ReleasePoint
SOFTWARE TESTING SOLUTIONS

Bankwest and Performance Centre 9.10

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Performance Testing Team

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- Trevor Padman

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Performance Centre Setup

- Performance Centre 9.10 License
  - 2000 Virtual Users
  - 4 Concurrent runs

- 1 Management Sever
- 8 Controllers / generators split into 4 groups
  - (Including 2 in Sydney)

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Resources
- Hosts
- MI Listeners
- Host Locations
- Host Pools
- Servers

Site Management
- Test Runs
- Timeslots
- Autostart Viewer
- Event Log

System Configuration
- License
- General Settings
- Diagnostics
- Server Configuration
- Authentication Server
- Alerts Configuration

Reports
- Site Users
- Resource Summary
- Concurrency vs. License
- Timeslot Usage
- Resource by Duration
- Resource by Runs

User Management
- Personal Information
- Users
- Roles
- Privilege Management
- Projects

Hosts

Page will reload in 82 secs. Refresh Now | Refresh Frequency...

Filter by: Pool: All Pools | Location: All Locations | Per Page: 20 hosts
Name: | Run Status: All Statuses | Filter
'*' found in the Pool list denotes a merged pool.

Currently Showing: 1 - 8 / 8

Name	Purpose	Pool	Location	State	Run Name	Run Status	Run Time	Project	User
001		General	DEV_	Operational					
002		General	DEV_	Operational					
003		General	DEV_	Operational					
004		General	DEV_	Operational					
005			DEV_	Operational					
006		SYDNEY	DEV_	Operational					
007		SYDNEY	DEV_	Operational					
008			OAT_	Operational					

Currently Showing: 1 - 8 / 8

Reboot... | Install Patch... | Check Hosts... | Delete | Add Host...

Legend: Controller | Load Generator | Controller + Load Generator | Data Processor | Over firewall | SSL

Details for host:

Priority: 3 **State:** Operational **Pool:** General **Comments:** **OS:** Win More Details... Save

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Environments and testing

- OAT (Operational Acceptance testing)
  - 6 Applications
- UAT (User Acceptance Testing)
  - 9 Applications
- Testing Statistics
  - Over 850 Test runs per year
  - 32500 Virtual Users

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Test Process

- Questionnaire
- Test plan
- Script design
- Scenario design
- Test run
- Analyse
- Reporting

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Questionnaire

- Project manager (Collator)
- Development
- Business owner’s
- Database Administrators (BDA’s)
- Chief Technical Officers (CTO’s)
- Other Stakeholder’s

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Questionnaire

- Business processes to script
- Load distribution for each script
- Business process loads / volumes
- Data requirements
- Roles and responsibilities
- Contact details

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Test Plan

- Entry and exit criteria
- Tests to be performed
- Performance, Load , stress , stability, etc
- Business process walkthroughs
- Business process loads / volumes
- Test Schedule
- Roles and responsibilities
- Risks and issues

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1 Business Process #1 - Search Customer and View Details

Name: Search Customer and View Details
Purpose: Search for a customer and view its details

Step	Action	Data Requirements	Expected Output	Expected Response Time (in seconds)
1	Launch App Client	App Client	The App "Logon" Box should appear	2
2	Enter Credentials	Valid Credentials	The App "Home" page should come up	2
	Click "Logon"			2
3	Click "Customer Management" tab	None	The "Customer Management" page should come up	2
4	Enter the Business Customer Name.	Valid Customer	The Search result should list business customers.	2
	Click "Search" button			2
5	Click on the "Business Customer" in the Search list	None	The "Customer Summary" page should come up for that business customer.	2

Script Design

- Header outlines the basic data and includes a change history

- Common naming structure for actions
  - Each script has a unique action name e.g. *A010_BusScript_Action1*
  - Across all the scripts Critical measurements have a similar naming structure, e.g. *021_BusScript_Logon*

- Unique script data and login data
- Parameters to facilitate easy transportation

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Scenario Design

- Matching the scripts to the Business process loads / volumes
- Getting the scenario right takes time

