

# VISION 6.1 DEVELOPMENT MODULE FOR LABVIEW™ RELEASE NOTES

This document outlines the system requirements, installation procedures, software components, and new functionality of the Vision 6.1 Development Module for LabVIEW. This document also includes descriptions of the documentation included with the product.

## System Requirements

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Your development computer must meet the following minimum system requirements to run the Vision 6.1 Development Module for LabVIEW:

- Windows 2000/NT 4.0/XP/Me/9x
- At least 233 MHz Pentium-class MMX processor
- 800 × 600 (or higher) resolution video adapter, using at least 16-bit color
- Minimum of 64 MB RAM (128 MB recommended)
- Minimum of 50 MB of free hard disk space



**Note** If you want to take advantage of the LabVIEW Real-Time support, your remote system must meet additional system requirements. Refer to your *IMAQ Vision for LabVIEW Real-Time User Manual* for more information about remote system requirements.

## Installation Instructions

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Follow these instructions to install the Vision 6.1 Development Module for LabVIEW on your computer:

1. Insert the Vision 6.1 Development Module for LabVIEW installation CD.
2. If you do not have autorun enabled, double-click on `setup.exe`. If you have autorun enabled, `setup.exe` runs automatically.
3. Follow the instructions on your screen.

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# About Vision 6.1 Development Module for LabVIEW

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The Vision 6.1 Development Module for LabVIEW is for engineers and scientists who are developing machine vision and scientific imaging applications. The development module includes IMAQ Vision Builder 6.1—an interactive environment for developers who need to quickly prototype vision applications without programming—and IMAQ Vision 6.1 for LabVIEW—a library of powerful functions for image processing. In addition, the development module includes the latest version of NI-IMAQ, National Instruments' driver software for controlling IMAQ hardware products.

The Vision 6.1 Development Module for LabVIEW adds the following new functionality to the IMAQ Vision library: support for LabVIEW Real-Time, enhanced pattern matching functions, and new overlay functionality.

## Support for LabVIEW Real-Time

The Vision 6.1 Development Module for LabVIEW introduces LabVIEW Real-Time (RT) support for IMAQ Vision and NI-IMAQ. Use LabVIEW RT support to create a machine vision application for a real-time, deterministic, embedded target. For information about using IMAQ Vision with LabVIEW RT, refer to your *IMAQ Vision for LabVIEW Real-Time User Manual*.



**Note** In order to take advantage of the LabVIEW RT features in IMAQ Vision, IMAQ Vision Builder, and NI-IMAQ, you must purchase and install LabVIEW 6.1 or higher and LabVIEW Real-Time Module 6.1 or higher.

## Pattern Matching Enhancements

The Vision 6.1 Development Module for LabVIEW contains updated pattern matching VIs that perform with improved accuracy. The development module also contains three new pattern matching VIs—IMAQ Advanced Setup Learn Pattern 2, IMAQ Advanced Setup Match Pattern 2, and IMAQ Refine Matches—that give you low-level control of the pattern matching algorithm.

## Overlay Enhancements

The new IMAQ Merge Overlay VI merges a non-destructive overlay into an image, making the overlay part of the image content. This feature allows you to view and print the image with its overlay information from any third-party imaging software.

# Related Documentation

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In addition to these release notes, your Vision 6.1 Development Module for LabVIEW documentation set consists of the following manuals and help files.

## IMAQ Vision Documentation

- *IMAQ Vision Concepts Manual* contains vision conceptual information. Read this document if you are new to vision.
- *IMAQ Vision for LabVIEW User Manual* contains information on how to build your vision applications using IMAQ Vision for LabVIEW.
- The IMAQ Vision for LabVIEW online help (from inside the LabVIEW environment: **Help»IMAQ Vision**) contains reference information about IMAQ Vision VIs.
- The IMAQ Vision examples help file (from inside the LabVIEW environment: **Help»Search Vision Examples**) contains descriptions and links to all installed IMAQ Vision examples.
- The `readme.txt` file (located on your Vision 6.1 Development Module for LabVIEW installation CD) contains last-minute information concerning this release of the Vision 6.1 Development Module for LabVIEW.

## IMAQ Vision Builder Documentation

- *IMAQ Vision Builder Tutorial* contains step-by-step instructions for prototyping an IMAQ Vision application with IMAQ Vision Builder.
- The IMAQ Vision Builder online help (from inside the IMAQ Vision Builder environment: **Help»Online Help**) details each of the IMAQ Vision functions and how to use them in IMAQ Vision Builder.

## IMAQ Vision for LabVIEW RT Documentation

- *IMAQ Vision for LabVIEW Real-Time User Manual* is a new manual that contains installation, configuration, acquisition, and programming information specific to IMAQ Vision for LabVIEW Real-Time.

## NI-IMAQ Documentation

- *NI-IMAQ User Manual* provides information about how to use NI-IMAQ and IMAQ image acquisition devices to capture images for processing.
- The NI-IMAQ VI Reference online help (from inside the LabVIEW environment: **Help»NI-IMAQ VIs**) contains reference information about NI-IMAQ VIs.
- The NI-IMAQ Search Examples help file (from the LabVIEW launch screen, click **Search Examples** and then navigate to **Search Examples»Other NI Products»Image Acquisition (IMAQ)**) contains descriptions and links to all installed NI-IMAQ examples.

