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Overview

CaliberRM Essentials is a tools-oriented course that provides hands-on training for anyone using CaliberRM. The focus will be on using CaliberRM in the context of daily requirements analysis, including creating requirements, collaborating with other interested parties, and publishing approved requirement baselines. Throughout the course, you will use the CaliberRM user interface to accomplish these tasks and will discuss how to adapt the interface itself so that each analyst may have a personal view of the requirements information.

During the course, you will learn not only the CaliberRM product features but also how to utilize them to manage evolving requirement definitions. For example, you will learn how to extend requirement definitions with custom attributes and, if desired, reuse these customizations as part of a project or enterprise standard. You will also learn how to define dependency relationships between requirements and across development technologies as well as reporting capabilities so that you can extract critical development metrics from your requirements repository.

Upon completing this course, you will be able to:

- Understand the purpose of Requirements Management and how CaliberRM helps
- Work with CaliberRM on a day to day basis
- Employ CaliberRM in a team environment
- Use traceability within your requirements
- Work with baselines
- Use impact analysis techniques
- Understand CaliberRM integration with other tools
- Build reports and documents from your CaliberRM data

Prerequisites

- Working knowledge of the Windows operating system

Topics

- Module 1: Introduction to Caliber - Course introduction
- Module 2: Requirements Management Overview - Requirements Overview, Requirements Management, Problem - Traditional Requirements Approach, Solution - Repository Driven Approach, Results of Repository Driven Approach
- Module 3: Getting Started - Basic concepts of Requirements Management, Hands on experience with requirements creation and management processes using CaliberRM
- Module 4: Entering Requirements - Create/Save New Requirements, Add Details using Object Linking and Embedding (OLE), Copy/Cut/Paste/Delete/Move Requirements in Requirements Tree, Inspect requirements version and change history, Browse and Compare Requirements, Use Word to Create Requirements, Use Import from Word Wizard to create requirements using a Use Case Description.
- Module 5: Collaboration - Document and read group discussions at requirement and project level, assign groups/members responsible for requirement, register interest in a requirement change
- Module 6: Traceability - What is Traceability, determine traceability relationships and how to create them, trace to external artifacts, manage and understand traceability
- Module 7: Baselines and Impact Analysis - Manage and use baselines, create, initialize, maintain and lock baselines, setup electronic signatures, signatories and signature meanings, compare baselines, sign baselines and retrieve signature information.
- Module 8: Integrations with Caliber - Benefits of Integrations, Integrating with StarTeam, SCTM, HP Quality Center, LDAP/Active Directory, CaliberRM API - Traceability Add In
- Module 9: Working with CaliberRM - Working with Requirements Grid, Navigating Requirement Tree, Working with References, Working with Shared/Mapped Requirements
- Module 10: Reporting - Existing reports in CaliberRM, Fundamentals surrounding document factory, Reporting Next Steps
- Module 11: Summary - Course Overview and additional resources
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- Use impact analysis techniques
- Understand CaliberRM integration with other tools
- Build reports and documents from your CaliberRM data

Prerequisites

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- Module 8: Integrations with Caliber - Benefits of Integrations, Integrating with StarTeam, SCTM, HP Quality Center, LDAP/Active Directory, CaliberRM API - Traceability Add In
- Module 10: Reporting - Existing reports in CaliberRM, Fundamentals surrounding document factory, Reporting Next Steps
- Module 11: Summary - Course Overview and additional resources
Overview

Targeted towards Developers/Programmers, Technical Analysts, Architects and Technical Managers, this module of Modernization Workbench training shows you how to use Application Analyzer to provide comprehensive analysis on your legacy system, ranging from data flow of a data item to visually exploring the relationships between legacy objects.

Application Analyzer aids in your understanding, increasing not only knowledge of your system but also assisting in any redevelopment or enhancement efforts.

When this course is successfully completed, the student will be able to:

- Understand the relationships between repositories, workspaces and project
- Manage projects
- Diagrammatically and/or in report format, show relationships between legacy objects to facilitate application understanding
- Trace the flow of data to and from a data element across a legacy system
- Establish the potential impact on a system resulting from a change in a data item’s definition or usage

Topics

- Organization: Workspace, Project, Folders
- Navigation: Views, Context sensitive right click, sizing and movement of panes
- Documentation: User Guides and Online Help
- Configuration: Workspace, Project and User Options
- Repository Features: Type ahead and selection, Text Search, Adding Object information, Query Repository, Query Repository Workspace
- Reports: Inventory Reports, Reference Reports
- Application Analyzer Tools: Complexity, Diagrammer, Field Change, Batch Application Viewer
- Interactive Analysis: Views vary based on source type, but include the following: Animator, Callie (process flow diagram), Context, Flowchart (at paragraph level), Glossary, Objects and Source (sophisticated navigation capabilities)
- Advanced Topics: Effort (Estimation), Execution Path, Data View/Data Flow, Tag Manager, Impact Tool

Prerequisites

- Familiarity with a Windows environment
- Familiarity with the language(s) of the application being analyzed
- Familiarity with batch and/or online environment of the application being analyzed
INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - NUMBER OF DAYS: 1
MODERNIZATION WORKBENCH: APPLICATION ARCHITECT (ILT)

Overview

This module of Modernization Workbench training is directed at developers/programmers, analysts and architects. The training will show you how to prepare your Legacy files for analysis and how to use Application Architect to extract components from existing legacy source files. This module is designed to reduce redundancy, eliminate dead code and simplify existing code to aid in the ongoing maintenance and redevelopment or enhancement efforts.

When this course is successfully completed, the student will be able to:

- Understand the relationships between repositories, workspaces and project
- Manage projects
- Diagrammatically and/or in report format, show relationships between legacy objects to facilitate application understanding
- Trace the flow of data to and from a data element across a legacy system
- Establish the potential impact on a system resulting from a change in a data item’s definition or usage

Prerequisites

- Familiarity with a Windows environment
- Familiarity with the language(s) of the application being analyzed
- Familiarity with batch and/or online environment of the application being analyzed
- Modernization Workbench – Application Analyzer training

Topics

- Definition and purpose of componentization
- Structure-based componentization
- Domain-based componentization
- Computation-based componentization
- Event injection
- Dead Code elimination
- Entry Point isolation
- Traditional and Parameterized slicing
- Extraction and Conversion
Overview

This module of the Modernization Workbench training shows administrators responsible for Application Portfolio Management deployment how to use a real-world example Application Portfolio Management (APM) scenario to demonstrate the creation of content in Enterprise View. It is designed to be delivered in a workshop format, facilitated by an experienced Enterprise View practitioner and also contains formal technical education materials.

When this workshop is successfully completed, the student will be able to:

- Create Questions and Surveys
- Deliver and respond to Surveys
- Import external metrics
- Create charts and Dashboards to publish data collected

Topics

- Administrative tasks including managing users, tags etc
- Questions and Questionnaires
- Surveys
- Charts and Dashboards
- External data Import and Export
- Hands-on Workshop discussing customer deployment strategies

Prerequisites

- Familiarity with a Windows environment and using a GUI
- An understanding of the client APM requirements and a familiarity with the client business structure and supporting IT assets
- Knowledge of Industry Standard technical metrics
- Experience with Modernization Workbench deployment (useful but not essential)
INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - NUMBER OF DAYS: 4
SILKPERFORMER: MODELING AND IMPLEMENTING LOAD TESTS (ILT)

Overview

The course is for QA project leaders, testers, and engineers who need to develop a working knowledge of a load testing methodology and SilkPerformer.

