

LoadRunner



What is Load Testing

- Tests an application under the anticipated usage volume for the environment.
- Used to determine whether a file meets an SLA under standard usage conditions.
- Uses a few machine to simulate a large volume of load.
- Only multi user/distributed applications can be load tested.

What Load Testing is NOT

- Load testing is NOT a substitute for functional testing.
- Load testing is NOT Stress testing



What is LoadRunner

- HP's automated load testing tool.
- Simulates load on an application and collects data using monitors.
- Has 3 parts
 - VuGen
 - Controller
 - Analysis

VuGen

- Allows users to create scripts on how to interact with the application
- Script is recorded based on the protocol of the application it supports

What are protocols

- Protocols are used to communicate with distributed applications.
- Each distributed application supports 1 or more protocols and LoadRunner records and recreates the information sent using the selected protocol.
- Load is generated by sending multiple requests using the selected protocol.

List of some protocols

- E-Business
- FTP
- LDAP
- Palm
- SOAP
- COM/DCOM
- Corba
- Web (HTTP/HTML)
- Wireless
- VoiceXML
- WAP
- Streaming (MMS, Real)
- Mailing Services
 - IMAP
 - MAPI
 - POP
 - SMTP
- Enterprise Java Beans
- Middleware
 - Jacada
 - Tuxedo 6
 - Tuxedo 7
- ERP
 - Baan
 - Oracle NCA
 - PeopleSoft
 - Siebel
 - SAP

VUGen

- Is used to create scripts based on how the application will be used
- VUGen only used for test creation and not test execution.
- Process
 - Identify AUT/protocol(s)
 - Identify scenarios
 - Record script (for each scenario)
 - Edit script (as necessary)

Controller

- Is used to execute LoadRunner scripts
- Mirrors how multiple users will use the application.
- Process
 - Identify how many VUsers run each scenario
 - Identify the order/concurrency for each scenarios
 - Create the controller script
 - Execute the controller script

Analysis

- Collects a large amount of information (using monitors) from each server involved in the tests
- Provides tools to compare information gathered during each execution
- Process
 - Gather statistics for each test execution
 - Correlate the statistics