



Profile XP System Software 4.0.1 Release Notes

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What's new

Profile XP introduces a new line of Profile Media Platforms. The first in this line, the PVS1000, provides the following new features, in addition to the outstanding features of the Profile Video File Servers:

Up to eight channels in a single I/O chassis. You can order your PVS1000 with various combinations of inputs and outputs to meet your specific requirements.

- Fibre Channel RAID is the standard disk storage. Optional redundant power supplies, controllers, and hot-spare drives are available.
- Increased system bandwidth, allowing eight-channel operation at 50 Mb/s and concurrent Fibre Channel transfers. Additional RAID controllers or chassis are required to attain full system bandwidth.
- Optional redundant power supplies and Windows NT system drives.
- Serial Digital Video I/O, SMPTE 259M with a frame buffer on each input.
- Monitor outputs with text overlay and timecode burn-in capability.
- Flexible Audio formats - 16/32 channels of AES/EBU or embedded digital audio. An optional analog audio interface is also available. Audio may be stored in AC3 or Dolby E formats. You must supply the appropriate external encoders and decoders for this compressed audio.
- GPI ports, eight inputs and eight outputs.
- Full Profile API support, including Profile Protocol.
- Compatible with Louth, Odetics, and BVW 75 protocol controllers over RS-422 ports. BVW Insert/Edit operation is not supported.

In addition to a new hardware platform, Profile XP System Software 4.0.1 contains a number of major enhancements:

- The new Configuration Manager lets you create pre-defined channels, which you can use with any Profile XP application. A channel is a set of resources (video and audio inputs and outputs, timecode tracks, encoders and decoders) that you can use with your applications. You can change the resource usage of a channel at any time to meet your needs, or use the factory-default channels for quick initial setup. The *Profile XP Installation Guide* shows the factory-default channels. The *Profile XP System Guide* provides detailed instructions on how to change those defaults.
- All Profile applications, including VdrPanel, now use the channels you create in Configuration Manager to request resources. Conflicts for system resources are reported immediately through easy-to-understand messages. Because of the new central resource management, resources specified by the channel are not assigned until the conflict is resolved.



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- ContentShare Explorer, based on XML technology, allows you to manage your assets on all the Profile systems at your site and around the world. Read the ContentShare Explorer User Guide to learn more about this new tool.
 - The new NetCentral Lite application provides enhanced error reporting tools which allow you to better understand the current state of your Profile XP system. NetCentral Enterprise lets you monitor the status of several Profile XP systems from a central location through SNMP. You can install NetCentral Enterprise on any Windows NT system.
 - ProLink, the Profile Protocol interpreter for your Profile XP RS-422 ports, now includes more status information in its window. Profile Protocol applications also use channels defined in Configuration Manager, and benefits from the same resource conflict reporting as all the other Profile applications. Although previous Profile Protocol configuration files (.cfg) are no longer supported, you can use Configuration Manager to create channels called VTR1, VTR2, etc. Your existing application will use the resources specified by these channels in exactly the same way it used the old configuration files.
 - VdrPanel has a new look. In addition to its use of channels and central resource management, the VdrPanel interface has been redesigned to make it easier for you to get many panels on the screen at the same time. However, except for the removal of resource assignment tools (crosspoints), all the functions of the old VdrPanel are available in the new one.
 - The other Profile applications, Media Manager and the optional TimeDelay, Tool Box Editor, and List Manager, are all essentially unchanged from the 2.5.X and 3.X releases, except for the addition of central resource management. Contact your Grass Valley Group representative to obtain Profile TimeDelay, Tool Box Editor, or List Manager.
 - Grass Valley Group has implemented complete API compatibility between this release and those that preceded it. This should ensure that your third-party Profile application will run on a Profile XP Media Platform with few, if any, changes. However, some basic changes in the Profile XP Media Platform design, such as the absence of external SCSI ports for Profile Library System connections, require Grass Valley Group to not support the following API commands in this release:
 - All TekPls commands
 - All TekVME commands
 - PdrCopyMovie, which has been replaced by the TekXfr streaming transfer commands

NOTE: This version of the Profile SDK does not support development under Microsoft Visual C++ version 6.0. You must use Microsoft Visual C++ version 5.0 with this release.

Implementation incomplete

File System Command

The current version of the File System command in Configuration Manager does not include all of the features that are explained in the Profile XP System Guide or in accompanying data sheets. The following features are not available in this release.

