NI Vision Development Module 2015 SP1 Readme

January 2016

This file contains important information about National Instruments Vision Development Module, including installation instructions, new features, fixed issues, and known issues.

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Overview

The NI Vision Development Module provides hundreds of image processing and machine vision functions. Along with programming libraries, the NI Vision Development Module also includes NI Vision Assistant. Installing this software may remove previous versions of the NI Vision Development Module that are currently installed.

Note: The NI Vision Development Module overwrites existing NI Vision examples and NI Vision VIs. Move modified examples or VIs that you want to save to another directory before installing the NI Vision Development Module.

Refer to the NI Vision website at ni.com/vision for the latest information about the NI Vision Development Module.

System Requirements

The development computer must meet the following system requirements to run the NI Vision Development Module.

<table>
<thead>
<tr>
<th>Processor</th>
<th>Minimum</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>233 MHz Pentium or equivalent</td>
<td>Pentium 4/M or equivalent</td>
</tr>
<tr>
<td>Memory</td>
<td>256 MB RAM</td>
<td>512 MB RAM</td>
</tr>
<tr>
<td>Display</td>
<td>1,024 × 768 resolution video adapter with a 16-bit display</td>
<td>1,024 × 768 resolution video adapter with a 24- or 32-bit display</td>
</tr>
<tr>
<td>Free Hard Disk Space</td>
<td>3.2 GB</td>
<td></td>
</tr>
<tr>
<td>Operating System</td>
<td>Windows 10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Windows 8.1 (32- and 64-bit)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Windows 7 SP1 (32- and 64-bit)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Windows Vista SP1 (32- and 64-bit)</td>
<td></td>
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<tr>
<td></td>
<td>Windows XP SP3 (32-bit)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Windows Server 2012 R2 (64-bit)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Windows Server 2008 R2 SP2 (64-bit)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Windows Server 2003 R2 SP2 (32-bit)</td>
<td></td>
</tr>
</tbody>
</table>

NI Application Software Support

The following table lists the NI application software versions, including service packs, supported by the NI Vision Development Module. The installer specifically allows side-by-side installations of Vision Development Module for each of the supported versions of LabVIEW, enabling you to use the NI Vision Development Module with multiple versions of LabVIEW. National Instruments recommends that you install LabVIEW, LabVIEW Real-Time, or any other supported development environment, before installing the NI Vision Development Module.

<table>
<thead>
<tr>
<th>NI Application Software</th>
<th>Versions Supported by NI Vision Development Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>NI LabVIEW FPGA Module</td>
<td>2014 and 2015</td>
</tr>
</tbody>
</table>

NI Vision Development Module .NET Support

NI Vision Development Module 2013 SP1 was the last version to release updated support for the .NET Framework 1.1, .NET Framework 2.0, .NET Framework 3.5, and .NET language integration into Visual Studio 2005 and Visual Studio 2008. Visual Studio 2010 and later are not supported.

New versions of NI Vision Development Module will not provide new .NET feature support or development. It is recommended that you begin new development in other supported development environments.

External Library Support

The NI Vision Development Module supports the external vision library OpenCV. Refer to the National Instruments Web site to download the NI Vision OpenCV support utilities.

NI Vision OpenCV support utilities enable the use of OpenCV algorithms in LabVIEW and NI Embedded hardware. NI Vision OpenCV support utilities provide:

- Pre-built OpenCV binaries for Windows and NI Linux RT
- C++ development files to create an interface between NI Vision Image and OpenCV Mat.
- Utilities to create LabVIEW APIs to call OpenCV entry points
- LabVIEW examples

New Features in Vision Development Module 2015 SP1

This release of the Vision Development Module includes the following new features:

- Support for LabVIEW 2015 SP1 (32 and 64-bit)
- Support for 64-bit LabWindows/CVI and Microsoft Visual C/C++ applications
- Auto threshold methods are now supported for 16-bit images
- Flat Field Correction FPGA IP to correct images for intensity variations due to non-uniform lighting
- IMAQ ROIToMask FPGA VI to transform a region of interest (ROI) into a mask. This VI accepts an ROI bounding rectangle and an angle (to rotate the rectangle) as inputs, to generate a mask for the downstream processing IPs.

