



NAVIGATOR

PLUG-IN MANUAL

PANTHER

VERSION 6.4.1.0
JUNE 23, 2008



YOUR BUSINESS. OUR DRIVE.

OVERVIEW

Xitron's Navigator PostScript RIP and Raster Blaster TIFF Catcher rely on software modules called plug-ins to communicate with imaging systems. In many cases they work in tandem with an interface card, while in others it is simply a conversion to a bitmap file in a compatible format.

When interface cards are involved, these plug-ins act as device drivers and control most actions of the output devices. Some of these actions include checking device status, device setup, and advancing and cutting material. In addition, the plug-in relays all the physical characteristics of an engine such as supported resolutions and imageable area.

During the launch sequence, both Navigator and Raster Blaster scan a specific directory for plug-ins. The software loads each plug-in it finds, and then queries them for a description of the capabilities of the supported devices. In this manner the plug-in configures the RIP to output a bitmap to these devices.

Each plug-in controls a particular family of recorders and is able to understand most messages and errors communicated by the output device. Plug-ins for use with Windows-based platforms consist of three software modules. The first module is the core plug-in written specifically for a particular device. This DLL is 32-bit code and runs under Windows NT, Windows 2000 Server, Windows 2000 Professional, Windows 2003 Server and Windows XP. The second module is a kernel mode device driver. This module communicates with the

Xitron interface boards and moves the bitmap data from the PC to the output device's interface. The third module is a "helper" DLL that translates calls from the plug-in to the Windows device driver.

When a page is sent to an output device for imaging, the Xitron software loads the correct plug-in and begins a series of steps prior to output. The plug-in first initializes the engine and checks that it is ready. After receiving the proper signal, the plug-in will begin reading bitmap data from the platform's hard drive into a "printer buffer." Once the printer buffer is full, the plug-in will start communicating the data to the output device. As the output device consumes the data, the plug-in relays this information to the software, which then refills the buffer. This continues until all of the data has been communicated to the output device. The plug-in tells the software the job is complete and waits for an indicator that the recorder has finished. This process is repeated for each page being output.

RASTER BLASTER



Plug-ins used by Xitron's Raster Blaster have the same functionality as those for the Navigator RIP and the same options are available for configuration. Therefore, unless otherwise specified, the information in this manual will apply to both products. See the Raster Blaster Reference Manual for specific configuration information.

CONFIGURING DEVICES

Xitron distributes a separate plug-in for each recorder family. This plug-in, in conjunction with firmware on specific Xitron interface cards (PCI & PCI-X), has the capability to drive most of the devices in each recorder family. Users may install more than one plug-in within a single RIP. In addition, it is possible to configure more than one engine type within a single plug-in.

Xitron pre-configures most plug-ins to display all output devices currently supported. To view these devices, click the Device Manager icon shown in Figure 1.

FIGURE 1: DEVICE MANAGER ICON



The Device Manager dialog box shown in Figure 2 will display. If the dialog displays the user's output device in the scrollable list, no further editing is necessary. The names of the available output devices will appear in the Output Device pull-down menu of the Page Set-up dialog box. However, in the rare circumstance that another device name is necessary; the user has the option of customizing the name field.

With the Device manager dialog window open, click **New** or select an existing device and click **Edit**.

