



**NAVIGATOR**

PLUG-IN MANUAL

**TRENDSETTER**

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VERSION 6.4.0.0  
OCTOBER 23, 2006



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Xitron Part Number Doc-1013 10/06

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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.

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## 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.

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## BACKGROUND INFORMATION

Always power up the Trendsetter and allow it perform its start-up routine BEFORE starting the Xitron RIP or Xitron Raster Blaster computer. The RIP must “see” the Trendsetter on the SCSI bus during start-up in order to properly configure the drivers.

After completing the software installation, Xitron’s “TrendsetterMon” utility will automatically launch each time the system starts. The Trendsetter must be on and the TrendsetterMon utility must be running BEFORE the RIP or Raster Blaster program is run. The TrendsetterMon program will collect setup information from the Trendsetter (available resolutions, supported media, etc.) and convey that information to the RIP or Raster Blaster.

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## INSTALLATION

Begin by installing the Xitron software and the Trendsetter plug-in as instructed in the Software Installation Manual. After installing the software, it will be necessary to complete some preparatory steps in the Windows operating system before configuring the Trendsetter plug-in, or attempting output to the Trendsetter.

The Windows 2000 and Windows XP operating systems will attempt to load drivers for any devices connected to the computer. In most cases this is a positive thing, as it saves

operators from having to locate drivers and load additional software. However, if the operating system recognizes a SCSI device connected to the computer and can not determine the type, it will load a “Generic SCSI Printer” driver. This driver disables communication between Xitron’s plug-in and the Trendsetter. Therefore, it will be necessary to disable this driver to establish proper communication. Carefully follow the instructions below to disable the generic SCSI printer driver in Windows 2000 and Windows XP.

Do not attach the SCSI and serial (RS 232) cables until both the Trendsetter and RIP PC are properly switched off. Attach the serial cable to the COM port on the computer (as described on page 11 of this document) and the SCSI cable to the SCSI card. Complete the same connections on the Trendsetter, being sure to fasten them tightly. Start the Trendsetter first, let it run through its diagnostic routine and then start the PC.

After logging on to the computer, locate the Device Manager dialog in the Windows operating system. Visually determine if the OS has loaded a Generic Printer driver (see Figure 1) as discussed earlier. If the Device Manager does not display a Generic Printer, go to the next section of this plug-in manual.

FIGURE 1



If the OS displays a Generic Printer, place the mouse over the icon and click the right mouse button. Choose “Disable.” DO NOT delete the driver as Windows will just reload it the next time the computer starts. After disabling the driver, the Device Manager window should appear exactly like the one shown in Figure 1. That is, there should be a red X over the Generic Printer icon. Restart the computer and proceed with RIP/Raster Blaster configuration.

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## CONFIGURING THE TRENDSETTER

The Trendsetter plug-in supports the following recorders:

- Trendsetter 3230, 3244

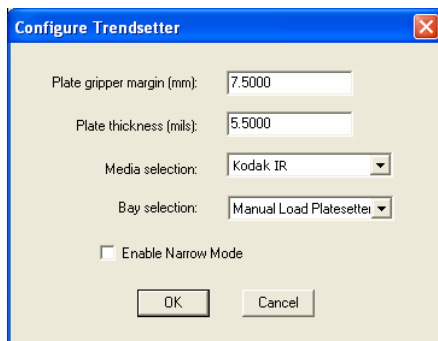
After installing the Trendsetter plug-in, create Page Setups for the Trendsetter device. Click the Page Set-up Manager Icon (Ctrl + S) and click the “New” button. From the drop down Device menu, select the Trendsetter model being used.

*FOR RASTER BLASTER, SEE THE RASTER BLASTER MANUAL SECTION “CREATING NEW DEVICES.”*

Start by selecting the appropriate resolution, then click “Configure Device” under the Device list box. A dialog box similar to that shown in Figure 2 will appear.

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**FIGURE 2**



From this dialog box you can configure the following options:

- **Plate gripper margin:** Enter values in millimeters and the corresponding adjustment will move the output image to the RIGHT on the plate. See the image position and plate orientation diagram (Figure 3) for clarification of plate orientation.
- **Plate thickness:** Enter values in mils (thousandths of an inch). For example, enter a value of 5.5 for a plate thickness of .0055. The system will generate an error when the plate thickness value is incorrect.
- **Media selection:** This value will change depending on the supported media information in the Trendsetter itself. Be sure to choose the correct media: proper exposure values, which are controlled by the Trendsetter, will depend upon this choice.
- **Bay selection:** For manual load systems, choose the Manual Load Platesetter option.

*FOR SYSTEMS WITH AN AUTO-LOADER, ONLY CHOOSE  
"USING BAY 1." DO NOT USE ANY OF THE OTHER  
OPTIONS.*

- **Enable Narrow Mode:** This option will increase the quality of the image but will slow the imaging time on the Trendsetter. Normally this selection should be off. It may be necessary to turn it on if you are imaging very high line screens or stochastic dots.