NI Vision Assistant includes the following new features:

- Auto threshold methods are now supported for 16-bit images in the Threshold step and Calibration Training
Installation Instructions

Updates and Improvements

New Features in Vision Development Module 2015

The previous release of the Vision Development Module included the following new features:

- **Flat Field Correction**
  - IMAQ Flat Field Correction VI, which corrects the non-uniform intensity in images using flat field and dark field images
  - IMAQ Flat Field Estimation VI, which estimates the background flat field for images with objects
  - IMAQ Compute Average Image VI, which averages multiple images and returns a single averaged image
  - IMAQ Compute Median Image VI, which computes the median of pixels over multiple images and returns a single median image

- **Feature Detection and Correspondence**
  - IMAQ Corner Detector VI, which detects corner points in an image using Harris and Shi-Tomasi methods, and returns pixel and real-world locations
  - IMAQ FAST Feature Point Detector, which detects salient feature points in an image using the features from accelerated segment test (FAST) method, and returns pixel and real-world locations
  - IMAQ Feature Point Descriptor VI, which computes descriptors for feature points using fast retina key point (FREAK) and binary robust invariant key points (BRISK) methods
  - IMAQ Match Feature Points VI, which estimates the correspondence between two feature point descriptor sets

- **Feature Extraction**
  - IMAQ Extract HOG Feature Vector VI, which extracts histogram of oriented gradients (HOG) features from an image
  - IMAQ Extract LBP Feature Vector VI, which extracts local binary pattern (LBP) features from an image

- **New FPGA Performance Meter**, which provides detailed information about algorithm performance on FPGAs
- **Support for particle analysis report and Bayer VNG decoding on FPGA targets**
- **Flat Field Correction step is supported on FPGA targets**
- **The Image Display Control on NI Linux Real-Time with Embedded UI now supports image zoom, scrolling, and panning**
- **The Image Display Control on Windows and NI Linux Real-Time with Embedded UI supports 16-bit color palettes**
- **IMAQ Write File 2 VI allows saving bit-depth information for 16-bit images when saving to the PNG file format**
- **IMAQ Read File VI reads U16 TIFF images incorrectly if created in software other than LabVIEW**
- **The IMAQ Edge Tool VI returns different results for different search line lengths after image calibration**
- **The IMAQ AVI2 Open and Close VIs leak when opening and closing a session with Built-in Codecs**
- **The IMAQ Learn Calibration Template VI returns error -1074396116 for rotated versions of an image**
- **The Image Display Control on NI Linux Real-Time with Embedded UI now supports image zoom, scrolling, and panning**
- **The Image Display Control on Windows and NI Linux Real-Time with Embedded UI supports 16-bit color palettes**
- **IMAQ Write File 2 VI allows saving bit-depth information for 16-bit images when saving to the PNG file format**

NI Vision Assistant includes the following new features:

- **Flat Field Correction step to correct an image for intensity variations due to non-uniform lighting**
- **Flat Field Creation Wizard to create, analyze, and store flat field images**
- **Feature Detection step for FAST feature detection, and Harris and Shi-Tomasi Corner point detection**
- **Support for 16-bit color palettes and a new palette editor to create, visualize, and store color palettes for 8-bit and 16-bit images**
- **Support for particle analysis report and Bayer VNG decoding on FPGA targets**

Updates and Improvements

The following list describes issues in previous versions of NI Vision Development Module that are fixed in this release. If you have a CAR ID, you can search this list to validate that the issue has been fixed. This is not an exhaustive list of issues fixed in the current version of NI Vision Development Module.

