



LR120 – LoadRunner 11.5 Essentials

Instructor-Led Training
For version 11.5

OVERVIEW

This five-day course introduces students to LoadRunner 11.5. The course covers topics about the Virtual User Generator (VuGen), Controller, and Analysis tools. It also includes a final one day, hands-on lab. This course is designed to give you a foundation in basic load testing tasks. You create and run load test scenarios using the Controller. The Analysis tool is used to analyze load test results. You learn to work with the graphs to display data after a test is executed. The hands-on labs are designed to provide you with the knowledge necessary to create scripts in VuGen, execute scenarios in the Controller, and view the results in the Analysis tool.

INTENDED AUDIENCE

- Quality Assurance and Performance Engineers
- 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

Working knowledge of:

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

ADDITIONAL COURSES:

- LR230 - Protocol Library for LoadRunner 11.x
- LR320 - Advanced Analysis for LoadRunner 11.x

CERTIFICATION

HPO-M99 Advance LoadRunner and Performance Center 11.x ASE

COURSE OBJECTIVES

At the end of the course, you should be able to:

- Identify the components of LoadRunner
- 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
- Correlate the script using new correlation studio that hosts all correlation functionality in one place: record-based correlations, replay-based correlations, correlation rules and correlation from snapshot
- Organize and manipulate multiple VuGen scripts packaged under a Solution Explorer, such as Action, Parameters, Run-time settings, Script Replay, and External Files,
- Describe the features of the new custom VuGen layout
- Apply the workflow recommended for creating a basic scenario
- Assign scripts, run-time settings, performance monitors, load generators, and users to a scenario based on your load testing goals
- Load test your application by executing a scenario
- Use the Analysis tool to view the results of a scenario

Major Topics – Controller and Analysis

Module 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
- Identify strategies for creating effective scenarios

Module 2: Planning an Effective Load Test

- Define measurable goals for testing
- Gather information before testing
- Document and organize system information

Module 3: Installation

- LoadRunner architecture
- Where to install LoadRunner components
- Identify hardware and software needs for installation

Module 4: Scenarios

- Explain elements of LoadRunner scenario
- Identify different types of scenarios
- How to choose the scenario
- Present the basic steps for creating a scenario

Module 5: Using Run-Time Settings

- Explain the difference between script and scenario run-time settings
- Configure run-time settings in the Controller

Module 6: Scenario Execution

- Prepare for a scenario run
- Identify techniques for running a scenario efficiently

Module 7: Scheduling Scenarios

- Explain scheduling by scenario and by group
- Configure scenario start time
- Explain a real-world schedule and a basic schedule
- Manage schedules through the actions grid
- Manage schedules through the scenario interactive graph

Module 8: Performance Monitors

- Explain the value of performance monitors
- Select performance monitors to achieve load test goals
- Add measurements for performance-based goals

Module 9: Analysis

- Explain the value of analyzing results
- Work with the graphs to display data

Major Topics - VuGen

Module 1: Introducing VuGen

- Define VuGen
- Identify the main components of the VuGen interface
- Experience the new look and feel of VuGen UI

Module 2: Recording for the Web

- Describe the main VuGen UI
- Use the Protocol Advisor
- Create VuGen scripts by recording user steps
- Identify the differences between the HTML and URL recording levels
- Save scripts
- Create Business Process Reports

Module 3: Replaying Scripts

- 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

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 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

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

Module 11: Manual Correlation

- Manually insert the `web_reg_save_param_ex` correlation function
- Parameterize the dynamic value in a script
- Correlate a script manually by using Wdiff

Module 12: Auto Correlation During Recording

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

Major Topics – Hands-On Lab

Lab 1: LoadRunner Hands-On Lab

- Identify LoadRunner's load testing components and process
- Identify the scenario execution process
- Create a baseline script with multiple action sections
- Create transactions in a script
- Create checkpoints in a script
- Define lab and script requirements
- Define steps
- Calculate the load test
- Execute scenarios
- Analyze the results of a full load and scalability test