

# Fundamentals of LoadRunner 9.0 (2 Days)

## ILT Course Description



### **INTENDED AUDIENCE**

- Quality assurance engineers
- Performance Engineers
- New users of LoadRunner who need to load test their applications and/or executives who will be involved in any part of load testing.

### **DURATION: 2 DAY**

### **OVERVIEW**

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. The LoadRunner Controller and Analysis will be covered in this course. 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 load test your system using LoadRunner.

### **COURSE OBJECTIVES**

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

- 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.

### **PREREQUISITES**

Working knowledge of:

- Windows
- Web sites and browsers
- Client / server environment

## **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

# VuGen 9.0 Scripting For Web (2 Days)

## ILT Course Description



### **INTENDED AUDIENCE**

- Quality Assurance Engineers
- Performance Engineers
- Users of LoadRunner who need to create scripts to load test their Web applications.

### **DURATION: 2 DAYS**

### **OVERVIEW**

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.

### **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

### **PREREQUISITES**

Working knowledge of:

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

## **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

# LoadRunner 9.0 Hands-on Lab (1 Day)

## ILT Course Description



### **INTENDED AUDIENCE**

- Quality Assurance Engineers
- Performance Engineers
- Users of LoadRunner who need to create scripts and load test their Web applications.

### **DURATION: 1 DAY**

### **OVERVIEW**

This Hands-on Lab is designed to provide comprehensive understanding of concepts from the Fundamentals of LoadRunner 9.0 and VuGen 9.0 Scripting for Web courses. This Hands-on Lab involves students in building an effective load testing script then running a load test against the Web Tours application to achieve the given performance goals. This activity will validate the newly acquired knowledge on LoadRunner and techniques for load testing Web applications.

### **LABS**

100% of the class time is devoted to lab exercises.

### **PREREQUISITES**

- Fundamentals of LoadRunner 9.0
- VuGen 9.0 Scripting for Web