



NAVIGATOR

PLUG-IN MANUAL

FUJI F9000

VERSION 6.4.0.4
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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 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



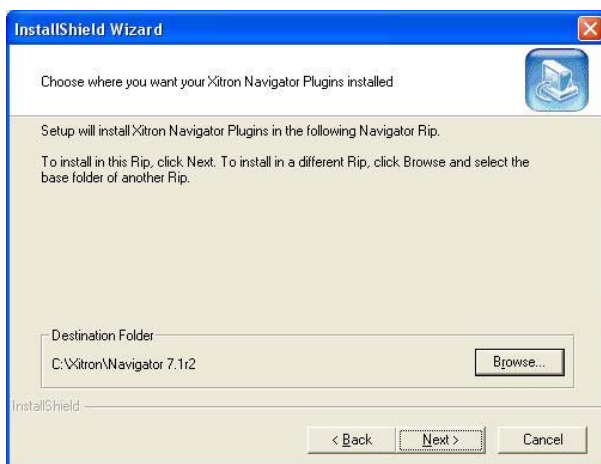
Raster Blaster does not currently support the Fuji F9000.

INSTALLING THE F9000 PLUG-IN

Xitron distributes a separate plug-in for the F9000. This plug-in, in conjunction with the LSI Logic Symbios 8751D high voltage differential SCSI card, drives ONLY the Fuji F9000.

To install the plug-in, double-click the installer CD icon and follow the prompts to select the folder containing the Navigator RIP application as shown in Figure 1.

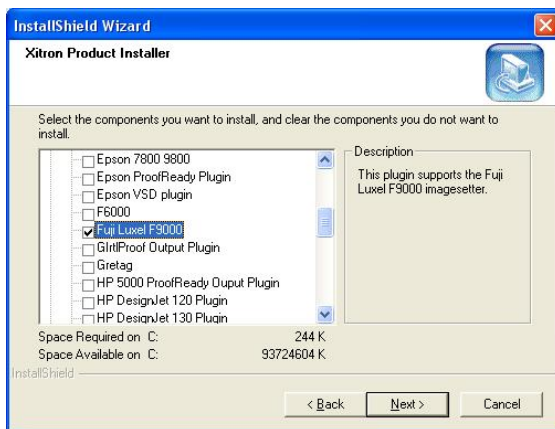
FIGURE 1: SELECT RIP



Continue to click the **Next** button and the installer will post the plug-in selection dialog box as shown in Figure 2. Scroll

down to the Fuji Luxel F9000 check box and select it before clicking *Next* again. The system will install the plug-in.

FIGURE 2: SELECT PLUG-IN



Once the system has completed installing the plug-in, it will prompt the user for a password as shown in Figure 3. This password is a 20-character string provided by Xitron. Enter the string exactly as it appears in the documentation before clicking *Next*.

The system will continue the installation and then post a dialog box asking the user to re-start the system. This must be done before attempting to configure the plug-in for use. Because the F9000 is a SCSI device, the F9000 must be started and operating before starting the RIP.

FIGURE 3: ENTER PASSWORD



CONFIGURING DEVICES

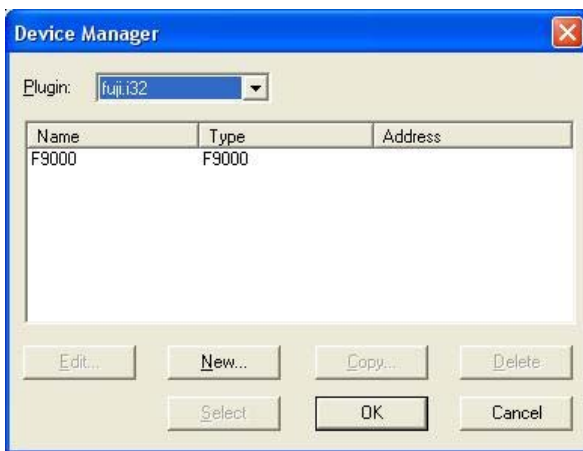
Xitron pre-configures most plug-ins to display the entire family of output devices currently supported. To view these devices, click the Device Manager icon shown in Figure 4.

FIGURE 4: DEVICE MANAGER ICON



The Device Manager dialog box shown in Figure 5 will display. In the case of the F9000 plug-in, it is the only device in the family and therefore is the only one shown. Typically, no further action is necessary. However, one possible exception is changing the name of the output device which appears in the Output Device pull-down menu of the Page Set-up dialog box. By default, this is F9000.

FIGURE 5: DEVICE MANAGER DIALOG



With the Device manager dialog box open, click **New** or select the existing device and click **Edit**. A dialog box similar to the one shown in Figure 6 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.