When this course is successfully completed, the student will be able to:

- Identify components of an Internet infrastructure
- Create a load/performance test plan
- Use SilkPerformer to configure and record a test script
- Use SilkPerformer to compile and try a script
- Use the SilkPerformer TrueLog Explorer to troubleshoot scripts
- Randomize data to create realistic loads
- Modularize code through user-defined functions and transactions
- Create profiles to vary connection speeds and browser types
- Establish and confirm a baseline
- Explain and execute all six workload models
- Monitor agents
- Explore test results

Prerequisites

- Familiarity with a Windows environment
- Ability to navigate in an Internet or intranet environment
- Familiarity with scripting or structured programming
- Knowledge about basic concepts related to load testing, Web architecture and protocols
- Experience testing Web applications (manually)

Topics

- Module 1: Load Testing Fundamentals - Components of typical infrastructure that support e-commerce, benefits of load testing, load testing types, variations of load tests, models and differences between load tests
- Module 2: SilkPerformer Overview - SilkPerformer Basics, SilkPerformer UI, adding an application profile
- Module 3: Project Plan, Test Plan, and Project Outline - Site map for sample web application, test plan worksheet for sample web application
- Module 4: Modeling the Script - Launching recorder using Model Script and Record Menu, Recorder options and buttons, clearing cookies, modeling a script using recorder, Record log and True Log file definitions
- Module 5: Trying the Script - Try Script dialog, trial script with and without animation, Playback log file, output file, virtual user report file, TrueLog file, TrueLog Explorer’s Virtual User and Statistics Report
- Module 6: Customizing the Text - Using TrueLog Explorer, Configuring TrueLog Explorer for different user names, Configuring TrueLog Explorer
- Module 7: Finding and Confirming the Baseline - Add customer profiles, executing baseline reports and comparing results with virtual user report
- Module 8: Adjust Workload and Run Test - Adding Agent Pools, Adding Agents, Define/Examine agent health, computing responsiveness of agents, computing bandwidth
- Module 9: Exploring Results - Interpreting Results, Introduction of tools for results analysis, recognizing server-side bottlenecks and network bottlenecks
- Module 10: BDL Scripting - How to manually customize scripts using Benchmark Description Language
- Module 11: Data Types, Variables and Randomizing User Information - BDL datatypes, variables for random user information
- Module 12: Profile Settings, Looping and Parsing in BDL - host/port values, Active Profile settings, change speed and browser type, while loops, for loops, parsing headers, parsing HTML
Overview

The course is for QA project leaders, testers, and engineers who need to develop a working knowledge of a load testing methodology and SilkPerformer.

When this course is successfully completed, the student will be able to:

- Identify components of an Internet infrastructure
- Create a load/performance test plan
- Use SilkPerformer to configure and record a test script
- Use SilkPerformer to compile and try a script
- Use the SilkPerformer TrueLog Explorer to troubleshoot scripts
- Randomize data to create realistic loads
- Modularize code through user-defined functions and transactions
- Create profiles to vary connection speeds and browser types
- Establish and confirm a baseline
- Explain and execute all six workload models
- Monitor agents
- Explore tests results

Prerequisites

- Familiarity with a Windows environment
- Ability to navigate in an Internet or intranet environment
- Familiarity with scripting or structured programming
- Knowledge about basic concepts related to load testing, Web architecture and protocols
- Experience testing Web applications (manually)

Topics

- Module 1: Load Testing Fundamentals - Components of typical infrastructure that support e-commerce, benefits of load testing, load testing types, variations of load tests, models and differences between load tests
- Module 2: SilkPerformer Overview - SilkPerformer Basics, SilkPerformer UI, adding an application profile
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- Module 4: Modeling the Script - Launching recorder using Model Script and Record Menu, Recorder options and buttons, clearing cookies, modeling a script using recorder, Record log and True Log file definitions
- Module 5: Trying the Script - Try Script dialog, trial script with and without animation, Playback log file, output file, virtual user report file, TrueLog file, TrueLog Explorer's Virtual User and Statistics Report
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- Module 12: Profile Settings, Looping and Parsing in BDL - host/port values, Active Profile settings, change speed and browser type, while loops, for loops, parsing headers, parsing HTML
INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - NUMBER OF DAYS: 4
SILKPERFORMER: RESULTS ANALYSIS AND CORRELATION (ILT)

Overview

This course is valuable instruction for QA project leaders, testers, and engineers who need to build or improve their skills related to load test results analysis and interpretation. Results Analysis and Correlation (RAC) is the second course in a two-part series. The first course, Modeling and Implementing Load Tests (MIL), explains how to design, implement, and run load tests. RAC explains how to interpret load test results.

Leverage Performance Explorer’s functionality to your load testing advantage. Identify reliability and functionality risks. Interpret quantified data types. Analyze workload model results and pinpoint bottlenecks that can hamper your system infrastructure. Don’t miss this excellent opportunity to master your use of the Performance Explorer and the Server Analysis modules.

When you successfully complete this course, you should be able to:

- Use Performance Explorer and the Server Analysis Module (SAM)
- Determine whether a specific test meets the workload and bandwidth requirements stated in the business requirements and test plan
- Add custom reports to the overview report
- Apply the concepts of range and standard deviation to analyze the average
- Use the candles with sticks series type to confirm the consistency of the average
- Validate test results
- Combine and correlate client-side measures for effective results interpretation
- Remerge and interpret data from load tests using distributed agents
- Combine and correlate server-side measures for monitoring, graphing, and reporting
- Identify possible bottlenecks and performance issues of an e-business infrastructure
- Determine the root cause of a server failure during load test executions
- Review overview of SilkCentral Test Manager (SCTM) results integration

Prerequisites

- Successful completion of the MIL course (or 3+ months SilkPerformer working experience)
- Knowledge of basic concepts related to statistics
- Experience of implementing load tests using the current or previous versions of SilkPerformer

Topics

- Module 1: Reviewing the Basics
- Module 2: Using Performance Explorer
- Module 3: Understanding Quantified Data
- Module 4: Analyzing Client-Side Data
- Module 5: Analyzing Scenarios
- Module 6: Analyzing Server-Side Data
- Module 7: Understanding Root Cause Analysis
- Module 8: Results Analysis with SCTM Integration
- Module 9: Appendix
- Module 10: Review
Overview

This course is valuable instruction for QA project leaders, testers, and engineers who need to build or improve their skills related to load test results analysis and interpretation. Results Analysis and Correlation (RAC) is the second course in a two-part series. The first course, Modeling and Implementing Load Tests (MIL), explains how to design, implement, and run load tests. RAC explains how to interpret load test results.

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- Module 2: Using Performance Explorer
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- Module 4: Analyzing Client-Side Data
- Module 5: Analyzing Scenarios
- Module 6: Analyzing Server-Side Data
- Module 7: Understanding Root Cause Analysis
- Module 8: Results Analysis with SCTM Integration
- Module 9: Appendix
- Module 10: Review
INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - 3 DAYS
SILKTEST 2010: WORKBENCH (ILT)

Overview

SilkTest is a functional automated testing tool with different interfaces for you to create scripts against your application. This course focuses on the Workbench interface, and is designed to teach you how to use the Visual Testing component of SilkTest.

Upon completion of this course, you will:

- Be able to create a new Visual Test.
- Know how to edit the Visual Test to add validation and logic.
- Be able to create data driven Visual Tests.
- Know how to playback automated tests, and understand the results.

Prerequisites

- Experience working in a Windows environment, navigating a GUI environment, and using a web browser. Testing web or GUI application manually or with another automated test is preferred. Knowledge of testing techniques is helpful. Knowledge of structured programming and scripting techniques is helpful.

Topics

- Module 1: Introduction to SilkTest 2010 Workbench
- Module 2: Tour of the User Interface
- Module 3: Projects and Users
- Module 4: Assets
- Module 5: Recording a Visual Test in the Silk Workbench
- Module 6: Object Recognition
- Module 7: Decision and Repetition Logic
- Module 8: Verification Logic
- Module 9: Using Data in Visual Tests
- Module 10: Debugging Visual Tests and Error Handling Logic
- Module 11: Test Playback and Result Analysis
- Module 12: Introduction to .NET scripts
- Module 13: Database Maintenance and Configuration
- Module 14: Putting it all together
Overview

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Topics

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- Module 3: Projects and Users
- Module 4: Assets
- Module 5: Recording a Visual Test in the Silk Workbench
- Module 6: Object Recognition
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- Module 11: Test Playback and Result Analysis
- Module 12: Introduction to .NET scripts
- Module 13: Database Maintenance and Configuration
- Module 14: Putting it all together
INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - NUMBER OF DAYS: 4
SILKTTEST: VERIFICATION TESTING (ILT)

Overview

A great introduction to the true power of SilkTest designed for QA project leaders and testers, analysts, engineers and supervisors who need to develop a working knowledge of our testing methodology and want to capitalize on the benefits of utilizing the 4Test scripting language in their tests. Learn how to organize and manage your verification tests using the test planning tool. Use SilkTest recorders to transition from manual to automatic testing. Utilize SilkTest’s 4Test scripting language for verification testing and enhance your test case functionality using branching and looping statements. In just four days, you’ll be able to plan and validate tests against your application and report your test results to upper management.