<table>
<thead>
<tr>
<th>ID</th>
<th>Fixed Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>245249</td>
<td>NI Vision installs a copy of tbb.dll and tbbmalloc.dll that can conflict with third-party programs using a different version of these files</td>
</tr>
<tr>
<td>312468</td>
<td>The IMAQ Learn Calibration Template VI returns error 1074396116 for rotated versions of an image.</td>
</tr>
<tr>
<td>429210</td>
<td>The IMAQ AVI2 Open and Close VIs leak when opening and closing a session with Built-in Codecs.</td>
</tr>
<tr>
<td>480226</td>
<td>The IMAQ Edge Tool VI returns different results for different search line lengths after image calibration.</td>
</tr>
<tr>
<td>503483</td>
<td>The IMAQ Read File VI reads U16 TIFF images incorrectly if created in software other than LabVIEW.</td>
</tr>
<tr>
<td>519182</td>
<td>For 3rd party PNG images, the IMAQ GetFileInfo VI returns the type of image as I16 even if the image is originally saved as U16.</td>
</tr>
<tr>
<td>521602</td>
<td>The IMAQ Compare VI average operation saturates unsigned 16-bit image values to 32768 instead of 65536.</td>
</tr>
<tr>
<td>534929</td>
<td>LabVIEW crashes when calling the IMAQ Match Pattern 4 VI when the Contour Type Input is set to No Selection.</td>
</tr>
<tr>
<td>543648</td>
<td>OCR training with Background Correction method does not learn segmented characters properly.</td>
</tr>
<tr>
<td>534929</td>
<td>Vision Assistant FPGA code generation: Japanese names for the Project, Host VI, or FPGA VI corrupt the project so that it cannot be opened.</td>
</tr>
<tr>
<td>546058</td>
<td>In Vision Assistant, you cannot save scripts that modify certain AVI files.</td>
</tr>
<tr>
<td>534929</td>
<td>Vision Assistant Pattern Matching step advanced options are not displayed correctly.</td>
</tr>
<tr>
<td>561810</td>
<td>In Vision Assistant, opening a script with a Flat Field Correction step configured for Online Correction falsely generates an error dialog even though the script can still run.</td>
</tr>
<tr>
<td>567565</td>
<td>In Vision Assistant, batch processing multiple images could result in output steps not matching the input steps.</td>
</tr>
</tbody>
</table>

Installation Instructions

Installing from the LabVIEW Platform DVDs

If you purchased LabVIEW, you can install all of your LabVIEW products—including the NI Vision Development Module—using the LabVIEW Platform DVDs.

To request additional LabVIEW Platform DVDs, refer to the National Instruments Web site.

Installing from the NI Vision Development Module Installation Media

Complete the following steps to install the NI Vision Development Module from the NI Vision Development Module installation media:

1. Log on as an administrator or as a user with administrator privileges.
2. Insert the NI Vision Development Module installation media.
3. If you do not have autorun enabled, double-click autorun.exe. If you have autorun enabled, autorun.exe runs automatically.
4. Follow the onscreen instructions.
Installing from an NI Software Suite or NI Product Bundle

If you purchased this product with an NI Software Suite or NI Product Bundle, use the installation media that shipped with your purchase to install this product.

How to Activate the NI Vision License

When you run an NI Vision application for the first time, it prompts you to activate a license for the product. If you do not activate a valid license, the NI Vision application will run in Evaluation Mode and continue to prompt you to activate a license on each subsequent launch.

Complete the following steps to activate the NI Vision license through an Internet connection.

1. Run the product you want to license.
2. Click Yes when prompted to interactively activate your product.
3. Ensure that Automatically activate through a secure Internet connection is selected, and click Next.
4. Enter the product serial number, and click Next.
5. Enter your registration information, and click Next.

Tip: Enter your email address to receive a copy of your activation code for your records.

