BLACKBIRD FOR TRAINING

LabVIEW and TestStand

17 – 21 January 2027
Cairo (Egypt)



LabVIEW and TestStand

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Introduction

Welcome to the Advanced LabVIEW and TestStand Course, a comprehensive program designed to provide participants with a thorough, modern understanding of LabVIEW and TestStand. Covering the latest features and techniques, this course equips participants to develop advanced applications and automated test systems efficiently. Through hands-on exercises and real-world examples, participants will acquire essential skills to design, develop, and deploy sophisticated LabVIEW applications and TestStand test sequences, preparing them for excellence in LabVIEW development and TestStand automation.

Whether you're new to what is LabVIEW and what is TestStand, or looking to deepen your existing knowledge, this course provides the tools you need to excel. Participants will gain insights into LabVIEW certification and TestStand certification opportunities, enhancing their career prospects in the field of automated testing and development.

Course Objectives

By the end of this LabVIEW course and TestStand training, participants will:

- Acquire Advanced Knowledge of LabVIEW and TestStand Features and Capabilities: Gain a deep understanding of both tools' features and applications to tackle complex projects in LabVIEW development and TestStand automation.
- Understand Best Practices for LabVIEW and TestStand Development: Learn strategies for efficient LabVIEW programming and TestStand project management, reducing errors and enhancing productivity.
- Develop Proficiency in Designing and Implementing Complex LabVIEW Applications: Build scalable and modular architectures to meet large-scale project requirements.
- Gain Expertise in Integrating LabVIEW Applications with TestStand: Master the integration of LabVIEW functions into TestStand sequences for streamlined automation.
- Master the Creation of Automated Test Sequences Using TestStand: Understand how to create customized and automated TestStand sequences.
- Explore Advanced Debugging and Troubleshooting Techniques: Improve debugging skills in both LabVIEW and TestStand to ensure optimal system performance.
- Optimize LabVIEW and TestStand Performance for Large-Scale Systems: Implement strategies to maximize efficiency in LabVIEW and TestStand for robust and reliable applications.



Course Outlines

Day 1: Advanced LabVIEW Topics

- Introduction to advanced LabVIEW programming concepts
- Advanced data types and structures
- Advanced file I/O and data storage
- Debugging and profiling tools in LabVIEW
- User interface development and error-handling techniques

Day 2: LabVIEW Architectures and Design Patterns

- Overview of LabVIEW architectures and design patterns
- Modular programming and event-driven design
- LabVIEW project management and performance optimization
- Designing scalable LabVIEW applications

Day 3: LabVIEW and TestStand Integration

- Creating LabVIEW-based TestStand steps and sequences
- Configuring communication protocols between TestStand and LabVIEW
- Error-handling and report customization in TestStand
- Customizing TestStand interfaces with LabVIEW integration



Day 4: Advanced Topics in TestStand

- Developing complex TestStand sequences and code modules
- Customizing TestStand reports and result logging
- Advanced debugging techniques in TestStand
- TestStand deployment and maintenance practices

Day 5: Advanced Applications of LabVIEW and TestStand

- Real-time programming in LabVIEW
- Applications of LabVIEW and TestStand in industrial automation
- Exploring emerging trends in LabVIEW development and TestStand automation

Why Attend this Course: Wins & Losses!

- Gain advanced skills in LabVIEW development and TestStand automation, enhancing your career prospects.
- Prepare for LabVIEW certification and TestStand certification, validating your expertise in automated testing.
- Master the integration of LabVIEW applications with TestStand sequences for streamlined workflows.
- Learn best practices in LabVIEW and TestStand project management to improve efficiency and reduce errors.
- Explore basic LabVIEW projects and transition to complex applications with confidence.
- Stay ahead with insights into the benefits of LabVIEW and the latest features in TestStand.

Conclusion

This course is designed to refine participants' expertise in LabVIEW and TestStand development, with a focus on advanced integration techniques, automation, and performance optimization. With the training provided, participants will be well-prepared to develop and implement advanced applications using LabVIEW and TestStand, enhancing their skills and competitiveness in automated testing and development.

Join this advanced training to master the essentials of LabVIEW and TestStand, and gain an industry-leading advantage in automated testing and system development.

