Cassini Basic Training

Syllabus

Roos Instruments

DESCRIPTION

Cassini Basic Training is a 5-day course offered at Roos Instruments headquarters in Santa Clara, CA for new users of the Cassini ATE System. The course provides test engineers and developers with the information necessary to create, debug, and maintain test programs on Cassini. The topics covered include the various instruments and features of the test system with an emphasis on fundamental production test and techniques for DC, digital, mixed signal, and microwave applications. Course material and example test cases combine conceptual understanding with application workflow on the various software tools for developing test programs on Cassini.

PREREQUISITES

Attendees should be personnel responsible for the development of device test programs, program debugging, and/or test program maintenance.

COURSE OBJECTIVES

The Basic training course will establish a fundamental understanding and familiarity with the test equipment and workflow of Cassini ATE systems. The emphasis is on establishing proficiency in the programming environment for creating, developing, and maintaining test applications. Upon completion of the course, attendees will:

1. Understand Cassini's hardware components, software tools, and test development workflow.
2. Be familiar with all Cassini instruments, their use/control, and how to configure a system for various device tests.
3. Utilize the software applications responsible for creating, developing, and maintaining test plans, fixture configurations, devices definitions, etc.
4. Gain an understanding of fundamental RF concepts and terminology
5. Apply RF measurement techniques for device test, debug, diagnostics, calibration, and verification in test applications.

ORGANIZATION

This is a highly-interactive, lecture and lab course with topics presented by Roos Instruments instructors and engineers. Attendees receive one-on-one instruction of concepts and implementations of the Cassini software tools and instruments. Hands-on lab modules provide practical applications of in-class concepts and measurement capabilities of the test system.

COURSE OUTLINE

Topic	Description
Orientation	• Welcome / Meet Roos Instruments Team • Tour of Factory & Engineering Facilities • Cassini: Philosophy of a Modular Test System
Hardware	• Instruments • Device Interface Environment: Fixtures • Infrastructure & System Controller • RF Modular System Configuration
Software Introduction	• Software Environment • Tester Control & User Interface • Synapse: Automated Test Optimizer • Guru: Data & Test Management System • Cassini Virtual Workstations & Test Simulation
Test Programming & Instrument Control	• System Instrument Configuration • Startup/Shutdown, Login/Logoff, Users, Permissions • Tester Environment Shortcuts • System Messaging
Building Measurements, Test Flow & Viewing Test Data	• Test Panel Workflow • Breakpoints: In-Situ Test Debugging • Plot Viewing & Data Worksheets • Test Repeats, Test Statistics
Device Interfacing: Fixtures, DIBs & Device Control	• Defining Fixture Paths & Control • Adding Switching & Measurement Resources • Device Definitions & Control • Protocol-Aware Device Interaction

Topic	Description
Data & Test Resource Management	• Tagging, Grouping, & Indexing Test Resources • Importing, Exporting & Searching Files & Resources • Testplan Revision Control & Recovery
Test Executive: Production Test Packaging	• Handler Control • Hard & Soft Binning Rules • Creating & Customizing STDF • Production Operator GUI Control
Help Guides & Troubleshooting	• Error & Warning Message Logs • Instrument Diagnostics & Verify • System Reboot & Recovery • Resolving Network Connectivity