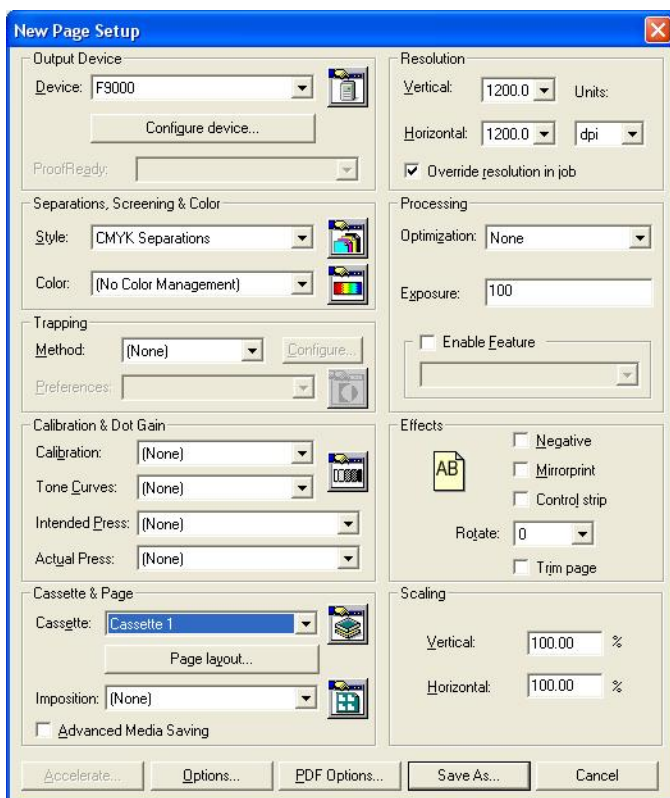
FIGURE 6: DEVICE MANAGER EDIT



The screenshot shows a standard Windows-style dialog box titled "Device Manager Edit". It features a blue header bar with the title and a red "X" close button. The main area is light gray and contains three labeled input fields: "Name:" with a text box containing "F9000", "Type:" with a pull-down menu currently set to "F9000", and "Address:" with an empty text box. To the right of the "Type" and "Address" fields are two buttons: "OK" and "Cancel".

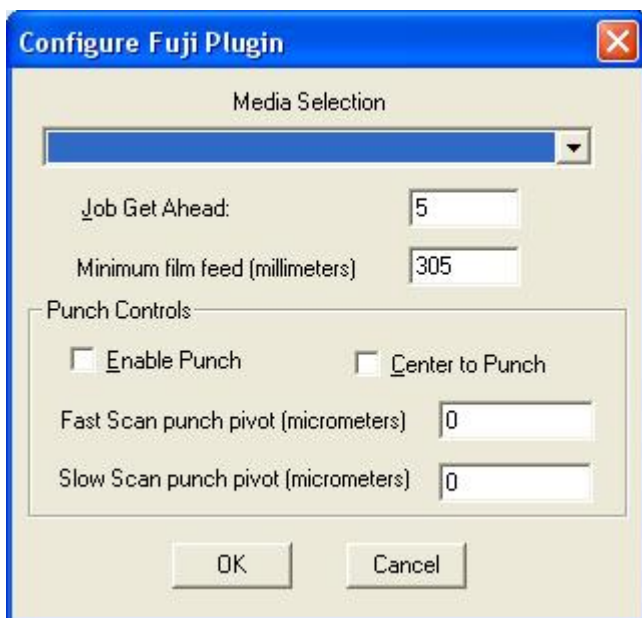
The name can be any string of up to 32 characters. Select the specific recorder from the pull-down menu labeled, *Type*. Ignore the address field, as it is not used. After making the selections, click **OK** to make the device available in the Page Setup menu as seen in Figure 7.

FIGURE 7: PAGE SETUP



For information regarding the choice of screening, resolution, calibration, separations and other settings, consult the Navigator Reference Manual. For settings specific to the F9000 plug-in, click the button labeled **Configure Device** in the **Output Device** section of the Page Setup. The dialog box shown in Figure 8 will appear.

FIGURE 8: CONFIGURE PLUG-IN



F9000 SPECIFIC SETTINGS

- **Media Selection:** This is the requested media cassette from the F9000. This list box should be populated with the 7 available cassettes on the F9000. If this list is blank, the **Plug-in did not correctly initialize on startup**. Re-start the system after

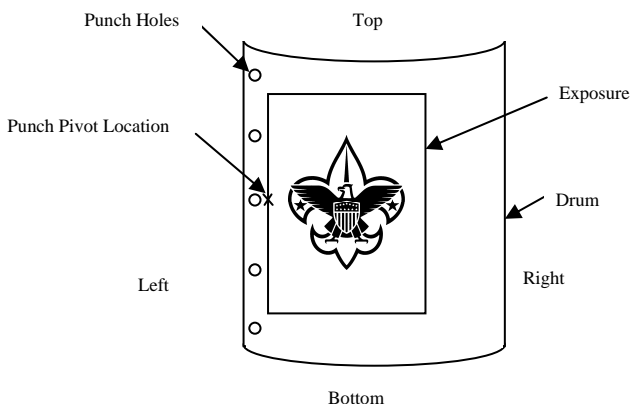
making sure the F9000 has completed its startup before applying power to the RIP.