Deploying Vision Applications

Deployment refers to developing an application so that it can be distributed, or deployed, on a different computer than the one on which the application was developed. The NI Vision Development Module provides everything you need to deploy NI Vision applications to target computers. The NI Vision Development Module provides the following options:

- The ability to create NI Vision Runtime installers, which integrate with the LabVIEW Application Builder, applications built in LabWindows/CVI, or a custom installer.
- The ability to install the NI Vision Runtime directly from the NI Vision Development Module installation media.
- One NI Vision Runtime License, which allows you to install a custom application on a single machine.

The NI Vision Development Module installer contains the runtime installation for NI Vision. The runtime installer is installed at <Vision>\Run-Time\Engine, where <Vision> is the location to which the NI Vision Development Module is installed. Visit the ni.com to download software upgrades for NI Vision and the NI Vision Runtime installers.

Purchasing NI Vision Deployment Licenses

You must purchase an NI Vision Runtime License (part number 778044-03) for each target machine onto which you want to install your custom NI Vision application, even if you install the NI Vision Runtime directly from the NI Vision Development Module installation media. The NI Vision Development Module ships with one runtime license. Contact a National Instruments sales representative or visit ni.com to purchase additional runtime licenses.

Note: Additional NI Vision Runtime licenses do not include installation media. To install additional licenses, use the original NI Vision Development Module installation media and the serial number provided by National Instruments.

Using the NI Vision Runtime

You can call the NI Vision Runtime installer from the application installer. If you create the application installer with the LabVIEW Application Builder or with LabWindows/CVI, you can direct the installer to call the NI Vision Runtime installer.

Refer to the LabVIEW Help for more information about the LabVIEW Application Builder. Refer to the NI LabWindows/CVI Help for more information about building and distributing LabWindows/CVI applications.

You can also direct a custom application installer to call the NI Vision Runtime installer. This may be useful if you are creating an application for requestors created in other development environments. Refer to the documentation that came with the installer software to learn how to call executables from the custom installer. If you are using a custom installer, call the NI Vision Runtime installer at the end of the installation procedure because the installer may require the system to be restarted.

To call the NI Vision Runtime installer silently (non-interactively), you must add /g/AcceptLicenses=yes as command line arguments. For example, enter <Vision>\Run-Time\Engine\Vision\visionrte.exe /g <AcceptLicenses=Yes, where <Vision> is the location to which NI Vision is installed, and <version> is the version number of the NI Vision Runtime installed. Refer to the Automating the Installation of NI Products section for more information on how to change the level of interactivity of the installer or whether it automatically initializes a system restart.

Distributing LabVIEW Applications

The NI Vision Runtime installer does not install LabVIEW VIs. If you use the LabVIEW Application Builder to create an application (EXE) or dynamic link library (DLL), the Application Builder automatically includes the VIs used by the application. If you distribute a VI, you must include all subVIs that comprise the top-level VI. You must include the appropriate LabVIEW Runtime as part of the installation.

Refer to the LabVIEW Help for more information about viewing the hierarchy of VIs and for more information about using the LabVIEW Runtime.

Distributing LabWindows/CVI Applications

In addition to including the NI Vision Runtime with the installer, you must include the appropriate LabWindows/CVI Runtime. Refer to the LabVIEW Help for more information about creating an executable, creating a dynamic link library, and distributing applications.

Automating the Installation of NI Products

You can automate the installation of most NI products using command-line arguments to suppress some or all of the installer user interface and dialog boxes. However, starting with the August 2012 releases (products using NI Installers version 3.1 or later), you may need to perform additional steps before or during a silent installation of NI software.

If the NI product you are installing uses Microsoft .NET 4.0, the .NET installer may run before any NI software installs and may require a reboot before the installation of NI software begins. To avoid a .NET reboot, install .NET 4.0 separately before you install NI software.

