RASTER BLASTER   NAVIGATOR

QUICK START GUIDE

PB2DIAG

VERSION 7.2.0.1
JUNE 5, 2007

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Overview

Xitron's PB2Diag is a valuable tool for troubleshooting communication issues between the Navigator RIP - or Raster Blaster TIFF catcher - and Xitron interface-driven output devices. PB2Diag may also be used for other functions, such as downloading new firmware or modifying margin settings.

Installation of a Navigator RIP or Raster Blaster TIFF catcher automatically places a copy of PB2Diag in the Utilities folder and a shortcut in the START menu of the PC. As with all PC applications, double-clicking the shortcut or selecting the application in the START menu will launch the program.

Startup

Upon program launch, PB2Diag automatically searches the platform for Xitron hardware. This includes old interface cards known as "Arbor" cards, PB2 "Personality" cards that were part of obsolete dual card assemblies, single-board PCI cards know as ArborSB cards, XiSCSIClass devices, and the new USB interfaces designed to communicate through the Universal Serial Bus of more modern platforms.

After completing the search (which takes less than a second), PB2Diag displays a window containing the results. An example is shown in Figure 1.

The first line of text displays the version of Pb2Diag. In this example, it is version 7.2.0.1, which was finalized on April 6, 2007. The second line alerts the user that PB2Diag has located a Xitron Raster Blaster dongle on the serial bus. This is followed by the version of Windows under which the application is running. (Windows NT version 5.1 is XP.)

The next few lines report the detection or non-detection of various Xitron interfaces. In this example the system did not find an old Arbor card, but it did find a single board PCI card and PB2Diag reports the driver loaded as 6.0.0.6. It also reports that the card has firmware version 3.7.

Following that, PB2Diag reports that it has found an ArborUSB interface running firmware version 4.1 before listing physical card addresses. Finally, it shows margin and clipping information as set in the Xitron33.ini file.

Edit Xitron33.ini Settings

In most cases, it will not be necessary to make changes to your system using PB2Diag. However, there may be times that Xitron Support recommends changes in order to help troubleshoot problems. When instructed to do so, locate the main menu across the top of the application window and click on *Utilities*. The first selection in the pull-down menu is *Edit INI Settings*. Choosing this selection brings up the dialog box displayed in Figure 2.

Figure 2: Edit INI Settings
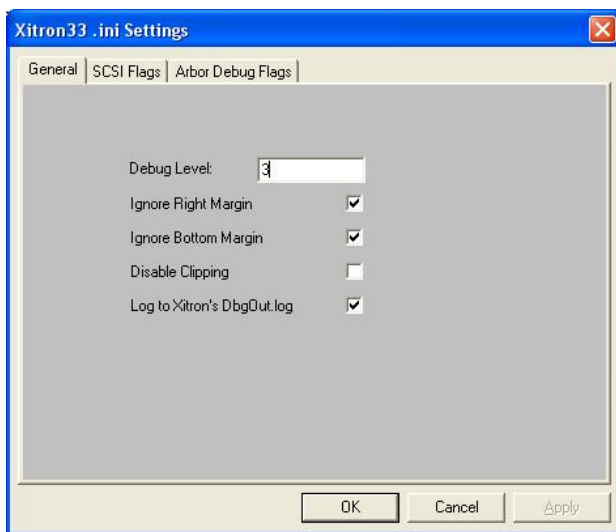
Under the tab labeled *General*, the value entered next to *Debug Level* determines how much information is written into the Debug log. For most circumstances, a value of 3 is sufficient.
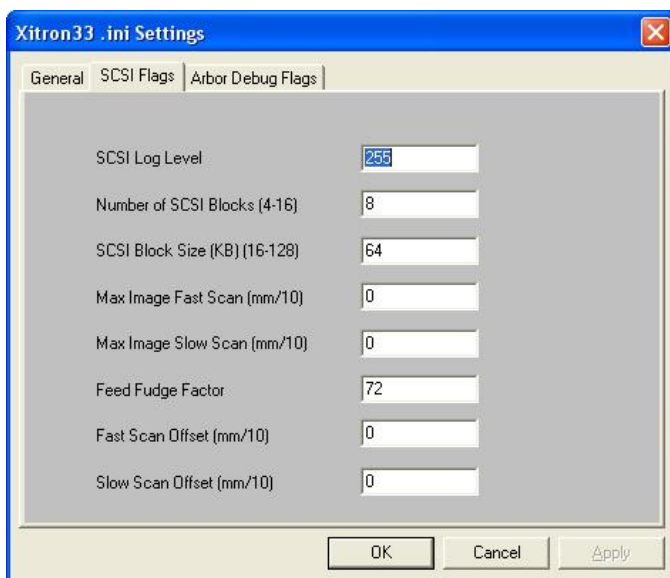
The tick boxes next to *Ignore Bottom Margin and Ignore Right Margin* should always be checked, as shown in Figure 2, unless advised otherwise by Xitron Support. These two selections allow the margin values to be determined by the image, unless it exceeds the built-in limitation set by the plug-in.

