



PC120 – ALM Performance Center 11.5 Essentials

Instructor-Led Workshop

OVERVIEW

This five-day course introduces students to ALM Performance Center 11.5 and the Virtual User Generator (VuGen) application, which is a scripting tool used to record and run user actions on an application to be load tested. The topics include how to schedule tests, run tests, and analyze test results. Students learn how to effectively and efficiently plan, create, schedule and run a simple test based on the goals determined at the planning phase and to interpret analysis graphs and achieve set performance testing goals. They also focus on planning, creating, and enhancing Virtual User (Vuser) scripts using VuGen in the web environment. All topics are supported by hands-on labs designed to provide you with the knowledge necessary to create scripts in the web environment. The class is appropriate for both experienced and new product users and others responsible for or involved in performance testing with Performance Center and/or VuGen scripting.

INTENDED AUDIENCE

This course is intended for:

- Quality Assurance and Performance Engineers
- Users of ALM Performance Center who need to create scripts to load test their web applications and run those scripts in the ALM Performance Center environment
- Users of LoadRunner who need to create scripts to load test their web applications
- Executives involved in any aspect of the load testing process

DURATION: 5 Days

SOFTWARE VERSION: 11.5

PREREQUISITES

For best success with this course, students should have working knowledge of:

- Windows
- Testing concepts
- Web sites and browsers
- Fundamental understanding of C programming is helpful, but not required.

COURSE OBJECTIVES

After completing this course, you should be able to:

- Describe the Performance Center architecture
- Manage user accounts
- Assign user privileges
- Manage multiple projects
- Oversee server resources
- Manage test executions
- Monitor and analyze error information
- Produce various reports
- Plan effectively
- Describe the user site's functionality
- Create, configure, and execute load tests
- Use analysis graphs to determine whether the test achieved the set goals
- Record scripts in the web environment using VuGen
- Measure steps and business processes using transactions
- Parameterize scripts to vary user input data
- Customize scripts by adding VuGen and basic C functions
- Correlate scripts to process server-generated data

CERTIFICATION:

HPO-M98 – Advanced LoadRunner and Performance Center 11.x Software Exam

ADDITIONAL COURSES:

LR120 - LoadRunner 11.5 Essentials

Performance Center 11.5

Module 1: Introduction

- Describe basic HP ALM Performance Center architecture and functionality
- Identify the steps of the load testing process
- Describe the administrator and user functions

Module 2: Accessing the User Site

- Navigate the Performance Center user site
- Explain the advantages of the Performance Center user site
- Define privilege levels

Module 3: Planning a Load Test

- Analyze your application under test (AUT)
- Gather preliminary information before performing load testing on your system
- Organize system information effectively
- Use the gathered information to plan load tests

Module 4: Vuser Scripts and Timeslots

- Successfully upload Vuser scripts
- Define timeslots and how to use them to your advantage
- Successfully reserve and manage timeslots

Module 5: Configuring Load Tests

- Configure scheduler settings
- Choose monitors and measurements
- Create monitoring profiles
- Identify best practices for adding monitors

Module 6: Creating Load Tests

- Configure load test settings
- Create SLAs

Module 7: Running Load Tests

- Configure overall project options
- Prepare for a load test run
- Identify effective techniques for running a load test
- Analyze run time data
- Manage load test status (view errors/Vuser logs)

Module 8: Using the Project Dashboard

- Navigate the Analysis and Dashboard views
- Produce Analysis reports and graphs
- Use the Graph wizard
- Create pages for the Product Dashboard
- Describe the Query Builder

Module 9: Using Performance Center Analysis

- View load test results
- Upload and download session files and reports

Module 10: Raising Defects

- Create new defects
- Link defects and other entities
- Track defects in ALM
- Export defect reports

Module 11: Configuring Hosts and Topologies

- Create hosts
- Create AUT hosts
- Reboot servers and check host connectivity
- Create topologies
- Create monitors for web servers

Module 12: Requirements and Business Models

- Create requirements
- Create business models

Module 13: Lab Management

- Add hosts and host pools
- Link hosts to pools
- View and manage MI Listeners
- Configure and run HP Diagnostics

Module 14: Site Administration

- Create domains
- Create projects
- Navigating the Site Administration tabs

Module 1: Introducing VuGen

- Define VuGen
- Identify the main components of the VuGen interface
- Experience the new look and feel of the Flexible Panes, layouts etc.

Module 2: Recording for the Web

- Describe the main VuGen UI
- Use the Protocol Advisor
- Create a VuGen script by recording user steps with VuGen in the web environment
- Exploring the new Step navigator which replaces the tree view, providing a single view of the script with easy filtering and search mechanisms.
- Describe the basics of HTML and URL recording levels
- Saving scripts
- Create Business Process Reports

Module 3: Replaying Scripts

- Identify and configure the appropriate web run-time setting for replay
- Replay the script in VuGen to verify script functionality
- Recognize the debugging tools available in VuGen
- Identify new panes – Errors, Tasks, and Bookmarks panes display all errors, messages, and tags in simple, easy to locate views.

Module 4: Inserting Transactions

- Explain the function of a transaction in a script
- Insert a transaction in a script during and after recording

Module 5: Parameterizing a Script

- Explain what parameters are and how they work
- Solve playback problems with parameterization
- Parameterize a script for load testing

Module 6: Verifying Scripts

- Recognize why and when to use verification
- Identify visual cues to check for during load testing
- Add Text Checkpoints during and after recording

Module 7: Creating Actions

- Create multiple Actions for a web script
- Configure Actions to achieve load testing goals

Module 8: Using the Editor

- Work with the editor
- Send customized output messages to the Replay Log
- Identify basic C code including statements, variables, and functions
- Apply basic debugging techniques in VuGen

Module 9: Advanced Scripting Techniques

- Recognize general LoadRunner functions
- Recognize protocol specific functions

Module 10: Auto Correlation After Recording

- Define Correlation
- Working with the Correlation Studio
- Correlate dynamic values found by using the Auto Correlation tool

Module 11: Manual Correlation

- Determine when manual correlation is required
- Manually insert the `web_reg_save_param_ex` correlation function
- Parameterize the dynamic value in a script
- Correlate a script manually by using Wdiff utility

Module 12: Auto Correlation During Recording

- Create correlation rules to auto correlate during recording
- Import and export correlation rules