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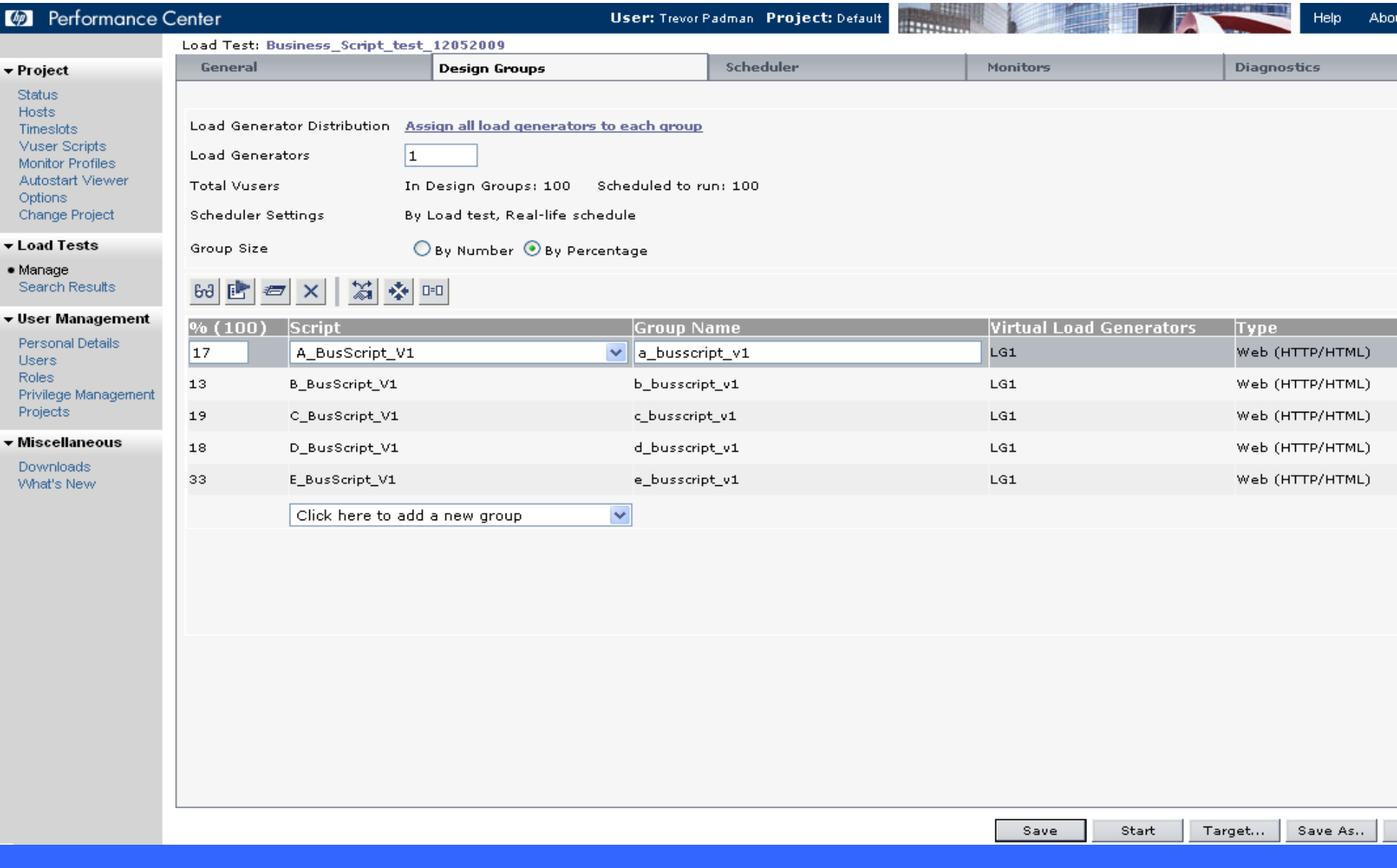
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Performance Center
User: Trevor Padman Project: Default
Help
Load Test: Business_Script_test_12052009
General
Design Groups
Scheduler
Monitors
Diagnostics
Project
Status
Hosts
Timeslots
Vuser Scripts
Monitor Profiles
Autostart Viewer
Options
Change Project
Load Tests
Manage
Search Results
User Management
Personal Details
Users
Roles
Privilege Management
Projects
Miscellaneous
Downloads
What's New
Load Generator Distribution
Assign all load generators to each group
Load Generators
1
Total Vusers
In Design Groups: 100
Scheduled to run: 100
Scheduler Settings
By Load test, Real-life schedule
Group Size
By Number
By Percentage
% (100)
Script
Group Name
Virtual Load Generators
Type
17
A_BusScript_V1
a_busscript_v1
LG1
Web (HTTP/HTML)
13
B_BusScript_V1
b_busscript_v1
LG1
Web (HTTP/HTML)
19
C_BusScript_V1
c_busscript_v1
LG1
Web (HTTP/HTML)
18
D_BusScript_V1
d_busscript_v1
LG1
Web (HTTP/HTML)
33
E_BusScript_V1
e_busscript_v1
LG1
Web (HTTP/HTML)
Click here to add a new group
Save
Start
Target...
Save As..

