

PlateJet Emerald and Sapphire Plugin

Configuration and Operation Manual

June 26, 2001

Overview

Xitron's plugin for the Gretag PlateJet Emerald and Sapphire series of platesetters uses standard low voltage differential SCSI interface cards. As shipped, the kit consists of an Adaptec 29160 SCSI adapter and a wide-wide SCSI cable. Currently supported models are the PlateJet Emerald and PlateJet Sapphire.

Plugins

Output device plugins are Win32 dynamic link libraries. Plugins act as device drivers for the Navigator and completely control all actions of an output device for the RIP. This includes checking statuses, device setup and exposure of plates. The plugin relays to the RIP all the physical characteristics of an engine such as supported resolutions and imageable area.

When the RIP has a page to image on an output device it loads the Gretag plugin and begins a series of steps to begin output. The RIP first gives the plugin a chance to initialize the PlateJet and check that it is ready. Assuming it is, it begins to read bitmap data off disk into the Printer Buffer, telling the plugin where the data is in memory. When the RIP has filled the printer buffer, the plugin instructs the PlateJet to start exposing the plate. As the PlateJet consumes the data, the plugin relays this information to the RIP, which then refills the memory. This continues until all of the data has been output. The RIP then tells the plugin that the job is over and waits for the plugin to indicate that the recorder has finished. This process happens for each page output to an engine.

Selecting a device for Output

To direct the Rip's output to a specific device, "Page Setup Manager" is used to create and modify page setups. A "Page setup" is a group of settings describing the configuration of the Rip. There can be many page setups in a fully configured rip, one for each "input" to the rip (be it an AppleTalk device, Spool folder, etc.). Select "Page Setup Manager" from the "Xitron Rip" menu item on the main menu bar of the rip. The following dialog will appear:



Figure 1 Page Setup Manager

Click on the "New" button to create a new page setup and the following dialog will appear:

