



Comparison of Industry No1 Performance Test Tool  
and  
Facilita Forecast

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## General Features

Feature	Description	No1 Performance Test Tool	Facilita Forecast Version 4
Industry Position	Acceptance as Industry standard Performance Testing tool	Market leader. Heavily sales driven. Global marketing campaigns. Global recognition. Currently in use by over 2/3 of the performance and load testing market.	Innovative and technically driven company. Rapidly increasing market share.
Simplicity	Learning and using the tool. Quick adaptation to the client situations	No1 Performance Test Tool is complex to learn. Extensive knowledge is required to effectively use the tool. Highly configurable.	Comparable. Extensibility also allows packaging of easy to use solutions for specific technology / application. Some useful features to simplify key tasks such as dynamic web form handling.
Extensibility	The ability to increase the functionality of the tool.	C programming language is used and C function libraries, limited to functional capabilities of the tool. Interpreted 'line by line' script debugging.	Fully O-O programming interface incorporating extension via custom VU types. Script development in C++, Java and .Net (protocol/technology dependent). Well integrated with market leading IDE's. Script debugging available. Support of multi language/protocol systems. New modular framework has the potential to support a great number of protocols.
Reporting and graphs	The facilities to examine and investigate the results of a test including timers and monitored resources and display the results in graphical format.	Sophisticated large range of charts and graphs with overlay facilities. Automatic report generation into MS-Word. Analysis a separate via an application that can be distributed to users. Metric and statistic correlation tools.	Post run visualisations provide features such as in-depth statistical analysis, user defined data views and custom charting capabilities. Merging of test statistics and metrics for identification of bottlenecks on multi-tier systems. No additional license costs
Controller	Application that manages the configuration and execution of tests.	Facilities for real-time monitoring. Automatic scenario generation. Individual control of users, scripts and groups of scripts. Scheduling, percentage runs et iterations.	Well integrated real-time charting for reporting and monitoring of test statistics, injector & SUT metrics. User specified levels of log detail. Real time viewing of runtime logs. Monitoring of multi-language playback.

Remote Testing	The ability to distribute the generation of load across multiple load-injector machines.	Supports multiple load-injectors managed by a single controller.	Supports multiple load-injectors managed by a single controller. Low runtime footprint. Software controlled spawning of injector threads/processes/services for optimum load injector resource usage.
Runtime load injection	Ability to Inject Load at Run time (While Load Test in Progress)	Has option to spontaneously inject more load or ability to reduce the load which can be controlled by user	Set as a test pre-condition. Cannot be adjusted during running test.
Monitoring	Resource usage information is captured during execution. It can be shown during execution and used to build performance reports.	Many supported. On-line graphics during execution. Supplied with Apache, Netscape IIS other monitors are charged per item. Results used for reporting. New facility to allow remote users to monitor real-time results via a browser based interface. Note: To monitor through a firewall requires TCPIP access through a specific port.	Various measurements of test progress including VU-specific, custom status and activity information. Web-relay allows monitors to run on remote machines beyond firewall. On-line graphics during execution, monitored results used for reporting. Remote server monitor configurations allowed
Record and generation	Recording and Generation of the script facilities.	Extended logging supports view of parameter values and Server messages. Also view and comparison with 'recorded' version of web page view and client response messages.	Recorders available; Web; Browser call interception, Browser-server HTTP message interception by proxy, Browser-server HTTP message low level packet interception by proxy. Record and generation capabilities for Java, Citrix technologies. Other record & generation support for other protocols and technologies. Greatly reduces time spent 'hand crafting' test scripts
Scalability	The ability of the tool to generate numbers of virtual users and the corresponding resource usage. Actual resource use depends on the number, size and complexity of the scripts.	Resource limitations are number of threads and RAM. Approx 1 vuser per ½ Mb RAM for NT/W2K. Windows 95, 98 et Unix are less efficient. Max. approx 1,500 VUs per PC.	Low runtime footprint. VU frequency per load injector limited by external system resources only. Software controlled spawning of injector threads / processes / services for optimum load injector resource usage.
Training	The training services available for the tool.	A range of courses from around £500 per day per person. Many partners also provide training.	Currently training is provided by the vendor. In 2008 it is planned that training will also be provided by specialist implementation partners.
Support	Tool and	Dedicated support centres	Facilita currently have support

	implementation support	all across the globe. Online help and resources available. Implementation support available through various partners	centres in Europe and APAC. Implementation support available through various partners.
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## Technical Features

Feature	Description	No1 Performance Test Tool	Forecast
Protocols & Technologies	The communication protocols that can be captured, manipulated and replayed by the tool on various types of applications	Many supported. Protocols are charged per item. Has a multi-protocol recording feature.	Web, .NET, Java, Database, Citrix, Bespoke and TCPIP support. Multi-protocol load generation supported. Multi-protocol recording and scripts not yet available.
Scripting Language	The medium used to represent the captured protocol data and manipulate the data for play-back.	Programming language used is called TSL, it uses standard syntax for "C" and allows C function libraries to be added. Has extensive customised functions for the different protocols supported by the tool.	Advanced and modular C++ programming. Extensive & extensible runtime libraries. Building additional libraries is easier. Native languages are used for Java and .NET.
Development Platform support	Types of development platforms supported	No1 Performance Test Tool can be used on most common platforms	Comparable coverage includes: <ul style="list-style-type: none"> <li>• Web applications and services.</li> <li>• Database Servers ODBC, ADO, JDBC</li> <li>• Network replay over TCP/IP, UDP, OSI.</li> <li>• J2EE.</li> <li>• Terminal Servers</li> <li>• Application specific APIs</li> </ul>
Correlation	The task of substituting values in dynamic data to enable successful playback.	Automated correlation, including: during recording, after recording and comparing recordings with playback results. Not available for all modes of capture.	Automated correlation, including: web form handling, dynamic URL extraction. Facility to automatically generate script code to aid variable substitution. Automated correlation csn

