



HP TRAINING PACKAGE

In Partnership with Testhouse and HP

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AVAILABLE TRAINING COURSES

HP LOADRUNNER TRAINING COURSE – 4 DAYS

Course Details: **FUNDAMENTALS OF LOADRUNNER – 2 Days**

Overview:

This class covers Controller and Analysis components of LoadRunner. This course is your first step towards success as a LoadRunner expert, designed to give you a firm foundation in basic load testing tasks. In this class, you will learn how to plan, create, and run a simple load test effectively and efficiently. Students will gain understanding of how the LoadRunner components work and interact with one another. Students will also learn how to interpret LoadRunner analysis graphs and achieve the set load testing goals. The lesson topics are reinforced with structured hands-on labs.

Course Objectives:

- Describe various types of performance test objectives
- Identify what information needs to be gathered for load testing
- Identify the components of LoadRunner
- Apply the workflow recommended for creating a basic LR scenario
- Assign scripts, run-time settings, performance monitors, load generators and Vusers to a LR scenario based on your load testing goals
- Load test your application by running the scenario

Duration 4 Days

Venue On-site/Offsite

Price Flexible be-spoke pricing based on the number of delegates & location

Who should attend Quality Assurance (QA) Engineers, Performance Engineers, Users of LoadRunner who needs to create scripts to load test their web applications.

Prerequisites Working knowledge of Windows, websites and browsers and fundamental understanding of C programming is helpful *but not* essential.

Topics:

Day 1

- Introduction
 - Explain the need for load testing
 - Describe various types of performance test objectives
 - Identify the steps of the LoadRunner methodology
 - Define the term “scenario” in the context of LoadRunner
- Planning an effective Load Test
 - Define measurable goals for your load test
 - Gather preliminary information before load testing your system
 - Organize system information effectively
 - Use gathered information to plan load tests
- Loadrunner Installation
 - Describe LoadRunner architecture
 - Determine where to install LoadRunner components
 - Identify hardware and software needed for installation
- Introduction to Scenarios
 - Explain the elements that make up a LoadRunner scenario
 - Identify the different types of scenarios

- Choose scenario type based on your quantitative goals
- Present the basic steps for creating a scenario
- Using Run Time Settings
 - Explain the difference between Script and Scenario Run-time Settings
 - Configure Run-time Settings based on load testing goals

Day 2

- Define Service Level Agreements
 - Create Service Level Agreements – Goal Measured Per Time Interval
 - Create Service Level Agreements – Goal Measured Over the Whole Run
- Using Scenarios - Execution & Scheduling
 - Prepare for a scenario run
 - Identify techniques for running a scenario efficiently
 - Explain Scheduling by Group and by Scenario
 - Configure Duration Scheduling
 - Configure Scenario Ramp Up and Ramp Down
 - Prepare Vuser for Initialization
- Performance Monitors
 - Explain the value of performance monitors
 - Select performance monitors to achieve load test goals
 - Add measurements for performance monitors based on goals
- Using Result Analysis
 - Explain the value of performance monitors
 - Select performance monitors to achieve load test goals
 - Add measurements for performance monitors based on goals
- Use of Internet Protocols
- Introduction of IP Spoofing
- Using Sample Test Applications

Summary

- LoadRunner Additional Resources and Support
- Exercises
- Q and A session

Course Details: **LOADRUNNER – SCRIPTING FOR WEB – 2 Days**

Overview:

The Virtual User Generator (VuGen) is a scripting tool used to record and run user actions on the application to be tested. This course focuses on planning, creating and enhancing Virtual User (Vuser) scripts using VuGen in the Web environment. Extensive hands-on labs equip you with the skills necessary to create effective load test scripts in Web environment.

Course Objectives:

- Understand the fundamentals of Virtual User Generator (VuGen)
- Describe the HTML and URL recording levels
- Explain what parameters are and how they work
- Recognize why and when to use verification
- Differentiate Tree and Script view
- Apply debugging techniques in VuGen
- Learn Advance Scripting Techniques
- Create scripts for performance testing
- Understand the fundamentals of VuGen code
- Understand when, why and how to use Parameterization, Content Check, Correlation and Advanced Error Handling
- Create scripts that are maintainable for long periods of time

Topics:

Day 1

- Introduction to VuGen
 - Define VuGen
 - Identify the main components of the VuGen interface
- Recording for Web
 - Create a VuGen script by recording user steps with VuGen in the web environment
 - Describe the basics of HTML and URL recording levels
- Replay
 - Identify and configure the appropriate web runtime setting for replay
 - Replay the script in VuGen to verify script functionality
 - Recognize the debugging tools available in VuGen
- Transactions
 - Explain the function of a transaction in a script
 - Insert a transaction in a script during and after recording
- Parameters
 - Explain what parameters are and how they work
 - Solve playback problems with parameterization
 - Parameterize a script for load testing
- Auto Correlation – After Recording
 - Define Correlation
 - Correlate dynamic values found by using the Auto Correlation tool

