

GETTING STARTED GUIDE

NI-DAQ™ mx for USB Devices

This guide describes how to install and configure the NI-DAQmx software and USB data acquisition (DAQ) device. This guide also describes how to verify that the device is working properly.



Note For information about NI-DAQmx Base for Linux and Mac OS, refer to ni.com/info and enter `rddqld`.



Note You must be an Administrator to install NI USB software and devices on your computer.

Step 1. Install the Application Software

Install your NI application software: LabVIEW 7.x, LabWindows™/CVI™ 7.x, or Measurement Studio 7.x.

If you have an existing application written with an earlier version of your application software or NI-DAQ, make a backup copy of the application. You then can upgrade your software and modify the application.

Step 2. Install NI-DAQmx Software, VI Logger, and NI-DAQ Device Documentation Browser

Insert the CD

The NI-DAQmx 7.x installer should open automatically. If not, select **Start>Run**. Enter `x:\setup.exe`, where `x` is the letter of the CD drive. Complete the instructions in the installer, including rebooting the computer if necessary. For troubleshooting instructions, refer to the Hardware Installation/Configuration Troubleshooter at ni.com/support/install.



Note Install your driver software *before* installing new hardware devices, so Windows can detect your device.

Step 3. Unpack and Set Up the Device

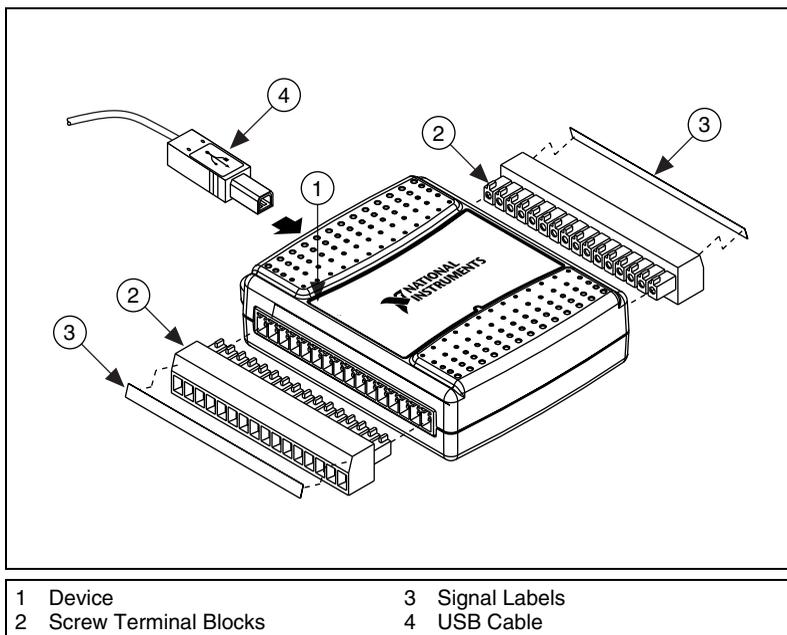
Remove the device from the package and inspect the device for loose components or any sign of damage. Notify NI if the device appears damaged in any way. Do *not* install a damaged device.



Caution Treat the DAQ device as you would any static sensitive device. Always properly ground yourself and the equipment when handling the DAQ device or connecting to it.

For the USB-6008/6009/6501

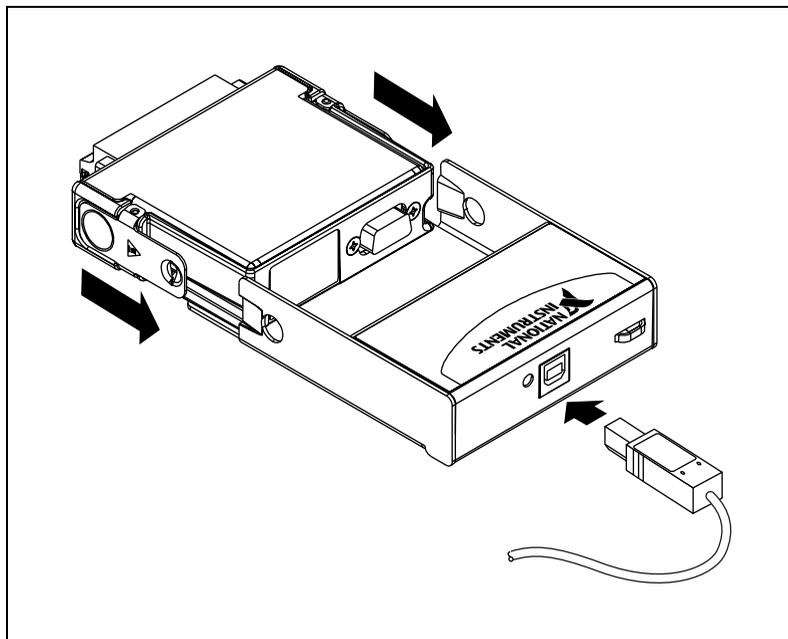
Refer to the following diagram to set up your device.