- The optional RAID controller in a RAID storage chassis cannot be used as a redundant controller. For this release, the optional second RAID controller in a chassis is not used, although it may be installed.
- Hot spare drives are not supported. You cannot bind drives for use as hot spares.
- You may only connect single RAID expansion chassis to a PFC500. The LUNs from a second expansion chassis can not be included in a file system.
- If you move a storage chassis from one Profile XP Media Platform to another, you must unbind then bind the LUNs on the destination machine before adding them to the file system.
- The Identify button flashes the indicator lights on the wrong LUN on expansion chassis only. The correct lights flash on LUNs located in the main RAID storage chassis.
- A Windows NT restart takes place every time you close the File System windows. This ensures that all your changes take effect, but it takes a few moments.

Remote operation

This release cannot be installed on a PC. Therefore, you cannot use Configuration Manager on a PC to remotely configure your Profile XP Media Platforms.

NetCentral XP Enterprise can be installed on a PC, so you can use NetCentral XP Enterprise to monitor your Profile XP Media Platforms from a PC.



Using Channels in applications

Profile applications supplied with this release require the use of channels created in Configuration Manager to assign resources to the applications. Central resource management manages resource conflicts between all applications that use channels. In addition, resource conflicts with third-party applications that do not use channels will be reported by the applications included in this release.

Existing applications that use Profile API commands to assign resources do not need to be changed to operate with the Profile XP Media Platform.

Similarly, Profile Protocol applications using the Named Configuration Space can continue to use the OpenPort command with a configuration name as a parameter to assign the desired resources to that port. However, the OpenPort command now accepts a channel name instead of a file name to allocate resources to the port. Default channels VTR1, VTR2, VTR3, etc. are configured at the factory, so existing controllers should require no changes. Use Configuration Manager to change the definitions of these channels to meet your needs. New controllers and applications may specify any channel name, provided you create channels with the specified names in Configuration Manager.

Configuration files (*.cfg*) created with a text editor or with the Profile Protocol Resources Utility from previous Profile System Software versions are no longer supported.

The following sections briefly describe how to use channels with each of the applications.

VdrPanel

Select a panel, then choose **Controller | Configure** to select the channel to be used by that panel.

Tool Box Editor

Choose **Config | Select Channels** to select the desired channel definition. The **Config | Resources** command is no longer supported.

List Manager

Choose **Config | Select Channels** to select the desired channel definition.

TimeDelay

Choose **Config | Add Panel**, then select the channel to be used by that channel. To change the channel for an existing panel, click on the panel name, then select the desired channel.

About Time Remaining

The Time Remaining reported by various Profile applications may differ due to the way time remaining is calculated.

Time Remaining is always based on the amount of free disk space available. You can see the remaining disk space by choosing the Storage tab on the Properties page in NetCentral XP.

To calculate Time Remaining from the free disk space, an application may use your current recording bitrate and the number of audio and time code tracks. However, if the application is not currently recording or cannot record, it may make assumptions as to video bitrate and audio and time code requirements. For example, NetCentral XP calculates time remaining based on 15Mb/second recording on one video track with four audio tracks and one time code track. If you typically record at 8Mb/second, for example, your actual time remaining may be almost double the time reported by NetCentral XP.

In addition, Time Remaining is based on the actual media files on your storage system. If you have two clips that refer to the same media files, deleting one of the clips will not free up that space, and the time remaining will not change.

In general, you should use the Time Remaining reported by applications as an indicator only, not a precise number. Use NetCentral XP to see the actual disk space remaining, and avoid filling your storage system to more than 90% of its capacity.



Installation notes

In addition to the installation and configuration instructions provided in the *PVS1000 Installation Guide*, the *Profile XP System Guide*, and *Installing NetCentral XP Enterprise*, please take a moment to read the following installation and configuration notes. These notes provide instructions not included in other Profile XP documentation.

Installing multiple Fibre Channel RAID chassis

As explained in “Fibre Channel RAID storage” on page 10, you may need to connect more than one PFC500 to a Profile XP Media Platform to increase your system’s bandwidth capabilities. In addition to the instructions in the *Profile XP System Guide*, be sure to perform the following operations when you install more than one PFC500 unit.

