

LabVIEW™ Release Notes

Installing LabVIEW 8.5

These release notes contain installation and uninstallation instructions for LabVIEW and system requirements for the LabVIEW software.

If you are upgrading from a previous version of LabVIEW, read the *LabVIEW Upgrade Notes* included with the upgrade package before you install LabVIEW 8.5. You must consider several issues before you convert VIs for use in LabVIEW 8.5.

Read the *System Requirements* section of this document before you install LabVIEW and then follow the instructions in the *Installing LabVIEW 8.5* section. After you install LabVIEW, read the *Where to Go from Here* section for information about getting started with and using LabVIEW.

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System Requirements

Table 1 describes the system requirements you need to run LabVIEW 8.5.

Table 1. System Requirements for LabVIEW 8.5

Platform	Media and System Requirements	Important Notes
All platforms	<p>LabVIEW requires a minimum of 256 MB of RAM, but National Instruments recommends 1 GB of RAM or higher.</p> <p>LabVIEW requires a screen resolution of at least 1,024 × 768 pixels.</p> <p>When you deploy a LabVIEW-built application, the LabVIEW Run-Time Engine requires a minimum of 64 MB of RAM and a screen resolution of 800 × 600 pixels for applications that require a screen, but National Instruments recommends 256 MB of RAM or higher and a screen resolution of 1,024 × 768 pixels or higher.</p>	<p>LabVIEW and the <i>LabVIEW Help</i> contain 16-bit color graphics.</p> <p>LabVIEW requires a minimum color palette setting of 256 colors, but National Instruments recommends 16-bit color or higher.</p> <p>You must have Adobe Reader 5.0.5 or later to view PDF versions of all LabVIEW manuals. You must have Adobe Reader with Search and Accessibility 6.x or later to search the PDFs. (Mac OS) You must have Adobe Reader with Search and Accessibility 6.x or later to view and search the PDFs.</p> <p>LabVIEW uses a directory for storing temporary files. National Instruments recommends that you have several megabytes of disk space available for this temporary directory. You can view or change the temporary directory by selecting Tools» Options and selecting Paths from the Category list. If LabVIEW aborts unexpectedly, it can leave files in the temporary directory. Remove old files from this directory to free disk space.</p> <p>(Windows) The default temporary directory is the system temporary directory, such as C:\Documents and Settings\User\Local Settings\Temp.</p> <p>(Mac OS) Mac OS X 10.3.9 uses the default temporary directory /tmp/501/TemporaryItems, and Mac OS X 10.4.x uses /var/tmp/folders.501/TemporaryItems, where 501 is a unique number for each login.</p> <p>(Linux) The default temporary directory is /tmp.</p>

Table 1. System Requirements for LabVIEW 8.5 (Continued)

Platform	Media and System Requirements	Important Notes
<p>Windows Vista/XP/2000</p>	<p>LabVIEW requires a minimum of a Pentium III or greater or Celeron 866 MHz or equivalent processor, but National Instruments recommends at least a Pentium 4/M or equivalent processor. National Instruments recommends that you have at least 1.2 GB of disk space for the complete LabVIEW installation.</p> <p>When you deploy a LabVIEW-built application, the LabVIEW Run-Time Engine requires a minimum of a Pentium 200 MHz or equivalent processor, but National Instruments recommends a Pentium III or higher or Celeron 600 MHz or equivalent processor. The LabVIEW Run-Time Engine for controlling an application or front panel remotely requires at least 94 MB of disk space. The LabVIEW Run-Time Engine you include in a LabVIEW-built installer requires at least 180 MB of disk space. However, if you include any additional National Instruments installers in the LabVIEW-built installer you will require additional disk space. On Windows 2000, the LabVIEW Run-Time Engine requires Windows 2000 Service Pack 3 or later.</p>	<p>LabVIEW does not support Windows NT/Me/98/95, any of the Windows Server editions, or Windows XP x64. LabVIEW does support Windows Vista x64.</p> <p>To use LabVIEW with Windows 2000, you must have Windows 2000 Service Pack 3 or later.</p> <p>To use the <i>LabVIEW Help</i>, the Measurement & Automation Explorer (MAX) interactive help system, and the NI Example Finder, you must have Microsoft Internet Explorer 5.0 or later.</p> <p>To view and control a front panel remotely using Internet Explorer, National Instruments recommends that you have Internet Explorer 5.5 Service Pack 2 or later.</p> <p>You must have the .NET Framework 1.1 Service Pack 1 or later to use .NET functions and applications.</p>