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## MEDIA SIZE AND IMAGE PLACEMENT

It is important to understand how the Trendsetter driver and the Trendsetter view the media size and orientation. An incorrectly specified media size will create errors when imaging, while misunderstanding the image orientation will make it difficult to configure the plug-in for proper image position.

### PLATE AND IMAGE ORIENTATION

From the perspective of the operator, the Trendsetter rotates the image 90 degrees in the clockwise direction. For example the top of the plate (as seen by the operator) is actually the left side of the plate with regard to the image. Figure 3 displays plate orientation relative to the image.

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**FIGURE 3**

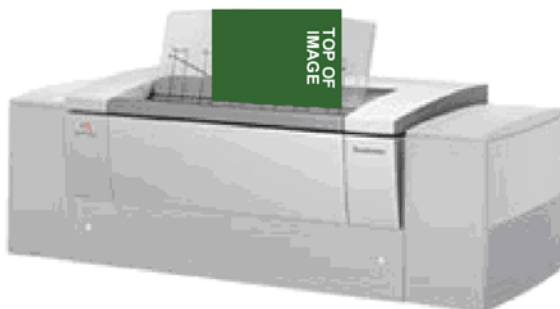
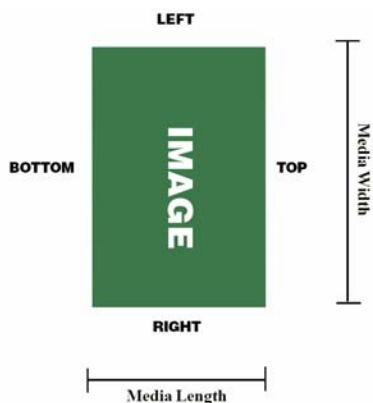


Figure 4 explains the orientation with regard to media width and media length as described in the Trendsetter plug-in. Since it can be somewhat confusing, it may be necessary to experiment with the rotation and right-reading/wrong-reading settings in the RIP to achieve the desired orientation on the plate.

*IMPORTANT: IF USING RASTER BLASTER, DO NOT CHANGE THE ROTATION OR ORIENTATION OPTIONS FROM THE DEFAULT. IF IT IS NECESSARY TO ROTATE THE IMAGE OR CHANGE ITS ORIENTATION, MAKE THESE ADJUSTMENTS IN THE RIP OR THE LAYOUT PROGRAM, NOT IN THE RASTER BLASTER SOFTWARE.*

**FIGURE 4**

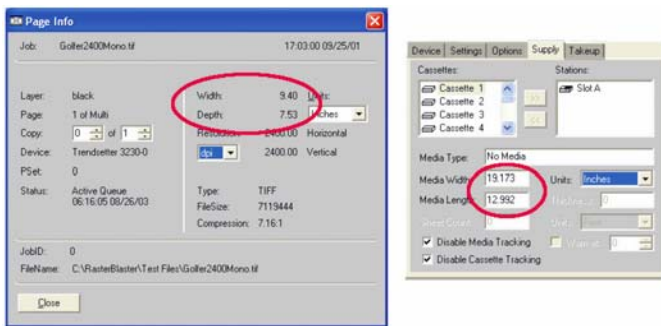


The designations (left, top, right and bottom) represent how the RIP and Raster Blaster “view” the plate. They also correspond directly to the “TOP” shown in Figure 3.

From within the plug-in, use the “Center on Media Width” and “Center on Media Length” check boxes. Additional position

adjustments can be made by using the plate gripper margin mentioned on page 7 and found in the configure device dialog. Make sure that the actual image size (as shown in Figure 5) is not larger than the media size set in the in the Device Configuration window within Raster Blaster or the Page Layout window within Navigator. Remember that the Image Width corresponds to the Media Length.

**FIGURE 5**



## TRENDSETTERMON

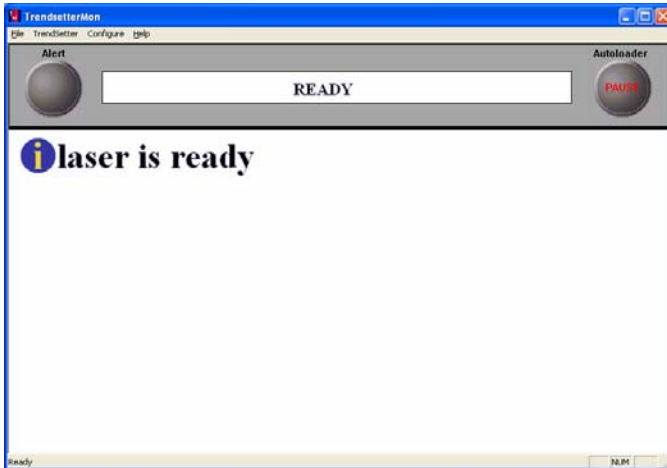
The Trendsetter Monitor utility – or TrendsetterMon - is a direct communications link to the Trendsetter. In many cases, it will be possible to run the device with only the TrendsetterMon window visible. The RIP or Raster Blaster window can be minimized and instructions in the TrendsetterMon window will tell the operator what to do next.