For more information, refer to the following KnowledgeBase articles:

- For more information on silent installations of individual NI products, refer to KB 4CJD3P8M, Automating the Installation of a Single Installer.
- For more information on silent installations of suited NI products, such as NI Developer Suite, refer to KB 4GGGDQH0, Automating the Installation of a Suited Installer.
- To determine what version of NI Installers your product contains, refer to KB 4CJDR18M, How Can I Determine the Type and Version of My National Instruments Installer?.

Known Issues

You can access the software and documentation known issues list online. Refer to the National Instruments Web site for an up-to-date list of known issues in the NI Vision Development Module.

National Instruments is aware of the following issues you may encounter while using NI Vision Development Module:

- When an FPGA target is active in a LabVIEW project, the Vision Assistant executable cannot generate code for a non-FPGA LabVIEW target into that same instance of LabVIEW.
- When zoom factors above 30 are used, the Image Display Control on NI Linux Real-Time targets leaves black-colored border space.
- The snapshot property node for the Image Display Control on NI Linux Real-Time targets returns an error even though the control is functioning properly. This issue is present only when the target is connected to the host.
- The Image Display Control on NI Linux Real-Time targets may not work properly when an image is set using a property node value and the target is connected to the host. The property node value works properly when the target is disconnected from the host.
- Vision FPGA VIs may be broken when opened on one target after being used on another target. You can fix the broken VI by forcing LabVIEW to recompile it by pressing <Ctrl> + <Shift> + Run Button.
- Vision FPGA Filter VIs with a mask using a 9x9 kernel support image widths up to 2,000 pixels.
- The IMG FPGA GrayMorphology Dilation 5x5 8bits:V1 left border will give incorrect values on Kintex-based NI FPGA targets.
• The AVI2 VIs do not support writing extra data to AVIs.
• Japanese and Simplified Chinese for text overlays are not supported on NI Linux Real-Time targets.
• The Calibration Axis is not set properly in the Calibration Training Interface, resulting in wrong real-world coordinates, when the Calibration Type is set to Point Coordinate Calibration and the Implicit Calibration Axis option is deselected.
• The IMAQ Read QR Code VI may hang when the QR Code Cell Size has a minimum size of 2 or less. Setting the minimum size to 3 or higher will prevent this issue.
• The IMAQ Read Data Matrix Barcode 3 VI may hang on some 116 images.
• Zooming out on a large 32-bit image in the Image Display Control in LabVIEW will cause the image to black out. Only the displayed image is modified. The image itself is not modified.
• To store error statistics on corrected images, you must run the IMAQ Get Calibration Info2 VI before correcting the calibration template image. The Return Error Information input must be set to TRUE.
• Vision Assistant cannot generate C code if a double-byte character exists in the path to Vision Assistant or in the destination path for the generated code.
• Some Vision Development Module .NET examples only work if Measurement Studio 6.0 is later is installed.
• The Visual Basic .NET Label example does not compile.
• There is no 64-bit Vision API for .NET.
• Installing the Vision Development Module on a Windows Vista 64-bit computer where Visual Studio 2005 has been recently installed causes compilation warnings.
• On some systems, the Vision Development Module cannot open two of the installed AVI files, SideCrash1.avi and SideCrash2.avi, when running as a 64-bit application.
• The IMAQ Overlay Multiple Lines 2 VI returns an error when Fill is the selected Drawing Mode.
• The IMQ Edge Tool 3 VI changes the position of edges found when image was calibrated with point coordinates calibration.

Documentation and Examples

Documentation and examples are installed onto your hard drive with the NI Vision Development Module. To view the documentation, select Start>All Programs>National Instruments>Vision>Documentation>Vision Documentation, or navigate to <Users>\Public\Public Documents\National Instruments\Vision\Documentation.

Refer to the National Instruments Product Manuals Library at ni.com/manuals for the most recent versions of product documentation.

The following sections describe the documents available for each application development environment and where to find examples.

- NI Vision Concepts Help—Describes the basic concepts of image analysis, image processing, and machine vision. This document also contains in-depth discussions about imaging functions for advanced users.