By the end of this course, you will be able to:

- Identify components of the SilkTest infrastructure
- Understand the Testing Process
- Manage, create and update Projects and Plans
- Understand the concepts of the SilkTest object recognition
- Capture State of an application and capture window declarations
- Apply multiple property verification techniques
- Apply and develop scripting techniques from variables, functions to looping and branching.
- Apply data-driven test cases

Topics

- Module 1: Introduction to SilkTest
- Module 2: Projects and Plans
- Module 3: Capturing an Application
- Module 4: Application Verification
- Module 5: Reporting and Test Results
- Module 6: Revisiting the Workflow Bar
- Module 7: Beyond the Recorder
- Module 8: Looping and Branching Techniques
- Module 9: Creating and Using Functions
- Module 10: Data Driven Test Cases
- Module 11: Other Web Topics
- Module 12: Error Handling

Prerequisites

- Navigate a GUI environment
- Use a web browser
- Test web or GUI applications (manually)
- Use structured programming and scripting techniques
WEB BASED TRAINING - 31 DAYS ONLINE ACCESS
SILKTEST: VERIFICATION TESTING (WBT)

Overview

A great introduction to the true power of SilkTest designed for QA project leaders and testers, analysts, engineers and supervisors who need to develop a working knowledge of our testing methodology and want to capitalize on the benefits of utilizing the 4Test scripting language in their tests. Learn how to organize and manage your verification tests using the test planning tool. Use SilkTest recorders to transition from manual to automatic testing. Utilize SilkTest’s 4Test scripting language for verification testing and enhance your test case functionality using branching and looping statements. In just four days, you’ll be able to plan and validate tests against your application and report your test results to upper management.

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Prerequisites

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Topics

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- Module 2: Projects and Plans
- Module 3: Capturing an Application
- Module 4: Application Verification
- Module 5: Reporting and Test Results
- Module 6: Revisiting the Workflow Bar
- Module 7: Beyond the Recorder
- Module 8: Looping and Branching Techniques
- Module 9: Creating and Using Functions
- Module 10: Data Driven Test Cases
- Module 11: Other Web Topics
- Module 12: Error Handling
INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - NUMBER OF DAYS: 4
SILKTEST: ADVANCED TESTING (ILT)

Overview

For the serious SilkTest user who needs to tackle the object-oriented benefits of the 4Test language, QA developers and project leaders who want to maximize their automated testing abilities. Attend this course to maximize your use of the 4Test language.

By the end of this course you will receive step-by-step instruction how to:

- Declare new window classes
- Store test data within object declarations
- Write new methods and verification properties
- Test non-standard (custom) objects
- Develop an API for supporting custom objects
- Access unseen objects using low-level events
- Test Java and VB objects.

Prerequisites

- Experience with all standard SilkTest functionality covered within the Verification Testing with SilkTest course
- Ability to build a SilkTest frame including Windows Declarations, Application States and Invoke Methods
- Ability to manage test case logic flow through looping and branching constructs
- Ability to create 4Test functions that take arguments and return values

Topics

- Module 1: Course Concepts
- Module 2: Object-Oriented Techniques
- Module 3: Applying Object-Oriented Techniques to Classes
- Module 4: Introduction to Custom Objects
- Module 5: Defining a Custom Test API
- Module 6: Evaluating Available Resources
- Module 7: Developing the Test API
- Appendix A: Applying Object-Oriented Techniques to Window Declarations
- Appendix B: Additional Strategies for Working with Custom Objects
WEB BASED TRAINING - 31 DAYS ONLINE ACCESS
SILKTEST: ADVANCED TESTING (WBT)

Overview

For the serious SilkTest user who needs to tackle the object-oriented benefits of the 4Test language, QA developers and project leaders who want to maximize their automated testing abilities. Attend this course to maximize your use of the 4Test language.

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Prerequisites

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- Module 3: Applying Object-Oriented Techniques to Classes
- Module 4: Introduction to Custom Objects
- Module 5: Defining a Custom Test API
- Module 6: Evaluating Available Resources
- Module 7: Developing the Test API
- Appendix A: Applying Object-Oriented Techniques to Window Declarations
- Appendix B: Additional Strategies for Working with Custom Objects
Overview

The SilkCentral Test Manager Essentials course consists of instruction and hand-on exercises relating to how application quality can be managed using MicroFocus SilkCentral Test Manager. This course should be viewed in the context of acquiring a good grounding knowledge in using SilkCentral Test Manager to manage your QA assets, execute manual tests and review test results from an end-to-end perspective. This course focuses on the essentials and may be complemented with additional course modules that cover more advanced topics or niche domains such as custom reporting, integration with requirements management tools and automation tools, etc.

Through hands-on exercises, attendees will be able to:

- Manage user accounts
- Configure projects
- Manage test requirements
- Create test and execution definitions
- Schedule tests for manual testing
- Review reports within SCTM

Topics

- Introduction to SilkCentral Test Manager: Components of SilkCentral Test Manager, Architecture
- SilkCentral Test Manager Grand Tour: Overview/walkthrough of the core functions
- Setting the Stage: Defining test requirements for a sample application
- Defining Requirements: Requirement hierarchies, requirement entry
- Creating a Test Plan: Create test plan from requirements, requirement coverage, test containers
- Managing Execution Definitions: Define manual test executions
- Issue Manager Overview: Creating defects, defect workflow
- Test Monitoring and Reporting: Activities, overview reports, out-of-the-box reports
- Project Settings: Custom property definition, source control profiles
- System Administration: Create and manage projects, users, access rights, system settings, licensing

Prerequisites

- Familiarity with a Windows environment
- Ability to navigate in an Internet or intranet environment
- Have a basic knowledge of software quality or test management
WEB BASED TRAINING - 31 DAYS ACCESS
SILKCENTRAL TEST MANAGER 2010: ESSENTIALS (WBT)

Overview

The SilkCentral Test Manager Essentials course consists of instruction and hand-on exercises relating to how application quality can be managed using MicroFocus SilkCentral Test Manager. This course should be viewed in the context of acquiring a good grounding knowledge in using SilkCentral Test Manager to manage your QA assets, execute manual tests and review test results from an end-to-end perspective. This course focuses on the essentials and may be complemented with additional course modules that cover more advanced topics or niche domains such as custom reporting, integration with requirements management tools and automation tools, etc.

Through hands-on exercises, attendees will be able to:

- Manage user accounts
- Configure projects
- Manage test requirements
- Create test and execution definitions
- Schedule tests for manual testing
- Review reports within SCTM

Prerequisites

- Familiarity with a Windows environment
- Ability to navigate in an Internet or intranet environment
- Have a basic knowledge of software quality or test management

Topics

- Introduction to SilkCentral Test Manager: Components of SilkCentral Test Manager, Architecture
- SilkCentral Test Manager Grand Tour: Overview / walkthrough of the core functions
- Setting the Stage: Defining test requirements for a sample application
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- Issue Manager Overview: Creating defects, defect workflow
- Test Monitoring and Reporting: Activities, overview reports, out-of-the-box reports
- Project Settings: Custom property definition, source control profiles
- System Administration: Create and manage projects, users, access rights, system settings, licensing
INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - NUMBER OF DAYS: 2
SILKCENTRAL TEST MANAGER: MANAGING QUALITY (ILT)

Overview

A not-to-be-missed session for Business Managers, Quality Assurance Project Leaders, and Engineers, who need to develop a working knowledge of SCTM user and project management, requirement creation and test case definition, execute tests and results interpretation. You will uncover new ways to manage user accounts and execution server locations; configure projects; manage test requirements; create test and execution definitions. Through hands-on exercises, you will schedule tests for manual and unattended testing, and you will also review the different reports available within SCTM.