*IMPORTANT: TRENDSETTERMON MUST BE RUNNING AT*

*ALL TIMES. IF IT IS NOT RUNNING THE RASTER BLASTER  
OR RIP WILL ABORT ANY IMAGE SENT TO THE  
PLATESETTER.*

Figure 6 shows an example of the TrendsetterMon window.

**FIGURE 6**



## SELECTING A COM PORT

TrendsetterMon can be configured to use various COM ports for serial communications to the Trendsetter. To adjust this setting, verify which COM port is connected to the Trendsetter via the RS232 cable. From the TrendsetterMon “configure” menu choose “select COM port” and select the appropriate com port.

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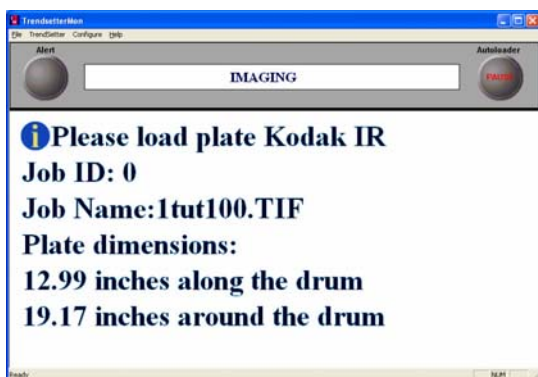
## SELECTING A MEASUREMENT PREFERENCE

TrendsetterMon's measurement system can be set to inches or millimeters. From the TrendsetterMon "configure" menu choose "set units of measure." Select from English or Metric.

When the RIP or Raster Blaster sends a bitmap to the Trendsetter, the TrendsetterMon window will change to reflect the status and the measurements. Figure 7 shows the window when a bitmap has been sent to the Trendsetter and it is waiting for the proper plate to be loaded.

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FIGURE 7



## USING THE TRENDSETTER PLUG-IN WITH AN AUTOLOADER

When the Trendsetter is equipped with an autoloader, the Trendsetter plug-in will inform the platesetter/autoloader of the size of the next bitmap in the queue. This will allow the system to pre-load the proper plate, increasing imaging efficiency. However, in order to provide the proper information some basic requirements exist.

FIGURE 8



In the example above, the Trendsetter plug-in will properly send image size data to the autoloader. When output is enabled the image size for the second bitmap in the queue will be sent while the first bitmap in the queue is sent to the platesetter. This will allow the system to pre-load the next plate.

The plug-in determines the size of the next plate/image by retrieving the information from the job in the Active Queue of the RIP or Raster Blaster. If there is no image in the Active Queue the plug-in cannot communicate any information and the autoloader will not pre-load a plate (see Figure 9). Because

of this, it is possible that the system could appear “slower” than expected. For the most efficient output with an autoloader, try to queue up more than one image before releasing the images to the Trendsetter.

**FIGURE 9**



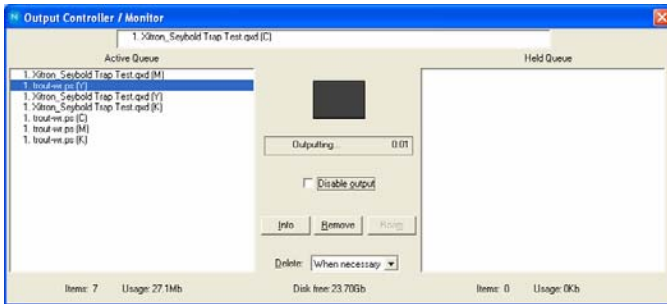
In this example, the plug-in will not provide the autoloader with information about the second bitmap because none exist. Therefore, if a second image arrives in the Active Queue after the first bitmap has imaged, the Autoloader cannot pre-load a plate.

An error can occur when preloading plates if an operator changes the order of jobs in the Active Queue. Because it is possible to move a bitmap from a lower position in the Active Queue to the top of the Active Queue, it is also possible to move a different size bitmap in front of the one for which a plate has already been pre-loaded. The platesetter will then post an error indicating the wrong size plate has been loaded.

To avoid this potential problem, never move an image above the first job in the Active Queue. If it is essential to move a job forward in the queue, always place it in the second spot (as

shown in Figure 10), which will allow the system to load the proper plate.

FIGURE 10



In this example the bitmap “trout-wr.ps(Y)” has been moved up and placed in the second position of the Active Queue. The autoloader has already pre-loaded the plate for “Xitron\_Seybold Trap Test.qxd(M).” When the system is imaging that plate, it will simultaneously pre-load the proper plate for “trout-wr.ps(Y)” and no errors will occur.

If TrendsetterMon does display an error, click the disable output box, move the job in process back to the active queue and follow the error recovery exactly as recommended in the error message. **Before taking action, wait until the job appears in the active queue.** This will stop communication with the Trendsetter and allow the internal error recovery to execute.

For more information about Xitron Navigator or Raster Blaster, please review their respective user manuals, which can be found on the installation CDs or Xitron’s website at [www.xitron.com](http://www.xitron.com).