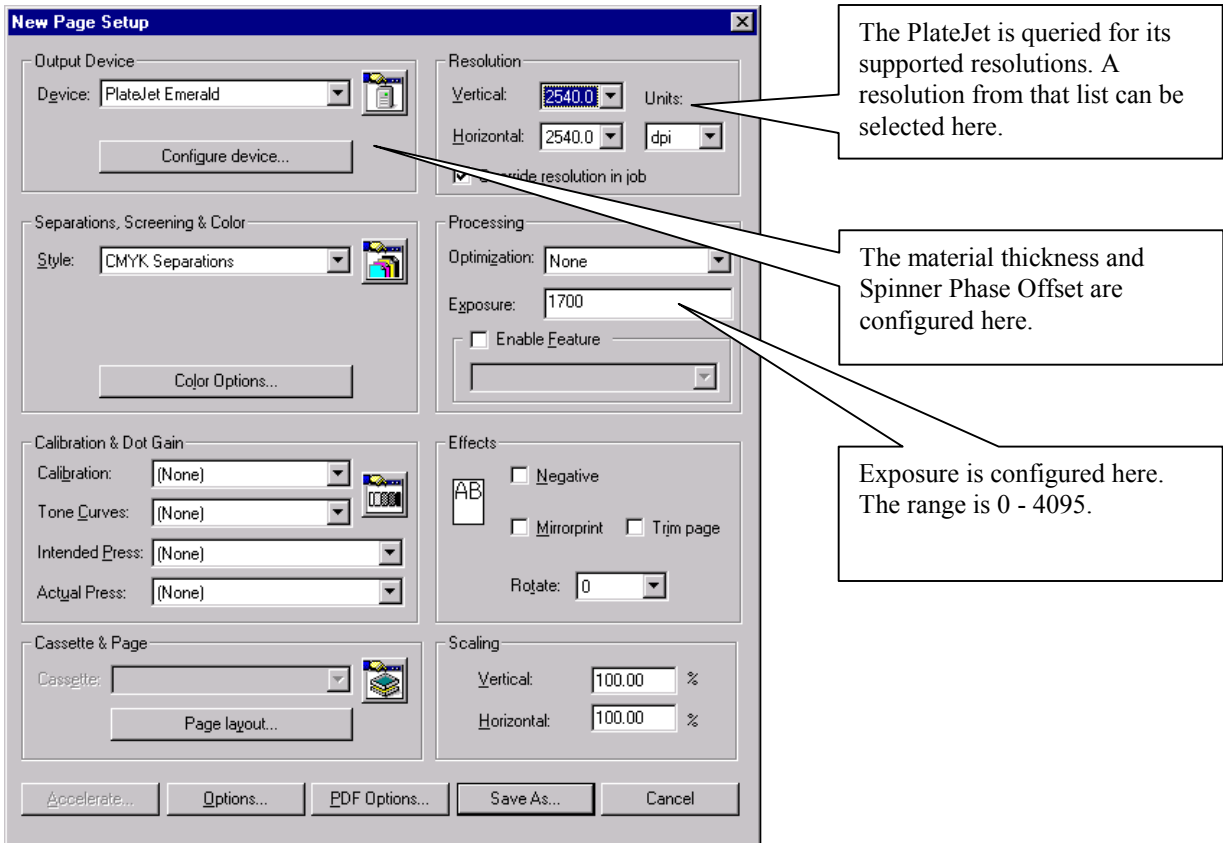


Figure 2 Page Setup Dialog

Use the pull down list box labeled “Output device:” to select the appropriate device. Highlights for configuring the a PlateJet are labeled above.

For more information on the other settings on this dialog, refer to the Navigator NT Rip manual.

Additional configuration available through “Configure Device”

The push button labeled “Configure Device...” in the above dialog is used to access parameters that are specific to the PlateJet plugin. Clicking on this button will produce the following dialog:

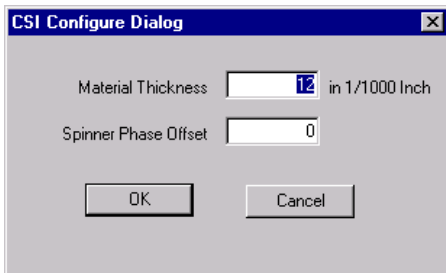


Figure 3 Configure device dialog for the PlateJet.

From this dialog box you may configure the following options:

- **Material Thickness:** This value is entered in 1/1000th of an inch.
- **Spinner Phase Offset:** This adjusts the “Spinner Tach Counts”. It should be left at 0 unless a Gretag service engineer instructs you otherwise.

Attaching the PlateJet to the Navigator Rip

The PlateJet should be powered on before the RIP PC is powered on so the Navigator RIP to find it on the SCSI bus. Both the PC and the PlateJet should be powered off when connecting the SCSI cable. In the BIOS scan for the SCSI adapter, you should see the PlateJet device. On the Adaptec 29160 adapter the “Domain Validation” under Advanced Configuration on the card should be disabled. For more information see the Gretag Service Bulletin PlateJet -#92. When NT boots, the Xitron SCSI class driver, XiScsiClass.sys, also needs to find the PlateJet on the SCSI bus. If the Xitron SCSI class driver finds the device, it outputs two system messages, which can be viewed using “Event Viewer”.

SCSI Drivers

Xitron’s SCSI class driver, XiScsiClass.sys, depends on the native NT SCSI port driver. This needs to be installed for the particular adapter you have installed in your machine. Drivers for most major cards, including the Adaptec 2940-UW that Xitron ships, can be found on the Windows NT CD. You usually also download the latest drivers from the manufacturers’ web site. The Adaptec web site can be found at <http://www.adaptec.com>.

To check on or install the drivers go to the “SCSI Adapter” applet in Control Panel. From this you can tell if a driver is already loaded. The following is a screen shot of the applet which displays the Adaptec interface card that NT has identified. This does not necessarily mean that a driver is installed.

