NI Vision Builder for Automated Inspection

Version 2.5

These release notes include the minimum requirements for running NI Vision Builder for Automated Inspection 2.5 (Vision Builder AI), installation instructions, device support, and known issues.

For the most up-to-date information about the Vision Builder AI software, refer to the Readme.wri file located on the Vision Builder AI CD.

System Requirements

To run Vision Builder AI, the computer must meet the following minimum requirements:

- 233 MHz Pentium-class processor
- Microsoft Windows 2000/NT/XP. If you are using Windows NT 4.0, you must have Service Pack 6 or later installed.

✎ **Note** If you have Windows XP Service Pack 2 installed, refer to the *Known Issues* section for information about how Windows XP SP2 affects Vision Builder AI.

- Microsoft Internet Explorer 5.0 or later
- $1,024 \times 768$ resolution video adapter with a 16-bit display (65,536 colors)
- 256 MB RAM
- 450 MB of free hard disk space

NATIONAL INSTRUMENTS

Installation Procedure

Complete the following steps to install Vision Builder AI.

✎ **Note** You must be logged in with administrator privileges to install Vision Builder AI.

1. Insert the Vision Builder AI CD into your CD-ROM drive. If the CD startup screen does not appear, use Windows Explorer to run `Setup.exe` from the Vision Builder AI CD.

2. Follow the setup instructions on your screen.

Directory Structure

The Vision Builder AI installer creates the following directory structure under the Vision Builder AI 2.5 directory.

- Program and support files

- `Plugins` folder—Additional support files

- `DemoImg` folder—Sample images

- `Products` folder—Product inspection files

- `Help` folder—Vision Builder AI online help files

- `Manuals` folder—Portable Document Format (PDF) versions of these release notes and the *NI Vision Builder for Automated Inspection Tutorial*. You must have Acrobat Reader installed to use these documents.

National Instruments Device Support

Vision Builder AI supports various image acquisition devices, the NI Compact Vision System, NI digital I/O and data acquisition (DAQ) devices, IEEE 1394 industrial digital cameras, and serial devices.

Image Acquisition Devices

This version of Vision Builder AI supports the following National Instruments IMAQ image acquisition devices:

- IMAQ PCI-1405

- IMAQ PCI/PXI-1407

- IMAQ PCI/PXI-1409

- IMAQ PCI/PXI-1411

- IMAQ PCI/PXI-1422

- IMAQ PCI-1424
- IMAQ PCI/PXI-1428

✎ **Note** If you are using an IMAQ device, you must install NI-IMAQ version 3.0 or later before you install the IMAQ device. The NI-IMAQ 3.0 driver software gives you access to Measurement & Automation Explorer (MAX), which is software you can use to configure National Instruments devices.

IEEE 1394 (FireWire®) Cameras

If you want to use FireWire industrial digital video cameras with Vision Builder AI, you need NI-IMAQ for IEEE 1394 Cameras driver software version 1.0 or later. To purchase this driver software, go to `ni.com/vision`.

This version of Vision Builder AI supports the NI PCI/PXI-8252 IEEE 1394 host adapter.

NI Compact Vision System

Vision Builder AI 2.5 supports the NI CVS-1450 Series compact vision system, allowing you to remotely configure and control the device. If you want to use a CVS-1450 Series device with Vision Builder AI, you need to install NI-IMAQ for IEEE 1394 Cameras version 1.5.2 or later.

✎ **Note** If you are using Vision Builder AI with a CVS-1450 Series device, you must install NI-IMAQ for IEEE 1394 Cameras driver software version 1.5.2 or later *after* you install Vision Builder AI 2.5. For more information, refer to the *NI 1450 Series Compact Vision System Quick Start Guide*, which is included with every CVS-1450 Series device.

Digital I/O

This version of Vision Builder AI supports digital I/O from any National Instruments DAQ device using DAQ Global Channels. To support NI DAQ devices, Vision Builder AI requires NI-DAQmx driver software version 7.1 or later.

DAQmx Global Channels

Use MAX to create DAQmx Global Channels. For information about creating DAQmx Global Channels, refer to the **Creating a DAQmx Global Channel** topic in the *NI Vision Builder for Automated Inspection: Configuration Help*.

Serial

To support serial communication, Vision Builder AI requires NI-VISA driver version 2.6.0 or later. You can use the serial ports built into your PC or one of the following NI serial interfaces: PCI 232/*x*, PXI 8420/*x*, or PXI 8422/*x*.

Known Issues

The following list contains information about known issues with Vision Builder AI 2.5.

- Vision Builder AI is best displayed when you set your computer to use small fonts. You can change your computer font size through the display settings in **Start»Settings»Control Panel**.

- When you choose **Select Network Target** in Vision Builder AI while the Windows XP SP2 Internet Connection Firewall is enabled, a dialog box may open, giving you the option to allow Vision Builder AI to receive information over a network. National Instruments recommends that you select **Unblock this program** so that Vision Builder AI can configure your remote Compact Vision System. You must be logged in with administrator privileges to configure this networking option. Refer to `ni.com/info` and enter `winxpsp2` for more information.

Using the Vision Builder AI Documentation

The Vision Builder AI documentation set includes these release notes, online help embedded into the Vision Builder AI software, and the *NI Vision Builder for Automated Inspection Tutorial*, which is included in both printed and PDF formats.

PDF Documents

You must have Acrobat Reader installed on your computer to view PDF files.

Note If you do not already have Acrobat Reader version 4.0 or later installed on your computer, refer to the Adobe Systems Incorporated Web site to download the Acrobat Reader.

To view the installed PDF documents, select **Start»Programs» National Instruments»Vision Builder AI 2.5»Documentation**, and select the document you want to view. You can assemble your own printed manuals by printing either the entire documentation set or just the sections relevant to your application.

Click any entry in the table of contents to jump directly to the corresponding manual page. You can jump to major sections within each document quickly and easily by clicking the bookmarks on the left side of the dialog box.

When you print pages or select **View»Go To Page**, you must use the page numbers in the lower left corner of the Acrobat window rather than the number displayed in the bottom center of each manual page or listed in the contents and index. Acrobat assigns and displays consecutive numbers on each page throughout the document. The numbers may not match those shown at the bottom center of each manual page.

Deployment Policy for Vision Builder AI

Pursuant to the National Instruments Software License Agreement, Vision Builder AI software is licensed to run on only one machine. Deployed applications that use Vision Builder AI require that Vision Builder AI be installed and licensed on each host machine. Therefore, you must purchase Vision Builder AI (part number 778649-01) for each host machine. For more information, refer to the enclosed National Instruments Software License Agreement or go to `ni.com/legal/license`.

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