IVI™ Driver Toolset

Version 2.0

These release notes contain installation and uninstallation instructions, system requirements, features, and upgrade considerations for the IVI Driver Toolset 2.0. This product also installs the IVI Compliance Package 2.1, which provides necessary updates for conformance with IVI specifications.

If you are upgrading from a previous version of National Instruments IVI software, read the *Special Considerations* section of the *IVI Compliance Package Release Notes* before you continue with this installation. The *IVI Compliance Package Release Notes* are included on the IVI Driver Toolset 2.0 CD distribution. Refer to one of the following sections of these *IVI Driver Toolset Release Notes* if you are upgrading from a previous version:

- *Upgrading from IVI Driver Toolset 1.1*
- *Upgrading from IVI Driver Library 1.0*

In addition, refer to the *IVI Compliance Package Release Notes* for information about upgrading from Basic IVI Class Drivers 2.*x*, IVI Engine 1.8*x*, or Basic IVI Class Drivers 1.*x*.

Introduction

The IVI Driver Toolset 2.0 is an update of the IVI Driver Toolset 1.1. This release includes necessary updates for conformance with the IVI specifications. It includes the IVI Compliance Package 2.1, updates to IVI Soft Front Panels, updates to IVI Class Simulation Drivers, NI Spy, and IVI Specific Drivers.

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IVI Compliance Package 2.1

The IVI Driver Toolset installs the IVI Compliance Package, a software package that contains IVI class drivers and the support libraries necessary for the development and use of applications that leverage IVI technologies. The IVI Compliance Package is based on and is compliant with the latest version of the specifications defined by the IVI Foundation.

The features of IVI Compliance Package 2.1 are as follows:

- Complete architectural compliance with the latest IVI Foundation specifications

- Eight class drivers that conform to the latest revisions of the IVI Foundation class specifications: IviRFSigGen, IviPwrMeter, IviSpecAn, IviScope, IviDmm, IviFgen, IviSwtch, and IviDCPwr

- Configuration user interface in National Instruments Measurement & Automation Explorer (MAX)

You can use the IVI class drivers in the IVI Compliance Package with IVI specific drivers. IVI class drivers implement functions and attributes for controlling an instrument within a specified class, as defined by the IVI Foundation.

IVI Soft Front Panels

The IVI Driver Toolset installs IVI Soft Front Panels, which are applications that enable you to interactively operate your instruments. IVI Soft Front Panels are available for the IviScope, IviDmm, IviFgen, IviSwtch, and IviDCPwr classes, but are not provided for the IviRFSigGen, IviPwrMeter, and IviSpecAn classes. Use them to ensure that your instruments are operating correctly and to make simple, interactive measurements. These soft front panels are useful when you want to debug your instruments and interactively control them to verify their functionality.

IVI Class Simulation Drivers

The IVI Driver Toolset installs simulation drivers for IviScope, IviDmm, IviFgen, IviSwtch, and IviDCPwr classes. Class simulation drivers are not provided for the IviRFSigGen, IviPwrMeter, and IviSpecAn classes. The IVI Driver Toolset installs the C source files for the simulation drivers so that you can modify the drivers to meet your specific simulation requirements. If you modify the simulation drivers, do not change the simulation driver function prototypes.

NI Spy

The IVI Driver Toolset installs NI Spy. NI Spy tracks the calls your application makes to National Instruments test and measurement (T&M) drivers, including NI-VXI, NI-VISA, and NI-488.2. It supports all eight instrument classes. NI Spy highlights functions that return errors, so you can quickly determine which functions failed during your development. NI Spy also can log your program calls to these drivers into a file so you can check them for errors at your convenience.

IVI Specific Drivers

You can install IVI Specific Drivers from the CD by double-clicking on a specific driver's installer. Navigate to the IVI Specific Driver installers from the IVI Driver Toolset 2.0 splash screen or by browsing the IVI Driver Toolset 2.0 CD.

IVI specific drivers included on the IVI Driver Toolset CD are drivers for the most popular instruments from all eight currently defined IVI Foundation classes and from the largest instrument manufacturers including National Instruments, Agilent Technologies, and Tektronix. You can create IVI specific drivers yourself using LabWindows™/CVI™ or download additional drivers from ni.com/idnet.

Installed Components

The IVI Driver Toolset installs the following components:

- IVI Soft Front Panels
- IVI Class Simulation Drivers
- IVI CVI Templates
- IVI Compliance Package 2.1
- LabWindows/CVI Run-Time Engine
- LabVIEW Run-Time Engine
- NI Spy
- NI-VISA
- Measurement & Automation Explorer

Installation

National Instruments recommends that you close all other applications before you install the IVI Driver Toolset. If you already have the IVI Driver Library 1.0 or IVI Driver Toolset 1.1 installed, you must uninstall it first and then proceed with the installation of the IVI Driver Toolset 2.0.