By the end of this course, you will be able to:

- Identify components of the SilkCentral Test Manager infrastructure
- Manage user accounts and groups
- Define, edit, and delete SCTM projects
- Manage and customize project requirements
- Define and upload requirements from MS Word or MS Excel documents
- Manage project test plans
- Schedule and execute tests
- Monitor test executions and explore their results
- Log defects through the Issue Manager

Prerequisites

- Familiarity with a Windows environment
- Ability to navigate in an Internet or intranet environment
- Have a basic knowledge of software quality or test management
- Working knowledge of SilkTest and/or SilkPerformer

Topics

- Module 1: Introduction to SCTM
- Module 2: Setting the Stage
- Module 3: Defining Requirements
- Module 4: Creating a Test Plan
- Module 5: Test Execution
- Module 6: Creating Manual Tests
- Module 7: Executing Manual Tests
- Module 8: Issue Manager Overview
- Module 9: Test Monitoring and Reporting
- Module 10: Global Filters and Custom Attributes
- Module 11: Project Management
- Module 12: System Administration
- Module 13: Putting it All Together
- Appendix: SilkCentral Reporting with BIRT
WEB BASED TRAINING - 31 DAYS ONLINE ACCESS
SILKCENTRAL TEST MANAGER: MANAGING QUALITY (WBT)

Overview

A not-to-be-missed session for Business Managers, Quality Assurance Project Leaders, and Engineers, who need to develop a working knowledge of SCTM user and project management, requirement creation and test case definition, execute tests and results interpretation. You will uncover new ways to manage user accounts and execution server locations; configure projects; manage test requirements; create test and execution definitions. Through hands on exercises, you will schedule tests for manual and unattended testing, and you will also review the different reports available within SCTM.

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Prerequisites

- Familiarity with a Windows environment
- Ability to navigate in an Internet or intranet environment
- Have a basic knowledge of software quality or test management
- Working knowledge of SilkTest and/or SilkPerformer

Topics

- Module 1: Introduction to SCTM
- Module 2: Setting the Stage
- Module 3: Defining Requirements
- Module 4: Creating a Test Plan
- Module 5: Test Execution
- Module 6: Creating Manual Tests
- Module 7: Executing Manual Tests
- Module 8: Issue Manager Overview
- Module 9: Test Monitoring and Reporting
- Module 10: Global Filters and Custom Attributes
- Module 11: Project Management
- Module 12: System Administration
- Module 13: Putting it All Together
- Appendix: SilkCentral Reporting with BIRT
INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - NUMBER OF DAYS: 3
QADIRECTOR: ESSENTIALS (ILT)

Overview

QADirector v.6.0 ties together the processes of requirements and test planning, test execution and analysis, defect tracking and reports generation using risk-based testing methodology. This course is aimed at Quality Assurance Practitioners, Testing Coordinators, Testing Designers, Application Programmers, Designers and Testers.

Upon completion of the course, students should be able to do the following:

- Define the purpose of QADirector
- Describe how QADirector fits into a risk-based testing process
- Name the components of QADirector
- Configure QADirector application features
- Create and manage projects within QADirector
- Manage requirements and test planning
- Manage testing using QADirector
- Analyze tests based on time and risk
- Execute testing from within QADirector
- Generate reports within QADirector

Prerequisites

- Working knowledge of Windows is required
- Working knowledge of application testing is helpful
- Working knowledge of Optimal Trace Enterprise is helpful
- Working knowledge of TestPartner is helpful

Topics

- Course Introduction: Define the focus and features of QADirector
- Risk Analysis and Risk-Based Testing: Define risk analysis, benefits of risk based testing and determining risk exposure
- QADirector Overview: Components and architecture of QA Director and QADirector integrations
- QADirector Grand Tour: Features of QADirector
- Tour of the Application under Test (AUT): Features and functions of the AUT
- Administrative Tasks: User administration, client administration, application configuration
- Managing Projects - Project Center: Using the Project Center
- User Settings: Modifying user options such as user information, SSO, test information
- Managing Requirements - Requirements Center: Creating and modifying requirements, explain how requirements fit in testing process, methods of adding requirements, organizing requirements
- Managing Tests - Tests Center: Define tests and identify where they can be created in QADirector, navigate Tests Center, Manage Tests
- Using the Quality Optimizer: How to use the Quality Optimizer to create test plans, launching and using the Quality Center to examine tests, use statistics, summary and coverage views. Create an execution plan and requirements folder. View and export a scenario based report.
- Managing Scripts - Scripts Center: Create and manage manual test scripts and global test scripts. Add and manage automated and manual test scripts.
- Managing Test Execution - Execution Center: Navigating the execution center, defining execution plans and execution groups, execution plan management, associating tests and requirements, publishing tests and creating manual and automated jobs.
- Executing Manual Tests: Explains how manual testing is accomplished in QADirector, launching manual testing, manual test management
- Analyzing Results: Perform Results Center related tasks such as reviewing analyzing or changing job results, viewing result history, managing result folders and submitting and viewing defects.
- Managing Reports: Identifies the built-in reports available in QADirector, explore the results dialog box, and managing reports.
INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - NUMBER OF DAYS: 1
QADIRECTOR: MANAGING QADIRECTOR (ILT)

Overview

The aim of this course is to provide the QAD manager (Project manager, team leader) with skills to maintain and enhance the functioning of QADirector post installation. This course is often taken with QADirector Essentials as a 3 Day course.

Upon completion of the course, students should be able to do the following:

- List the main component parts of the high level architecture.
- State the integrations possible
- Customise the QADirector interface
- Select the correct Risk Model for a particular testing project
- Create customized reports
- Manage the licenses
- Deal with patches and upgrades for QADirector
- Validate QM configuration
- Adjust application configuration parameters

Prerequisites

- QADirector Essentials

Topics

- Overview of Manager’s Tasks
- High Level Architecture
- Core Components and Integrations
- User Management
- Customization of QAD Interface
- Risk Model Selection
- Project Management
- Reporting
- Licence management
- Patches and Upgrades for QADirector
INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - NUMBER OF DAYS: 4
QALOAD: INTRODUCTION 5.7 (ILT)

Overview

This course is designed to overview the performance testing process and to cover basic functionality of the QALoad product with a focus on World Wide Web (WWW) session middleware scripts. This course does not cover all other session middlewares. At the end of the class the students will be able to use QALoad to enhance their performance testing. This course is aimed at Quality Assurance Practitioners, Testing Coordinators, Testing Architects, Testing Designers and Testers. Optionally, Application Programmers, Networking Practitioners, System Administrator and Operation Administrator, Project Managers and Business Analysts.

Upon completion of the course, participants should be able to do the following:

- Discuss the concepts of and process of performance testing
- Use QALoad Script Development Workbench
- Develop test scripts and with data pool
- Use QALoad Conductor
- Use data pool
- Execute test scripts
- Use QALoad Player
- Use QALoad Analyze
- Examine test results

Topics

- Performance Testing overview
- Definition, Purpose and Benefit
- Virtual Users
- Performance Testing Preparation
- QALoad Overview
- Middlewares and EasyScript
- Conductor, Player and Analyze
- Licensing
- QALoad Script Development Workbench
- Setting up of WWW middleware
- Recording and playback of scripts
- Workshops
- QALoad Conductor, Player and Analyze
- Setting up of QALoad Conductor
- Loading optional Central/Local Datapool
- Locating Player Workstations
- Starting and ending tests
- Server Analysis Agent and Remote Monitoring Support
- Workshops

Prerequisites

- Experience navigating in a Windows environment is required.
- Knowledge of application testing is helpful but not required.
- The following prerequisites are not mandatory but will better facilitate users of QALoad: C or C++ programming, Basic HTML coding
INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - NUMBER OF DAYS: 3
TESTPARTNER: COMPREHENSIVE 6.3 (ILT)

Overview

This course is designed to cover the basic functionality of the TestPartner product. At the end of the class the students will be able to use TestPartner to enhance their software testing through automation. This course is aimed at Quality Assurance Practitioners, Testing Coordinators, Test Leads, Testing Designers, Application Programmers, Testers, Project Managers, and Business Analysts.