Day 2

- Verification
 - Recognize why and when to use verification
 - Identify visual cues to check for during load testing
 - Add Text Checkpoints during and after recording
- Actions
 - Create multiple Actions for a web script

- Configure Actions to achieve load testing goals
- Introduction to Script View
 - Identify when Script view is necessary
 - Send customized output messages to the Replay Log
 - Identify basic C code including statements, variables, and functions
 - Apply basic debugging techniques in VuGen
- Advanced Scripting – Techniques
 - Recognize general LoadRunner functions
 - Recognize protocol specific functions
- Manual Correlation
 - Determine when manual correlation is required
 - Correlate dynamic values using the create parameter option
- Auto-Correlation – Before Recording
 - Create correlation rules to auto correlate during recording
 - Import and export correlation rules
- Advanced Error Handling
 - Create global verification points with Content Check
 - Create Custom Verifications
 - Use “logging on demand”
 - View error snapshots in the Controller

Use Sample Applications

Summary

- Exercises
- Useful Resources and Support
- Q and A sessions

ALM QUALITY CENTER 11 TRAINING COURSE - 2 DAYS

Course Details

Overview:

This hands-on course discusses the process-based functionality of ALM Quality Center. The course covers how to manage quality information throughout the development cycle, construct and organise requirements, create and execute test sets, monitor defects, and use graphs and reports to track the success of a project. Learn new features such as HP Sprinter, Business Model & Development Management Integration.

This course covers the tasks that are performed by site administrators, project managers, and Quality Assurance leads to set up Quality Center projects before users can work with requirements, test cases, and defects. This hands-on course focuses on planning, creating, and customising Quality Center projects. It is an important course for people involved in creating projects, modifying existing fields, creating user defined fields, creating users, setting user permissions, and defining basic workflow.

Course Objectives:

- Define and Identify Quality Center/ALM
- Define test requirements
- Design and create test plans
- Generate test scripts from design steps
- Create test sets
- Execute manual and automated tests
- Record and track test execution results
- Log and manage defects
- Generate reports and graphs
- Collaboration with HP Sprinter
- Understand Development Management

Duration

2 Days

Venue

On-site/Off-site

Price

Flexible be-spoke pricing based on the number of delegates & location

Who should attend

Project Managers, Testers, and QA Engineers

Prerequisites

Working knowledge of Windows, understanding of the testing process

Topics:

Day 1

- **Introducing Quality Center ALM 11**
 - Create and manage test requirements
 - Design and build test plans
 - Generate scripts from test plans
 - Organise tests into test sets
 - Define and schedule test execution flows
 - Configure automated test rerun and cleanup rules
 - Record and track test execution results
 - Log and manage defects
 - Generate reports and graphs
 - Upload existing scripts from Word & Excel
- **Define Requirements Management**
 - Identify Business Requirements

- Create requirements that define what needs to be tested in an application
- Build a requirements tree
- Track the status of requirements
- Business Model Integration
- **Test Planning**
 - Generate test scripts from design steps
 - Create test sets
 - Execute manual and automated tests
 - Organise subjects and tests in the test plan tree
 - Create tests that comprehensively define the steps and expected results of application operations
 - Identify the benefits of using parameters in test steps
 - Generate test scripts from design steps
 - Link tests to create user journeys

Day 2

- **Test Execution**
 - Create and organise folders in the test sets tree
 - Create test sets
 - Add tests into test sets
 - Manage test execution flow and test dependencies
 - Execute manual and automated tests
 - Record and review the results of test executions
 - Test Lab
- **Defect Tracking**
 - Log defects
 - Search and review defects
 - Associate defects to tests
 - Track defects throughout their lifecycle
- **Reporting and Analysis**
 - Filter and organise data for reports and graphs
 - Generate reports and graphs
 - Generate formatted project documentations
 - Embedded web scorecards & graphs
- **Project Planning And Customisation**
 - Planning
 - Using Site Administration
 - Create, Maintain and Customise a project
 - Learn about Traceability Rules
 - Customise Specific Workflow
 - Implementing Workflow using Script Editor
 - Scorecards
- **HP Sprinter**
 - Define Data injection
 - Exploratory Testing
 - Mirror Testing
- **Development Management**

- Key Developer, Integration & Collaboration

Summary

- Additional Reading Materials, Support and Resources from HP Software
- Exercises
- Q & A session

HP QTP TRAINING COURSE – 2 DAYS

Course Details

Overview:

Using QuickTest Professional (QTP) teaches you how to create automated tests on a standard Windows environment for functional testing. With Quick Test's point-and-click interface, you will be able to create tests that can be played back on an application repeatedly, delivering consistent test without scripting or programming.