Project
Status
Hosts
Timeslots
Vuser Scripts
Monitor Profiles
Autostart Viewer
Options
Change Project
Load Tests
Manage
Search Results
User Management
Personal Details
Users
Roles
Privilege Management
Projects
Miscellaneous
Downloads
What's New

Load Test: Business_Script_test_12052009

General | Design Groups | Scheduler | Monitors | Diagnostics

Enable Scheduler

Load Test Schedule

Start Time:

(•) Without delay ( ) With a delay of 00:00:00 (HH:MM:SS)

Schedule:

(•) By Load Test ( ) By Group [ ] Wait for all groups to initialize

Group: d_busscript_v1

Run Mode:

(•) Real-life schedule ( ) Classic schedule ( ) Run until complete

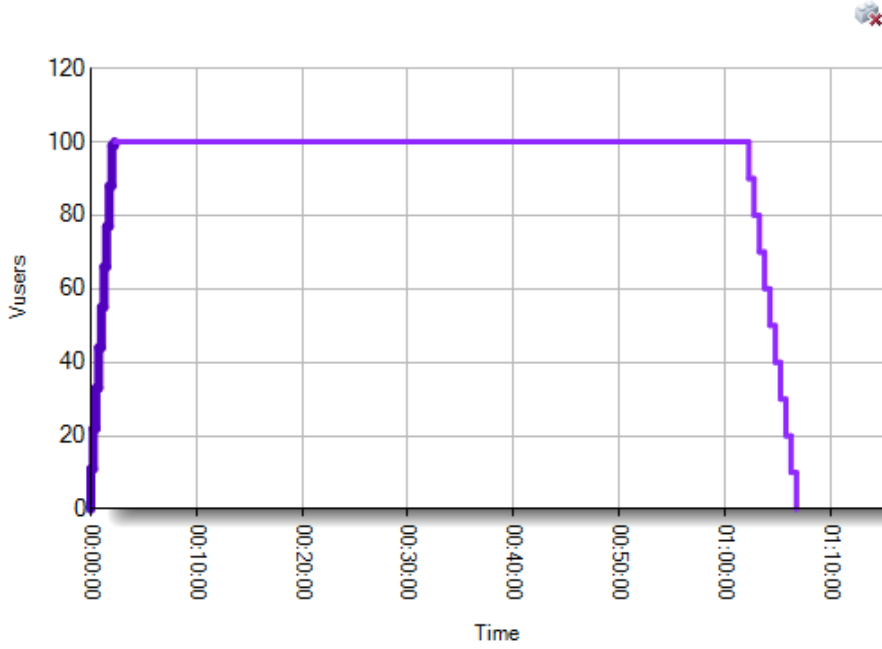
Global Schedule

Scheduled Vusers: 100

Action	Properties
Initialize	Initialize each Vuser just before it runs
Start Vusers	Start: 100 Vusers gradually 11 Vusers every 00:00:15 (HH:MM:SS)
Duration	Run for 01:00:00 (HH:MM:SS)
Stop Vusers	Stop all Vusers: 10 every 00:00:30 (HH:MM:SS)

Messages

Schedule Graph



Load Test saved.