Table 1. System Requirements for LabVIEW 8.5 (Continued)

Platform	Media and System Requirements	Important Notes
Mac OS	<p>LabVIEW requires Mac OS X 10.3.9 or later.</p> <p>LabVIEW supports Macintosh computers with both Intel and PowerPC processors.</p> <p>For PowerPC processors, LabVIEW requires a minimum of a G3 processor, but National Instruments recommends a G4 or greater processor. National Instruments recommends that you have at least 502 MB of disk space for the minimum LabVIEW installation or 734 MB disk space for the complete LabVIEW installation.</p>	<p>National Instruments recommends that you use Firefox 1.0.2 or later or Safari 1.3.2 or later to view the <i>LabVIEW Help</i>.</p> <p>NI provides support for Intel processors for most hardware previously available for the PowerPC processor.</p>

Table 1. System Requirements for LabVIEW 8.5 (Continued)

Platform	Media and System Requirements	Important Notes
Linux	<p>LabVIEW requires an X Window System server, such as OpenWindows, CDE, or X11R6.</p> <p>National Instruments recommends that you have at least 450 MB of disk space for the minimum LabVIEW installation or 640 MB disk space for the complete LabVIEW installation.</p> <p>LabVIEW runs on Linux for Intel x86 processors with kernel version 2.2.x, 2.4.x, or 2.6.x. LabVIEW requires a minimum of a Pentium III or Celeron 866 MHz or equivalent processor, but National Instruments recommends a Pentium 4/M or equivalent processor.</p> <p>LabVIEW runs on Red Hat Enterprise Linux WS 3 or later, MandrakeLinux/Mandriva 10.0 or later, and SuSE Linux 9.1 or later. LabVIEW can run without hardware driver support on any other distributions that provide GNU C Library (glibc, also known as libc.so.6) version 2.2.4 or later.</p>	<p>LabVIEW does not require a specific graphical user interface (GUI) such as Motif or OpenLook because LabVIEW uses <code>xlib</code> to create its own GUI.</p> <p>National Instruments recommends that you use Firefox 1.0.2 or later or Mozilla 1.2 or later to view the <i>LabVIEW Help</i>.</p> <p>LabVIEW requires GNU C Library version 2.2.4 or later. Most Linux vendors offer an updated <code>glibc rpm</code> for most Linux distributions on their Web sites so you do not have to upgrade the entire system.</p>

Installing LabVIEW 8.5

Refer to the KnowledgeBase at ni.com if you encounter errors during installation.

Windows

LabVIEW 8.5 offers the following installation options on Windows:

- **DVD**—Includes LabVIEW, the device drivers, and LabVIEW SignalExpress.
- **CD**—Includes LabVIEW only. If you install LabVIEW using the CD, you install the device drivers and LabVIEW SignalExpress using the National Instruments Device Drivers CD.

Complete the following steps to install LabVIEW for Windows.

1. Disable any automatic virus detection programs before you install. Some virus detection programs interfere with the installation program.
2. Log on as an administrator or as a user with administrator privileges.
3. Insert the LabVIEW 8.5 installation DVD or CD and follow the instructions that appear on the screen. The prompt directs you to install LabVIEW, then the directions on the screen help you activate your LabVIEW license. Refer to the [Activating the LabVIEW License \(Windows\)](#) section of this document for more information about activating LabVIEW.



Note If you install LabVIEW using the DVD, you also can install the device drivers from the DVD by following the instructions on the screen. If you install LabVIEW using the CD, you install the device drivers in step 6.

