PeopleSoft8

certified
Technology Benchmark

PEOPLESOFT TIME & LABOR 8.8 USING DB2 UDB FOR AIX ON AN IBM eSERVER pSERIES P660 6M1 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	PeopleSoft Time & Labor 8.8	
	Large Volume Model	
(English)	From Rapid Time to Load Payroll	120,000 employees – 4.2 hours
	Employees/Hour	28,447 per hour
Référence d'exécution	PeopleSoft Gestion des Temps et des Activités (GTA) 8.8	
	Grand volume de données	
(Français)	From Rapid Time to Load Payroll	120.000 employees – 4,2 heures
	Employees/heure	28.447 par heure
Benchmark-Test	PeopleSoft Zeitmanagement 8.8	
	Datenbankmodell "Large"	
(Deutsch)	From Rapid Time to Load Payroll	120.000 employees – 4,2 Stunden
	Employees/Stunde	28.447 pro Stunde
Patrón de rendimiento	PeopleSoft Gestión de Tiempos y Tareas 8.8	
	Volumen grande de los datos	
(Español)	From Rapid Time to Load Payroll	120.000 employees – 4,2 horas
	Employees/hora	28.447 por hora
Benchmark	Gerenciamento de Horas 8.8 do PeopleSoft	
	Volume grande dos dados	
(Português)	From Rapid Time to Load Payroll	120.000 employees – 4,2 horas
	Employees/hora	28.447 por a hora

BENCHMARK PROFILE

In January 2003, PeopleSoft conducted a benchmark study in Pleasanton, CA to measure the batch performance of PeopleSoft Time and Labor 8.8 using IBM® DB2® Universal Database Enterprise Edition Version 7.2 w/FP 7 for AIX on an 8-way IBM® eServer pSeries p660 6M1 server, running IBM® AIX® 5.1.

The benchmark measured four Time and Labor application business process runtimes using our standard small and large database models. The testing was conducted in a controlled environment with no other applications running. The tuning changes were approved by PeopleSoft Development and will be available in a future update or release. **The goal of this performance test was to obtain performance results for PeopleSoft Time and Labor 8.8 on DB2 Universal Database.**

The figure below illustrates the average processing rates, in employees per hour, for the tested database models.
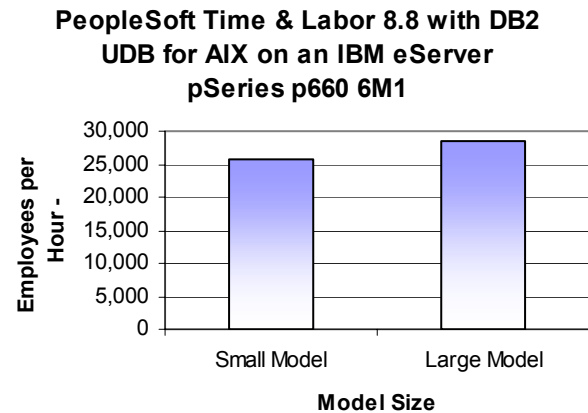
PeopleSoft Time & Labor 8.8 with DB2 UDB for AIX on an IBM eServer pSeries p660 6M1

Figure 1: Average Throughput

METHODOLOGY

PeopleSoft Time and Labor 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.

BUSINESS PROCESSES

The Time and Labor processes are as follows:

Rapid Time: (*Application Engine*) This process loads reported time from the Rapid Time page into the reported time tables.

Time Administration: (*Application Engine*) This process converts reported and scheduled time into payable time.

Batch Approval: (*Application Engine*) This process updates payable time by marking it as approved for payroll processing.

Load Payroll: (*COBOL*) This process uses the payable time that has been approved from Time and Labor to update pay sheets for payment in PeopleSoft Payroll (North American).

BATCH PROCESS RESULTS

PeopleSoft's Time and Labor application has been designed to support concurrent processing. Two concurrent jobs were run for the Rapid Time process, nine concurrent jobs were run for the Time Administration process, one job for the Batch Approval process and three concurrent jobs were run for the Load Payroll process. This is summarized in Table 1.

