PeopleSoft8

REVISION 2.4

PEOPLESOFT DEMAND PLANNING 8.8 USING ORACLE9i ON A HEWLETT-PACKARD hp server rp7410 SERVER

As the world's leading provider of application software for the Real-Time Enterprise, PeopleSoft delivers high performance solutions that exceed our customers' expectations. Business software must deliver rich functionality with robust performance maintained at volumes representative of customer environments.

PeopleSoft benchmarks demonstrate our software's performance characteristics for a range of processing volumes with a specific platform configuration. Customers and prospects can use this information while planning the software, hardware, and network configurations necessary to support their processing volumes.

The primary objective of our benchmarking effort is to provide as many data points as possible to support this important decision.

SUMMARY OF RESULTS

Benchmark (English)	PeopleSoft Demand Planning 8.8	
	Large Volume Model	
	Monthly Cycle	52,672 Items – 7.03 hours
	Items/Hour	7,493 per hour
Référence d'exécution (Français)	PeopleSoft Demand Planning 8.8	
	Grand volume de données	
	Monthly Cycle	52.672 Items – 7,03 heures
	Items/heure	7.493 par heure
Benchmark-Test (Deutsch)	PeopleSoft Demand Planning 8.8	
	Datenbankmodell "Large"	
	Monthly Cycle	52.672 Items – 7,03 Stunden
	Items/Stunde	7.493 pro Stunde
Patrón de rendimiento (Español)	PeopleSoft Demand Planning 8.8	
	Volumen grande de los datos	
	Monthly Cycle	52.672 Items – 7,03 horas
	Items/hora	7.493 por hora
Benchmark (Português)	PeopleSoft Demand Planning 8.8	
	Volume grande dos dados	
	Monthly Cycle	52.672 Items – 7,03 horas
	Items/hora	7.493 por a hora

BENCHMARK PROFILE

In August 2003, PeopleSoft conducted a benchmark study in Pleasanton, CA to measure the batch performance of PeopleSoft Demand Planning 8.8 using Oracle9i™ 9.2.0.2 on a 4-way Hewlett-Packard® hp server rp7410, running Hewlett-Packard® HP-UX® 11i.

The benchmark measured three Demand Planning application business process runtimes using our standard large database model. It focuses on a monthly forecasting cycle that represents the recurring business process a user would perform. The testing was conducted in a controlled environment with no other applications running. **The goal of this performance test was to obtain performance results for PeopleSoft Demand Planning 8.8 on Oracle and HP.**

The figure below illustrates the processing time in hours, for the tested database models.

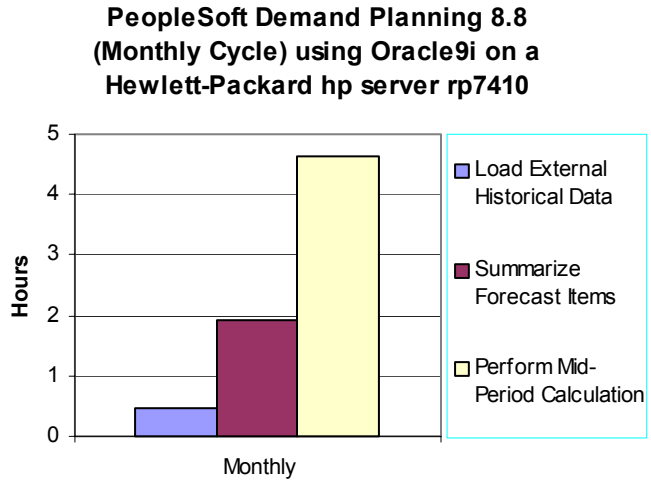

Figure 1: Elapsed Processing Time

METHODOLOGY

PeopleSoft Demand Planning 8.8 batch processes can be initiated from a browser.

Batch processes are background processes, requiring no operator intervention or interactivity. Results of these processes are automatically logged in the database. The runtimes are posted to the Process Request database table where they are stored for subsequent analysis.

Figure 2 shows a typical 4-tier benchmark configuration. This benchmark was run as a "Physical" 4-Tier configuration with each function on a separate server. However, the results reported here cover processes that executed only on the database server.

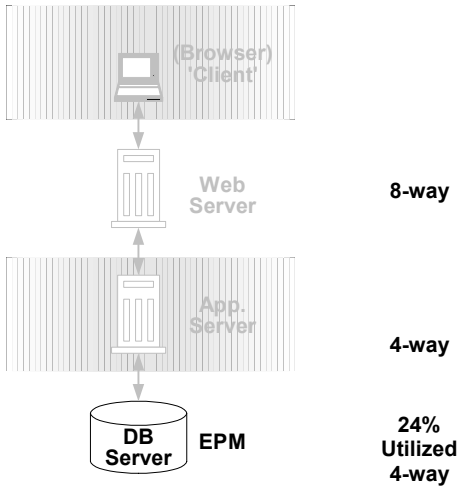

Figure 2: 4-Tier Configuration

BUSINESS PROCESSES

The Demand Planning processes are as follows:

Load External Demand Data: (*Application Engine*) Load demand data allows the user to load sales orders / shipments / or bills into the demand planning system. The demand data is used to forecast the future demand.