4. After installation, enable any virus detection programs you disabled.
5. (Optional) Install LabVIEW add-ons. Refer to the [Installing LabVIEW Add-Ons](#) section of this document for more information.
6. (Optional) Install and configure National Instruments hardware. Refer to the [Installing and Configuring Hardware](#) section of this document for more information.
7. Refer to the [Where to Go from Here](#) section of this document for more information about getting started with and using LabVIEW.

To modify the current LabVIEW installation or to uninstall LabVIEW 8.5, select **National Instruments Software** in the Add/Remove Programs applet in the Control Panel. When you modify the installation, a list of National Instruments software appears. Select a product in the list to add or remove individual components or to uninstall the product. Select multiple

products to remove by pressing the <Shift> or <Ctrl> key while you select them. Click the **Uninstall** button to remove all the products you selected.



Note If you have Windows XP Service Pack 2 installed or you use Windows Vista, a **Security Alert** dialog box appears when you launch LabVIEW or the NI Example Finder for the first time. If you select the **Keep blocking this program** option, the LabVIEW VI Server, LabVIEW Web Server, and any server written in LabVIEW cannot accept incoming connections from a remote computer. Select the **Unblock this program, despite the security risk** option to configure your computer to launch LabVIEW without any changes in functionality. Refer to the National Instruments Web site at ni.com/info and enter the info code `expm69` for more information about correcting this problem.

Mac OS

Complete the following steps to install LabVIEW for Mac OS.

1. Disable any automatic virus detection programs before you install. Some virus detection programs interfere with the installation program.
2. Insert the LabVIEW 8.5 installation CD.
3. Run the appropriate installation program.

The following types of installations of LabVIEW 8.5 are available:

- **Easy Install**—Installs all LabVIEW 8.5 files, including LabVIEW, NI-488.2 drivers, and NI-VISA drivers. This is the default installation for LabVIEW.
 - **Custom Install**—If you select this option, you select the files to install. To select a custom installation, click the **Customize** button on the **Installation Type** page. You must select the **LabVIEW 8.5** component to install the core set of LabVIEW files necessary for running LabVIEW 8.5.
4. Follow the instructions that appear on the screen.
 5. After installation, enable any virus detection programs you disabled.
 6. (Optional) Install LabVIEW add-ons. Refer to the [Installing LabVIEW Add-Ons](#) section of this document for more information.
 7. (Optional) Install and configure National Instruments hardware. Refer to the [Installing and Configuring Hardware](#) section of this document for more information.
 8. Refer to the [Where to Go from Here](#) section of this document for more information about getting started with and using LabVIEW.



Note Not all components for the LabVIEW Professional Development System are compiled for the PowerPC. If you install LabVIEW 8.5 to a PowerPC, LabVIEW prompts you to mass compile when you first launch LabVIEW.

You cannot install LabVIEW into a non-default location, but you can move the LabVIEW 8.5 directory after you install. If you move the LabVIEW 8.5 directory to a non-default location, LabVIEW does not uninstall and remove the directory unless you move the LabVIEW 8.5 directory back to the default location.

To uninstall LabVIEW 8.5, run the `Uninstall.sh` shell script file on the installation CD from a Terminal shell. The script directs you to remove the files necessary to uninstall LabVIEW. If you want to keep any files you modified or added to the LabVIEW 8.5 directory, save those files in another location before uninstalling LabVIEW 8.5.

Linux

Complete the following steps to install LabVIEW for Linux.

1. Log into the system as `root`.
2. Insert the LabVIEW 8.5 installation CD. Use `mount /mnt/cdrom` to mount the CD. On some systems, the CD mounts automatically.
3. To change the current directory to the mounted CD, enter the following command:

```
cd /mnt/cdrom
```
4. To run the installation script, enter the following command:

```
sh ./INSTALL
```
5. (Optional) Install LabVIEW add-ons. Refer to the [Installing LabVIEW Add-Ons](#) section of this document for more information.
6. (Optional) Install and configure National Instruments hardware. Refer to the [Installing and Configuring Hardware](#) section of this document for more information.
7. Refer to the [Where to Go from Here](#) section of this document for more information about getting started with and using LabVIEW.

