puts the cursor on a tool and leaves it there for approximately one-half second. The tool tip appears near the cursor and disappears when the user clicks a mouse button or moves the pointer off of the tool.

Tracks

Clips and masters are made up of individual tracks. A clip may consist of any combination of a video track, timecode track, and up to 16 audio tracks. A master may consist of any combination of a timecode track, 0-4 video tracks, and 0-16 audio tracks.

Trimming

Shortening an originally recorded media file to a desired duration using the In and Out marks. Material beyond the In and Out points is removed from the volume unless it is used in another clip or master.

Video interface

The link to or from the internal video router and the external video signal. An example is a composite analog input channel. This path takes a composite analog video signal and converts it to 8-bit component parallel digital and places it on the video router. Another example is the component serial digital output. This path takes component parallel digital video from the video router and converts to serial digital component format.

Video disk recorder/ server

A device such as the PVS1000 Media Platform that stores audio and video as digital information on disks.

VITC

Vertical Interval Time Code is encoded into the video lines at the start of field. VITC can be read during still frames, but becomes unreliable at frame rates faster than normal play speed, such as fast shuttle operations.

Video router

The video path through a system. The crosspoint circuitry that routes the video within the Profile video disk recorder is a router.

Volume

A volume is a logical set of disks, such as the RAID disks connected to a PVS1000, which are used as a grouping of disks for the storage of audio and video information.

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