1. Connect a single PFC500 Fibre Channel RAID chassis to your Profile XP Media Platform.
2. Turn on the power to the PFC500, wait two to three minutes, then turn on the power to the Profile XP Media Platform.
3. Start Configuration Manager and choose **File System**.
4. Select each of the LUNs in turn and click **Unbind** for each.
5. Shut down your Profile XP Media Platform and the connected PFC500 Fibre Channel RAID chassis.
6. Repeat steps 1 through 5 for all but one of your PFC500 Fibre Channel RAID chassis. If you wish to use three PFC500 units, you must perform steps 1 through 5 for two of the three units.
7. Set the Fibre Channel Loop address ID and the Chassis Address for each of the PFC500 units and connect all of the PFC500 units to the Profile XP Media Platform, as explained in the *Profile XP System Guide*.
8. Turn on the power to all the PFC500 units, wait two to three minutes, then turn on the power to the Profile XP Media Platform.
9. Start Configuration Manager and choose **File System**.
10. Bind all the unbound LUNs, then create your video file system and name your file system volume as described in the *Profile XP System Guide*.

Configuring NetCentral XP

If you wish to use NetCentral XP Lite to monitor your Profile XP Media Platform, or NetCentral XP Enterprise to monitor several Profile XP Media Platforms, you must ensure that the SNMP Trap Destination address on each Profile XP system is correctly set.

Be sure to set the following SNMP Trap Destination addresses.

- The IP address of the local Profile XP Media Platform.
- The IP address of the monitoring station on which you install and run the optional NetCentral XP Enterprise.

NOTE: You must update the SNMP Trap Destination address if you subsequently change the IP address of the local system or the monitoring station.

To set the SNMP Trap Destination addresses on each of your Profile XP Media Platforms:

1. Configure the IP address of the Profile XP Media Platform for operation in your network environment as explained in the *Profile XP System Guide*. You must also set the IP address of the monitoring station, usually a PC connected to your Ethernet network.
2. On the Profile XP Media Platform, right-click the **Network Neighborhood** icon, choose **Properties**, then select the **Services** tab.
3. Double-click **SNMP Properties** from the list of services, then choose the **Traps** tab.
4. Edit the local IP address in the Traps Destinations list to match the new address of the local system. Add the IP address of the monitoring station if you are using NetCentral XP Enterprise.
5. Close all the open Network windows.
6. Using **My Computer** or **Windows NT Explorer**, delete the file called *NetCentral.net* from the *c:\profile* directory. This file may not exist if you have never run NetCentral XP.
7. Restart the system.



Performance information

Please take note of the following characteristics of your Profile XP Media Platform when installing or operating your system.

Fibre Channel network compatibility

You can connect your Profile XP Media Platform to a Fibre Channel fabric (switched environment) and use Media Manager or any application which uses Profile APIs or FTP over Fibre Channel to move MPEG material to and from Profile XP systems and PDR 300s. Please note the following when using your Profile XP Fibre Channel Video Network.

- You must connect your Profile XP to a Fibre Channel fabric using a Fibre Channel switch. Profile XP does not support connection to a Fibre Channel Arbitrated Loop (Fibre Channel hub).
- If you connect any PDR 300 systems to the same Fibre Channel fabric as your Profile XP, they must use Profile System Software version 2.5.X and switch-compatible microcode (3.0.10).
- Media Manager included with this release can connect to Profile Video File Servers such as the PDR 300. However, the Media Manager included with Profile System Software versions 3.1 or 2.5 cannot connect to a Profile XP Media Platform.

Fibre Channel RAID storage

The Profile XP System Software 4.0.1 provides the following performance when using RAID systems with a single processor module and ten drives:

- 8 channel video @ 15Mbit/s
- 6 channel video @ 20Mbit/s
- 4 channel video @ 25Mbit/s
- 16 channels audio

If you require additional bandwidth, you can add a second PFC 500 and 10 more drives (20 total) to obtain the following performance.

- 8 channels video @ 30Mbit/s
- 6 channels video @ 40Mbit/s
- 4 channels video @ 50Mbit/s

To obtain maximum performance, you must install at least 30 drives on your system. This will provide the following data rates:

- 8 channels video @ 50Mbit/s

Tips

The following suggestions may help you get your Profile XP Media Platform on air faster, and keep it running trouble free for a long time.

- **Power up RAID units first.** When you power up your Profile XP Media Platform, be sure to power up your RAID expansion chassis first, then the main RAID chassis. Wait about three minutes to ensure that the RAID units have time to initialize, then power up the Profile XP Media Platform.
- **Don't fill your disks.** This is good advice for any disk-based system, including your PC. Limiting your usage to about 90% of disk capacity will protect you from many potential problems.
- **Set audio levels everywhere.** Many Profile applications provide ways to set audio record and playback levels. In addition, Configuration Manager lets you set levels or mute audio. Be sure that you have set levels appropriately in your application and in Configuration Manager before suspecting a hardware problem on your audio board.
- **Set up Fibre Channel with Louth.** In addition to performing your regular Fibre Channel setup tasks as described in the Profile XP System Guide, you must also use VdrPanel to configure Louth Protocol to use streaming transfers over Fibre Channel.