Upon completion of the course, participants should be able to do the following:

- Discuss the concepts of and process of software testing
- Develop automated TestPartner scripts
- Examine test results
- Create Checks/Verifications for TestPartner scripts
- Synchronize application under test and TestPartner scripts with Events
- Use variable data within TestPartner scripts
- Insert basic error handling into a TestPartner script
- Manage and update visual tests through screen updates and test logic
- Enhance TestPartner scripts through intelligent data files
- Utilize Modules and UserForms in a TestPartner script

Prerequisites

- Experience navigating in a Windows environment is required
- Knowledge of application testing techniques is helpful but not required
- Knowledge of VBA is not mandatory but will better facilitate users of TestPartner

Topics

- Introduction to Automated Testing
- TestPartner Overview
- Projects and Users
- Start Screen and Asset Browser
- Visual Test
- Results
- Object Recognition
- Application Checks
- Application Synchronization with Events
- ActiveData
- Application Verification
- Test Script Maintenance
- Error Handling
INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - NUMBER OF DAYS: 4
MAINFRAME EXPRESS: WORKING WITH MAINFRAME EXPRESS (ILT)

Overview

Uniquely created to run your business, your systems are likely to represent a significant investment in IP specific to your needs and represents key major corporate assets. By allowing you to maintain, develop and extend these assets, while at the same time reducing cost and risk, Micro Focus Mainframe Express® unlocks the value of your coded IP to meet the needs of the future. Mainframe Express is the environment for mainframe application delivery.

Through guided walk-throughs, demonstrations, hands-on exercises and lecture, students will learn:

- To successfully develop, test, and debug mainframe COBOL applications on the PC
- To utilize special-purpose features of Mainframe Express that provide extensive productivity benefits in a distributed environment
- New functionality such as DataFile Editor and Touchpoint

Prerequisites

- Graphical User Interface (MS-Windows user) experience, COBOL programming experience, and PC operating systems and file background are required.

Topics

- The Mainframe Express IDE (Integrated Development Environment)
- Projects and Project Folders
- Cataloging Files
- Navigation and use of windows
- Offloading a TSO Application
- Offloading a JCL Jobstream
- Submitting JCL
- Using the outlist facility
- Running programs using CLISTs
- Uploading and Downloading Files
- Accessing Mainframe Files
- Workgrouping
- Source-level Debugging
- Editing source code
- Compiling source code
- Data File Assignment
- Application analysis with MainFrame Express
- Managing and Creating Data Files
- Creating new test data files
- Editing existing test data files
- File Conversion
INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - NUMBER OF DAYS: 5
MICRO FOCUS STUDIO - ENTERPRISE EDITION: MIGRATION DEVELOPER WORKSHOP (ILT)

Overview

The Micro Focus Studio Enterprise Edition Migration Developer class consists of intensive instruction and hand-on exercises relating to the use of the Studio Enterprise Edition Integrated Development Environment and the supporting tools to develop, compile, debug and test migrated mainframe programs as native code.

After attending this workshop, delegates should be:

- Familiar with all the tools in the Studio Enterprise Edition that support development and maintenance of mainframe applications. This will provide a solid grounding in product use which can be supplemented with environment specific mentoring provided by the Micro Focus Services team.

Prerequisites

- This training course is targeted at Mainframe developers who will be responsible for developing and maintaining applications migrated from the mainframe to Micro Focus Server Enterprise Edition production platform. Delegates should be currently responsible for developing/maintaining mainframe applications and be familiar with COBOL and application programming knowledge.
- Successful completion of the Mainframe Migration Series: Studio Enterprise Edition Integrated Development Environment course
- Experience of a Windows environment
- Navigating a GUI environment
- Using a web browser

Topics

- Overview of Studio Enterprise IDE
- Using Projects/Solutions and project administration: Environment Preparation /creating the development Project
- Editing Source files and customizing the editor
- Building projects/solutions
- Compiling programs: Using compiler directives and directives files, Examining Syntax errors
- Running a program
- Debugging: Debug commands, Watch/breakpoints
- Data Tools: Adding data files to projects, Editing Data files and data file functions, Fixing Indices
- Using the Open ESQL Assistant
- Packaging applications for deployment
- Enterprise Server Overview: System Walkthrough, Administration
- Using CICS: System Walkthrough, Administration and dynamic configuration
- Using ESMAC: Configuring and Using Databases, Running and Testing batch applications, Dynamic debugging and troubleshooting test issues
- General Administration: Basic ESA security, Backups/Import/Export, Using the command line
Overview

The Micro Focus Server Enterprise Edition Administrator workshop consists of intensive instruction and hands-on exercises relating to the administration of the Server Enterprise Edition platform running production applications. This workshop should be viewed in the context of acquiring a good grounding in Server Enterprise Edition Administration, but this will need to be supplemented with additional information and instruction from Micro Focus Professional Services in order to add details of a client's particular environment adhering to their processes and procedures.

After attending this workshop, delegates should be able to:

- Implement and administer the Server Enterprise Edition Environment
- Diagnose issues
- Monitor system health

Topics

- Install Micro Focus Server Enterprise Edition
- Server EE Administration Overview
- Server EE Administrator functions: Starting and Stopping Servers, Cloning regions, Dynamic Configuration, Using Import/Export
- Configuring CICS
- Enterprise Server Monitor and Control (ESMAC) Overview: JES, Catalog, Spool, Submitting Jobs
- Working with Databases
- Configuring Fileshare
- Basic ESA Security
- Using the command line
- Diagnostics: Triage, Dumps, Logs, journals etc, Data collection and CTF tracing, Core dumps

Prerequisites

This workshop is targeted at Administrators/Operators who will be responsible for the implementation and administration of the Micro Focus Server Enterprise Edition production environment. Delegates should be currently responsible for operating and administrating mainframe production applications. They will require a good understanding of CICS, JCL, SQL and VSAM file handling. They should have had experience of working in a Windows (Linux or UNIX) environment, navigating a GUI environment, and using a web browser.
STARTEAm - SOFTWARE CHANGE AND CONFIGURATION MANAGEMENT | STARTEAm | 29

INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - NUMBER OF DAYS: 1
STARTEAm: ESSENTIALS (ILT)

Overview

StarTeam Essentials introduces the basics of managing software configuration with StarTeam; the necessary skills to easily and safely version files, manage change requests, and actively collaborate with coworkers through requirements, tasks and discussion threads related to development. A tools-oriented course, StarTeam Essentials is for new users of StarTeam, anyone involved with the management and versioning of files, change requests, requirements or tasks. The focus is on using StarTeam in the context of daily development activities, ranging from managing files to satisfying new product requirements to resolving reported software defects. Throughout the course, you will use the StarTeam interface to accomplish these tasks and learn how to integrate this into your existing development processes.