Summarize Forecast Items: (*Application Engine*) This process summarizes the data at the lowest level of the forecast view and rolls that data up to higher levels in a view. The higher levels can be used to more accurately forecast or display information to the users.

Mid-Period Forecast Calculation: (*Application Engine*) Calculate forecast generates a statistical forecast for each forecast item at each level of the forecast view. This is accomplished by using a best-fit or re-optimization of the various available statistical models against the demand, adjustments and event information available for each forecast item.

BATCH PROCESS RESULTS

This test modeled a 'monthly' forecast that would represent the continuous business cycle a user would run each period.

The table below contains the actual runtimes, in minutes, for the benchmark business processes.

Business Process	Monthly
Load External Demand Data	27.67
Summarize Forecast Items	115.45
Mid-Period Forecast Calculation	278.63
Total Time- min	421.75
Total Time - **Hours**	7.03
Number of Demand Items	52,672
Throughput – Items/Hour	7,493

Table 1: Business Process Runtimes

Performance may vary on other hardware and software platforms and with other data composition models.

SERVER PERFORMANCE

The CPU utilization is shown as the average across all the available CPUs for each server. Single job streams involved an individual CPU.

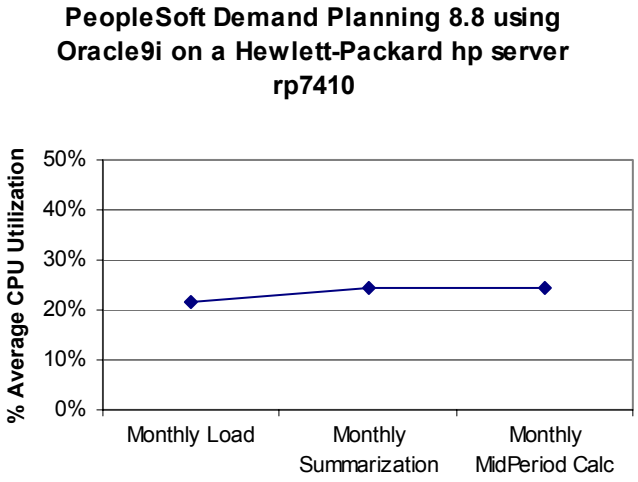

Figure 3: Average CPU Utilization

DATA COMPOSITION DESCRIPTION

MODEL SIZE(S)

Data Description	Large
Total Items	4,729
Total Business Units	13
Total Item Groups (UD02)	89
Total Forecast Items	57,416
Forecast View Levels	3
Historical monthly periods	36
Number of demand rows	57,416

Table 4: Data Model Sizes

Historical data represents about 36 months.

BENCHMARK ENVIRONMENT

HARDWARE CONFIGURATION

Database Server:

A Hewlett-Packard® hp server rp7410® server (partition) was used as the database server. It was equipped with the following:

- 4 × 875 MHz PA-RISC 8700+® processors, each with 1.5 MB of Data Cache and 768 KB of Instruction Cache
- 10 Gigabytes of Memory
- 1 × Internal SCSI Disk Controller,
  - 2 x 36GB (Internal SCSI-3 Disk)
- 1 × A6795A HP Tachyon XL2 Fibre Channel
- 1 × Fibre Channel SanSwitch 2/16
- Enterprise Virtual Array (EVA) 5000
  - 2 HSV110, 1GB cache per controller
  - 41U rack with 84 × 36GB 15Krpm disk
- 100 Gigabytes of total Disk Space was created (10 × 10GB), approximately 100 GB used

Application Server(s):

One Hewlett-Packard® hp server rp7410® server (partition) was used as the application server. It was equipped with the following:

- 4 × 875 MHz PA-RISC 8700+® processors, each with 1.5 MB of Data Cache and 768 KB of Instruction Cache
  - 1 × Internal SCSI Disk Controller,
  - 2 × 36GB (Internal SCSI-3 Disk)
  - 10 Gigabytes of Memory

Web Server(s):

One Hewlett-Packard® hp server rp7400® server was used as the web server. It was equipped with the following:

- 8 × 550 MHz PA-RISC 8600® processors, each with 1.5 MB of Data Cache and 768 KB of Instruction Cache
- 8 Gigabytes of Memory
- 72 Gigabytes of total Disk Space (4 × 18 GB)

SOFTWARE VERSIONS

PeopleSoft Demand Planning 8.8

PeopleTools 8.43.06

Oracle9i™ 9.2.0.2

Hewlett-Packard® HP-UX® 11i with Gold Base Patches (on the database server, application server and web server)

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