Installing the AT-MXI-2 under Windows 95

Thank you for purchasing the VXI/VME-AT4000 interface kit from National Instruments. These release notes describe how to install the AT-MXI-2 and the NI-VXI software on a system running Windows 95. Refer to *Getting Started with Your VXI/VME-AT4000 Series and the NI-VXI Software* for additional information about the hardware installation.

Follow these steps to install the VXI/VME-AT4000 kit under Windows 95.

1. Complete the following steps to shut down Windows 95 and install the new hardware.

   a. Select **Shut Down** from the **Start** menu.

   b. In the **Shut Down Windows** dialog box, select the **Shut down the computer?** option, then click **Yes**.

   c. When the screen displays the message `It's now safe to turn off your computer`, power-off the computer.

   d. Insert the AT-MXI-2 hardware. Refer to your AT-MXI-2 getting started manual for installation instructions.

2. Power-on the computer. When Windows 95 restarts, it automatically detects the new hardware. A **New Hardware Found** dialog box appears with the interface description **National Instruments AT-MXI-2**.

3. In the **New Hardware Found** dialog box, click on the **Do not install a driver** option, then click **OK**.

4. Determine what resources Windows 95 assigned to the AT-MXI-2 interface.

   a. Double-click on the **System** icon in the **Control Panel**. You can open the **Control Panel** by choosing **Control Panel** from the **Settings** menu in the **Start** menu.

   b. In the **System Properties** dialog box that appears, click on the **Device Manager** tab and double-click on the **Other Devices** item.

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c. Double-click on the **National Instruments AT-MXI-2** item that appears under the **Other Devices** item.

d. Click on the **Resources** tab. If the device is currently disabled because it has no assigned resources, the **Resources** tab contains text describing the problem and a **Set Configuration Manually** button. Click on this button to continue. Otherwise, skip to step 4g.

e. Uncheck the **Use Automatic Settings** item.

f. Look at the **Conflicting Device List** to see if there are any conflicts with the automatically chosen configuration settings. If there are conflicts, you can use the **Change Setting...** button to select resources that have no conflicts. You must reserve I/O address space and Memory address space, IRQ level, and DMA channel.

   • The AT-MXI-2 I/O address space must be in the range 0x10 to 0xFFE0. 0x10 bytes of contiguous I/O address space are required. For example, if you are selecting a base I/O address of 0x340, enter `340-34F` in the **Value** field.

   • The AT-MXI-2 Memory address space must be in the range 0xC8000 to 0xEFFFF. A minimum of 32 KB of address space are required. For example, if you are selecting a 32 KB window with a base memory address of 0xD0000, enter `D0000-D7FFF` in the **Value** field. NI-VXI for AT-MXI-2 will use up to 96 KB of address space, which can be split into two ranges (32 KB and 64 KB). Refer to *Getting Started with Your VXI/VME-AT4000 Series and the NI-VXI Software* to determine your memory requirements.

   • The valid options for the DMA channel are 1, 3, 5, 6, or 7.

   • The valid options for the IRQ level are 3, 4, 5, 6, 7, 9, 10, 11, 12, 14, or 15.

g. Note the assigned I/O range, memory range, IRQ level, and DMA channel.

h. Click **OK** to exit. If you had resource conflicts that had to be resolved in step 4f, a **Creating a Forced Configuration** dialog box appears. Click **Yes** in this dialog box to continue.

i. Click on **No** in the **System Settings Change** dialog box.

j Click **Close** to exit the **System Properties** dialog box.

k. Click on **No** in the **System Settings Change** dialog box.

l. Close the **Control Panel**.

5. Restart Windows 95.

a. Select **Shut Down** from the **Start** menu.

b. In the **Shut Down Windows** dialog box, select the **Restart the computer?** option, then click **Yes**.

