



LoadRunner 9.0 Essentials

Overview

This five-day course introduces students to LoadRunner 9.0. The course covers topics for VuGen, the Controller, and Analysis tools. It also includes a final, hands-on lab. The Virtual User Generator (VuGen) is a scripting tool used to record and run user actions on the application to be load tested. This course focuses on planning, creating, and enhancing Virtual User (Vuser) scripts using VuGen in the Web environment.

LoadRunner is an automated load testing tool that allows you to test your application before, during, and after deployment. This course is designed to give you a firm foundation in basic load testing tasks.. You will create and run load test scenarios using the Controller.

The Analysis is used to analyze load test results. You will learn to work with the graphs to display data after a test is run.

All topics are supported by hands-on labs designed to provide you with the knowledge necessary to create scripts in the Web environment.

Course Objectives

At the end of the course, 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
- Identify information that needs to be gathered for load testing.
- Identify the components of LoadRunner.
- Apply the workflow recommended for creating a basic LoadRunner scenario.
- Assign scripts, run-time settings, performance monitors, load generators and Vusers to a LoadRunner scenario based on your load testing goals.
- Load test your application by running a scenario.

Intended Audience

This course is recommended for the following individuals:

- 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

Prerequisites

The prerequisites for this course are a working knowledge of:

- Windows
- Web sites and browsers
- Client/Server environment
- Fundamental understanding of C programming is helpful but not required

Course Time

- 5 days

Major Topics

VuGen

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

Major Topics

Controller and Analysis

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

Planning an Effective Scenario

- 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

Installation

- Describe the LoadRunner architecture
- Determine where to install LoadRunner components
- Identify hardware and software needed for installation

Introduction to Scenarios

- Explain the elements of a LoadRunner scenario
- 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

Scenario Execution

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

Scheduling Scenarios

- Explain Scheduling by Scenario and by Group
- Configure Scenario Start Time
- Explain a Real-life Schedule and a Run until Complete Schedule
- Manage Schedules through the Actions grid.
- Manage Schedules through the Scenario Interactive Graph

Defining Service Level Agreements

- Define a Service Level Agreement
- Create a Service Level Agreement Goal Measured Per Time Interval
- Create a Service Level Agreement Goal Measured Over the Whole Run

Performance Monitors

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

Analysis

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