Introduction to Unison (U2023 and beyond)

Flexible, Cost Optimized Test Solutions

Automotive

Mobility

IoT/IoV & Optoelectronics

Computing & Network

Industrial & Medical

Consumer

Course Description

This eLearning material provides a core set of basic principles for the Unison programming environment, and forms a strong foundation for future applications courses. On completion of the course, the student will be able to describe the components of Unison, understand the purpose and demonstrate a working knowledge of the various Unison Tools, be able to access the help documentation, add resources to an Adapter Board object, and be able to describe programming statements used in simple test examples. This is accomplished by a combination of multimedia presentations and interactive software demonstrations.

Course Outline

- Test System Hardware Overview
- Test Components (Objects) Overview
- Test Component Details
- Unison Test Language
- Unison APIs
- Using the Unison Help System

Course Length

- Self-paced – 5-7 hours typical depending on skill level

Prerequisites

- Three months test program experience

Recommended

- C or C++ programming
- Familiarity with Linux Operating System
- English - written and spoken

- **Next-gen test system for wide range of applications**
- **Scalable high-throughput architecture**
- **Flexible configurations and solutions**
- **Small form factor**
- **Air cooled architecture and instruments**
- **Compact low power technology**

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Course Modules

1 - Test System Hardware Overview

In this section of the course, the student selects the test system(s) to be studied. This test system specific content will focus on supported instruments and the infrastructure. The student may complete as many sections as desired if they are working on multiple system types. On completion of this module the student will be able to:

- Identify the main components of a Test System(s)
- Describe the purpose of each supported instrument
- Recognize how to display the system's hardware configuration

2 - Test Components (Objects) Overview

This module forms the foundation for more detailed content on the test components, covered in later units. On completion of this module the student will be able to:

- State the components (Objects) that make up a Unison test program
- Identify tools used to create the test program components (Objects)
- Recognize the recommended directory structure for a test program
- Demonstrate a working knowledge of how to start Unison (Launcher)
- Demonstrate a working knowledge of the Operator Tool by loading and executing a test program and enabling datalogging

3 - Test Component Details

This module provides detailed descriptions, with supporting interactive demonstrations of the core tools used in developing and supporting a test program. On completion of this module the student will be able to:

- Demonstrate a working knowledge of the PackageTool by creating an AdapterBoard Object
- Demonstrate a working knowledge of the FlowTool by creating a Flow Object
- Demonstrate a working knowledge of the BinTool by creating Bins and populating a Bin Spreadsheet
- Demonstrate a working knowledge of the TestTool by creating a Test Group Object
- Demonstrate a working knowledge of the SpecTool by creating and cloning a Spec and Mask Object
- Demonstrate a working knowledge of the LevelsTool by creating a Levels Object

4 - Unison Test Language

This module introduces the component files of a test program. The student will create Function Call Objects and libraries as part of the interactive demonstrations. On completion of this module the student will be able to:

- Identify the main test program file types
- Demonstrate a working knowledge of Unison Function Call Objects
- Demonstrate a working knowledge of UTLFunctions
- Demonstrate a working knowledge of Unison Applications Libraries by creating one
- State the benefits of Unison Structured Variables

5 - Unison APIs

This module introduces the main API statements and classes. The module will provide the information needed to include API statements in a program to extend the flexibility and power of the instruments beyond the standard Test Method and SureTest libraries. On completion of this module the student will be able to:

- Describe the most common API statements for VI and Digital instruments
- Recognize the different Unison API types

6 - Using the Unison Help System

Unison provides an extensive help system. In this module the student will become familiar with the structure of the help system, and how to navigate to those areas where instrument specific information can be found. On completion of this module the student will be able to:

- Demonstrate a working knowledge of launching the Unison Help System
- Demonstrate a working knowledge of finding information in the Unison Help System
- Generate a PDF version of a help doc

At the end of each module the student will be required to pass a test, achieving a score of 75% or more. The student is encouraged to take notes throughout the course, and repeat, or pause the presentation as needed.

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Who Should Attend

- Test program development and support engineers
- Test system maintenance engineers and technicians

Related Classes

- Unison Applications Programming

Course Viewing Requirements

To view the course, you must have:

- Browser supporting HTML5
- Audio-listening capabilities (such as a headset or speakers)
- Connection speed of at least 600 kbps

Course Cost

- Free of charge for all Cohu Semiconductor Tester Customers

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