The `INSTALL` script prompts you to enter the directory where you want to install LabVIEW, which is typically `/usr/local`. The script also optionally runs the installation scripts for the NI-VISA and NI-488.2 drivers. The `INSTALL` script uses `rpm` to install on systems that support the `.rpm` format or to extract the `rpm` archives directly on other systems. You also can install the files manually by using `rpm`—or a GUI `rpm`-based install tool—on Red Hat or other `rpm`-based systems or on systems without `rpm` by using the utilities in the `bin` directory on the LabVIEW installation CD.

If you installed Netscape or Mozilla in the default location, the LabVIEW installation program automatically installs the browser plug-in so you can view and control front panels remotely using a Web browser. Otherwise,

you can install the browser plug-in manually by installing the LabVIEW Run-Time Engine and then copying `/usr/local/lib/LabVIEW-8.5/LV85NPlugin.so` to the browser plug-in directory such as `/usr/lib/netscape/plugins`, `/opt/SUNWns/plugins`, or `/usr/lib/mozilla/plugins`.



Note You must install the browser plug-in for Firefox manually.

Refer to the `readme.html` document in `/mnt/cdrom/linux` for custom installation instructions and other information.

Common LabVIEW Launch Errors on Linux

The following table lists common errors that might occur when you launch LabVIEW for Linux.

Error	Possible Cause and Solution
xlib: connection to :0.0 refused by server	Possible Cause —You are trying to run LabVIEW as a user who does not have permission to open a window on the display server. You typically receive these errors after you run the <code>su</code> command to temporarily become a different user, such as <code>root</code> (superuser). Solution —Exit the <code>su</code> command and launch LabVIEW as the login user or use the <code>xhost</code> or <code>xauth</code> commands to grant permission to open a window on the display server.
client is not authorized to connect to server	
internal error during connection authorization check	

Refer to the National Instruments Web site at ni.com/support for information about other errors that might occur when you launch LabVIEW for Linux.

Installing LabVIEW Add-Ons

You can purchase several add-on software modules and toolkits for developing specialized applications. All the add-ons integrate seamlessly in LabVIEW.

After you install LabVIEW 8.5, complete the following steps to install LabVIEW add-ons.

1. Restart the computer.
2. Disable any automatic virus detection programs before you install. Some virus detection programs interfere with the installation program.
3. Insert the LabVIEW module or toolkit installation CD and follow the instructions that appear on the screen.
4. After installation, enable any virus detection programs you disabled.



Note LabVIEW 8.5 might not support add-ons designed for previous versions of LabVIEW. Refer to the National Instruments Web site at ni.com/info and enter the info code `compat` for more information about which LabVIEW modules and toolkits are compatible with the current version of LabVIEW.

Refer to the *LabVIEW Help* and to the National Instruments Web site at ni.com/toolkits for more information about National Instruments add-ons. Refer to the specific add-on documentation for more information about installation procedures, including instructions for mass compiling toolkit directories.

Installing Application Builder

(Windows) LabVIEW installs the Application Builder when you install LabVIEW. Refer to the *Activating Application Builder* section of this document for information about activating Application Builder for use.

(Mac OS and Linux) LabVIEW installs the Application Builder when you install the LabVIEW Professional Development System. If you install the LabVIEW Full Development System, you must purchase the Application Builder separately. Refer to the National Instruments Web site at ni.com/info and enter the info code `exd8yy` to access the Upgrade Advisor and purchase Application Builder.

Activating the LabVIEW License (Windows)

LabVIEW relies on licensing activation. You have a temporary license for a 30-day evaluation period. If you do not activate the LabVIEW license, LabVIEW operates in evaluation mode, by default, for a 30-day evaluation period. When the evaluation period expires, you must activate a valid LabVIEW license to continue using LabVIEW.

To activate the LabVIEW license, use the serial number you received as part of your installation package. You can activate the LabVIEW license in any of the following ways:

- During installation, enter the serial number and select to run the NI Activation Wizard at the end of installation.
- After you launch LabVIEW in evaluation mode, click the **Activate** button in the **LabVIEW** dialog box.
- While running LabVIEW in evaluation mode, select **Help»Activate LabVIEW**. The license activation does not take effect until you restart LabVIEW.