Upon completing this course, you will:

- Understand the problems Configuration Management solves, CM purpose, CM roles, StarTeam benefits and StarTeam architecture (client and server)
- Understand the StarTeam project structure and be able to navigate StarTeam projects
- Be able to access and update Configuration Items
- Be able to customize the way StarTeam displays Item Data
- Know how to access previous CI revisions
- Be able to participate in Change Management processes
- Communicate with other team members using Topics

Topics

- Module 1: StarTeam Overview
- Module 2: Navigating StarTeam Projects
- Module 3: Working with Files
- Module 4: Customizing the StarTeam Display
- Module 5: Identifying and Accessing Item Revisions
- Module 6: Participating in a Change Management Process
- Module 7: Using Topics
- Module 8: Summary and Next Steps

Prerequisites

- Working knowledge of the Windows operating system
WEB BASED TRAINING - 31 DAYS ONLINE ACCESS
STARTEAM: ESSENTIALS (WBT)

Overview

StarTeam Essentials introduces the basics of managing software configuration with StarTeam; the necessary skills to easily and safely version files, manage change requests, and actively collaborate with coworkers through requirements, tasks and discussion threads related to development. A tools-oriented course, StarTeam Essentials is for new users of StarTeam, anyone involved with the management and versioning of files, change requests, requirements or tasks. The focus is on using StarTeam in the context of daily development activities, ranging from managing files to satisfying new product requirements to resolving reported software defects. Throughout the course, you will use the StarTeam interface to accomplish these tasks and learn how to integrate this into your existing development processes.

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- Communicate with other team members using Topics

Prerequisites

- Working knowledge of the Windows operating system

Topics

- Module 1: StarTeam Overview
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- Module 8: Summary and Next Steps
INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - NUMBER OF DAYS: 2
STARTEAM: MANAGING PROJECTS (ILT)

Overview

Managing Projects Using StarTeam provides a process and tool-oriented approach to planning a new StarTeam configuration or optimizing an existing configuration to support and enhance your software configuration management processes.

A process and tool-oriented course, Managing StarTeam Projects is for individuals tasked with defining the organization’s configuration management processes and deciding how StarTeam will be implemented in the organization, anyone involved with the creation and management of projects and configurations in StarTeam. The course examines the activities and processes required for effective software configuration management, and focuses on the use of StarTeam to create and manage projects and product configurations, implement a change control process, and generate reports and charts to support configuration status accounting. The course includes discussions on how to configure StarTeam to support an organization’s configuration management processes.

Upon completing this course, you will:

- Understand the activities required for effective software configuration management.
- Be able to create and set up a StarTeam project.
- Know how to create and use standard views to manage product releases and configurations.
- Know how to use labels and promotion states for revision identification.
- Know how enhanced process tasks are used in the new process model.
- Be able to promote files by process items (CRs, Tasks or Requirements) using the new View Compare Merge tool.
- Be able to configure security policies for projects, views, folders and items.
- Be able to define a change control process.
- Understand the automatic linking capabilities of enhanced process links.
- Be able to produce reports when performing tasks like auditing or baseline verification.

Prerequisites

- StarTeam Essentials and working knowledge of the Windows operating system.

Topics

- Module 1: Introduction and Overview
- Module 2: Configuring Projects and Folders
- Module 3: Configuring Security Policies
- Module 4: Managing Configurations
- Module 5: Change Management
- Module 6: Auditing and Reporting
- Module 7: Summary and Review
- Module 8: Appendix - Baseline Audit Checklist, Baseline Configuration, Change Request Process, Process Area from CMMI, Functional Configuration Audit Checklist, SCM Plan Template, StarTeam Project Access Rights Matrix
WEB BASED TRAINING - 31 DAYS ONLINE ACCESS
STARTEAM: MANAGING PROJECTS (WBT)

Overview

Managing Projects Using StarTeam provides a process and tool-oriented approach to planning a new StarTeam configuration or optimizing an existing configuration to support and enhance your software configuration management processes.

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Prerequisites

- StarTeam Essentials and working knowledge of the Windows operating system.

Topics

- Module 1: Introduction and Overview
- Module 2: Configuring Projects and Folders
- Module 3: Configuring Security Policies
- Module 4: Managing Configurations
- Module 5: Change Management
- Module 6: Auditing and Reporting
- Module 7: Summary and Review
- Module 8: Appendix - Baseline Audit Checklist, Baseline Configuration, Change Request Process, Process Area from CMMI, Functional Configuration Audit Checklist, SCM Plan Template, StarTeam Project Access Rights Matrix
INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - NUMBER OF DAYS: 3
MICRO FOCUS SERVER EXPRESS: WORKING WITH SERVER EXPRESS (ILT)

Overview

This course will help programmers and programmer/analysts learn how to use Server Express to develop and test UNIX-based applications. Students will edit, compile, debug, and test COBOL applications in the UNIX environment. In addition, students will learn how to build applications for deployment. The course manual includes additional topics for reading and class discussion.

The workshop consists of three days of intensive instruction and hands-on use, and will provide students with:

- Working knowledge and degree of proficiency using Server Express
- The ability to develop and maintain UNIX COBOL applications

Prerequisites

- Students will be expected to know COBOL and have some UNIX experience.

Topics

- The Server Express Integrated Development Environment
- Getting started with Server Express
- Editing source files
- Compiling
- Animator facilities
- Advanced debugging
- COBOL Source Information (CSI)
- File assignment
- File support
- Generating and running
- Profiler features and operation
- Delivering applications
- Consolidated Tracing Facility (CTF)
- Documentation and setup
- Optimization issues
- Session Recorder features and invocation
- Interfacing to UNIX
- ADIS features
- TERMINFO Q and A
INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - NUMBER OF DAYS: 3  
VISUAL COBOL 2010: SOFTWARE DEVELOPMENT (ILT)

Overview

Visual COBOL 2010, together with Microsoft’s Visual Studio 2010, provides a powerful IDE for the development and maintenance of COBOL applications. This process and tool-oriented course is aimed at the following three target audiences: COBOL programmers migrating to Visual Studio 2010 who wish to learn how best to use the IDE, COBOL programmers extending their COBOL applications into the .NET framework, and programmers using other languages with .NET who are familiar with Visual Studio but want to learn how to use and deploy COBOL assets in a .NET environment.

Upon completing this course, the delegate will:

- Understand the way that COBOL applications can be developed and maintained within the Visual Studio environment.
- Know how to integrate traditional procedural COBOL code with Windows Forms, Web Forms and Web Services.
- Understand how to integrate modules developed in other .NET languages with COBOL.
- Understand the principals of Object Orientation and the syntax required to support Object COBOL
- Be able to create COBOL SQL and .ADO based applications

Topics

- Introduction and Overview
- Introduction to COBOL for non-COBOL programmers (optional)
- Visual Studio and Net Express differences (optional)
- Introduction to the .NET framework
- Visual Studio IDE
- Visual Studio quick start
- Editing and Debugging
- Object Oriented COBOL Concepts
- OO COBOL Quick Start
- Introduction to Windows Forms
- Mixed Language Applications
- .NET Error Handling
- Web Forms
- Web Services
- Database with openSQL
- Database with ADO .NET
- Summary and Review

Prerequisites

- Experience working in a Windows environment, navigating a Graphical User Interface and using a Web Browser.
- Depending on the background of the delegate either experience using Visual Studio or alternatively experience developing applications in COBOL. Introductory modules for each delegate type are included in the course.
WEB BASED TRAINING - 31 DAYS ONLINE ACCESS
VISUAL COBOL 2010: SOFTWARE DEVELOPMENT (WBT)

Overview

Visual COBOL 2010, together with Microsoft’s Visual Studio 2010, provides a powerful IDE for the development and maintenance of COBOL applications. This process and tool-oriented course is aimed at the following three target audiences: COBOL programmers migrating to Visual Studio 2010 who wish to learn how best to use the IDE, COBOL programmers extending their COBOL applications into the .NET framework, and programmers using other languages with .NET who are familiar with Visual Studio but want to learn how to use and deploy COBOL assets in a .NET environment.

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Topics

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- Introduction to COBOL for non-COBOL programmers (optional)
- Visual Studio and Net Express differences (optional)
- Introduction to the .NET framework
- Visual Studio IDE
- Visual Studio quick start
- Editing and Debugging
- Object Oriented COBOL Concepts
- OO COBOL Quick Start
- Introduction to Windows Forms
- Mixed Language Applications
- .NET Error Handling
- Web Forms
- Web Services
- Database with openESQL
- Database with ADO .NET
- Summary and Review
WEB BASED TRAINING - 31 DAYS ONLINE ACCESS
COBOL: PROGRAMMING FOR BUSINESS SUCCESS (WBT)

Overview

This is a hands-on course introducing the programming language COBOL, and then teaching the skills needed to produce different types of application. All modules contain theoretical sessions, where the concepts are explained and discussed, together with example programs and practical exercises.

