

VectorCAST/C++ Unit Testing

Agenda VectorAcademy

Duration: 2 Days

Goal: Gain a basic understanding of Unit Testing and Code Coverage concepts

1 | Introduction

- > Terminology
- > Unit test concepts

2 | Building an Environment

- > Prerequisites
- > Whitebox testing
- > Environment building wizard

3 | Creating Test Cases

- > Specifying input & expected values
- > Data types
- > Data entry techniques
- > Compound tests

4 | Code Coverage

- > Coverage types
- > Coverage options

5 | Test Reports

- > Execution reports
- > Coverage reports
- > Management reports

6 | Regression Testing

- > Creating regression scripts
- > Script syntax
- > Configuration management
- > Change Based Testing
- > Command line execution

VectorCAST/C++ Unit Testing

Agenda VectorAcademy

7 | User Code

- > Parameter user code
- > Test Case user code
- > Environment user code
- > User code syntax
- > User globals
- > Harness architecture overview

8 | Working with Stubs

- > Creating stubs
- > Stub-by-function

9 | Testing C++ Classes

(C++ concepts will only be covered for those customers using C++)

- > Class instances and constructors
- > Inheritance & polymorphism
- > Testing in-line functions
- > Testing abstract classes
- > Testing templates

10 | Miscellaneous

(Due to time constraints, not all Miscellaneous topics may be covered at the discretion of the instructor)

- > MC/DC (The MC/DC Module will only be covered for those customers requesting so beforehand)
- > Managing include files
- > Control flow testing
- > Target testing concepts
- > Auto test case generation
- > Error scenarios
- > Creating tests from CSV data
- > Advanced stubbing techniques
- > Probe Points