Software installation

Profile XP System Software 4.0.1 was installed on your Profile XP Media Platform at the factory. In normal operation, you should not need to install Profile XP System Software 4.0.1. However, if you install a new board in your system, or if you replace a system drive, you may need to re-install the software. Please read and follow these instructions to install the software.

Installing Profile XP System Software 4.0.1

The new Profile XP System Software 4.0.1 installation program includes enhanced features which allow you to update programmable parts on the various Profile XP boards during the installation process. Be sure to read the following instructions as well as the on-screen messages to successfully install this software.

Follow these steps install to Profile XP System Software 4.0.1.

>>> ***Do not delete the contents of the c:\profile directory before installing Profile XP System Software 4.0.1. Do not use Add/Remove Programs in Control Panel to remove an older version of Profile XP System Software or any Profile applications.***

1. Log out of the system to ensure that no applications are running.
2. Hold the Shift key down during start-up to prevent auto-logon as user *profile*.
3. Log in as *administrator*. The default *administrator* password on a Profile XP system is *triton*.
4. Shut down all Profile applications, such as VdrPanel, ProLink, ProNet, etc.
5. Insert the Profile XP System Software 4.0.1 CD-ROM in the CD-ROM reader or connect to a network drive containing the downloaded software.
6. The software installation will start automatically. (You may choose to run the *setup.exe* program by choosing **Start | Run** and specifying the appropriate drive.)

NOTE: Be sure to install the software in the default c:\profile directory. Specifying another location may result in incorrect operation of the software.

7. If an error message appears stating that services could not shut down because there are applications attached, ensure that all applications are closed, then click **OK**. You may safely ignore any subsequent service error messages.
8. When the installation process is complete, choose **Yes** when prompted to restart the system.
9. If you are upgrading from version 4.0.0, upon restart you may see error messages about SNMP. Accept the error and restart Windows NT. The error will not reoccur.

Your Profile XP System Software 4.0.1 is installed and ready to use. You should now create an emergency repair disk by inserting a floppy disk in the A drive and running *rdisk.exe*.

New startup procedures

Profile XP System Software 4.0.1 now includes a Host Transfer Service which runs as a Windows NT service, not an executable as in previous releases. This service, along with the MuxDemux Service, manages all streaming requests which are used for Fibre Channel transfers.

Since the Host Transfer Service and the MuxDemux Service are started automatically whenever you start Windows NT, you no longer need to run a *pdrstart.bat* file to start *htssvc.exe* and other applications.

If you have any applications that you wish to start automatically when you start Windows NT, you can now add them directly to the Startup folder.

Media Manager notes

- If you lose an Ethernet connection to any system on your network (disconnected cable, for example), you must reconnect to that machine from all Media Manager sessions on all systems to reestablish proper communications.



Microsoft Windows NT support

Your new Profile XP Media Platform is preloaded with all of the required software, including Windows NT 4.0 with Service Pack 3 and the Year 2000 hotfix. The `c:\i386` directory contains all the Windows NT 4.0 installation files that normally would be found on the installation diskettes or on the CD-ROM. Profile administrators can use files in this directory if they need to add drivers or other software to the default installation. Service Pack 3 is located in `c:\i386\nt40sp3`. The year 2000 hotfix is located in `c:\i386\nt40sp3y2k`.

If required, you can download Service Pack 3 from the Microsoft FTP site at:

<ftp://ftp.microsoft.com/bussys/winnt/winnt-public/fixes>

For example, U.S. customers can find instructions on how to download Service Pack 3 in:

<ftp://ftp.microsoft.com/bussys/winnt/winnt-public/fixes/usa/nt40/ussp3/>

You can obtain the Windows NT 4.0 Year 2000 hotfix from the same Microsoft FTP site. For example, U.S. customers will find the Year 2000 hotfix for Windows NT 4.0 at this location:

<ftp://ftp.microsoft.com/bussys/winnt/winnt-public/fixes/usa/nt40/hotfixes-postSP3/y2k2-fix/>

Known problems

The following limitations are present in this Profile XP System Software 4.0.1 release. If you wish to obtain more information about these limitations, please mention the reference numbers that follow the description of each limitation.

