

# ALM Performance Center 11.0 Essentials (4 Days)

## ILT Course Description



### INTENDED AUDIENCE

- Quality Assurance Engineers
- 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

### DURATION: 4 DAYS

### PREREQUISITES

Working knowledge of:

- Windows
- Web sites and browsers
- Testing concepts

Basic knowledge of the ALM platform

### CORRELATED COURSES:

Using the ALM 11 Edition (found in the Quality Center portfolio)

### OVERVIEW

This four-day course introduces students to ALM Performance Center 11.0. The course covers material from both the VuGen Scripting and ALM Performance Center sites.

The Virtual User Generator (VuGen) is a scripting tool used to record and run user actions on the application to the load tested. This course focuses 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 ALM Performance Center topics include how to schedule tests, run tests, and analyze test results. Students will learn how to effectively and efficiently plan, create, schedule and run a simple test based on the goals determined at the planning phase. They will also learn how to interpret analysis graphs and achieve set performance testing goals. The lesson topics are reinforced with structured hands-on labs. The class is appropriate for both experienced and new product users and others responsible for or involved in performance testing with Performance Center.

### COURSE OBJECTIVES

At the end of the VuGen section, you should be able to:

- 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

At the end of the ALM Performance Center section, 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

## ALM Performance Center section (2 days)

### Introduction

- Centralized Load Testing
- Discussion of Component functionality
- Review of terminology

### Accessing the ALM User Site

- Project navigation
- Privilege levels

### Planning a Load Test

- Defining a Business Process
- Defining goals and objectives
- Creating a Benchmark run

### Vuser Scripts and Timeslots

- Uploading Vuser scripts
- Understanding Timeslots

### Configuring Load Tests

- Understanding the Scheduler
- Creating and configuring Monitors and their profiles

### Creating Load Tests

- Load test settings
- Adding a monitor profile

### Running Load Tests

- Configuring options
- Exploring the Load Test Run Page
- Types of test runs

### Using the Project Dashboard

- Viewing the Project Dashboard
- Populating the Project Dashboard
- Building Query Reports

### Using Performance Center Analysis

- Collating data
- Viewing load test results
- Uploading and downloading files and reports
- Viewing graphs

### Defect Reporting

- Creating new defects
- Exporting to a spreadsheet

### Configuring Hosts and Topologies

- Maintaining Timeslots
- Using Topologies
- AUT Hosts

### Requirements and Business Models

- Creating Requirements
- Creating Business Models

### Lab Management

- Navigating the Lab Management Site
- Creating Hosts
- Creating Host Pools

## VuGen Section (2 days)

### Introduction

- Define VuGen
- Identify the main components of the VuGen interface

### Recording for the 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

### 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 During Recording

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