The audience for this course is programmers or analysts who need to learn COBOL, or to revise or build on existing COBOL knowledge.

This course will enable:
- Novice COBOL programmers to write and maintain COBOL programs
- Experienced users to gain additional skills and knowledge, and to increase COBOL experience.

Prerequisites

- Awareness of PC operating systems, DOS commands, and the behavior of Windows graphical user interfaces.

Topics

- Understand the concepts of COBOL
- Know the structure of a COBOL program, and be aware of the naming and positioning restrictions imposed by the language.
- Understand the different ways in which data can be defined
- Appreciate the elements of effective program design
- Be able to write programs using sequential and indexed file handling
- Know how to make decisions using different formats of IF and EVALUATE
- Know the verbs of arithmetic calculation and character manipulation
- Be able to handle repeating data, using both subscripts and indexes
- Be able to produce report and print programs
- Understand the concepts and mechanics of modular programming
INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - NUMBER OF DAYS: 5
COBOL: PROGRAMMING FOR BUSINESS SUCCESS (ILT)

Overview

This is a hands-on course introducing the programming language COBOL, and then teaching the skills needed to produce different types of application. All modules contain theoretical sessions, where the concepts are explained and discussed, together with example programs and practical exercises.

The audience for this course is programmers or analysts who need to learn COBOL, or to revise or build on existing COBOL knowledge.

This course will enable:

- Novice COBOL programmers to write and maintain COBOL programs
- Experienced users to gain additional skills and knowledge, and to increase COBOL experience.

Prerequisites

- Awareness of PC operating systems, DOS commands, and the behavior of Windows graphical user interfaces.

Topics

- Understand the concepts of COBOL
- Know the structure of a COBOL program, and be aware of the naming and positioning restrictions imposed by the language.
- Understand the different ways in which data can be defined
- Appreciate the elements of effective program design
- Be able to write programs using sequential and indexed file handling
- Know how to make decisions using different formats of IF and EVALUATE
- Know the verbs of arithmetic calculation and character manipulation
- Be able to handle repeating data, using both subscripts and indexes
- Be able to produce report and print programs
- Understand the concepts and mechanics of modular programming
INSTRUCTOR LED TRAINING (CLASSROOM OR REMOTE) - NUMBER OF DAYS: 4
NET EXPRESS: NET EXPRESS WITH .NET WORKSHOP (ILT)

Overview

This course will provide developers with a working knowledge and degree of proficiency using Visual Studio .NET to migrate, develop, maintain and deploy COBOL applications to the .NET framework. Micro Focus has taken advantage of Microsoft’s .NET architecture as a language-independent programming model to allow COBOL users to leverage the full features and functionality of Visual Studio .NET for development and deployment within Microsoft’s .NET framework. Composite COBOL/C#/VB.NET application development and deployment is now made easy because any programs written for the .NET framework can interact with each other regardless of the programming language in which each program was written.

The workshop consists of three days of intensive instruction and hands-on use.

The following training objectives will be covered:

- To introduce COBOL developers to Visual Studio .NET and Microsoft’s .NET framework and its benefits
- To migrate existing COBOL applications to the .NET framework
- To create, extend, and deploy COBOL applications under the .NET framework
- To build and extend COBOL applications utilizing ASP.NET and ADO .NET
- To consume, create, and deploy COBOL Web Services from existing routines

Prerequisites

- Developers experienced in writing and maintaining COBOL applications who have a need to start to develop and deploy COBOL programs within the highly flexible, multi-functional, multi-language .NET framework thereby enhancing systems and expertise.

Topics

- .NET Framework overview and benefits for the developer
- Familiarization with Visual Studio .Net
- Overview of Object Oriented program
- Steps to migrate procedural COBOL programs into .NET
- Editing, compiling, debugging and deploying programs in a multiple language environment
- Creating new user interfaces - WinForms and WebForms
- Handling business logic - n tier design to harness existing systems for the future
- Data access with ADO.NET to provide more choices
- Create and develop XML in COBOL applications under .NET
- Convert existing COBOL subroutines into WEB Services in .NET
- Demonstrate COBOL/Microsoft Object Connectivity and future enhancements
Overview

This course will provide programmers and programmer/analysts with a working knowledge and degree of proficiency using the NetExpress Integrated Development Environment for the development and maintenance of COBOL applications. Students will learn to use NetExpress’ project-based Integrated Development Environment (IDE) to create projects in support of program development and to edit COBOL programs including working with embedded COBOL copyfiles. Students will perform structured browsing and analysis of project components, compile COBOL programs, perform interactive source level debugging, and create, edit, and convert a variety of data files. In addition, students will build entire COBOL projects for debugging and production release. The course concludes with cross-platform (UNIX) publishing and animation as well as an introduction to COM.

This workshop consists of three days of intensive instruction and hands-on use. and will provide programmers and programmer/analysts with working knowledge and proficiency using the NetExpress Integrated Development Environment for the development and maintenance of COBOL applications.

Students will learn to:

- Use NetExpress’ project-based Integrated Development Environment (IDE) to create projects in support of program development
- Edit COBOL programs including working with embedded COBOL copyfiles
- Perform structured browsing and analysis of project components
- Compile COBOL programs
- Perform interactive source level debugging
- Create, edit and convert a variety of data files
- Build entire COBOL projects for debugging and production release
- Cross-Platform (UNIX) publish and animate

Prerequisites

Students will be expected to know COBOL, how to use a graphical interface, how to use a recent release of Windows, and have experience developing COBOL applications.

Topics

- Introduction to Net Express
- Working with Net Express Projects
- Integrated Development Environment
- Working with NetExpress Projects
- Editing COBOL Source
- Compiling COBOL Programs
- External Files
- Data Tools
- Testing Your Application
- Structured Browsing and Exploring Programs
- Building Applications for Release
- OpenESQL Assistant
- UNIX Option
- Introduction to COM and DCOM
- Additional Topics
1. SCOPE
Micro Focus (US), Inc. ("Micro Focus") will provide the customer ordering the training services (the "Customer") with the training services (the "Training") specified in the Confirmation Of Booking form contained in the Work Order to which this Agreement is attached (the "Confirmation of Booking Form"). The Training shall be provided in accordance with the terms and conditions of this agreement and the attached Work Order (this "Agreement").

2. LOCATION AND TIMING
2.1 Unless otherwise agreed by the parties, the Training will be provided at the location set forth in the Confirmation of Booking Form. For training at the Customer's premises or any site selected by the Customer ("On-Site Training") the Customer is responsible for making any such facility(ies) available to Micro Focus and equipped as per instructions from Micro Focus to provide the On-Site Training.

2.2 Students are required to arrive no later than 9:15 am on each day Training is scheduled to occur unless otherwise advised. Where the length of a course is specified in a number of days, a "day" is 9:30 am to 5:00 pm with one hour for lunch. Lunch and refreshments are provided by Micro Focus and included for all day courses, however, refreshments only are provided for 1/2 day courses.

2.3 Times for Training will be agreed between the parties but will include not more than 7 hours of lectures in any single day.

2.4 A provisional Training schedule is included within the training offer issued by Micro Focus (the "Training Offer") that sets out the timetable and details of each course of Training requested in the Confirmation Of Booking and may be amended by agreement of the Parties (the "Term") provided that such amendments do not increase or otherwise vary the duration of the Term itself (including the start and end date). Permitted amendments include, without limitation, a variation to the number of courses booked or the number of students attending (subject to any maximum numbers indicated in the Confirmation of Booking as described in clause 4 below). Any increase in students or courses will be subject to same discount rate (if any) as the original booking. On conclusion of the Term, Micro Focus will invoice for any outstanding amounts and/or increased amounts due.

2.5 Course placements can be confirmed up to two weeks in advance of the course date. Course placements defined in a Training Offer and not confirmed prior to two weeks of the proposed course dates may be reallocated to other courses within the same pricing scheme within the terms of the Confirmation of Booking Form. All course placements and/or private courses confirmed will be subject to the cancellation policy as detailed in this Agreement.