FIGURE 2: DEVICE MANAGER DIALOG

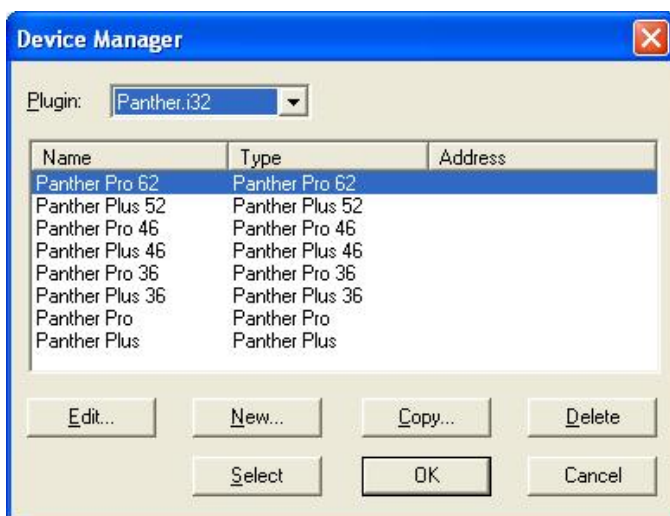


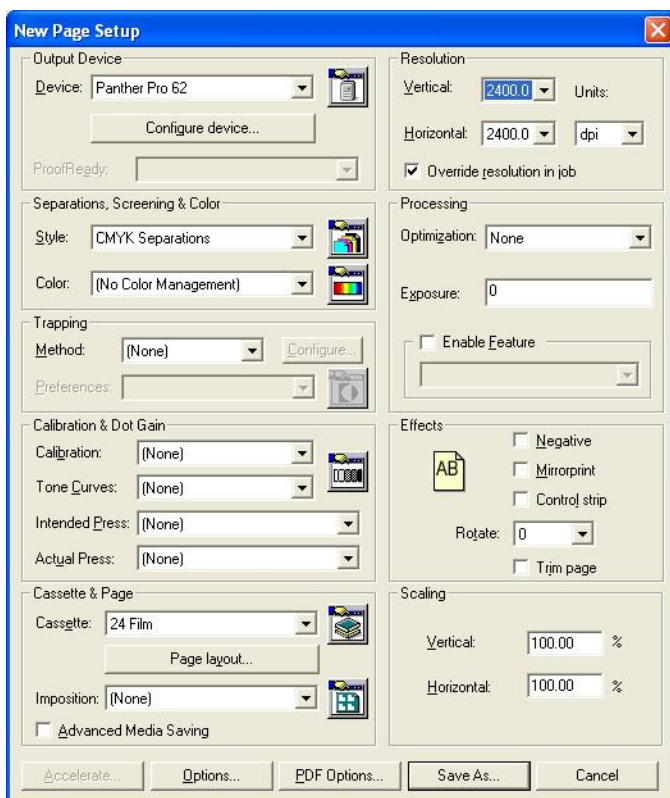
FIGURE 3: DEVICE MANAGER EDIT



A dialog box similar to the one shown in Figure 3 will display. Enter a name for the device. This name will display in the Device pull-down menu as a selection in the Page Setup dialog. For example, if two PantherPro 62 imagesetters are being driven by the same plug-in and differentiation between the two is important, edit this field to reflect Panther 1 and Panther 2.

The name can be any string of up to 32 characters. Select the specific recorder from the pull-down menu labeled, “*Type.*” Ignore the address field, as it is not used. After making the selections, click “**OK**” to make the device available in the Page Setup menu as seen in Figure 4.

FIGURE 4: PAGE SETUP



PANTHER SPECIFIC SETTINGS

Xitron's Panther plug-in supports the following recorders:

Pro 62 Pro 46 Pro 36

Plus 52 Plus 46 Plus 36

Pro Plus

Based on the device selected in the pull-down menu of the Page Setup, various capabilities will automatically populate the available menu options.

Choose the appropriate resolution, density, and page orientation from the main window of Page Setup as shown in Figure 4. Click the button labeled, “*Configure device...*” to change settings that are more specific to the output device such as punch positioning.

Some configuration options will be grayed out and non-editable. This occurs when the device chosen does not offer that particular functionality. An example can be seen in Figure 5, which shows the *Configure Device* window as it pertains to a Panther without punches.

FIGURE 5: PANTHER CONFIGURE DEVICE

Configure Panther Plugin

Head Punch Type: [dropdown]

Head Punch Leader (inches): 0.0000

Head Punch Offset (inches): 0.0000

Tail Punch Type: [dropdown]

Tail Punch Offset (inches): 0.0000

Tail Punch Trailer (inches): 0.0000

☐ Enable Image Negate on the Panther

☐ Quality Y Mode

Plate Leader (inches): 0.0000

OK Cancel

However, all of the options are available within the *Configure Device* dialog of the PantherPro 62, which will typically have

these punch options available for configuration. Explanations for each entry follow:

- **Head/Tail Punch Type:** Select the type of punches installed on the Panther. Selecting “None” will disable the punch at that station.
- **Head Punch Leader:** In inches, enter the amount of film leader to advance before punching.
- **Head Punch Offset:** In inches, enter the length of the offset required from the punch to the image.
- **Tail Punch Offset:** In inches, enter the length of material between the bottom of the image and the Tail Punch.
- **Tail Punch Trailer:** In inches, enter the length of the offset from the punch to the trailing edge of the material.
- **Enable Image Negate on the Panther:** Checking this box enables image negate on the Panther.
- **Quality Y Mode:** This enables a special mode on the Panther for Y resolutions of 1800 dpi and below, where scan lines are doubled to enhance quality.

