

Agilent E8491 IEEE-1394 PC Link to VXI Update Information

Introduction

This note provides update information for the Agilent E8491 IEEE-1394 PC Link to VXI, including:

- Creating an Emergency Repair Disk
- PCI Plug-in Card Installation
- E8491 VXI System Information
- Recovering a Failed E8491
- E8491 Support Information

Creating an Emergency Repair Disk

The Agilent IO Libraries include I/O drivers for various PCI plug-in cards. Extensive testing of these drivers and cards has revealed that early revisions of the BIOS code in several PCs are not completely PCI-compliant. This has caused problems when running the Agilent IO Libraries, whether or not the PCI card is installed. Problems can include system errors, operating system crashes, or card initialization failures.

For Windows NT operating systems, most PC manufacturers recommend that before installing any PCI card, you first create an EMERGENCY REPAIR DISK. If your PC exhibits any abnormal behavior following installation of the Agilent IO Libraries, we recommend a BIOS upgrade to the PC. BIOS upgrades are available from most PC manufacturers' websites.

PCI Plug-in Card Installation (Windows 95 Only)

After installing an IEEE-1394 PCI plug-in card in your computer, Windows 95 will detect the new hardware and may ask for a **1394 Installation Disk** or **manufacturer's installation disk**. Follow the on-screen instructions and use only the *Agilent IO Libraries for Instrument Control* CD for the requested software. If the IO Config utility cannot find any E8491 interfaces, check the **Device Manager** to ensure the driver for the IEEE-1394 PCI card was installed correctly. To do this:

- 1 Click **Start | Settings | Control Panel**. In **Control Panel**, double-click the **System** icon. When the **System Properties** dialog box appears, select the **Device Manager** tab. You should see an item called **1394 Bus Controller**. If you do, double-click it to expand it.
- 2 You should see ... **PCI to 1394 Host Controller** with no exclamation points (a specific OHCI compatible PCI to 1394 Host Controller may be specified). If you see an exclamation point, try selecting it, click **Remove** and then click **Refresh**.
- 3 After a moment, Windows 95 should ask for a driver. You can use the *Agilent IO Libraries for Instrument Control* CD as the installation disk. If you do not see the **1394 Bus Controller** icon, the OHCI compatible card may be listed under **Other devices**. If the card is located under **Other devices**, it was installed incorrectly. To reinstall the card, select and remove the card and then click **Refresh**.



Part Number: E8491-90093
Printed in U.S.A. E0702 July, 2002

E8491 VXI System Information

Some VXI system information for the E8491 follows. For additional troubleshooting information for the E8491, see *Chapter 6 - Troubleshooting Guidelines* in the *Agilent IO Libraries Installation and Configuration Guide for Windows*.

Multi-Frame VXI Systems (Windows 95/NT). If you have a multi-frame VXI system, cycling power or connecting/disconnecting the IEEE-1394 cable on one mainframe can affect data transfers occurring in other mainframes.

VXI Memory De-referencing (Windows 95/NT). The E8491 does not allow direct memory de-references to access VXI memory space. This includes calling functions such as SIDL *iwpeek*, *iwpoke*, etc. To access VXI memory, you need to either use VISA functions (any will work) or use the x extensions of the SIDL functions (*imapx*, *iunmapx*, *ipeekx*, *ipokex*, and *iblockmovex*). If your programs use different functions, they must be updated before they will work with the E8491.

Recovering a Failed E8491

When an E8491A/B failure occurs with the **SYSFAIL** and **Failed** LEDs ON, try the following steps before you exchange modules. First, try Step 1. If that does not work, try Step 2. If that does not work, try Step 3.

- 1 Disconnect all the firewire cables. Next, press and hold the E8491 **RESET** button for >7 seconds. Then, release the **RESET** button and wait 10 seconds.
- 2 Power down the E8491 and then power down the PC (do not select **Restart**). Next, power up the PC and then the E8491. After the PC has booted, re-connect the firewire cable between the PC and the E8491. Then, press and hold the E8491 **RESET** button for >7 seconds.
- 3 Use the IO Config utility to remove and re-install the E8491 interface. From the **Configured Interfaces** box, highlight the E8491 entry and click **Remove**. Then, configure a new E8491 interface by highlighting the **VXI E8491 IEEE-1394 to VXI** entry in the **Available Interface Types** box and clicking **Configure** (or ***Auto Config**). E8491 update information and then Resource Manager information should then be displayed on the PC.

E8491 Support Information

You can reach Agilent Technologies at these telephone numbers:

Americas Call Center: 1-800-452-4844
Canada Call Center: 1-877-894-4414
European Call Center: +31-20-547-9900
Japan Call Center: +81-426-56-7832

For other countries, contact your country's Agilent support organization. A list of contact information for other countries is available on the Agilent Internet site: www.agilent.com/find/assist. A list of some other Agilent Websites follows.

URL	Description
www.agilent.com/find/assist	Agilent Technologies "Contact Us" page
www.agilent.com/find/iolib	Update the Agilent IO Libraries software
www.agilent.com/find/iolib_support	The latest customer support information
www.agilent.com/find/ADN	Connectivity resources all in one place
www.agilent.com/find/manuals	Technical support information
www.agilent.com/find/connectivity	For connection, communication and control of test instruments from your computer, you can find out the latest in the world of connectivity.