3. COURSE AVAILABILITY AND CONTENT
3.1 Course content will be substantially in line with the relevant course description set out in the associated Training Offer.

3.2 Although Micro Focus will endeavour, and use all reasonable efforts, to provide the Training in accordance the Training Offer, in the event circumstance prevent Micro Focus from providing the Training in accordance with the Training Offer (e.g. sudden instructor illness) Micro Focus reserves the right to re-schedule such training services prior to the course start date without any liability to the Customer other than the refund of any relevant fees pre-paid by the Customer in respect of such Training or, if possible, rescheduled to a date satisfactory to each of the parties.

4. DELEGATES
4.1 The Customer may substitute students (provided it is done in writing) who are to attend the Training at any time prior to the commencement of the Training.

4.2 On-Site training will be provided to up to the maximum number of students indicated in the Confirmation of Booking Form. Additional students, if permitted, will incur additional costs.

4.3 Micro Focus reserves the right to exclude students from the Training who are, in its reasonable opinion, causing unreasonable disruption to such Training. In the event of such exclusion no refund of any associated fees will be made.

5. DISSATISFACTION
If, during the Training, a student advises Micro Focus that the relevant course does not meet his/her needs, then Micro Focus will cancel the course booking and refund the associated fees provided that:

(a) the delegate has notified the instructor and left the relevant course before the end of the first day (by 1:00 pm if it is a one day course); and

(b) the delegate advises Micro Focus of the reasons it considers the relevant course does not meet his needs; and

(c) the delegate had all the pre-requisite skills and experience set out in the Learning Centre Catalogue for the relevant course.

6. PAYMENT AND CANCELLATION CHARGES
6.1 Micro Focus Education Services will invoice your company (finance department) upon completion/expiration of each confirmed course specified in the agreed Training Offer.

6.2 The Customer shall pay all applicable taxes (excluding taxes based on Micro Focus's income) along with all other payments due under this Agreement. Payment of any tax due shall be made together with the fee(s) to which the same relates or within 30 days of invoice whichever is the later.

6.3 Payment will be made by the Customer in U.S. Dollars made payable to: Micro Focus (US), Inc. and sent to 9420 Key West Ave., Rockville, MD 20850. 301-838-5000, attention Finance Department.

6.4 Any cancellation must be provided by written notice to Micro Focus. The following cancellation charges will apply to all confirmed training:

(a) Cancellation notice received by Micro Focus more than 15 working days before Course start date – no charge;

(b) Cancellation notice received by Micro Focus between 10 and 15 working days before Course start date – 25% of relevant fee;

(c) Cancellation notice received by Micro Focus between 6 and 9 working days before Course start date – 50% of relevant fee;

(d) Cancellation notice received by Micro Focus less than 6 working days before Course start date (or in the event of the nonattendance of a delegate) – full fee payable.

7. OWNERSHIP AND PROPRIETARY RIGHTS
Ownership of all copyright and other intellectual property rights in any course material, or other documentation, data, technical information and know-how (together called "the Documentation") provided to students or otherwise to the Customer remain the property of Micro Focus or their respective owners, as the case may be. All such information shall be held in confidence and not disclosed or copied to third parties. Subject to the restrictions set out below, a delegate may use the Documentation to enable that delegate to carry out his duties for the Customer, but the Documentation may not be copied or used by any other person, including other employees or sub-contractors working for the Customer. The Documentation may not be used or copied to provide training for any other person, including other employees or subcontractors working for the Customer.
TERMS AND CONDITIONS (cont)

8. WARRANTIES
8.1 Micro Focus warrants that the instructors/consultants who present the Training will be suitably qualified and experienced. Micro Focus does not warrant that the Training will meet the Customer's business requirements. Micro Focus cannot guarantee that every student will obtain the full benefit of the Training; the Customer must ensure that students have the necessary pre-requisite experience and show a full commitment to the learning process to enable its students to take advantage of the Training.

8.2 The warranty set out in Clause 8.1 is the only warranty given by Micro Focus and, subject to Clause 8.3 all other conditions, terms, undertakings and warranties express or implied, statutory or otherwise (including but not limited to those as to quality, performance, suitability and fitness for purpose) are hereby excluded.

8.3 Nothing in this Agreement shall exclude or limit liability for any fraudulent misrepresentations made by either party to the other.

9. FORCE MAJEURE
Micro Focus shall not be liable to the Customer for delays or failures in performance arising out of any Act of God, or any cause beyond Micro Focus’s reasonable control.

10. LIMITATION OF LIABILITY/DAMAGES
10.1 Neither party excludes or limits liability to the other for death or serious personal injury arising from the negligence of its employees, agents or subcontractors.

10.2 Subject to Clauses 8.3 and 10.1 neither party shall be liable to the other in any event for any type of special, indirect, economic or consequential loss or damage (including loss of profits, revenue, goodwill, anticipated savings, data or contracts) suffered by the other party including claims brought by a third party, even if such loss was reasonably foreseeable or the defaulting party had been advised of the possibility of the other party incurring the same.

10.3 Subject to the provisions of Clauses 8.3, 10.1 and 10.2, each party's aggregate liability to the other under or in connection with this Agreement (whether for breach of contract negligence or otherwise) shall be limited to the total amount of the fee(s) payable under this Agreement.

10.4 Micro Focus will only provide On-Site Training on a test system environment and the Customer is responsible for the provision of such an environment for On-Site Training. The Customer should advise Micro Focus if it desires training to be provided on a production system and Micro Focus will only agree to this in very exceptional circumstances.

Where Micro Focus does agree to provide On-Site Training on a production system the Customer acknowledges that this will inevitably involve a risk to the production system and any data it contains. Micro Focus will only agree to provide On-Site Training on a non-test systems environment on the basis that Micro Focus accepts no liability to the Customer in any circumstances whatsoever for any loss, expense or damage suffered or incurred by the Customer (including special, indirect, economic or consequential loss, loss of data, revenue, anticipated savings, goodwill or contracts, or any processing errors) as a result of the On-Site Training taking place on that system. Micro Focus strongly recommends that, where it has been agreed that On-Site Training will take place on a production system, the Customer makes a full back up copy of the current systems and data prior to any On-Site training taking place.

11. MISCELLANEOUS
11.1 This Agreement along with the associated Work Order constitutes the complete agreement between the parties in relation to the services described and supersedes all previous communications, non-fraudulent representations or agreements (written or oral) between the parties with respect to the subject matter hereof. In entering into this Agreement neither party has placed reliance on any representation made by the other which is not expressly included in the terms of this Agreement and hereby waives any right or remedy it may have had in respect of such representation but for this Clause 11.1. Micro Focus will only provide the Training on the terms and conditions set out in this Agreement and any other terms and conditions presented by the Customer (whether on any purchase order or otherwise) are hereby expressly rejected in favour of these terms and conditions.

11.2 No variation of, omission from, or addition to any of the terms and conditions of this Agreement, whether written or oral, shall be binding upon a party unless it is agreed in writing and signed on behalf of both parties by a duly authorised representative.

11.3 If Company issues a Purchase Order or other document regarding the services provided under this Agreement, such instrument will be deemed for internal use only, and any provisions contained therein shall have no effect whatsoever upon this letter.

11.4 If any Clause (or part of any Clause) of this Agreement shall be held or rendered illegal, void, unenforceable or in conflict with any law governing this Agreement, the remaining Clauses (and the remainder of the relevant Clause) shall remain in full force and effect.

11.5 Any notices under this Agreement shall be in writing, given or sent to the parties at their registered office addresses, or such other addresses as may be notified to the other party from time to time.

11.6 This Agreement and any non-contractual obligations arising from or in connection with it shall be governed by and construed in accordance with the laws of the State of Maryland (excluding any conflict of laws provisions) and any disputes arising from or in connection with this Agreement or any such non-contractual obligations shall be subject to the exclusive jurisdiction and procedures of the State of Maryland.