

VL Unison Fundamentals

Flexible, Cost Optimized Test Solutions



Course Description

The Virtual Learning (VL) Unison Fundamentals training course orients the user with operating the Unison software and provides an understanding of the essential building blocks of test program development. This course reviews some of the essential tools used to develop, debug and execute a test program and it is a pre-requisite to attending any other virtual learning programming course.

This course provides a broad base of skills within the Unison programming environment and forms a strong foundation for future applications courses. Students must complete the online pre-course before attending this class. Login information for accessing the online training tutorials will be emailed to the student after registration is completed.

Course Outline

- Pre-course review
- Create a test program
- Unison GUI Tools

Course Structure

- Two days - including instructor-led lectures, program demonstrations and practical exercises

Prerequisites

- Completion of the Unison Applications Pre-course prior to attending the virtual classroom session
- Three months of test program experience

Recommended Skills

- C or C++ programming experience
- Familiarity with Unix and Linux operating systems
- English - written and spoken

Who Should Attend?

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

Required Infrastructure

- A computer with internet connection
- Microsoft Teams
- Unison Simulator U1909 or above revision



Automotive



Mobility



IoT/IoV & Optoelectronics



Computing & Network



Industrial & Medical



Consumer

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

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Daily Schedule

Each topic discussed will have an associated laboratory exercise to aid in understanding the training material.

Day 1

- Pre-course Review
- Datalogging
- Program Flow Execution
- Test Group Objects

Day 2

- UTL Functions and Function Call Objects
- Spec Mask Levels Objects
- Limitable Objects
- Debugging Tools

Topics Covered

This course covers the Unison user interface, including both the graphical tools and an introduction to the Unison Test Language programming instructions.

Course Modules

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1. Pre-Course Review

This section of the classroom content uses guided demonstrations to review the material covered in the pre-course. The purpose of this section is to refresh students' recollection and provide an opportunity for questions.

2. Create a Test Program

This reinforces the content of the pre-course by allowing the students to build the infrastructure of a test program. A series of practical exercises will build a test program using the tools described in the pre-course. Completing these exercises will reinforce an understanding of the elements of the Unison Test Language. In addition, the student will also be working with the various files used to create libraries.

On completion of these exercises the student will have demonstrated the ability to work with all the tools described in the pre-course, and the use and management of the different files in a Unison test program.

3. TestTool

The TestTool plays an important role in program development as it defines each test that is being executed in the test program. The student will be oriented with the multiple sections of this tools and its purpose.

- Spec Mask area
- Entry Objects area
- Test Blocks
- Exit Objects area
- Port Expressions

4. Programming Instructions

Understanding the various APIs used to program any instrument and system resources. In addition, the student will learn how to create, implement, and execute customized functions (test routines).

- UTL Functions
- Function Calls
- Generic Test Test Method

5. Unison Developmental Tools

Introduction of the commonly used Unison tools to develop, test and debug a test program.

- Spec Tool
- Limit Table

6. Unison Debugging Tools

This unit introduces the student to several debugging tools commonly used in Unison to debug a test program. Some features include:

- Setting Break points
- Pausing a test program
- Operating the GraphicalDebug Tool
- Using the Source Code Debugger functions