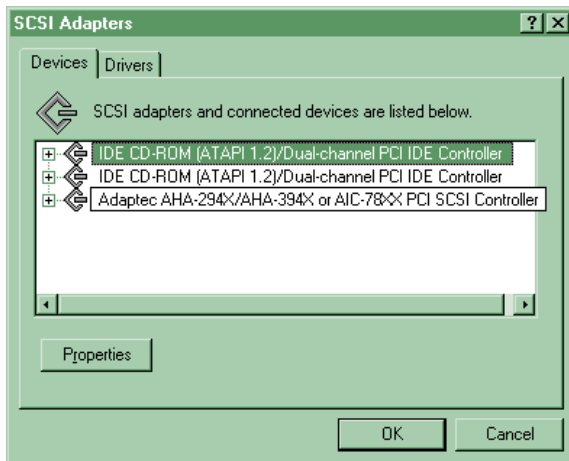


Figure 4 Windows NT SCSI Adapters applet

To check the driver, click on the “drivers” property tab. The applet will now display:

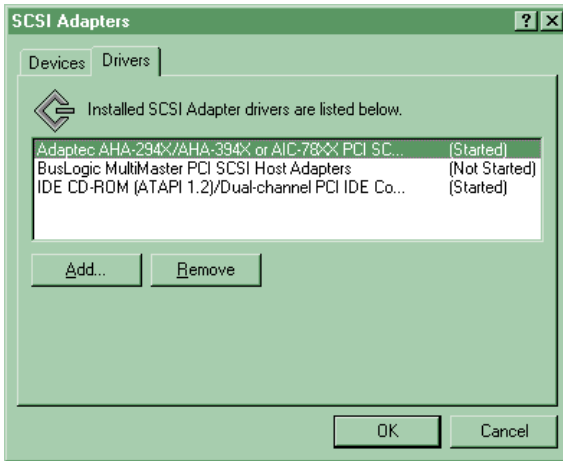


Figure 5 Adding or checking a SCSI adapter driver

The first line here shows that the Adaptec driver is installed and started. If a driver is not installed, click on the “Add...” button. From the “Install Driver” dialog you can select the manufacturers board and the driver for that board. The following screen shot shows the selection for the Adaptec.

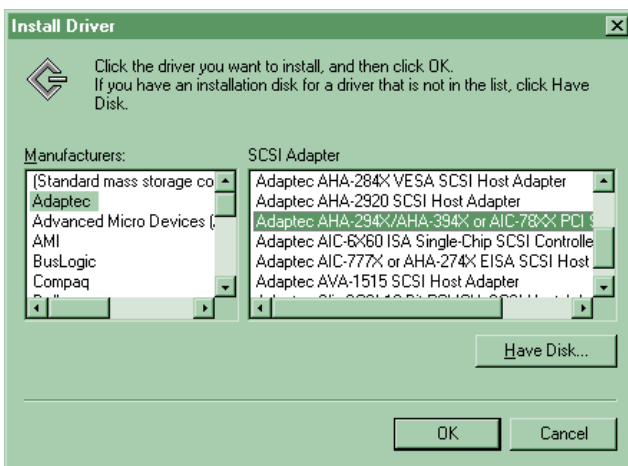


Figure 6 Installing an additional driver

Confirming that XiScsiClass.sys has started

After the port driver for the SCSI card loads, XiScsiClass.sys loads. When it finds the PlateJet device, it writes two events to the system event log. They are displayed using Event Viewer.

Date	Time	Source	Category	Event	User	Computer
6/27/01	10:39:24 AM	XiScsiClass	None	33	N/A	XIPRIP
6/27/01	10:38:54 AM	EventLog	None	6005	N/A	XIPRIP
6/27/01	10:38:54 AM	EventLog	None	6009	N/A	XIPRIP
6/27/01	10:39:24 AM	XiScsiClass	None	32	N/A	XIPRIP

