



What Is the Vision Development Module?

You can use the Vision Development Module to configure cameras, customize image analysis, and generate results for production and validation tests.

Explore Vision Development Module

The Vision Development Module helps you develop software for machine vision and image processing applications. You can use it with the LabVIEW and LabVIEW NXG graphical programming environment, C, C++, and C# for Windows systems and LabVIEW for real-time systems. Choose from hundreds of image processing algorithms including filters, morphologies, pattern matching, and classification. The module includes IP for targeting both processors and FPGAs and features model importers for performing inference using deep learning models developed in TensorFlow.

Vision Development Module Overview

Use the Vision Development Module to take an open and adaptable approach to machine vision software development. You can choose the right hardware for your application and configure cameras, acquire images, and analyze inspection results to build fully customized machine vision systems.

What Can You Do With Vision Development Module?

The Vision Development Module helps you use the power of graphical programming to meet a variety of development and deployment challenges in machine vision applications. Explore the project below that most closely aligns to your application to learn more.

Inspect and Measure Products

Develop product inspections and metrologies with quick camera and hardware integration and configurable algorithm engineering tools.

Perform High-Speed Image Processing on FPGAs

Achieve high production throughput and deterministic control with the FPGA image processing IP included in the Vision Development Module.

Deploy Deep Learning Models to Machine Vision Systems

Solve difficult machine vision challenges by deploying deep learning models.

Software Benefits

Standard Service Program

Every purchase includes a renewable, one-year membership to the Standard Service Program (SSP) for software, which offers the following:

- Live phone and email technical support from local, degreed engineers
- Automatic version updates to the Vision Development Module
- 24x7 access to selected online training and virtual demonstrations
- Access to historical versions in case you need to share code with your team

Don't Want to Program?

Vision Builder for Automated Inspection is application software you can use to interface with cameras, customize image analysis, and generate inspection results all without programming. It helps you rapidly build machine vision IP without sacrificing the ability to customize when necessary by integrating IP written using LabVIEW.

Which Vision Development License Is Right for My Project?

	Vision Development Module Development License	Vision Development Module Deployment License	Vision Development Module Debug Deployment License
Key differentiator	Develop Machine Vision Software in LabVIEW, LabVIEW NXG, C, C++, and C#	Deploy executables that use Vision Development Module	Debug executables that use Vision Development Module
Vision Acquisition Software Included	✓	✓	-
Standard Service Program			
One year of technical support	✓	-	✓
Ability to upgrade deployed systems to the latest version for free	-	✓	-
One year of development software upgrades	✓	✓	✓
Develop Vision Software			
Integrated development environment	✓	-	-
Example programs	✓	-	-
Built-in Vision Assistant algorithm engineering tool	✓	-	-
Development of image processing and machine vision algorithms	✓	-	-
Run Vision Software			
Ability to run executables that include vision functions	✓	✓	✓
Build executables with Vision Development Module functions	✓	-	-
Debug Vision Application Software			
Vision code debugging	✓	-	✓
Interactive code running	✓	-	✓
Breakpoint setting	✓	-	✓
LabWindows™/CVI code debugging	✓	-	✓
Take Advantage of NI Hardware			
Licenses included with hardware purchases	-	Industrial Controllers and Smart Camera Devices	-

The mark LabWindows is used under a license from Microsoft Corporation. Windows is a registered trademark of Microsoft Corporation in the United States and other countries.

Part Number Table

Description	Part Number
Vision Development Module, Download	777859-35
Vision Development Module, with Media	777859-35WM
Vision DEV Module Run-Time License	778044-35
Vision DEV MOD Debug Deployment License	781154-35