The following list includes minimum system requirements for the IVI Driver Toolset.

- Windows 2000/NT 4.0/XP/98 or later. If you are using Windows NT 4.0, you must have Service Pack 6 or later installed. If you are using Windows 98, you must have DCOM 98 installed.
- Internet Explorer 4.0.1 or later
- PC using at least a 200 MHz Pentium class or higher microprocessor
- Minimum of 64 MB of RAM
- 200 MB of free hard disk space
- LabVIEW version 6.1 or later, if you are using LabVIEW
- LabWindows/CVI version 6.0 or later, if you are using LabWindows/CVI

To install the IVI Driver Toolset, complete the following steps:

1. Uninstall any previously installed versions of IVI Driver software, and close all other applications.
2. Insert the IVI Driver Toolset Installation CD into the CD-ROM drive.

   Usually, the CD automatically launches the IVI Driver Toolset Installation CD dialog box. If the dialog box does not appear, select **Start»Run** in the Windows taskbar and enter `D:\setup` in the input box, where `D` is the letter of your CD-ROM drive.
3. Click **OK** to begin installation.
4. Follow the directions that appear on screen.

Special Installation Issues for Windows NT/98

The following sections include details about installation issues for the IVI Driver Toolset.

Windows NT 4.0

If you use Windows NT 4.0 and do not have Windows NT Service Pack 6.0 installed, you will encounter an error during installation. To prevent the error condition, install NT Service Pack 6.0 before installing the IVI Driver Toolset.

Windows 98

If you use Windows 98 and do not have DCOM installed, you will encounter an error message when launching the IVI Driver Toolset installation executable, setup.exe. To prevent the error condition, install DCOM before installing the IVI Driver Toolset.

Uninstall Considerations

If you no longer want to use IVI software features, complete the following steps to uninstall them:

1. Select **Start»Settings»Control Panel»Add/Remove Programs**.

2. Select **National Instruments Software** and click **Change**.

3. Select **IVI Driver Toolset 2.0** and click **Uninstall**.

Use the same method to uninstall the other components installed by the IVI Driver Toolset, such as the IVI Compliance Package 2.1, NI-VISA 3.0, and NI-MAX 3.0. To uninstall specific drivers, run the Instrument Driver Install Manager located in the **Start»Programs»National Instruments» IVI** menu.

Note After you uninstall the IVI Compliance Package, IVI Shared Components remain on the system. These components are not uninstalled by the Windows uninstallation utility. To remove the remaining components, you must run the IVI Shared Component Cleanup Utility. Visit www.ivifoundation.org to download and install the IVI Shared Component Cleanup Utility.

Upgrade Notes

This section describes the process of upgrading your IVI software to IVI Driver Toolset 2.0, issues you might encounter when you upgrade, and new features included in the upgrade.

The installation process of IVI Compliance Package 2.*x* automatically converts all IVI configuration data for logical names, virtual instruments, devices, and driver software that exist on your system to a new data file format specified by the IVI Foundation. The installation creates a backup ivi.ini file with your original configuration data. For important information about upgrading from Basic IVI Class Drivers 2.*x*, IVI Engine 1.8*x*, or Basic IVI Class Drivers 1.*x*, refer to the *IVI Compliance Package Release Notes*.

Upgrading from IVI Driver Toolset 1.1

This section describes the issues you might encounter when you upgrade to IVI Driver Toolset 2.0 from IVI Driver Toolset 1.1.

The IVI Driver Toolset 1.1 is a CD distribution available as an independent product (part number 777855-01) and as part of the National Instruments Developer Suite CD.

To install the IVI Driver Toolset 2.0, you must first uninstall IVI Driver Toolset 1.1.

The following issues might affect you if you are upgrading from IVI Driver Toolset 1.1.

- New Installation Directory
- IVI Shared Components
- Migrating Existing Configuration Data
- IVI Configuration Utility in MAX
- Default Setup Changes
- Inherent API Changes
- Class Driver API Changes
- IVI Engine API Changes

(Non-LabVIEW Users Only)

- Effects of Splitting the Class and Specific Driver Sessions

Refer to the appropriate subsections in the *Special Considerations* section of the *IVI Compliance Package Release Notes* for more information about these issues.

Upgrading from IVI Driver Library 1.0

To install the IVI Driver Toolset 2.0, you must first uninstall IVI Driver Library 1.0.

There are significant API and architectural differences between IVI Driver Library version 1.0 and IVI Driver Toolset 2.0. To understand all the possible changes that affect you, National Instruments strongly recommends that you first read the *Release Notes for IVI Driver Toolset 1.1*. This document is available at ni.com/manuals. Also, refer to the *Special Considerations* section of the *IVI Compliance Package Release Notes* for more information.

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