Checking *Disable Clipping* will allow job size to determine the length of output. Checking *Log to Xitron's DbgOut.log* tells the system to write the debug information to a file named dbgout.log, located within the RIP's SW folder or, in the case of Raster Blaster, inside the Raster Blaster\Plugin folder. The purpose is explained more thoroughly on page 10.

The next tab in the sequence is *SCSI Flags*. Clicking this tab causes the dialog box shown in Figure 3 to appear. This tab is only helpful if the device to which the RIP or Raster Blaster is connected communicates through a SCSI interface card instead of a Xitron interface card.

Likewise, making changes to these settings will not affect performance or provide troubleshooting data unless the output device is a SCSI device. Typically, the default settings in this dialog should not be changed without instruction from Xitron Support.

Xitron33 .ini Settings

General | SCSI Flags | Arbor Debug Flags

SCSI Log Level	255
Number of SCSI Blocks (4-16)	8
SCSI Block Size (KB) (16-128)	64
Max Image Fast Scan (mm/10)	0
Max Image Slow Scan (mm/10)	0
Feed Fudge Factor	72
Fast Scan Offset (mm/10)	0
Slow Scan Offset (mm/10)	0

OK   Cancel   Apply

The value entered for *SCSI Log Level* tells the system how much data to write to the SCSI log file. Depending on the issue, Xitron Support may ask that this value change to increase or decrease the verbosity of the log.

The entry for *Number of SCSI Blocks* tells the system how many temporary blocks of raster data to write before passing the data to the SCSI driver. Depending on the platform and circumstance, increasing this number may lessen the amount of time necessary for the data to reach the output device.

Used in conjunction with *Number of SCSI Blocks*, the entry
for *SCSI Block Size* determines the amount of data held within
each of the SCSI blocks. Again, depending on the
circumstance, increasing his number may lessen the amount of
time necessary for the data to reach the output device.

Values placed in any of the remaining entries (Max Image Fast
Scan, Slow Scan, Feed Fudge Factor, and Offsets) may result in
unexpected behavior. They can sometimes aid in diagnosing
image positioning problems but as a general rule should be left
at the default values.

FIGURE 4: ARBOR DEBUG FLAGS
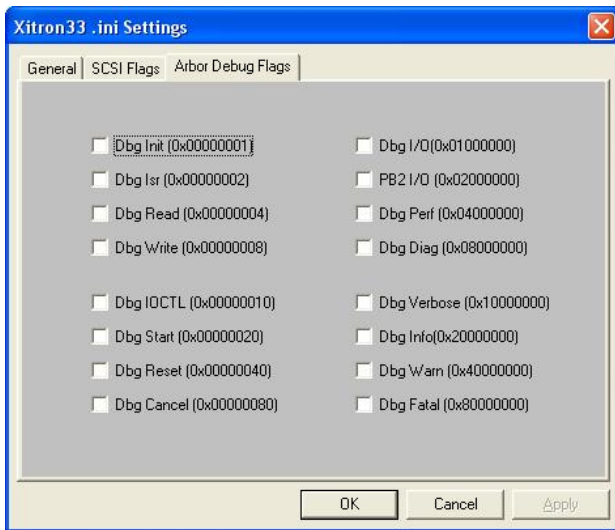
Figure 4 illustrates the next tab available in the Edit INI settings dialog. Arbor Debug Flags has no use outside of Xitron Engineering. Users should not change any of these values.

Engineers & Edit PB2 Boards

These selections, located under the *Utilities* pull-down menu, should not be used. Like the Arbor Debug Flags tab in the previous window, they are for development use and have no value to the end-user or field technician.

Edit Passwords File

Xitron RIPs have many options available and some of them (vDot proofing plug-ins for example) require passwords to enable their use. Most often, an operator will enter these passwords during initial installation and then not encounter them again.

However, during the troubleshooting process, it may become necessary to re-enter the passwords, or edit the file containing this information (called a "keys" file). This file can be found in the SW\ai directory and is accessible through a text editor.

The *Edit Keys* selection under the Utilities menu of PB2Diag is another way to access these passwords and make any necessary changes. Locate the keys file by clicking the button labeled *Set RIP Directory*. Direct the dialog to the location of the file. Click the *Add* button to add a password and

description. Click *Edit* to change an existing code and click *Remove* to erase an existing code.

