



What Is LabWindows™/CVI?

LabWindows/CVI is an ANSI C software development environment with a comprehensive set of programming tools for creating test and measurement applications.

Explore LabWindows/CVI Features

The LabWindows/CVI ANSI C integrated programming environment helps you create custom engineering applications. You can use it to manage your project, edit and debug source code, build a user interface, and test code output and performance in one streamlined, tabbed workspace. LabWindows/CVI includes tools for advanced debugging, code documentation, and system deployment so you can integrate source code control, requirements, and data management systems. The software also makes it easier to quickly acquire data from GPIB, USB, serial, Ethernet, PXI, VXI, and FPGA instruments using the built-in instrument I/O libraries, built-in instrument drivers, or the two interactive measurement assistants. LabWindows/CVI users with an active Standard Service Program (SSP) membership are eligible to upgrade to the latest version LabWindows/CVI.

What Can I Do With LabWindows/CVI?

LabWindows/CVI provides an all in one work environment for ANSI C development to create test and measurement applications. Learn more about how LabWindows/CVI can be used in common applications below.

Develop Tests for Production ATE Systems

With LabWindows/CVI, you can create and deploy test applications by controlling virtually all your hardware and designing custom user interfaces to improve your development time.

Set Up Tests to Characterize Electronic Devices

With LabWindows/CVI, you can automate the validation of your devices to meet challenging time-to-market and performance requirements. Create flexible applications by taking advantage of seamless hardware integration, custom UI creation and in-depth hardware analysis libraries.

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 LabWindows/CVI
- 24x7 access to selected online training and virtual demonstrations
- Access to historical versions in case you need to share code with your team

How to buy LabWindows/CVI

Buy LabWindows/CVI for You

A single-seat license of LabWindows/CVI can be associated with an individual or to a specific computer ID.

Buy LabWindows/CVI for Your Team

The Volume License Program is designed for teams that need five or more licenses. It reduces the total cost of ownership by providing streamlined asset management to your organization

Buy LabWindows/CVI With Automated Test Software Suite

The Automated Test Software Suite is a collection of software for characterizing, validating, and testing electronic devices.

Need to Automate Your Test Sequencing?

LabWindows/CVI provides a complete ANSI C development environment for creating test and application code. NI recommends using TestStand with LabWindows/CVI to build, deploy, and manage your application code for automated test systems in less time.

TestStand Feature Highlights

- Customize and automate your tests with code modules written in any language
- Quickly report test results with native report generation and database connectivity
- Efficiently replicate and maintain test systems with the TestStand Deployment Utility and debugging tools

Related Products

LabWindows™/CVI™ Real-Time Module

The LabWindows/CVI Real-Time Module extends the LabWindows/CVI development environment to help you create reliable and deterministic applications that target dedicated real-time hardware.

Select Your LabWindows™/CVI Edition

	LabWindows/CVI Base	LabWindows/CVI Full
Key differentiators	<ul style="list-style-type: none"> • Recommended for desktop and real-time measurement applications • Includes device drivers for NI hardware and third-party instruments • Includes basic mathematics, signal processing, and debugging tools 	<ul style="list-style-type: none"> • Recommended for inline advanced mathematics, signal generation, and signal processing • Includes the Execution Profiler Toolkit and memory leak detection for test optimization • Includes SQL tools for database connectivity
Standard Service Program		
One year of technical support	✓	✓
One year of software upgrades	✓	✓
Access to 24/7 online training courses	✓	✓
Hardware Integration		
Acquiring data from NI hardware	✓	✓
Acquiring data from third-party hardware	✓	✓
IVI driver connectivity	✓	✓
DAQ Assistant	✓	✓
Instrument I/O Assistant	✓	✓
Deploying to real-time hardware	Requires add-on ¹	Requires add-on ¹
Deploying to FPGA hardware	Requires add-on ¹	Requires add-on ¹
Programming Capabilities		
Complete integrated development environment	✓	✓
User interface controls	✓	✓
Code debugging	✓	✓
Remote debugging	✓	✓
Optimizing compiler	✓	✓
LabWindows/CVI Execution Profiler Toolkit	✓	✓
Memory leak detection tool	-	✓
OpenMP library	-	✓

	LabWindows/CVI Base	LabWindows/CVI Full
Mathematics		
Standard math functions	✓	✓
Statistics library	✓	✓
Linear algebra	-	✓
Complex operations	-	✓
Curve fitting	-	✓
Interpolation and extrapolation	-	✓
Calculus	-	✓
Signal Analysis and Control		
PID control	✓	✓
Signal generation library	-	✓
Filtering library	-	✓
Windowing library	-	✓
Transforms	-	✓
Signal processing library	-	✓
Vision analysis	Requires add-on ¹	Requires add-on ¹
Read, Write, and Share Data		
Read and write to file	✓	✓
Network streaming library	✓	✓
Network variable API	✓	✓
3D graphing	✓	✓
XML capabilities	✓	✓
COM server	✓	✓
TDMS data storage	✓	✓
LabWindows/CVI SQL Toolkit	-	✓
Software Interoperability and Code Integration		
.NET support	✓	✓
ActiveX capabilities	✓	✓
TestStand integration	✓	✓
Interface to Win32 API	-	✓
Internet connectivity library	-	✓
Code Deployment and Distribution		
Installer and patch builder	✓	✓
Build executables	✓	✓
Build packages	✓	✓
Deploy code to Linux systems	Requires add-on ¹	Requires add-on ¹

¹Add-ons provide all functionality for a feature, but you must purchase them separately.

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Part Number Table

Description	Part Number
LabWindows/CVI Full Development System	776800-35
LabWindows/CVI Full Dev System. Includes Standard Service for Software, with Media	776800-35WM
LabWindows/CVI Base Development System	776801-35
LabWindows/CVI Base Dev System. Includes Standard Service for Software, with Media	776801-35WM
LabWindows/CVI 2012 SP1 Full Development System, Legacy Media	782200J-03