



Plug-in Manual

Panther

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Overview

Xitron's Navigator PostScript RIP and Raster Blaster TIFF Catcher rely on software modules called plug-ins to communicate with imagesetters, platesetters, and proofers. These plug-ins are written and compiled to a format known as Dynamic Link Libraries, or DLLs. They act as device drivers for the software 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 directory called "devices" for plug-in files. 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." When the printer buffer is full, the plug-in starts 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

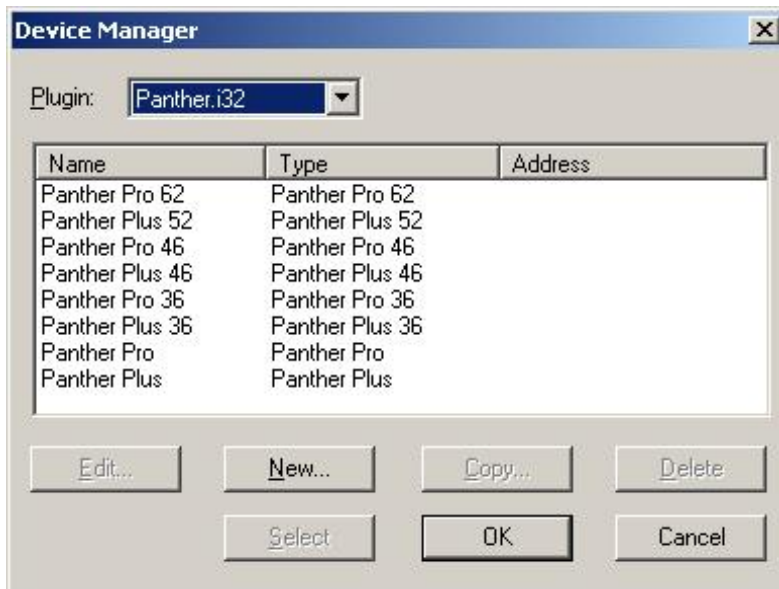
Plug-ins used by Xitron's Raster Blaster have the same functionality as those for the Navigator RIP and the same options are available for configuration. Therefore, unless otherwise specified, the information in this manual will apply to both products. See the Raster Blaster Manual for specific configuration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

Configuring Devices

The following section applies only to Navigator RIPs.

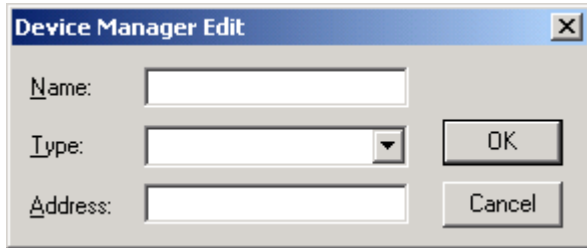
Xitron distributes a separate plug-in for each recorder family. This plug-in, in conjunction with firmware on specific Xitron interface cards (PCI & PCI-X), has the capability to drive most of the devices in each recorder family. More than one plug-in can be installed in a single RIP and within a single plug-in more than one engine type can be configured. A plug-in must have one device configured before it can be used. Devices are configured using the “Device Manager” which is shown below.

Generally, these devices are already configured when the plug-in is loaded. In most cases the user will not have to add or configure the devices. The following information about Device Manager is provided for the rare occasion where adding a device becomes necessary.



The display above lists all pre-configured Panther devices. The Name will appear in the Output device field in the Page Setup dialog box.

To configure a different device for the plug-in, select it from the list box labeled “Plug-in.” Click the “New” button. To edit an existing device, highlight it and click on “Edit,” or double-click the listing. In either case the following dialog box will appear.



Enter the name of the device in the field next to “Name” as you wish to have it appear in the Page Setup. This name is for the users’ benefit so as to remember which device is configured. It can be any string of up to 32 characters. Select the specific recorder from the list box next to “Type.” Ignore the address field, as it is not used. When you have made your selections, click “OK” to keep them or “Cancel” to ignore them.

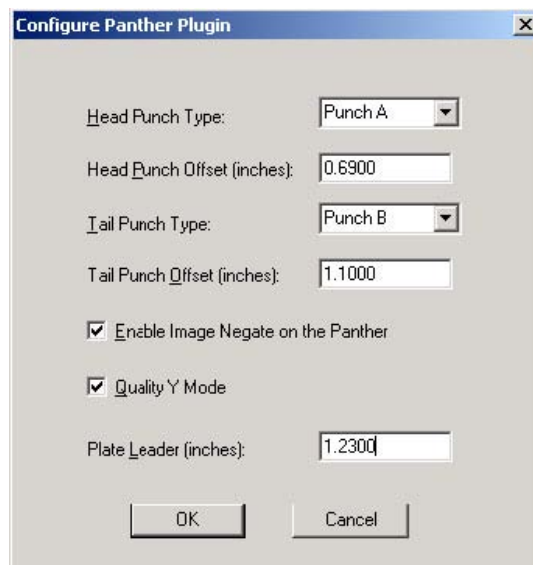
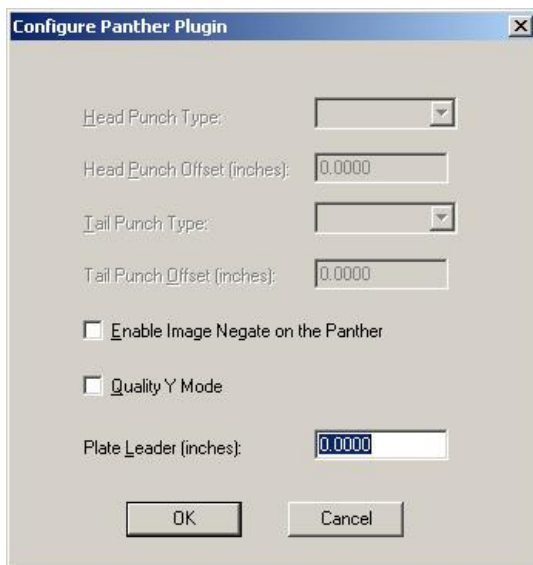
For Raster Blaster, see the Raster Blaster manual section on *Creating New Devices*.

Panther Specific Settings

Xitron supports the following Panther recorders:

- PantherPro Series; 62, 46, 36, and Pro
- PantherPlus Series; 52, 46, 36 and Plus

After installing the Panther plug-in, you will be able to create Page Setups based on the plug-in. Select the appropriate resolution, density, and page orientation from the main window of Page Setup. You should also configure the options specific to the Panther devices. Click on “Configure Device” under the Device Type list. One of the following dialog boxes will appear, depending on whether the device has punches or not:



From this dialog box you can configure the following options:

- **Head/Tail Punch Type:** Select the type of punches installed on the Panther. Selecting “None” will disable the punch at that station.
- **Head Punch Offset:** In inches, enter the length of the offset required from the leading edge of the material.
- **Tail Punch Offset:** In inches, enter the length of the offset to the trailing edge of the material.
- **Enable Image Negate on the Panther:** Checking this box enables image negate on the Panther. This is recommended over Image Negate in Page Setup since the Panther does a better job of burning out the media.
- **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 devices, the RIP PC and the Panther have been powered down before attempting to connect the two. Connect the supplied cable to the output device, then to the PC. The power-up sequence should always be: Panther first, RIP PC second. This will allow the PC to identify the Panther on the SCSI bus and identify 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 PCI 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"
Cutdown pending	The Panther reports the error code 37, "Cutdown 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".