Startup

- | | |
|------------|---|
| Problem | Profile applications such as VdrPanel do not start. The Profile log reports that no filesystem exists. |
| Workaround | All your RAID units must be powered up before you start your Profile XP Media Platform. Be sure to power up your devices in the following order: <ol style="list-style-type: none">1. RAID expansion chassis, if present.2. Main RAID chassis. Wait three or four minutes.3. Profile XP Media Platform. |
| Problem | The Profile XP system is slow to start when it contains a large number of clips. |
| Workaround | Profile XP starts more quickly than older Profile systems. However, startup time is proportional to the number of clips loaded on the system. |
| Problem | Occasionally, after a power up of the system, Configuration Manager does not start. |
| Workaround | Restart Windows NT (Start Shut Down Restart the computer). |

Recording

- | | |
|------------|--|
| Problem | VdrPanel may cease to respond if the disk system fills up. (17878) |
| Workaround | Do not record enough material to fill the disk system. Avoid exceeding approximately 90% of your disk capacity. You can set NetCentral to advise you when your disk system is approaching full capacity. |
| Problem | Using the jog and shuttle controls before or during recording with VdrPanel may result in corrupted clips. (17466, 17467) |
| Workaround | Make sure that the shuttle speed is set to 1.0 before recording in VdrPanel. Avoid using the transport controls while recording. |



Video

- Problem** Occasionally, playout may be corrupted if you rapidly switch between play, shuttle, and rewind on open-GOP clips. (17773)
- Workaround** Normal playout of open-GOP clips preforms as expected at all speeds. If you need to shuttle through material, you should avoid recording open-GOP clips.

Audio

- Problem** A tone is present on embedded audio after the end of a clip, even after you close VdrPanel. (19180)
- Workaround** In Configuration Manger, set Show Black when the video input is lost on the video input page.
- Problem** In Configuration Manager, the Overload Clipping indicator is always lit on the Audio Input page. (19194)
- Workaround** There is no workaround at this time. Ignore the indicator.

Profile Applications

- Problem** Media Manager does not report the audio compression type on the clip properties page when the clip includes AC3 or Dolby E audio. (17339)
- Workaround** No workaround at this time.
- Problem** Closing the Event Scheduler window by clicking the Close button generates an error message. (18414)
- Workaround** Type `exit` at the command prompt to close the window.
- Problem** Applications such as Media Manager cannot make remote connections to machines on which Configuration Manager is running. (19297)
- Workaround** Always close Configuration Manager as soon as you have finished using it.
- Problem** Clicking the Edit button when the edit list is not open hangs the List Manager application. (17528)
- Workaround** There is no workaround at this time.
- Problem** The Duplicate command in Media Manager does not copy clips.
- Workaround** The Duplicate command requires the presence of a Fibre Channel or Ethernet Video Network card to operate, even for local operations.
- Problem** If you install NetCentral XP Enterprise, then reinstall Profile XP System Software 4.0.1, NetCentral XP Lite replaces NetCentral XP Enterprise.
- Workaround** You must reinstall NetCentral XP Enterprise after installing Profile XP System Software 4.0.1.

Configuration

- | | |
|------------|--|
| Problem | Configuration Manager falsely shows that the Fibre Channel and Ethernet video network boards are not operational. (18799) |
| Workaround | The boards should operate correctly. If not, test the boards using by using the Diagnostics as described in the <i>Profile XP Service Manual with NetCentral</i> . |
| Problem | On a PVS1008, which has no encoders, LTC is not read on input channels even though the LTC input is assigned in Configuration Manager. (19441) |
| Workaround | There is no workaround at this time. |

Fibre Channel

- | | |
|------------|---|
| Problem | The API command PdrCopyMovie fails. (18420) |
| Workaround | Use the streaming API commands (Xfr) to move material between machines. |

Disk Management

- | | |
|---------|----------------------------|
| Problem | The second RAID controller |
|---------|----------------------------|

Profile Protocol

No known problems at this time.

Louth Protocol

No known problems at this time.

Odetics Protocol

- | | |
|------------|--|
| Problem | Occasionally, a clip may cue to a frame three or four frames earlier than the specified frame. (19123) |
| Workaround | Cue the clip again, or shuttle to the desired frame. |

APIs

- | | |
|------------|--|
| Problem | Using the FittedMedia commands (VdrAttachFittedMedia, VdrAttachFittedMediaWithMarks) on long-GOP clips may display unexpected frame sequences when a clip is played. (15802) |
| Workaround | You can ensure correct playout in this situation by using I-frame only clips with FittedMedia commands. |



Diagnostics

Problem	Profile applications do not start or do not operate correctly after running diagnostics.
Workaround	You must restart Windows NT (Start Shut Down Restart the computer) after running diagnostics.