Save | Start | Target... | Save As..

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Test Run

- Test window
  - 8:30 PM to 4:00 AM Monday to Thursday
  - Gives us 4 test slots per night
  - Ramp up, ramp down 1 hour run

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Performance Center - Administration Site

Help About Logou

- Resources
  - Hosts
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Timeslots [Switch to Timeslots Table]

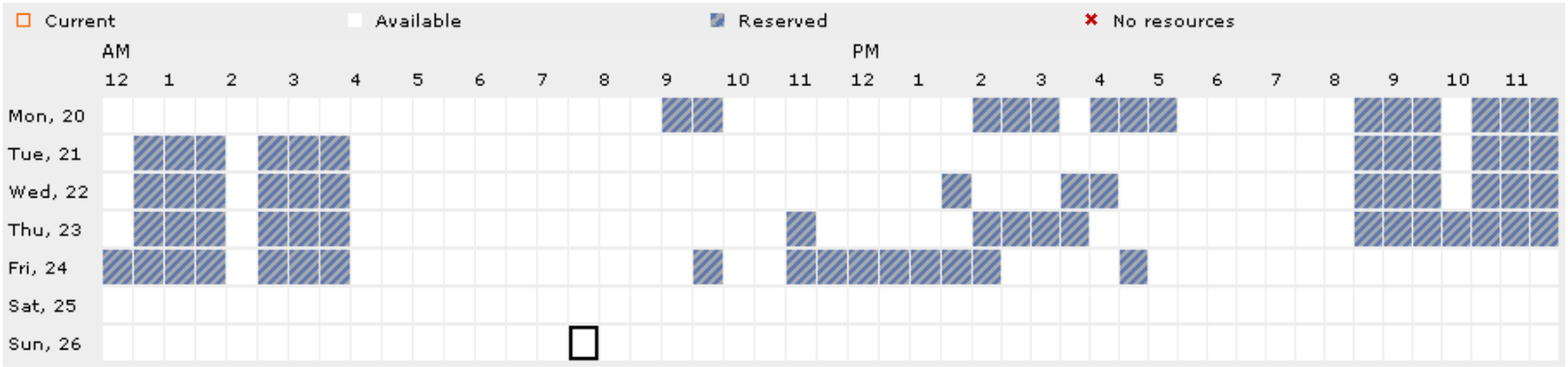
Page will reload in 57 secs. Refresh screen every: 1.5 minute

Resources Availability Table

Time on Server : 14-May-2009 1:42:27 PM

View availability for: April 2009 | 20-Apr-2009 - 26-Apr-2009 | Select Project: All | Go

Total Machines in selected project: 8 **Total Vusers in selected project(s): 2000**



Details for the timeslot that starts: 4/26/2009 7:30:00 AM

Resource Status

Resource	License Limit	Reserved - all projects	Available
VUsers	2000	0	2000
Runs	4	0	4

Host Status (all PC hosts)

Total Hosts: 4 C, 4 LG, 0 C+LG

Reserved Hosts: 0 C, 0 LG, 0 C+LG

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Analyse Data

- Understanding what happened in the test run
- Utilize the template function

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File Edit View Graph Reports Tools Windows Help