Course Objectives:

- Create basic scripts from a manual test case
- Enhance basic tests with synchronisation and verification
- Parameterise tests to run with multiple sets of data
- Create and reuse modular actions
- Use debug tools
- Use custom checkpoints to create more precise verification points within a test
- Manage shared object repositories by using Object Repository Manager
- Describe and use virtual objects
- Resolve object recognition problems

Duration:

2 Days

Venue:

On-site/Off-site

Price:

Flexible be-spoke pricing based on the number of delegates & location

Who should attend:

New Users of QTP, Quality Assurance (QA) Engineers

Prerequisites:

Working knowledge of Windows, websites, testing concepts and browsers

Topics:

Day 1

- **Introduction**
 - Overview of Quick Test Professional (QTP)
- **Preparing to Record**
 - Understand functional testing
 - Document the user steps of a business transaction
 - Identify the application under test and its environment
 - Understand the QuickTest Professional user interface
 - Prepare the test environment to utilise QuickTest Professional effectively
- **Creating a Basic Test**
 - Create a basic test from a manual test case
 - Run a test and check for errors
 - Save a test
 - View test results
- **Working with Objects**
 - Describe objects
 - Describe a QuickTest Professional object
 - Recognise objects in QuickTest Professional
 - Use Object Repository to manage objects in QuickTest Professional
- **Using Synchronisation**
 - Describe synchronisation in QuickTest Professional
 - Describe the uses of synchronisation in QuickTest Professional
 - Add a synchronisation step for a specified object

- **Using Standard Checkpoints**
 - Define checkpoints
 - Use standard checkpoints
 - Add flexibility to a constant value using a regular expression
- **Using Sample Test Applications**

Day 2

- **Using Parameters and Data-Driven Tests**
 - Describe and use parameter types
 - Insert an input parameter
 - Insert an output parameter
 - Parameterise a checkpoint
 - Evaluate results for iterative tests
- **Using Multiple and Reusable Actions**
 - Create multiple actions from a single action
 - Define an action as reusable
 - Call a reusable action into a main test
 - Drive data using local and global data sheets
- **Adding Steps Without Recording**
 - List the types of steps that can be added to a test without using the Record feature
 - Use conditional statements in a test
 - Use the Reporter feature to report events as a step in the test
 - Use Step Generator
- **Creating Tests on a Web Application**
 - Record and run a test on a Web application
- **Using Custom Checkpoints**
 - Create a parameterised checkpoint
 - Compare captured parameter values with expected values
 - Use debug tools to investigate and cause failures
 - Verify that the reported error message reflects the state of the test
- **Using Database Checkpoints**
 - Identify the purpose of a database checkpoint
 - Create a Structured Query Language (SQL) statement
 - Create an SQL query using Microsoft Query
 - Create a database checkpoint
 - Parameterise a database query
 - Object Repository Administration
 - Identify the types of object repositories
 - Manage shared object repositories by using Object Repository Manager
- **Object Recognition Problems and Solutions**
 - Describe the advantages of low-level and analog recording
 - Record a test by using low-level recording
 - Record a test by using analog recording
 - Create a bitmap checkpoint
 - Describe the advantages of virtual objects
 - Create virtual objects to solve playback issues
- **Using Recovery Scenarios**
 - Identify exceptions in a test
 - Create a recovery scenario
 - Associate a recovery scenario with a test
 - Set an optional step in a test

- **Using Sample Test Applications**

Summary

- Useful Resources and Support
- Exercises
- Q&A sessions

BUSINESS PROCESS TESTING TRAINING COURSE - 2 DAYS

Course Details

Overview:

This hands-on course discusses the functionality of Business Process Testing (BPT) and allows you to create manual test cases that are reusable. It provides a script-free mechanism for business analysts to design and align tests with business processes for accurate functionality coverage. Create and manage accurate BPT by integrating with various HP software test tools such as QTP, QC and HP Sprinter.

Course Objectives:

- Understand what Business Process Testing (BPT)
- Identify the business processes (BPs)
- Mapping the BP activities
- BPT workflow
- Create effective BPTs
- Manage and run your BPTs

Duration

2 Days

Location

Onsite/Offsite/Online

Price

Flexible be-spoke pricing based on the number of delegates & location

Prerequisites

Working Knowledge on Microsoft windows, basic knowledge of the testing process, Quality Center basics & knowledge of QuickTest Professional.

AGENDA:

What is Business Process Testing

- Introduction to Business Process Testing

BPT Methodology

- BPT automation workflow
- Who is involved in BPT

Creating Business Components

- Create business components
- Parameterization
- Converting the manual tests to components

Creating Manual Business Process Tests

- How to organise the tests (BPT) in the Test Plan of ALM/QC
- Creating the BPT from the created components

Enhancing the Business Process Tests

- Adding Iteration to the components

- Set up and iterate components into components groups
- Create flows as per the business process

Running the Business Process Tests

- Verify the run-time data for tests
- Run the Business Process Test using HP Sprinter
- How to raise defect and interpret the results

Configuring for Automation

- Role of ALM & QTP in automating BPTs
- How to configure BPT automation
- How to execute automated BPT

Building the Automation - Application Areas

- Need for building the automation application areas
- How to create an application area
- Add relevant tests as per the business flow

Summary

- Additional Reading Materials, Support and Resources from HP Software
- Exercises
- Q and A session

If you require more information or clarification of the above courses please contact the following HP Software Team in your country:

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