- Launch NI License Manager by selecting **Start»All Programs»National Instruments»NI License Manager**. Click the **Activate** button in the toolbar.

If you do not activate LabVIEW during installation, LabVIEW prompts you for activation when you launch LabVIEW. After you activate the LabVIEW license, you no longer see this prompt. If the activation fails, LabVIEW remains in evaluation mode until the 30-day evaluation period expires.

Reinstalling LabVIEW does not reset the evaluation period.

Access to LabVIEW Is Dependent on License Activation

For all VIs or libraries that do not have a valid license specific to the version of LabVIEW that you purchased, you cannot perform the following tasks:

- Access or print the block diagram.
- Edit the front panel or block diagram.
- Edit polymorphic VIs.
- Run the VI.
- Run parent VIs that use the VI as a subVI.
- Save the VI to a previous version of LabVIEW or select **File»Save As**.
- Complete a compare operation.
- Drag and drop items into a library.

If you open a VI while LabVIEW is in evaluation mode, you cannot perform the following tasks:

- Access or print the block diagram.
- Edit the front panel or block diagram.

If you run LabVIEW in evaluation mode and then purchase and activate a LabVIEW license for the LabVIEW Base Package, any VIs that are exclusive to the Full or Professional Development System versions of LabVIEW break. Parent VIs that use these VIs as subVIs also break. Similarly, if you run LabVIEW in evaluation mode and then purchase and activate a LabVIEW license for the LabVIEW Full Development System, any VIs that are exclusive to the Professional Development System version of LabVIEW break. Parent VIs that use these VIs as subVIs also break. Licensing errors appear in the **Error list** window. Refer to the National Instruments Web site at ni.com/info and enter the info code `exe3wi` for more information about the limitations of the evaluation version of LabVIEW.

Single-Seat and Multi-Seat Licensing

LabVIEW supports both single-seat and multi-seat licenses. Single-seat licensing is the use of LabVIEW on up to three computers but by only one user. Multi-seat, or volume, licensing is the use of LabVIEW on several computers or by several users. Each seat using LabVIEW must have a valid license from a license server. Refer to the National Instruments Web site at ni.com/license for more information.

Licensing for Libraries, Modules, and Toolkits

The PDA Module, Embedded Development Module, and Real-Time Execution Trace Toolkit 2.0 are licensed products, and you must license and activate them separately from LabVIEW. The Remote Panel Server, included in the LabVIEW Full and Professional Development Systems, also is licensed separately, but you can purchase additional seats.

Activating Application Builder

The LabVIEW Professional Development System includes the Application Builder, which LabVIEW enables when you activate LabVIEW.

If you have an activated version of the LabVIEW Base Package or Full Development System, select **Help»Activate Application Builder** to activate and use the Application Builder. The license takes effect when you restart LabVIEW.

You also can activate the Application Builder by launching NI License Manager, selecting **Start»All Programs»National Instruments»NI License Manager**. Then select **Application Builder for LabVIEW Base/Full/Student** and click the **Activate** button.

Installing and Configuring Hardware

After you install LabVIEW software, you can install the drivers you need to use National Instruments hardware. All National Instruments devices include the drivers and other software you need to use the device. The National Instruments Device Drivers CD includes the drivers and other software you need to use all National Instruments hardware. The drivers packaged with LabVIEW and those packaged with the devices might be different versions. LabVIEW works best with the latest available drivers that support the devices in your system. If you are using NI-DAQ 7.0 or later, refer to the *NI-DAQ Readme* for more information about which driver version to use with the devices in your system.



Note National Instruments periodically updates device drivers. Refer to the National Instruments Web site at ni.com/info and enter the info code `exyc6kh` to download the latest drivers.

(Windows) Use Measurement & Automation Explorer (MAX) or the Add/Remove Programs applet in the Control Panel to find the version number of an installed driver.

Configure National Instruments hardware after you install the drivers for those devices.