The USB-6008/6009/6501 ships with signal labels. You can apply the signal labels to the screw terminal blocks for easy signal identification. Select the signal label best suited for your application. Refer to the user guide for your device for more information about signal names.

For the USB-9000 Series

Refer to the following diagram to set up your device.



Step 4. Install the Device

Plug the USB cable into PC and device, and then click **Next** on any dialog that appears. Click **Finish**.



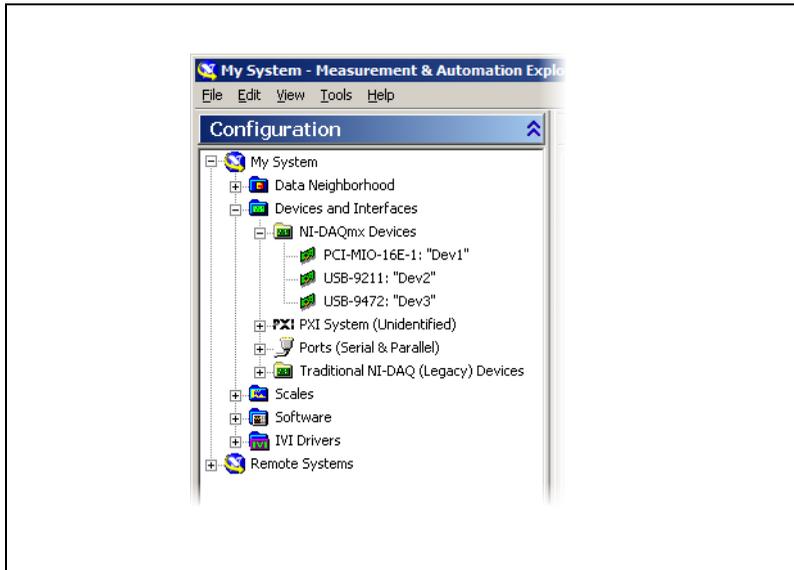
Note USB-6008/6009 Only—If this is the first time that a USB-6008/6009 device is installed on your computer, you might be prompted to install a USB-6xxx Firmware Loader. Please complete the Windows Hardware Wizard prompts to completely install this device.

Step 5. Confirm Device Is Recognized

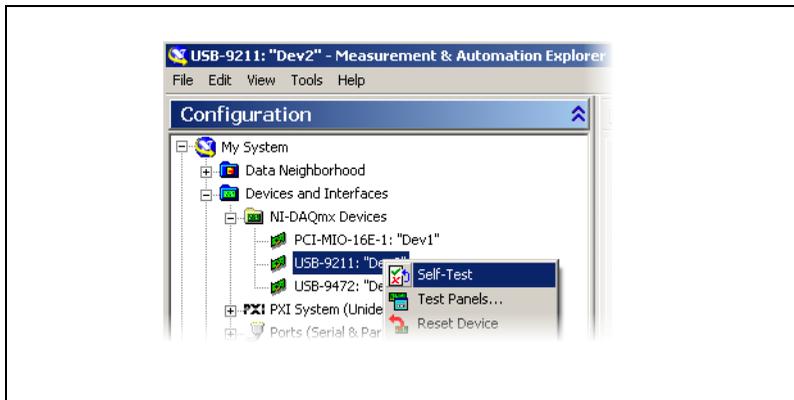
Complete the following steps:



1. Double-click the **Measurement & Automation** icon on the desktop to open MAX.
2. Expand **Devices and Interfaces**, then expand **NI-DAQmx Devices**.



3. Check that your device appears under Devices and Interfaces. If your device does not appear, press <F5> to refresh the view in MAX. If the device is still not recognized, refer to ni.com/support/install for troubleshooting information.
4. Right-click your device and select **Self-Test**.



If you need help during the self-test, select **Help»Help Topics»NI-DAQmx** and click *Max Help for NI-DAQmx*.

When the self-test finishes, a message indicates successful verification or if an error occurred. If an error occurs, refer to ni.com/support/install for troubleshooting information.