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

Business Process	Jobs	Small Model	Large Model
Rapid Time	2	6.80	50.42
Time Administration	9	10.27	74.27
Batch Approval	1	1.17	7.03
Load Payroll	3	9.72	121.38
Total Runtime - min		27.95	253.10
Total Runtime - Hours		0.47	4.22

Table 1: Business Process Runtimes

Throughput	Small Model	Large Model
Employee Population	12,000	120,000
Hourly Rate	25,760	28,447

Table 2: Business Process Rate

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

SERVER PERFORMANCE

PeopleSoft Time & Labor 8.8 with DB2 UDB for AIX on an IBM eServer pSeries p660 6M1
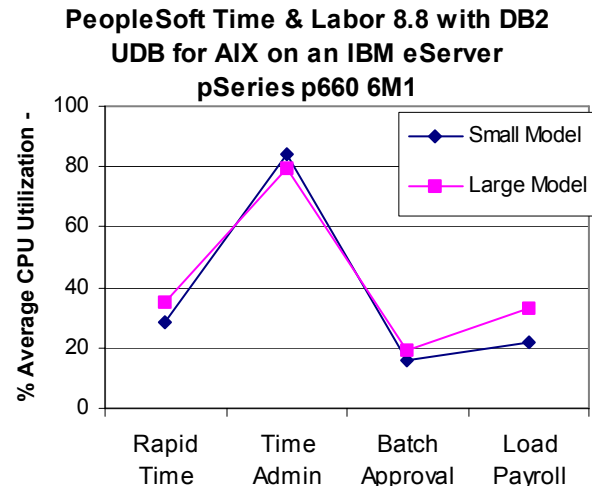
Figure 2: Average CPU Utilization

The CPU utilization shown in Figure 2 is the average across all eight processors for the duration of each process.

DATA COMPOSITION DESCRIPTION

The database used in the benchmark contained, as a basis, six work groups, five task groups, and twelve employees. Time Reporting Codes represent the level at which an organization actually needs to track employee time to support all of its administrative and compensation needs.

Work Group	Pay Group Type	Employee Type	Time Reporter Type
1	1 Weekly	1 Hourly	1 Punch
2	2 Biweekly 1 Monthly	1 Hourly 1 Salaried 1 Exception	1 Elapsed 2 Punch
3	1 Biweekly 2 Monthly	2 Salaried 1 Exception	3 Elapsed
4	2 monthly	1 Salaried 1 Exception	2 Elapsed
5	1 Monthly	1 Hourly	1 Elapsed
6	1 Weekly 1 Biweekly	1 Hourly 1 Exception	2 Punch

Table 3: Pay Group Breakout

MODEL SIZE(S)

This employee base was expanded to the following standard data composition model size(s):

Model	Population Size	Time Transaction Size
Small	12,000 Employees	Average of 3 Weeks
Large	120,000 Employees	Average of 3 Weeks

Table 4: Model Sizes

BENCHMARK ENVIRONMENT

HARDWARE CONFIGURATION

The IBM® eServer pSeries (RS/6000®) model p660 6M1 was used as a batch and database server. It was equipped with the following:

- 8 × 750 Megahertz RS64-IV PowerPC® Processors, each with 8 Megabytes of Level-2 Cache, 128 Kilobytes of Level-1 Data Cache and 128 Kilobytes of Level-1 Instruction Cache

- 29 Gigabytes of Memory

- ~1,200 Gigabytes of total Disk Space (32 × 9.1 GB + 16 × 18.2 GB + 16 × 32.4 GB SSA + 2 × 18.2 GB SCSI) ~ 75 GB used

- 3 × SSA Disk Controllers with 32 MB Fast-Write Cache

- 1 × SCSI Disk Controller

SOFTWARE VERSIONS

PeopleSoft Time & Labor 8.8

PeopleTools 8.42

IBM® DB2® Universal Database Enterprise Edition Version 7.2 w/FP 7 for AIX

IBM® AIX® 5.1 Maintenance Level 3

Micro Focus Server Express™ 2.0.11 (COBOL)

APRDs/ICE Applied:

549001000
549015000
549776000
553272000
64522000

PeopleSoft Worldwide Headquarters
4460 Hacienda Drive
P. O. Box 8018
Pleasanton, California 94588-8618
Tel 925/694-3000
Fax 925/694-3100
Email info@peoplesoft.com
World Wide Web http://www.peoplesoft.com