# Getting Started with NI-IMAQ<sup>™</sup> for IEEE 1394 Cameras

#### Version 1.5

NI-IMAQ for IEEE 1394 Cameras provides driver support for Windows 2000/XP/Me/98 as well as LabVIEW Real-Time targets. The following sections describe how to start using NI-IMAQ for IEEE 1394 Cameras.

### Windows 2000/XP/Me/98

If you are using Windows 2000/XP/Me/98, complete the following steps to get started using NI-IMAQ for IEEE 1394 Cameras:

- 1. Disconnect all IEEE 1394 cameras.
- 2. Install the NI-IMAQ for IEEE 1394 Cameras software.
- 3. Connect your camera.
- 4. Run Measurement & Automation Explorer (MAX).



- a. Double-click the MAX icon on your desktop. You can use MAX to modify camera properties. Once you have saved these properties, they become your default settings for all NI-IMAQ for IEEE 1394 Cameras or IMAQ Vision applications.
- b. Click the plus sign next to Devices and Interfaces to display a list of your installed IEEE 1394 IMAQ devices.
- c. If your camera does not show up as a NI-IMAQ IEEE 1394 digital camera, switch the driver by right-clicking the camera and selecting **Driver**»**NI-IMAQ IEEE 1394 Digital Camera**, as shown in Figure 1.



🐯 Generic 1394 Desktop Ca	mera - Measure	ement & Automation Explorer	
File Edit View Tools Help			
Configuration			Save
My System Devices and Interfact Ports (Serial & Pacific Serial & Pacific	dentified) arallel)	<ul> <li>Sony 1394 DFW-SX900</li> <li>IIDC 1394 Version 1.30 Digital Cam</li> <li>✓ Generic 1394 Desktop Camera</li> <li>SONY DFW-SX900</li> <li>NI-IMAQ IEEE 1394 Digital Camera</li> </ul>	era

Figure 1. Switching the Camera Driver

d. Select the camera and view or modify the camera features from the **Properties Panel** below the image viewer, as shown in Figure 2.

😨 cam0 : SONY DFW-SX900 v1.60D (0x0800460200070180) - Measurement & Automation Explorer 📃 🗖 🗙						
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Wy System     Devices and Interfaces     T2I PXI System (Unidentified)     J Ports (Serial & Parallel)     G IN-IMAQ IEEE 1394 Devices     Devices     Software     Remote Systems	۲. Video Mod	e: 640×480 YUV(4:	≥2)17.5 (ns)		olor Coding: Default	Y Speed 4
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Figure 2. Setting the Camera Properties



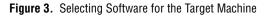
**Tip** Click **Show Help** to display the help window to the right side of the image viewer. Move your mouse over the properties to view context-sensitive help in the bottom half of the help window.

## LabVIEW Real-Time

If you are using a Windows development machine and a LabVIEW Real-Time (RT) target, complete the following steps to get started using NI-IMAQ for IEEE 1394 Cameras:

- 1. Install the NI-IMAQ for IEEE 1394 Cameras software on your Windows development machine.
- 2. Run Measurement & Automation Explorer (MAX).
  - Double-click the MAX icon on your desktop. You can use MAX to modify camera properties. Once you have saved these properties, they become your default settings for all NI-IMAQ for IEEE 1394 Cameras or IMAQ Vision applications.
  - b. Click the plus sign next to Remote Systems. Your LabVIEW RT target should appear in the list if the target is connected to the same subnet as your host machine. Configure your network settings by selecting **Help**»**Remote Systems** and following the instructions found in the *MAX Remote Systems Help*.
  - c. From the Software tab, click Install Software. Select NI-IMAQ for IEEE 1394 RT and any other software you would like to install on the target machine, as shown in Figure 3. Click OK.

☑ LabVIEW RT       v7.0.0       Current (latest version currently installed)         ☑ NI 1450 RT       v1.0.0       Out-of-date (more recent version available for         ☑ NI-IMAQ for IEEE 1394 RT       v1.5.0       Current (latest version currently installed)         ☑ NI-Serial RT       v2.5.2       Out-of-date (more recent version available for         ☑ NI-VISA       v3.0.0       Out-of-date (more recent version available for	Software Name	Version	Remote Software Status
▼ NI 1450 RT     v1.0.0     Out-of-date (more recent version available for       ▼ NI-IMAQ for IEEE 1394 RT     v1.5.0     Current (latest version currently installed)       ▼ NI-Serial RT     v2.5.2     Out-of-date (more recent version available for       ▼ NI-VISA     v3.0.0     Out-of-date (more recent version available for	☑ IMAQ Vision RT	v7.0.0	Out-of-date (more recent version available for o
☑ NI-IMAQ for IEEE 1394 RT         v1.5.0         Current (latest version currently installed)           ☑ NI-Serial RT         v2.5.2         Out-of-date (more recent version available for           ☑ NI-VISA         v3.0.0         Out-of-date (more recent version available for	✓ LabVIEW RT	v7.0.0	Current (latest version currently installed)
☑ NI-Serial RT         v2.5.2         Out-of-date (more recent version available for           ☑ NI-VISA         v3.0.0         Out-of-date (more recent version available for	🗹 NI 1450 RT	v1.0.0	Out-of-date (more recent version available for o
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✓ NI-VISA Server v3.0.0 Out-of-date (more recent version available for	✓ NI-VISA Server	v3.0.0	Out-of-date (more recent version available for a
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- d. MAX downloads the software to the target machine and prompts you to restart the remote device. Click **OK**.
- e. Connect your camera to your remote system.



- f. Restart your remote system and wait for the system to reconnect.
- g. Press F5 to refresh the MAX configuration tree. Your IEEE 1394 camera should be listed in the Remote Systems tree, as shown in Figure 4.

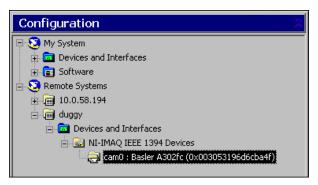


Figure 4. Viewing the Camera on the Remote System

### Acquire an Image

IÞ Snap	. Click <b>Snap</b> on the toolbar to acquire your first image.	
► Grab	Click <b>Grab</b> on the toolbar to acquire images continuously. of acquisition allows you to focus your camera.	This type
🔚 Save Image	Click <b>Save Image</b> on the toolbar to save the image.	

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