- **Job Get Ahead:** The F9000 can spool jobs to be imaged. This entry specifies the maximum number of jobs the Plug-in will download to the F9000 before pausing to allow the F9000 to image.
- **Minimum Film Feed:** This field allows the user to specify a minimum cut film length to be enforced when imaging. This is necessary because the F9000 and its online processor may not be able to handle short lengths of film. These short films tend to get caught in the processor buffer. Adjust this value as needed for correct operation and optimal film use.
- **Enable Punch:** This checkbox activates/deactivates any punch installed on the F9000. However, the Plug-in does not know if a punch exists. Therefore, do not enable this function if the F9000 does not have a punch.
- **Center to Punch:** This checkbox instructs the system to center the image in reference to the punch. If this box is NOT checked, the system will place the image in the upper left corner of the drum. If this box is checked, the following 2 numeric entries for “pivot” positions will be used to position the image on the drum so that the left edge will be placed against the Fast Scan point and $\frac{1}{2}$ of the image will be above the Slow scan point and $\frac{1}{2}$ below the Slow Scan point.

Punch Pivot Point (for Punch Centering) Units: Units are measured in micrometers but the effective positioning resolution is recorder specific. See Figure 9 for orientation.

- **Fast Scan punch pivot:** This is the location at which the fast scan image data will start. The value is an offset from a “0” point and must be a positive number. Since the bar punch is physically located above the 0 point, enter a starting value of 23000 and ensure the entire exposure images on the film. Make adjustments accordingly.
- **Slow Scan punch pivot:** This is the slow scan offset to the location of the center of the punch nib array. This point is usually defined as $\frac{1}{2}$ the media width, measured in micrometers. When “Center to Punch” is selected, $\frac{1}{2}$ half of the image will be exposed above this point, and $\frac{1}{2}$ below this point. For example, on 1067mm wide film, this value is 533500 micrometers. This value will be different for each supported media size.

FIGURE 9: PUNCH LOCATION



In the above example, the Top, Bottom, Left and Right, match the perspective of the Rip's ROAM window. The film is output on the recorder right reading/emulsion down. See the section labeled, "Image Paint" under Installation and Operation Notes for more information.

INSTALLATION AND OPERATION NOTES

Media Width: The cassette definition in the F9000 must have the correct media width because the system will move the start of image position based on this entry. Set incorrectly, the system will expose either off the edge of the media (media

width too large), or start at a point too far inside the media (media width set too small).

Media Centering: When using a media smaller than the F9000's maximum size (1130 mm), the media roll must be centered on the supply spindle. This is an operational requirement of the F9000.

SCSI Block Size: This parameter, set in PB2Diag's "edit INI settings" option, can have an impact on the speed at which the image data is downloaded to the F9000. This value, which defaults to 64K in the latest PB2Diag, should be set to 128K.. Further rate increases may be gained by adjusting the print buffer size and band size.

Feed Fudge Factor: When imaging on an F9000 with punches, it is necessary to move the image to the right by the distance defined in the Xitron33.ini setting for Feed Fudge Factor (located in the SCSI settings tab of the PB2Diag's "Edit INI file" menu bar option). The value is set in points. Moving the image to the right by this amount (72 points by default) will ensure that the entire image will print on film. Without this feature, the first 1-inch of image data will image across the punch bar as mentioned earlier. Feed Fudge Factor does not apply when "Center to Punch" is checked.

Image Paint: It appears that the F9000 paints image data mirrored by default. When installing and testing, keep in mind that images that are right reading in ROAM will actually appear wrong reading on film when viewed from the "emulsion up"

perspective. The net result is that image data appears on film as right reading, emulsion down.

Cassette Handling: There are cassette definitions for up to 7 different supply cassettes. Each one may have a different media type associated with it. Each supply cassette is uniquely identifiable by the F9000. This means that the cassettes are clearly marked, Cassette 1, Cassette 2, etc. When a new cassette is installed in the recorder, the F9000 senses the cassette number and (through the cassette database) knows which media type and width it contains.

Fog Feed Length: When a supply cassette is loaded into the F9000, the first few inches of film are exposed to light, which makes them unusable. Because of this, the first exposure will contain an additional feed amount (called the Fog Feed Length) of media to avoid imaging in this area.

Changes to the F9000 Cassette Database: If any changes are made to the type of media loaded in a supply cassette, these changes must be entered into the F9000 and the RIP and the F9000 must be re-started. This will allow the RIP to re-query the F9000 and the new information will be passed to the RIP.