Windows

Use MAX to confirm that LabVIEW recognizes the device, to configure accessories and device settings, and to run test panels to test device functionality, such as the ability to acquire and generate signals. Launch MAX by selecting **Start»All Programs»National Instruments»Measurement & Automation** or by double-clicking the **Measurement & Automation** icon on the desktop. If you are using NI-DAQ 7.4 or earlier, refer to the *DAQ Quick Start Guide for NI-DAQ 7.x* for information about using MAX to configure DAQ devices. If you are using NI-DAQ 7.5 or later, refer to the *DAQ Getting Started Guide*.

The way you configure virtual channels depends on whether you are using Traditional NI-DAQ (Legacy) or NI-DAQmx. Refer to the **Getting Started»Getting Started with DAQ** book on the **Contents** tab in the *LabVIEW Help* for information about configuring channels for Traditional NI-DAQ (Legacy) or configuring channels or tasks for NI-DAQmx.

Mac OS

The LabVIEW installation program installs the NI-VISA driver and the NI-488.2 driver for the GPIB interface by default.



Note (Mac OS) LabVIEW does not currently support the full NI-DAQmx driver software. NI-DAQmx Base offers a subset of NI-DAQmx functionality for Mac OS. Refer to the National Instruments Web Site at ni.com/info and enter the info code `exf8fb` to download NI-DAQmx Base.

Linux

The LabVIEW installation program prompts you to choose the NI-488.2 driver for the GPIB interface you are using then installs that driver automatically.



Note LabVIEW does not support the GPIB-1014 series (VME) devices or the original GPIB-SCSI box. LabVIEW does support the GPIB-SCSI-A box.

NI-DAQmx for Linux supports several PXI, PCI, and SCXI National Instruments data acquisition devices. Refer to the *NI-DAQmx Readme for Linux* for a complete list of supported devices. After you install the NI-DAQmx for Linux driver, refer to the *NI-DAQmx for Linux Configuration Guide* at `/usr/local/natinst/nidaqmx/docs/ConfigurationGuide.html` for information about testing and configuring a National Instruments data acquisition device.

NI-DAQmx Base for Linux supports several National Instruments USB data acquisition devices. Refer to the *Readme for NI-DAQmx Base* for a complete list of supported devices. Documentation for the driver installs in the `/usr/local/natinst/nidaqmxbase/documentation` directory. Refer to the *LabVIEW Help* for more information about NI-DAQmx Base.

Where to Go from Here

Refer to the following documents for more information about LabVIEW, including new features and upgrade issues, programming concepts and step-by-step procedures, and known issues.

Getting Started with LabVIEW

If you are a new user, complete the exercises in the *Getting Started with LabVIEW* manual to familiarize yourself with the LabVIEW graphical programming environment and the basic LabVIEW features you use to build data acquisition and instrument control applications.

LabVIEW Upgrade Notes

The *LabVIEW Upgrade Notes* describe the process of upgrading LabVIEW for Windows, Mac OS, and Linux to version 8.5, issues you might encounter when you upgrade, and new features.

LabVIEW Help

Refer to the *LabVIEW Help* for information about LabVIEW programming concepts, step-by-step instructions for using LabVIEW, and reference information about LabVIEW VIs, functions, palettes, menus, tools, properties, methods, events, dialog boxes, and so on. Access the *LabVIEW Help* by selecting **Help»Search the LabVIEW Help**. Refer to the **Using Help** book on the **Contents** tab in the *LabVIEW Help* for more information about using the *LabVIEW Help*.

The *LabVIEW Help* also lists the LabVIEW documentation resources available from National Instruments. Refer to the **LabVIEW Documentation Resources** book on the **Contents** tab in the *LabVIEW Help* for a list of documents.

Readme

Refer to the `readme.html` file in the `labview` directory for information about LabVIEW, including installation and upgrade issues, compatibility issues, a partial list of bugs fixed in the current version of LabVIEW, changes from the previous version of LabVIEW, and known issues with LabVIEW.

ni.com

Refer to ni.com/labview for web resources that include example VIs. Refer to ni.com/labviewzone for discussion forums.

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