Session Explorer

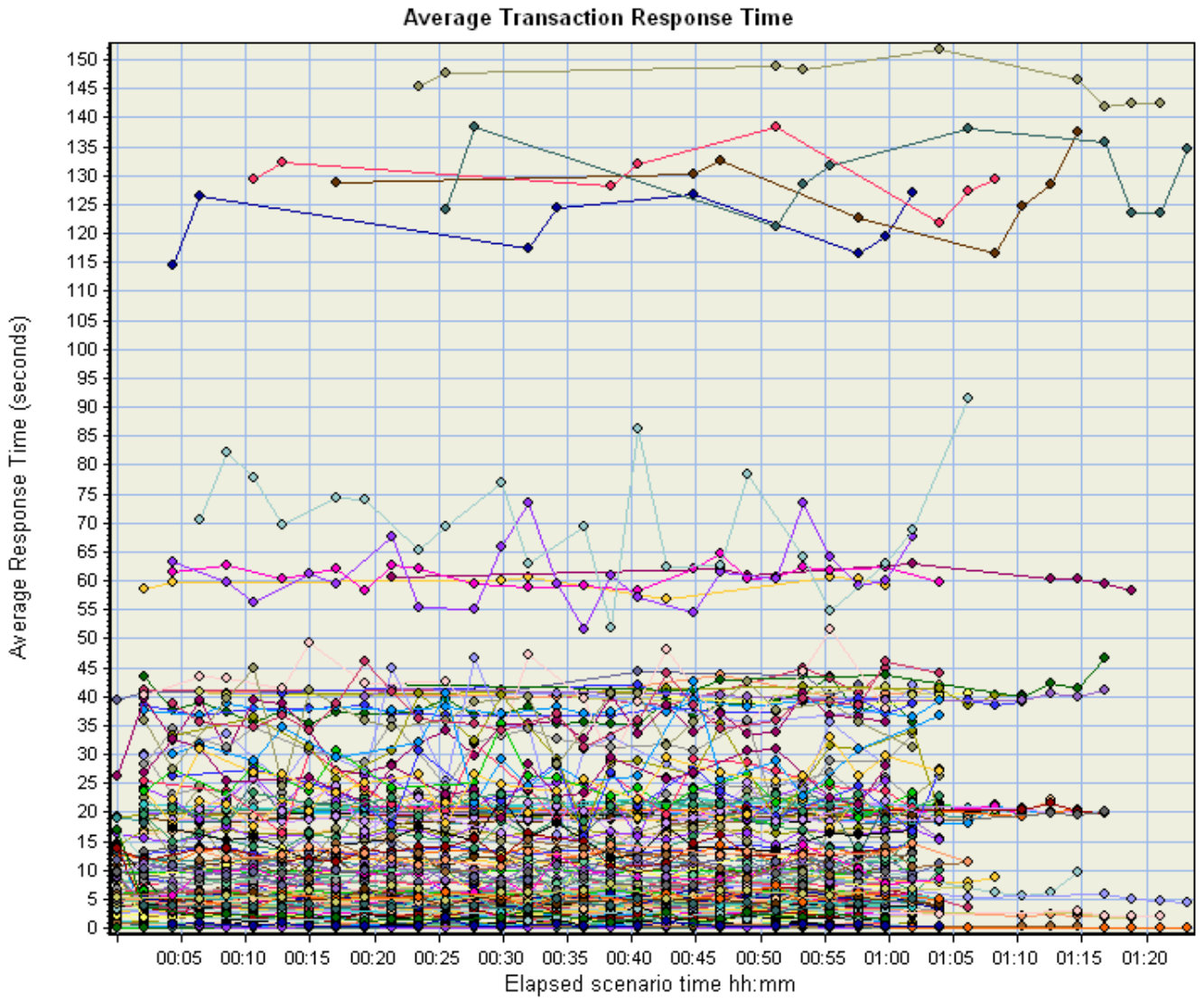
- Running Vusers
- Vuser Summary
- Throughput
- Hits per Second
- Transactions per Second
- Total Transactions per Second
- Transaction Summary
- Errors per Second
- Error Statistics
- HTTP Responses per Second
- Average Transaction Response Time
- Transaction Response Time Under Lo
- Transaction Response Time (Distribut
- Web Page Diagnostics
- Connections
- Connections Per Second

Properties

Properties	
Description	Displays the average time take
Filter	Transaction End Status = (Pas
Granularity	128 Seconds
Group By	
Measurement BreakDo	
Title	Average Transaction Respons

Displays the average time taken to perform transactions during each second of the load test. This graph helps you determine whether the performance of the server is within

nsactions per Second | Transaction Summary | Errors per Second | Error Statistics | HTTP Responses per Second | Average Transa...