6. DOS only: Create a **DOS Only Prompt** shortcut to run the NI-VXI for DOS utilities rather than using the DOS shell from the **Start/Programs/MS-DOS Prompt** menu. Many NI-VXI software utilities are combined DOS/Win16 applications. By default, Windows 95 runs such combined applications in Win16 mode when executing them in a standard MS-DOS shell. For NI-VXI for DOS, these combined applications must be run in DOS mode. Therefore, you must create a special **DOS Only Prompt** in which to run the NI-VXI for DOS utilities. Complete the following steps to create the **DOS Only Prompt** shortcut.

    a. Right-click the mouse button on the desktop and select **Shortcut** from the **New** menu list. The **Create Shortcut** dialog box appears.

    b. Click on **Browse** and double-click on the **Dosprmpt** item in the Windows directory (usually `c:\windows`). This initializes the **Command Line** correctly and returns you to the **Create Shortcut** dialog box.

    c. Click on the **Next** button and rename the shortcut icon to **DOS Only Prompt**.

    d. Click on the **Finish** button to close the **Create Shortcut** dialog box. The **DOS Only Prompt** icon should appear on the desktop.

    e. Right-click on the **DOS Only Prompt** icon and select the **Properties** menu item.

    f. Select the **Program** tab and click on the **Advanced...** button. The **Advanced Program Settings** dialog box appears.

    g. Select the first item, **Prevent MS-DOS-based programs from detecting Windows**. Also select the **Suggest MS-DOS mode as necessary** item. Click **OK** to exit the dialog box.

    h. Click on **OK** to exit the **DOS Only Prompt Properties** dialog box.

7. Install the appropriate DOS or Windows NI-VXI software for the AT-MXI-2 from your floppy drive.

    a. For DOS, complete the following steps.

        1. Double-click on the **DOS Only Prompt** icon.

        2. Insert the *NI-VXI Software for AT-MXI-2* disk into your floppy drive.

        3. Type X:`\install` (where X is the letter of your floppy drive).

    b. For Windows, complete the following steps.

        1. Insert the *NI-VXI Software for AT-MXI-2* disk into your floppy drive.

        2. Select **Run...** from the **Start** menu.

        3. Type X:`\setup` (where X is the letter of your floppy drive).

        4. The InstallShield Wizard will guide you through the installation process. Make sure that on the last screen the checkbox **Launch VXIedit to configure the system** is selected.

5. Use `VXIedit` to configure the NI-VXI software to use AT-MXI-2 with the I/O range, memory, DMA, and IRQ settings determined in step 4f. To do so, select **AT-MXI-2 Configuration Editor**, followed by the **Bus Configuration Editor**. You may get a warning that `VXIedit` cannot read current AT-MXI-2 settings. This is normal, since the board has not been initialized yet.

c. To run 32-bit NI-VXI applications in Windows 95 you will need to install the *NI-VXI upgrade for Windows 95*.

1. Insert the upgrade disk into your floppy drive.

2. Select **Run...** from the **Start** menu.

3. Type `X:\setup` (where X is the letter of your floppy drive).

8. Determine whether or not your computer has Plug and Play BIOS.

a. Double-click on the **System** icon in the **Control Panel**. You can open the **Control Panel** by choosing **Control Panel** from the **Settings** menu in the **Start** menu.

b. In the **System Properties** dialog box that appears, click on the **Device Manager** tab.

c. Double-click on the **System Devices** item.

d. Look at the list that appears to see if you have **Plug and Play BIOS**.

e. Click the **OK** button to exit the **System Properties** dialog box.

f. Exit the **Control Panel**.

9. If your computer does not have Plug and Play BIOS, proceed to step 10. Complete the following steps to fix `ni-pnp.ini` so that NI-PnP does not perform the isolation sequence when your system starts.

a. Using a text editor (for example, Notepad) open `ni-pnp.ini` located in the root directory of the boot drive. Do *not* use a word processor, such as WordPad or Microsoft Word, to edit this file.

b. In the `[System Info]` section, make the following changes.

1) Add the line `IsaPnpSystemOverride = Yes`.

2) Replace `IsaPnpIsolationMethod = IsolationSequence` with `IsaPnpIsolationMethod = ReadPortSearch`.

c. Save the changes.

10. Restart Windows 95.

a. Select **Shut Down** from the **Start** menu.

b. In the **Shut Down Windows** dialog box, select the **Restart the Computer?** option, then click **Yes**.

11. (Optional) Run the interactive control utility.

    a. For Windows, complete the following steps.

        1) Choose **Programs** from the **Start** menu and select **NI-VXI for AT-MXI-2**.

        2) From the list that appears, select **VICtext (Windows)** to run the Windows version of the utility.

    b. For DOS, complete the following steps.

        1) Double-click on the **DOS Only Prompt** icon and switch into the directory where the NI-VXI software for DOS was installed.

        2) Type `VIC` to run the interactive control utility.