NI Vision for LabVIEW

NI Vision for LabVIEW Help—This document contains reference information about NI Vision VIs and details about how to use NI Vision with LabVIEW. It describes how to create machine vision and image processing applications in LabVIEW. It also describes how to create a real-time vision application using NI Vision and the LabVIEW Real-Time Module, and how to use the Vision FPGA VIs with an FPGA target and the LabVIEW FPGA Module. You can access this help in LabVIEW by selecting Help=NI Vision for LabVIEW Help.

NI Vision for LabVIEW Examples—Illustrates common applications you can create with NI Vision. In LabVIEW, select Help=Find Examples. Click the Help button in the NI Example Finder to display the NI Example Finder Help. NI Vision examples for LabVIEW are installed to <Users>\Documents\National Instruments\Vision\Examples\NI Vision FPGA, where <LABVIEW> is the location LabVIEW is installed.

NI Vision for LabWindows/CVI

• NI Vision C Support Help—Contains reference information about NI Vision C functions.
• Function panel help within LabWindows/CVI—Allows you to right-click within each Vision function to access help for that function, context, function class, and function library. Function panels are installed at National Instruments\Shared\CVI\bin\NIVision.lfp.
• NI Vision LabWindows/CVI example programs are installed at <Users>\Public\Public Documents\National Instruments\CVI\examples\Vision.

NI Vision for Eclipse and other Text-based Development Environments

• NI Vision C Support Help—Contains reference information about NI Vision C functions.
• Getting Started with C/C++ Development Tools for NI Linux Real-Time, Eclipse Edition with the NI Vision Development Module and NI-IMAQdx—Describes how to use the C/C++ Development Tools for NI Linux Real-Time, Eclipse Edition to develop an example C application using the NI Vision Development Module API and/or NI-IMAQdx, and deploy it on a Linux remote target. This tutorial outlines the basic steps required to build and deploy an example application.

• To view text-based example programs, select Start=All Programs>National Instruments>Vision>Examples>Vision Examples, or navigate to <Users>\Public\Public Documents\National Instruments\Vision\Examples.

NI Vision Assistant

• To access Vision Assistant documentation from the Start menu, select Start=All Programs>National Instruments>Vision>Documentation>Vision Assistant Documentation, or navigate to <Users>\Public\Public Documents\National Instruments\Vision Assistant\Documentation.
• To access Vision Assistant examples from the Start menu, select Start=All Programs>National Instruments>Vision>Examples>Vision Assistant Examples, or navigate to <Users>\Public\Public Documents\National Instruments\Vision Assistant\Examples.
• NI Vision Assistant Tutorial—Describes the Vision Assistant software interface and guides you through creating easy machine vision processing and machine vision applications.
• NI Vision Assistant Help—Contains descriptions of Vision Assistant features and functions and provides instructions for using them. In Vision Assistant, select Help=Online Help.
• NI Classification Training Interface Help—Contains information about how to use the NI Classification Training Interface to classify binary samples. In the NI Classification Training Interface, select Help=Online Help.
• NI Color Classification Training Interface Help—Contains information about how to use the NI Color Classification Training Interface to classify color samples. In the NI Color Classification Training Interface, select Help=Online Help.
• NI OCR Training Interface Help—Contains information about how to use the NI OCR Training Interface to learn characters, save character sets, and verify characters by comparing them to a reference character. In the NI OCR Training Interface, select Help=Online Help.
• NI Texture Training Interface Help—Contains information about how to use the NI Texture Training Interface to train a texture classifier file for use in texture defect detection applications. In the NI Texture Training Interface, select Help=Online Help.
• NI Calibration Training Help—Contains information about how to use the NI Calibration Training Interface to select and create a calibration for use in machine vision applications. In the NI Calibration Training Interface, select Help=Online Help.
• NI Vision Template Editor Help—Contains information about how to use the NI Vision Template Editor to learn and edit template images that you can use with pattern matching, geometric matching, and golden template comparison functions. In the NI Vision Template Editor, select Help=Online Help.
• NI Flat Field Creation Wizard Help—Contains information about how to use the NI Flat Field Creation Wizard to create a dark or bright field image and perform flat field correction in a machine vision application. In the NI Flat Field Creation Wizard, select Help=Online Help.