CONNECTING THE INTERFACE

Ensure both the RIP PC and the Panther have been powered down before attempting to connect the two. Attach the supplied cable to the output device first, then to the SCSI card in the PC.

Since communication between the two devices is through a SCSI card, the power up sequence must be properly followed every time the systems are shut down or reset. Always apply power to the Panther first, allowing it to go through its entire diagnostic sequence. Once this is complete, it is safe to apply power to the RIP PC. This will allow the PC to identify the Panther on the SCSI bus and recognize it in the BIOS scan.

For some SCSI output devices, Windows 2000 and XP will install a “generic SCSI printer” driver. This happens when the OS boots for the first time after installation of the SCSI adapter. The “Found New Hardware Wizard” will display a message that it has found new hardware and will apply the generic SCSI driver it thinks is correct. If this occurs, the Xitron SCSI class driver will not be able to see the output device.

The solution is to disable the printer driver installed by the New Hardware Wizard by following these steps:

1. Start the device manager and locate the generic SCSI printer
2. Double click the icon to display the properties, and select “Do not use this device” from the drop down menu
3. After re-starting the platform, the system should properly identify the XiSCSIclass driver.

PLUG-IN MESSAGES

From the time a plug-in is loaded for the purpose of setting up and outputting to one of its devices, it begins to send messages to the software's Monitor window. These messages are typically informational but can convey warnings and report errors from the engine. There is a user changeable setting called "debug level" that controls the verbosity of these messages. This can range from 0 (almost no messages) to 4 (very high message traffic). This is described in the Xitron Tech Note *CreatingLogfile.pdf*.

Examples of informational messages are:

- PostScript job name
- Commands being sent to the card to set up the engine
- Output start and stop time

Examples of warning messages are:

- A job being clipped to fit a recorder
- Data being left at the end of the job
- Certain settings in the .ini file overriding defaults

The Plug-in may return additional error messages, based on communication with the Panther. These are typically configuration errors:

Short Message	Long Message
Bad resolution	You have selected an unsupported resolution on the Panther
Bad exposure	The exposure value for this job is invalid; Range is 0-255

No Driver	The required SCSI Class driver is not present or not started.
Quality Y error	The Quality Y mode is not valid for Y resolution over 1800.
Half Y res error	In Half Y mode, the X resolution is not twice the Y resolution.
Resolution mismatch	The X resolution does not match the Y resolution, and Half Y is enabled.
Quality Y error	Quality Y mode invalid at 1800x1800 dpi.

PANTHER ERRORS

The Panther will report certain errors back through the RIP. A partial listing appears below:

Short Message	Long Message
Misc Fail	The Panther reports the error code 1, "Misc Fail".
Quit Error	The Panther reports the error code 2, "Quit Error".
Operation Cont.	The Panther reports the error code 3, "Operation Continue".
Fifo Empty	The Panther reports the error code 4, "Fifo Empty".
No page to reimage	The Panther reports the error code 5, "No page to reimage".
Touch memory	The Panther reports the error code 6, "Touch memory".
Polygon	The Panther reports the error code 16, "Polygon".

No EOS	The Panther reports the error code 17, "No end of scan"
Media Jam	The Panther reports the error code 32, "Media Jam"
Media Out	The Panther reports the error code 33, "Media Out"
No Takeup	The Panther reports the error code 34, "No Takeup"
Cover Open	The Panther reports the error code 35, "Cover Open"
Door Open	The Panther reports the error code 36, "Door Open"
Cutdone pending	The Panther reports the error code 37, "Cutdone pending".
Cutter jam	The Panther reports the error code 38, "Cutter Jam".
No OLP	The Panther reports the error code 39, "No online processor".
No smart cassette	The Panther reports the error code 40, "No smart cassette".
Short Message	Long Message
Not Ready	Waiting on the Panther to become idle.
Unimplemented	Unimplemented Error Handler.
Offline	The Panther is offline at the keypad.
Local Error	The Panther is reporting: "Local Error".