Raw Data

Graph Data

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Reporting

- Know who the report is going to
- Build a report that contains only relevant data
- Watch out for spikes

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Final Report

- Re-establish new baseline for future testing
- Confirm that app has met exit criteria
- Provide information for all stakeholders to sign of for route to production
- Storage data

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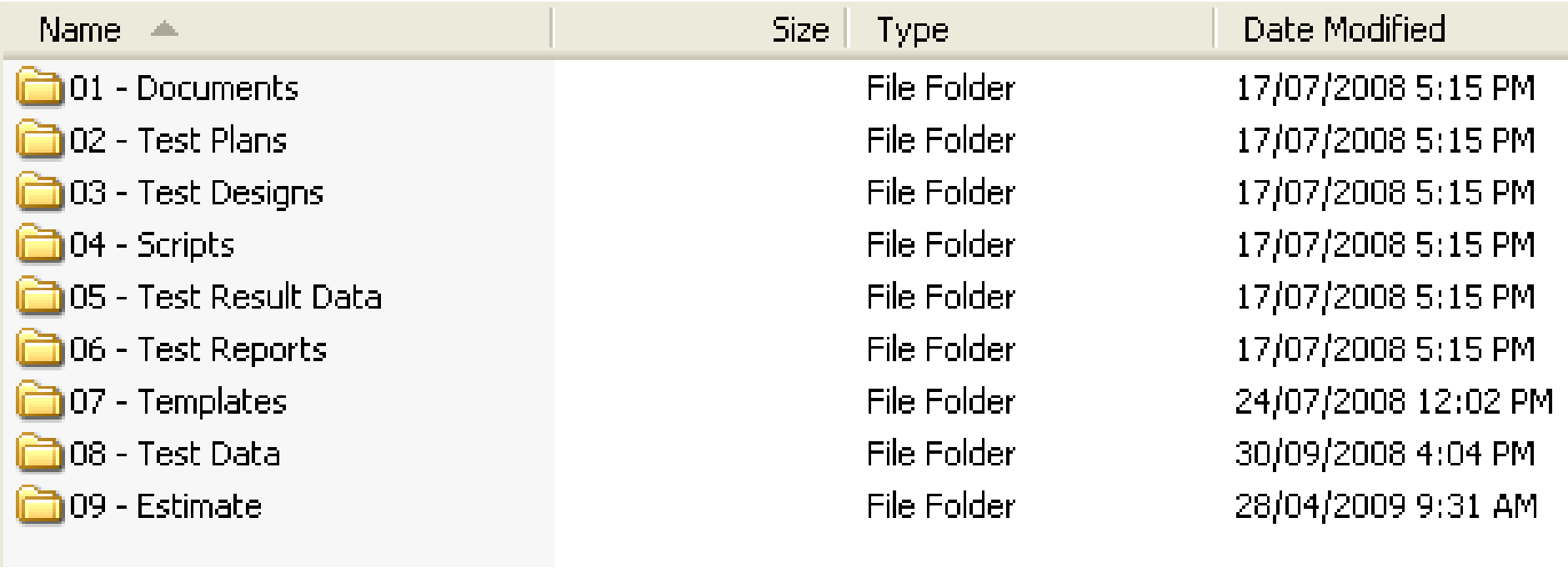

Name	Size	Type	Date Modified
01 - Documents		File Folder	17/07/2008 5:15 PM
02 - Test Plans		File Folder	17/07/2008 5:15 PM
03 - Test Designs		File Folder	17/07/2008 5:15 PM
04 - Scripts		File Folder	17/07/2008 5:15 PM
05 - Test Result Data		File Folder	17/07/2008 5:15 PM
06 - Test Reports		File Folder	17/07/2008 5:15 PM
07 - Templates		File Folder	24/07/2008 12:02 PM
08 - Test Data		File Folder	30/09/2008 4:04 PM
09 - Estimate		File Folder	28/04/2009 9:31 AM

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Remeber...

...if you don’t find it, your customers will.

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Questions?

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