




LabVIEW Core 3

LabVIEW Core 3 introduces you to structured practices to design, implement, document, and test LabVIEW applications. Focus on developing hierarchical applications that are scalable, readable, and maintainable. The processes and techniques covered in this course help reduce development time and improve application stability. By incorporating these design practices early in your development, you avoid unnecessary application redesign, increase VI reuse, and minimize maintenance costs.

 Classroom: 3 days

 On-Site: 3 days

 Virtual: four 4-hour sessions

 Online: self-paced

Coursework Goals

- Develop an application in an agile manner
- Use Project Explorer Window tools to improve file organization and resolve conflicts
- Use the Queued Message Handler to develop a multiloop application
- Use notifiers for one-to-many communication between parallel loops
- Develop a customized user interface prototype for initial usability testing
- Handle errors locally or globally depending on the severity of the error

Prerequisites

- LabVIEW Core 1 and 2 or equivalent experience

NI Products Used

- LabVIEW Professional Development System

Coursework Topics

Developing successful Applications

Learn various development techniques to create scalable, readable, and maintainable VIs. Discover the importance of following a software development process and how to develop code that satisfies project requirements.

Organizing the Project

Explore the tools and techniques for organizing and managing files in a LabVIEW project. Discover how to create and use project libraries, how to use various tools to learn more about each LabVIEW project file, and how to identify, resolve, and prevent cross-linking errors and file conflicts.

Creating an Application Architecture

Study techniques and programming practices for creating intuitive architectures for large applications. Learn the importance of testing your top-level architecture, the value of following established style guidelines, ways to implement user events and notifiers, and methods to use the queued message handler project template to begin developing a multiloop application.

Customizing the User interface

Improve the way you implement front panels in LabVIEW and learn how to use run-time menus, splitter bars, panes, subpanels, and tab controls to customize and extend your user interface. Also learn the value of creating a user interface prototype and techniques for improving the usability of your application.

Managing and Logging Errors

Examine several approaches to developing software that responds to different types of errors. Learn how to determine whether an error should be handled locally or globally and when you should log error data to disk for later analysis.

Creating modular Code

Learn how to use modular code in a large application and guidelines for making large applications more maintainable. Explore several approaches for testing code modules and integrating them into your top-level application architecture.

Suggested Next Courses:

- Object-Oriented Design and Programming in LabVIEW
- LabVIEW Performance
- LabVIEW Connectivity
- Managing Software Engineering in LabVIEW
- Advanced Architectures for LabVIEW

Validate Your Expertise With an NI Certification

Validate Your Expertise With an NI Certification:

CLD | Certified LabVIEW Developer Certification

Prerequisite: CLAD

Format: Application development


Duration: 4 hours


Location: NI branch office, training center, or on-site at your location


Recertification Process

Recertification Interval: 3 years

About Haliatech

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