HP-22/EXM-22 Interface Configuration Help

Please select one of the following:

Configuring the HP-22/EXM-22 GPIB Interface

To configure the HP-22/EXM-22 interface in the E6232/33 VXI Pentium(R) Controller for the I/O Libraries, you will need to provide the following information.

NOTE

The **Base Address** configuration value is read-only. It indicates the base I/O address which is currently set for the interface in the system BIOS of the E6232/33 controller. To change the Base Address, you must run the BIOS Setup utility and change the Option Byte 1 setting in the EXM menu. For information on how to do this, refer to the "EXM Menu" section of Chapter 3, "Using the BIOS Setup Utility," in the *E6232/33 VXI Pentium® Controller Hardware Installation and Configuration Guide*. You can then run I/O Config again to configure the HP-22/EXM-22 interface within the I/O Libraries software.

- **SICL Interface Name** is a symbolic name that SICL uses to uniquely identify this interface. The default SICL Interface Name is **hpib**. The SICL Interface Name must be a unique string of alphanumeric characters, starting with a letter. Remember this value and the Logical Unit number in order to address the HP-22/EXM-22 interface properly in your SICL applications.

- **VISA Interface Name** is a symbolic name that VISA uses to uniquely identify this interface. The VISA Interface Name must begin with the string **GPIB** and have an integer appended to it, such as **GPIB0**, **GPIB1**, **GPIB2**, and so forth. Remember this value in order to address the GPIB device properly in your VISA applications.

- **Logical Unit** is a number that SICL uses to uniquely identify this interface. The Logical Unit number is an integer in the range of 0-10000. Remember this value and the SICL Interface Name in order to address the HP-22/EXM-22 interface properly in your SICL applications.

- **Interrupt Line** is a hardware line over which I/O devices can send interrupts to the CPU. The Interrupt Line must be reserved for exclusive use by this HP-22/EXM-22 interface. For more information, see Choosing an Interrupt Line.

- **Bus Address** is the address of this HP-22/EXM-22 interface on the GPIB bus. It is usually 21 if the HP-22/EXM-22 interface is a system controller, or 20 if it is a non-system controller. (See System Controller below.) These addresses are chosen by convention, but any address in the range 0-30, inclusive, may be used.

- **System Controller** determines if this interface controls which bus devices talk and listen. If several devices exist on a bus, be sure each has a unique bus address and only one device is the System Controller (it is usually the one installed in the computer). Each interface has its own independent bus. Thus, each may be a System Controller as long as it is not chained together with other GPIB interfaces.

If the configuration values that are displayed for the Interface Names, Logical Unit number, Interrupt Line, Bus Address, and System Controller are acceptable to you, click on the **OK** button.

Otherwise, you can change the configuration values either by clicking on the arrows next to the values, or, if there are no arrows, by typing in the values you want. At any time, you can press the **Defaults** button to return the configuration dialog box to its default configuration values for the HP-22/EXM-22 interface.

When you are done changing the values, either press the **OK** button if you want I/O Config to accept the

changes, or press the **Cancel** button to cancel the changes and return to the previous configuration values for the HP-22/EXM-22 interface.

Choosing an Interrupt Line

The Interrupt Line assigned for an HP-22/EXM-22 interface must be reserved for exclusive use by the interface. If this Interrupt Line is already being used by another interface, this will cause unpredictable behavior (such as system crashes, LAN problems, mouse tracking problems, etc.).

I/O Config will limit your choices so that you do not pick an Interrupt Line that conflicts with another configured HP-22/EXM-22 interface, a parallel port, or an RS-232 port. However, I/O Config will not know about any other interfaces in your system. If you have another interface in your system that uses an Interrupt Line, you will need to avoid assigning this Interrupt Line to your HP-22/EXM-22 interface.

If you suspect an Interrupt Line conflict exists between an HP-22/EXM-22 interface and another interface on your system, edit the configuration entry for the HP-22/EXM-22 interface and assign another Interrupt Line for the interface.

Return to Configuring the HP-22/EXM-22 GPIB Interface.

Troubleshooting for the HP-22/EXM-22 Configuration

Please select one of the following:

I/O Config Cannot Find the HP-22/EXM-22 Interface

The most common problem encountered when using I/O Config is that an interface is not found. For an HP-22/EXM-22 interface, this is due to one of the following reasons:

1. The interface was not installed in your system before running I/O Config.

To solve this problem, you need to install the interface card in your system and then run I/O Config again.

2. The interface is set up to use an I/O address (Base Address) that is already being used.

To solve this problem, you need to resolve the I/O address conflict. See Resolving HP-22/EXM-22 I/O Base Address Conflict.

3. The interface has already been configured by I/O Config.

To solve this problem, you need to *edit* the existing configuration entry for the interface, instead of trying to add a new interface. In the main I/O Config window, click on the name of the interface configuration entry for the HP-22/EXM-22 in the **Configured Interfaces** list box. Then click on the **Edit** button directly beneath the **Configured Interfaces** list box to edit the configuration entry for the HP-22/EXM-22.

Resolving HP-22/EXM-22 I/O Base Address Conflict

If I/O Config does not find an HP-22/EXM-22 interface when you try to add a configuration entry for it, you may have an I/O Base Address conflict with that interface. I/O Config cannot recognize an HP-22/EXM-22 interface if a conflict exists between its I/O address and another interface's I/O address.

To resolve this problem, you must run the BIOS Setup utility on the HP E6232/33 VXI Pentium(R) Controller and change the interface's I/O address via the Option Byte 1 setting in the EXM menu. For information on how to do this, refer to the "EXM Menu" section of Chapter 3, "Using the BIOS Setup Utility," in the *E6232/33 VXI Pentium® Controller Hardware Installation and Configuration Guide*. You can then run I/O Config again to configure the HP-22/EXM-22 interface within the HP I/O Libraries software.

Return to Troubleshooting for the HP-22/EXM-22 Configuration.

Resolving HP-22/EXM-22 Interrupt Line Conflict

The Interrupt Line assigned for an HP-22/EXM-22 interface by I/O Config must be reserved for exclusive use by the interface. If this Interrupt Line is already being used by another interface, this will cause unpredictable behavior (such as system crashes, LAN problems, mouse tracking problems, etc.).

If you suspect an Interrupt Line conflict exists between an HP-22/EXM-22 interface and another interface on your system, edit the configuration entry for the HP-22/EXM-22 interface and assign another Interrupt Line for the interface.

Note that I/O Config will not let you choose an Interrupt Line that is already being used by another interface. However, if the same Interrupt Line is assigned to another interface (for example, via the Device Manager in the Control Panel) *after* I/O Config is run, a conflict may occur.

In such a case, you can check the Interrupt Lines assigned for the various interfaces in your system via the Device Manager in the Control Panel. To do this, click on the **System** icon in the **Control Panel**. Then click on **Device Manager**, which will display information about the interfaces on your system. Select the HP-22/EXM-22 interface listed in the dialog box, and then click on **Properties**. This will show what interfaces, if any, are in conflict with the HP-22/EXM-22.

Return to Troubleshooting for the HP-22/EXM-22 Configuration.