Figure 7 System Event Log

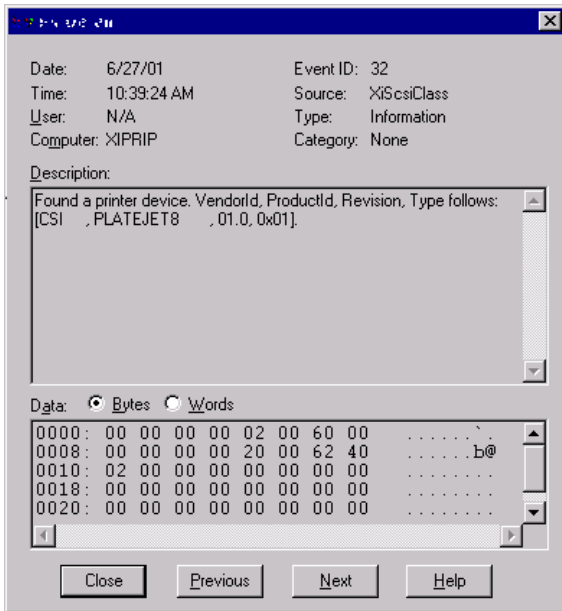


Figure 8 Details of one XiScsiClass event message

If these events are not found in the System Event Log, it means that the XiScsiClass driver did not load. The two most common reasons for this are:

1. The PlateJet was not powered on while the PC booted. Make sure that you see the PlateJet device listed when the SCSI card scans the SCSI bus just after the PC is powered on.
2. The Windows NT or 2000 drivers are not loaded for the SCSI adapter.

Error Messages

This table contains the list of error messages that are unique to the PlateJet plugin. The first column is the short message that appears in the Output Controller and the second column is the long string which appears in the System Monitor window at debug levels above zero.

Errors Reported by the PlateJet

The first table contains message generated as a result of error codes returned by the PlateJet.

Short Message	Long Message
Scsi driver missing	Unable to open the SCSI class driver. Driver is missing or not loaded.
SCSI handle invalid	Couldn't open a handle to the SCSI class driver CSI CTP Devices
Powering Up	Powerup in progress.
Memory status bad	Powerup memory test failed.
Vacuum bad	Vacuum system bad.
Guide bad	Media guides bad.
Cross scan bad	Cross-scan system bad.
Spinner bad	Spinner bad.
Interlock open	The interlocks are open.
Expsoure too low	Requested exposure too low.
Exposure too high	Requested exposure too high.
Config tbl bad	Print configuration table contains invalid data.
Temp. error	Internal temperature bad.
Air pres. bad	Air pressure bad.

Short Message	Long Message
Power sup. bad	Power supply bad.
Panel lights bad	Front panel lights bad.
Scsi cmd bad	Invalid SCSI command.
Scsi thru bad	SCSI throughput bad.
Feature not enabled	Feature not enabled.
Cooling sys. fail	Cooling system bad.
Laser bad	Laser system bad.
Print failed	Print failed.
Print aborted	The print was aborted.
Upgrade bad	Upgrade status bad.
Shutter driver bad	Shutter driver bad.
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".

Errors Generated by the Plugin

The second table contains message generated as a result of an error detected by the PlateJet plugin itself. These are typically configuration errors.

Short Message	Long Message
Scsi driver missing	Unable to open the SCSI class driver. Driver is missing or not loaded.
SCSI handle invalid	Couldn't open a handle to the SCSI class driver CSI CTP Devices
LUN not ready	Logical unit is not ready.
LUN still booting	Logical unit still booting.
No memory	Data memory not available.
No such device	No such device exists on the selected SCSI target.
Device not connected	The requested SCSI device is not connected.
Invalid request	An invalid request has been issued to the SCSI device.
Device busy	The selected SCSI device is busy.
Bus reset	The SCSI bus has been reset.
Data overrun	There has been a data overrun on a command.
Data error	A data error was reported communicating with the device.
Media write protected	The device reports that the media is write protected.
Device not ready	The SCSI device is not ready.
IO timeout	There has been a SCSI IO timeout.
Invalid block length	The device reports that it received a block with an invalid length.
IO device error	A SCSI IO device error has been reported.
H/W error	Engine hardware error, unknown.
SCSI cdb error	Invalid field in CDB.
Invalid LUN	Invalid Logical Unit Number.
Invalid param	Invalid parameter value.
Device offline	Device is offline.
Sequence error	Engine reports a command sequence error.