Using NI Software with Microsoft Windows 10

Microsoft Windows 10 is the latest version of the Windows operating system and features significant changes compared to previous versions. Windows 10 introduces several new capabilities and also combines features from both Windows 7 and Windows 8. For more information about NI support for Windows 10, visit ni.com/windows10.
Using NI Software with Microsoft Windows 8.1

When you install NI software on Microsoft Windows 8.1, you will notice a few additional tiles in the Apps view, including shortcuts to NI application software products such as NI LabVIEW, Measurement & Automation Explorer (NI MAX), and NI Launcher.

Using NI Launcher

NI Launcher helps you find and launch installed NI products. It provides you with a method of finding NI products similar to the Start menu in previous versions of Microsoft Windows. To use NI Launcher, click the NI Launcher tile in the Apps view. NI Launcher launches the desktop and opens a menu containing a list of NI products. Click any NI product to launch it.

Note: NI MAX does not appear as a desktop shortcut when installed on Microsoft Windows 8.1. You can launch NI MAX either from the Apps view or from within NI Launcher.

Pinning Frequently Used Applications

For convenience, you can pin your most-used NI applications, such as MAX, to either the Start screen or the Taskbar on the desktop, as necessary:

<table>
<thead>
<tr>
<th>Current Application</th>
<th>Icon Location</th>
<th>Pin to Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows 8.1 Desktop</td>
<td>Desktop Taskbar</td>
<td>Right-click application and select Pin to Taskbar</td>
</tr>
<tr>
<td>Windows 8.1 Desktop</td>
<td>Start screen Taskbar</td>
<td>Right-click application and select Pin to Start</td>
</tr>
<tr>
<td>Windows 8.1 Start screen</td>
<td>Desktop Taskbar</td>
<td>Right-click application and select Pin to Taskbar from the menu bar on the bottom of the screen</td>
</tr>
</tbody>
</table>

Finding All Programs

If you want to find a particular application or related files, such as documentation files, from the Start screen, you can access all installed files from the Apps view. To get to the Apps view, click the down arrow on the bottom left of the screen.

For more information about NI support for Windows 8.1, visit ni.com/windows8.


NI Vision Development Module will drop support for Microsoft Windows Vista, Windows XP, and Windows Server 2003 as of July 1, 2016. Versions of NI Vision Development Module that ship after July 1, 2016 will not install or run on Windows Vista, Windows XP, or Windows Server 2003. For detailed information about NI application software product life cycles, visit ni.com/info and enter one of the following Info Codes:

<table>
<thead>
<tr>
<th>Product</th>
<th>Info Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>NI LabVIEW</td>
<td>lifecycle</td>
</tr>
<tr>
<td>NI LabWindows\CVI</td>
<td>cvi_lifecycle</td>
</tr>
<tr>
<td>NI Measurement Studio</td>
<td>mstudiolifecycle</td>
</tr>
<tr>
<td>NI TestStand</td>
<td>csop</td>
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<tr>
<td>NI DIAdem</td>
<td>csop</td>
</tr>
<tr>
<td>NI SignalExpress</td>
<td>selxp</td>
</tr>
<tr>
<td>NI VeriStand</td>
<td>nivslicefcycle</td>
</tr>
</tbody>
</table>

Legal Information

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You can find end-user license agreements (EULAs) and third-party legal notices in the following locations after installation:

- Notices are located in the <National Instruments>\Legal Information and <National Instruments>\Legal Information directories.
- EULAs are located in the <National Instruments>\Shared\MDF\Legal\license directory.
- Review <National Instruments>\Legal Information.txt for information on including legal information in installers built with NI products.

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