

TeamQuest® Model

Capacity planning software for modeling, what-if analysis, and performance prediction

TeamQuest Model offers both analytic and simulation modeling capabilities to accurately predict the resources required for consistent service delivery at appropriate risk levels. TeamQuest Model predicts the impact of configuration changes, consolidation options, and varying demand levels without requiring hardware to be configured or artificial loads to be applied. It streamlines the process of predicting performance on alternative configurations, including migrating from one operating system/hardware platform to another. You can determine the effects of changes to memory, I/O devices, network bandwidth, and size or number of CPUs. TeamQuest Model even understands the nuances of multithreaded environments and the various partitioning configuration options that different operating systems have. These accurate and objective predictions from TeamQuest Model ensure selected configurations will satisfy service levels while meeting cost and power consumption limitations.

What-if analysis

Understand, in advance, the impact of changes to hardware configurations, virtualized environments, application distribution, server consolidation, business expansion or workload growth.

Know the effect of doubling a specific business workload over the next six months, while moving part of another workload to an alternate shift.

Know which system in a multi-tiered environment is likely to run out of capacity and when, given current growth rates.

Predict the performance results of cross-platform migrations, both physical and virtual.

Run what-if scenarios to predict the impact on IT infrastructure of changing business practices and events.

- Can service levels be maintained after consolidating these applications?
- How will performance be affected with these changes to shares, limits or reservations in a virtualized environment?
- How will this IT service respond to a 20% surge in demand?
- What is the optimal hardware configuration to support this new application?
- What if we migrate to a different platform?
- How many virtual machines can I safely run on each host?

Performance prediction

Predict IT performance on both physical and virtualized platforms using analytic modeling and discrete event simulation.

Vary models across time to show the compounded effect of growth.

Predict response times, throughputs, queue lengths, resource utilization, and many other statistics.

Determine the effects of changes to memory, I/O devices, network bandwidth, and size or number of CPUs.

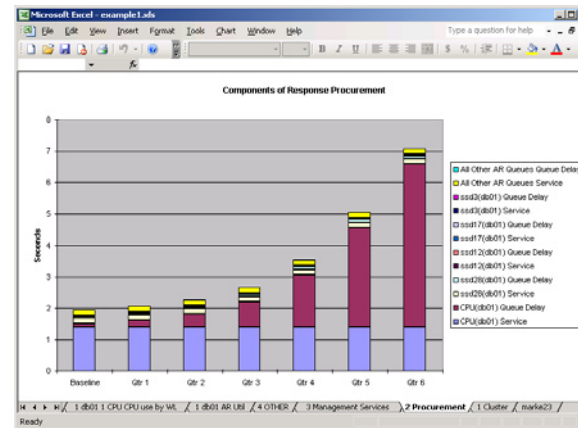
Uncover which devices are responsible for the largest portion of response time.

Know in advance how systems will respond to unexpected spikes in demand.

Understand non-linear behavior that is missed by simpler trend analysis capacity planning techniques.

Predict the performance of various multithreaded environments.

Predict the performance impact of migrating from one operating system/hardware platform to another.



This report shows the predicted components of response for the Procurement workload for the next six quarters based on forecasted business growth.

Who uses it?

Capacity Planners
IT Infrastructure Architects

For what?

Plan a server consolidation project

Predict performance with alternative configurations

Budget for IT infrastructure needed to handle future workloads

Search for configurations that will reduce power or cooling requirements

Predict the affects of a new application rollout on production systems

Create a cost-effective disaster plan

Reporting

Report model results, workload and queue result statistics, and summary statistics.

View textual reports in TeamQuest Model and graphical reports using Microsoft Excel.

View, customize, and create reports quickly and efficiently using Microsoft Excel and other spreadsheet applications.

Analytic and Simulation Modeling

TeamQuest Model offers both analytic and simulation modeling capabilities. Analytic modeling, sometimes called mean value approximation and advanced decomposition methods, uses mathematics to calculate how a queuing network will perform. Simulation, sometimes called discrete event simulation, actually simulates the queuing events that occur during execution. While simulation modeling is useful in specific situations, it often takes longer to build and execute the model. Analytic modeling, however, is a fast and accurate technique most often used by TeamQuest customers.

Regardless of the modeling technique used, a baseline set of measurements is taken on a system and a model is then built and calibrated based on a description of the system. From there, hypothetical changes are made to system configuration or business workloads, and the model predicts how the changes will affect performance.

A version of TeamQuest Model, called TeamQuest Model for HP OpenView Performance, uses data gathered by HP OpenView Performance Agent.

TeamQuest Model user interface client

- Microsoft Windows on x86 and x64
- Red Hat Enterprise Linux on x86 and x64

Platforms Modeled

Predict the performance of these platforms, including taking into consideration the multithreaded behavior of these environments:

- AIX on POWER
- HP-UX on Itanium and PA-RISC
- Oracle Enterprise Linux x86 and x64
- Red Hat Ent. Linux on POWER, x86, x64, Itanium, zSeries
- Solaris on UltraSPARC, x86, and x64
- SuSE Linux Enterprise Server on POWER, x86, x64, Itanium, zSeries
- Windows on x86, x64 and Itanium
- VMware ESX/ESXi Server on x86 and x64
- POWER5
- POWER6
- UltraSPARC T1
- UltraSPARC T2
- SPARC64 VI
- Intel Xeon and Pentium 4 platforms running Windows or Linux
- Itanium running HP-UX

Data Automatically Retrieved for Input

- CPU utilization
- I/O usage
- Workloads
- Hardware configurations

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