Using the Download Mode

As mentioned earlier in this document, one of PB2Diag's primary values is the ability to reprogram a Xitron PCI card, which is also known as downloading firmware. However, this should only be done under the guidance of a Xitron Support specialist.

When instructed to download new firmware to a card, Xitron will forward the firmware as a ZIP-compressed file. Un-ZIP the file to a known location on the platform and use the pull-down menu under *PCI* to select *Download Firmware* as shown in Figure 5.

Figure 5: Downloading Firmware

If PB2Diag recognizes a Xitron PCI card installed in the platform, *ArborSB0* will appear as a selectable entity to the

right of the *Download Firmware* menu. To select the card, move the cursor to *ArborSB0* and release. A dialog box similar to that shown in Figure 6 will appear.

Download firmware

Look in: universalspeedway4.3firmware

speedway4_3.srec
univspeedway.vme

File name:

Files of type: Download Objects (srec/txt/jed/vme)

Open

Cancel
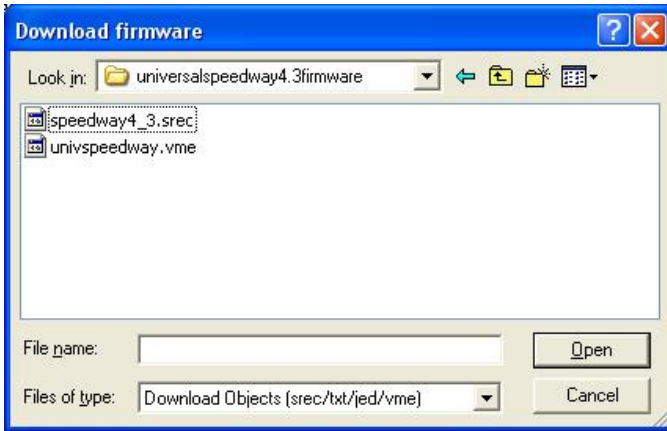
Use the dialog box to path to the location of the firmware and select the appropriate file as instructed by Xitron Support. The system will display a progress dialog box until the download completes.

USB Interface Menu

With PB2Diag version 7.2.0.1, Xitron introduced similar debug and download capabilities for use with the Xitron USB interface. The same functionality as previously shown under the PCI menu also exists under the USB menu.
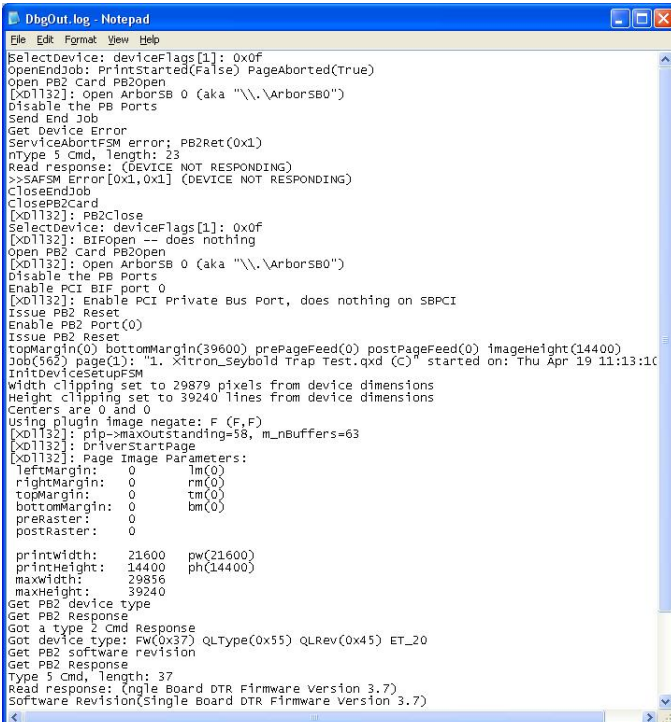
Capturing a DbgOut.log File

As described under the heading **Edit Xitron33.INI Settings**, PB2Diag directs the composition and logging of communication between the Xitron interface card and the output device. This exchange of data can be very important in diagnosing issues.

By checking the box next to *Log to Xitron's DbgOut log*, this information is automatically written to a file named dbgout.log located in the RIP's SW folder, or in Raster Blaster's Plugin folder. When directed by a Xitron Support specialist, delete the existing file located in this folder and then run the RIP or Raster Blaster until the problem occurs.

The example in Figure 7 illustrates the result after opening a DbgOut.log using a text editor. Information such as job name, dimension, plug-in settings and communication are clearly visible in the text. Email this file to Xitron Support when directed so that the information can be examined and possible issues explored.

Figure 7: DbgOut.log