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 students with the information necessary to create, debug, and maintain test programs on Cassini. The general topics covered include the various instruments and features of the test system with an emphasis on fundamental production test techniques for DC, digital, mixed signal and microwave applications. Course material and example test cases combine conceptual understanding with applying the various software tools and workflows for developing test programs on Cassini. Students receive one-on-one instruction and hands-on work with the test system software and hardware.

PREREQUISITES

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

Students must provide their own laptop to access interactive course material.

Windows XP/7/8, Mac OS X 10.7 or later, and Linux SUSE/Ubuntu/Red Hat are supported.
Please contact support@roos.com for questions regarding operating systems that are not listed above.

COURSE OBJECTIVES

The Basic training course will establish a fundamental understanding and familiarity with the test equipment and workflow of Cassini ATE systems. Students will become proficient in the programming environment for creating, developing, and maintaining test application. Upon completion of the course, students will be able to:

1. Understand Cassini's hardware components, software tools, and test development workflow.
2. Understanding of the available instruments for Cassini, their use/control, and how to configure a system for varioous device tests.
3. Utilize various software applications 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-lab course with topics presented by Roos Instruments instructors and engineers. Students receive one-on-one instruction of the concepts and implementations of the Cassini test system and software tools. Hands-on lab modules provide students with 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
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