The Top 4 Benefits of LabVIEW

Discover how LabVIEW system design software can increase your productivity, future-proof your solution, integrate with your hardware, and provide learning paths to ensure your success when adopting LabVIEW for your measurement and test applications.
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WHY LabVIEW?

LabVIEW offers a single environment that integrates software and hardware to help you develop programs more efficiently. You can expect the following four data acquisition and return on investment benefits with NI’s problem-solving platform-based approach. This comprehensive approach combines the powerful LabVIEW software environment with flexible hardware and a strong ecosystem of users, partners, and complementary pieces of hardware and software that push the platform beyond its limits and increase your possibilities.

NI PLATFORM+ECOSYSTEM

**Community**
- 305,000+ Online Members
- 450+ Registered User Groups
- 9,000+ Code Examples

**Academic**
- 8,000+ Universities Worldwide

**Partners**
- 1,000+ Alliance Partners
- Industry-Leading Technology Partners

**Support**
- 700+ Field Engineers
- 700+ Support Engineers
- 50+ Worldwide Offices

**Add-Ons**
- 400+ Software Add-Ons
- 5M+ Tools Network Downloads

**Open Connectivity**
- 10,000+ Instrument and Device Drivers
- 1,000+ Sensor and Motor Drivers

Future-Proofed Technology

Since the first version of LabVIEW was released in 1986, the software environment has evolved and adapted to the new engineering challenges presented by technological advances. NI continues to invest in LabVIEW’s compatibility with new communication buses, protocols, and hardware to future-proof it for the test and measurement and embedded control markets.

Over the last 30 years, LabVIEW has become the standard software tool for measurement and instrument control.

“The modular instrument system architecture makes the system expandable as the product evolves over time. Using LabVIEW and modular instruments helped us focus solely on solving problems.”

Andreas Beckman, ADDQ Consulting
Increased Productivity

LabVIEW provides a flexible graphical development environment that reduces complexity and saves development and deployment time.

LabVIEW Helps Fewer Developers Do More

“Using LabVIEW software, we were able to complete the application in only 18 months with only two programmers, and with a significant number of intuitive graphics for both diagnostics and normal data acquisition.” Applied Technologies used LabVIEW to respond to the need for a new type of wind-profiler system capable of on-site operational support of an aerostat system. A team of only two programmers was able to design, build, and test this fully functional system. View the story.

LabVIEW Empowers All People to Be Software Developers

“Using NI products, we developed the prototype in nine months with only one physicist and one electro-optical engineer.” FEO Solutions used LabVIEW to develop a high-resolution, deep ultraviolet laser etching system that could produce highly complex and custom silicone intraocular lenses for implementation after cataract removal. This product gives patients a much better fit and therefore chance for vision after eye surgery. Did we mention that they developed this product with no traditional software developers? View the story.

“It took about one calendar year, which is less than half the time it would have taken with other tools.”

Dr. Amitava Ghosh, Nokia Networks
Hardware Integration and Third-Party Ecosystem

Today, engineers often rely on several vendors to build solutions for their applications. LabVIEW offers unrivaled hardware integration in a single environment, so you can optimize the hardware you already have, integrate the options from all those different vendors, and prepare confidently for change.

NI Hardware
- Hundreds of data acquisition devices and modular instruments
- Cameras
- Motion control
- Industrial devices

Third-Party Hardware
- Instrument Driver Network, which hosts free software drivers to communicate and control measurement instruments with:
  - 10,000+ instrument drivers
  - 350+ instrument vendors
  - 100+ instrument types
- Ability to communicate over any bus

“We found that the combination of LabVIEW and NI hardware was infinitely configurable to meet our needs, leading to rapid development, continuous improvements throughout the life cycle of the product, and, most importantly, a compact and simple controller architecture.”

Daniel Giroux, PBS Biotech Inc.

Learning Resources for Success With LabVIEW

NI supports your success with a variety of learning options including online training at no charge and virtual and classroom instruction led by NI and industry experts. The large LabVIEW developer community features local user groups and online forums where you can post questions and learn from content experts. Need more support? The LabVIEW ecosystem also includes a global network of NI Alliance Partners and consultants ready to help with your LabVIEW development projects.

“After only five days of LabVIEW Core, LabVIEW FPGA, and LabVIEW Real-Time training courses, we knew the LabVIEW environment was a great solution.”

Christian Épie, O’mos