WHERE TO START WITH YOUR NI 455X DYNAMIC SIGNAL ANALYZER

The following section explains how to begin using your NI 455X.

Set Up and Test Using Windows 95/NT

You can control the NI 455X interactively with the VirtualBench-DSA located on your National Instruments DSA Software CD or programmatically with an Application Development Environment (ADE) using the supplied instrument driver. The supported ADEs include LabVIEW, LabWindows/CVI, Visual Basic, and other C or C++ environments. The following instructions describe how to set up your NI 455X.

1. If you are using an ADE (e.g., LabVIEW, CVI or third party tools), install it now if you have not already done so.

2. Install the NI-DSA software. This software CD includes the required software to configure, test, and program the operation of your NI 455X.

   a. Insert your National Instruments DSA software CD into your CD-ROM drive. Click on the Install option from the installation window that appears on your computer screen.

   b. To install the driver, VirtualBench, and ADE examples, choose the programmatic installation option. To install only the instrument driver and VirtualBench, choose the interactive installation option.

3. Install your NI 455X.

⚠ **Caution** *You must turn off your PC before installing your NI 455X. To prevent damage due to ESD or contamination, handle the board using the edges or the metal bracket.*
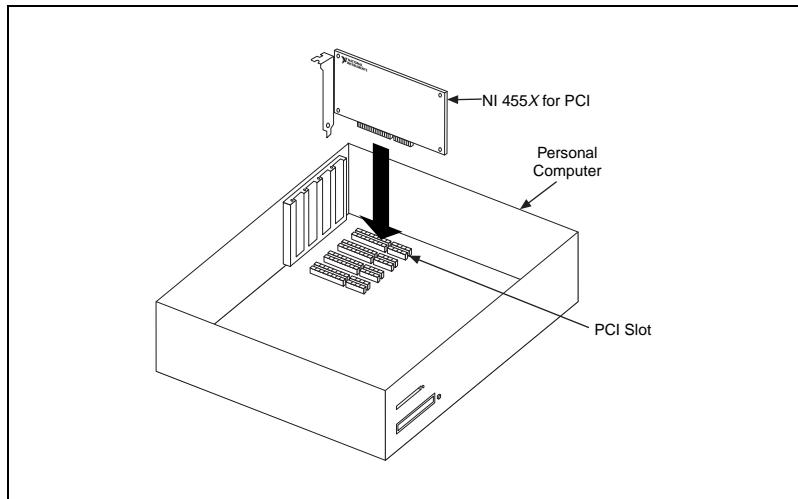
Figure 1. NI 455*X* for PCI

4. Run the NI-DAQ Configuration Utility to configure and test your NI 455*X*. If you need help during the configuration and testing process, open the NI-DAQ Configuration Utility Help file by selecting **Help Topics** from the **Help** menu.

    a. Open the NI-DAQ Configuration Utility from the **Start Menu»Programs»National Instruments DAQ** menu.

    b. The NI-DAQ Configuration Utility detects the NI 455*X* you installed and the **Found New NI-DAQ Hardware** dialog box opens. Click on **Yes** to use this in your configuration.

    c. In the **System** window, assign a device number to your NI 455*X* and modify resources as necessary. You will use this number to access your NI 455*X* from software applications.

    d. Click on **Next** to continue to the AI, AO, and Accessory windows.

    e. Highlight your NI 455*X* in **NI-DAQ Devices** list and click on the **Configure** button.

    f. From the **Configuring Device** window, click on the **Test Resources** button to test the NI 455*X* resources. A dialog box appears and indicates if the resource test has passed.

    g. Click on **Run Test Panels…** to run the functional test panels and begin using your NI 455*X*. Select the appropriate tab, Analog Input, Analog Output or Digital I/O for the functionality you want to test.

    h. Click on **Close** when you finish testing your NI 455*X*.

You have successfully installed and configured the necessary software and hardware to use your NI 455*X* with the NI-DSA software.

5. Select the **Save** option in the NI-DAQ Configuration Utility File menu to save your NI 455*X* settings.

6. Launch VirtualBench-DSA. Open VirtualBench-DSA from the **Start»Programs»National Instruments VirtualBench-DSA** menu.

7. Refer to the VirtualBench-DSA Help file in the **Start»Programs»National Instruments VirtualBench-DSA** menu for more information on VirtualBench-DSA.

8. To get started using your NI 455*X* in LabVIEW, you should run the `NIDSA Getting Started.vi` located in the **Instrument Drivers»NIDSA»Examples** subpalette. For help on using individual NI-DSA instrument driver VIs, please refer to the VI descriptions by selecting the **Show VI Info...** item in the **Windows** menu.

9. To get started using your NI 455*X* in LabWindows/CVI, start CVI, choose **Open Project (.prj)** from the **File** menu and select any of the project files in the `c:\CVI\instr\niDSA\niDSA Shortcut\examples\CVI` directory.

10. To get started using your NI 455*X* in Visual Basic or another C or C++ ADE, refer to the NI-DSA Help for C Programmers or NI-DSA Help for BASIC Programmers help files in the **Start»Programs»National Instruments DSA** menu.