			be specified in script generation rules (Web & Java for now).
Cookie Management	Detection, recording and playback of HTTP cookies. Both tools need additional code to manage JavaScript generated cookies.	HTTP header cookies are managed automatically and can be manipulated manually if required.	HTTP header cookies are managed automatically and can be manipulated manually if required.
Parameterisation	Automatically changing dynamic data values for more accurate emulation of real users. Often essential for session management.	Extensive facilities for data entry including wizard interface to DB interrogation. No standard function to lock data sources and maintain uniqueness of concurrently accessed data across distributed tests.	Extensive facilities for data entry including interface to enter test data. Dynamic web form handling reduces script development time by reducing laborious web form key-value pair parameterisation. Standard functions for sequential, random and pseudo-random data-file access. Has standard common data sharing and locking facilities for maintaining uniqueness of parameters for an individual load injector or across all injectors on a distributed test. For complex or large data sets, Forecast can be integrated with Grid-Tools.
Debugging	Script debugging facilities.	Extended logging supports view of parameter values and Server messages. Also view and comparison with 'recorded' version of web page view and client response messages. Debugging facilities in script generator, step and breakpoints.	Since Visual Studio 2005 can be used for programming (Free download) supports debugging, Checkpoint, Single-Step.  Java debugging via standard debuggers.
Logging	Error and debug message logging	Runtime error and debug message logging option available	Runtime error and debug message logging option available
Error handling	Flexibility of handling and managing unexpected errors	Flexibility to Handle through programming	Flexibility to Handle through programming
Shared Data server Integration	Runtime data can be stored in a central place and shared by many tests or projects	Not available. Test data has to be created per -script	Runtime data can be stored in a central place and shared by many tests or projects

### Simulation features

Feature	Description	No1 Performance Test Tool	Forecast
LAN/WAN Speed simulation	The ability to emulate the behaviour of different network infrastructures during a test.	Allows the emulation of latency, packet loss, link faults et dynamic routing effects over the network used in a test.	Using 3 <sup>rd</sup> party tool, allows the emulation of latency, packet loss, link faults et dynamic routing effects over the network used in a test.
User speed simulation	The ability to emulate the different network speeds that can be used by real users.	Can emulate different network speeds during playback	Can emulate different network speeds during playback
IP Spoofing	The ability to emulate the behaviour of different IP addresses accessing a system. IP spoofing provides elegant solution for testing systems with IP address based load balancing algorithms, reducing the need for excessive numbers of load injector machines.	Supports IP spoofing including automated router updates for IP forwarding.	Supports IP spoofing including automated router updates for IP forwarding.
Caching	The ability to emulate the caching of pages as performed by a web browser.	Can control browser cache emulation during playback and control setting for each individual vuser.	Can control browser cache emulation during playback and control setting for each individual vuser.

### Hardware, Software requirements

Feature	Description	No1 Performance Test Tool	Forecast
Hardware		MS windows 2000, NT4 (sp6a),XP-Pro (also 95 or 98 cannot run multi-threaded) - Load generators also support limited generator functionality on: Unix: HP, Solaris, Linux	Windows PC Controller Recommended minimum 2.0Ghz single core PC, 1GB RAM, 90Meg free for the installation. Additional disk space will be required for the test run results data (VU event logs etc  Windows Injector Recommended minimum 2.0Ghz single core PC, 1GB RAM. An Injector of this spec

			would easily support 2000 Web Vus.  IBM AIX based injectors also supported.
Platforms		<b>Windows</b> Windows 2000 (all versions) Windows XP (all versions) Windows 2003 Server (all versions), Windows Vista.  <b>Unix</b> Unix: HP, Solaris, Linux	<b>Windows PC Controller</b> Windows 2000 (all versions) Windows XP (all versions) Windows 2003 Server (all versions), Windows Vista. <b>Windows Injector</b> Windows 2000 (all versions ) Windows XP (all versions) Windows 2003 Server (all versions), Windows Vista. <b>Unix Injector</b> Linux, AIX.

### Costs and ROI

Feature	Description	No1 Performance Test Tool	Forecast
Cost of standard license	Purchase costs of software and licenses, excluding upgrades or support.	From £16,000 for basic package with no virtual users. Additional charge for each protocol and monitored resource and for virtual users.	There is no additional cost for the basic package of Forecast Studio, load injectors and Analyzer as part of a VU purchase.
VU license cost	Most commercial tools charge on the basis of the number of virtual user available. Extra hardware is an additional cost.	Rental has restrictive terms.	Rental terms are easily available. Costs approximately 60% of market leader.
Maintenance cost	Cost of maintaining and renewal cost /annum	Typically 23% of the actual cost.	20% of the list price.