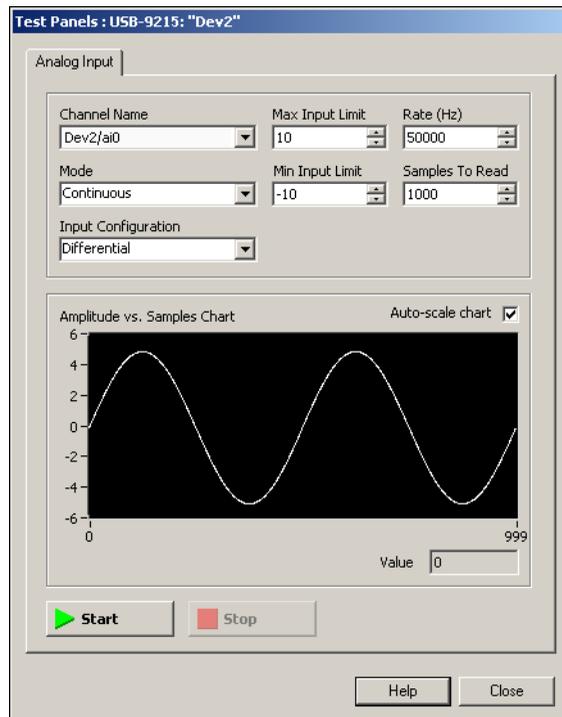
Step 6. Attach Sensors and Signal Lines

Attach sensors and signal lines to the terminal block or accessory terminals. USB device user manuals and accessory guides are accessible from the Device Document Browser. After you install it, the Device Document Browser is located at **Start»Programs»National Instruments»NI-DAQ»Browse Device Documentation**. Online documentation for devices is also available at ni.com/manuals.

Step 7. Run Test Panels

Many devices have a test panel for testing specific device functionality, such as the ability to acquire and generate signals.

1. In MAX, expand **Devices and Interfaces»NI-DAQmx Devices**.
2. Right-click the device to test.
3. Select **Test Panels** to open a test panel for the selected device.



4. Click **Start** to test different functions of the device. Click **Help** for instructions on operating the test panels.

5. The test panel displays a message indicating whether an error occurred. If so, refer to the *NI-DAQmx Help* or ni.com/support for troubleshooting information.
6. Click **Close** to exit the test panel.

Step 8. Using Your Device in an Application

DAQ Assistant

You can use the DAQ Assistant, accessible from MAX or NI application software, to configure virtual channels and measurement tasks in LabVIEW, LabWindows/CVI, Measurement Studio, and other NI application software. For more information about using the DAQ Assistant to create a task, using your device in an application, and about examples, refer to the *DAQ Getting Started Guide* accessible from **Start»Programs»National Instruments»NI-DAQ»DAQ Getting Started Guide**.

Examples

You can use examples to develop a new application or add example code to an existing application. Use Table 1 to find the examples you need.

Table 1. Example Location

Software Application	Examples Location
LabVIEW	Help»Find Examples
LabWindows/CVI	Help»Find Examples
Measurement Studio	MeasurementStudioVS2003\VCNET\Examples\DAQmx MeasurementStudioVS2003\DotNET\Examples\DAQmx
ANSI C	NI-DAQ\Examples\DAQmx ANSI C

For additional examples, refer to ni.com/zone.

VI Logger Lite

The NI-DAQmx CD includes VI Logger Lite which is an easy-to-use configuration-based tool specifically designed for data logging applications. The application is available at **Start»All Programs»National Instruments»VI Logger**.

More Information

User Manuals

After installation, the browser and device documents are accessible from **Start»Programs»National Instruments»NI-DAQ»Browse Device Documentation**.

Device	Document Device Browser Location
USB-6008/6009	Multifunction I/O
USB-6501	Digital I/O
USB-9000 Series	USB-9xxx

NI-DAQmx Help

The *NI-DAQmx Help* and *DAQ Getting Started Guide* are accessible from **Start»Programs»National Instruments»NI-DAQ**.

VI Logger

The *VI Logger Help* is available from MAX at **Help»Help Topics»VI Logger**.

Training Courses

National Instruments offers training courses for those interested in receiving more help developing an application with NI products. To enroll in a course or obtain a detailed course outline, refer to ni.com/training.

Worldwide Technical Support

For additional support, refer to ni.com/support or ni.com/zone.

For further support information for signal conditioning products, refer to the *Signal Conditioning Technical Support Information* document packaged with your device.

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