Benchmark Test Results

Competitor: Great Plains Dynamics C/S+ 3.10 (Btrieve 6.15)

- Test 1: Sales Order Invoice Update (500 invoices; four lines of inventory detail each)
  - MAS 90 Client/Server time: 1:46
  - Great Plains Dynamics C/S+ time: 34:53

- Test 2: Accounts Payable Invoice Update (500 invoices; four lines of GL distribution each)
  - MAS 90 Client/Server time: 0:35
  - Great Plains Dynamics C/S+ time: 14:36

- Test 3: Accounts Receivable Aging Detail Report (5,508 invoices)
  - MAS 90 Client/Server time: 1:14
  - Great Plains Dynamics C/S+ time: 16:26

About Great Plains Dynamics C/S+

Great Plains Dynamics C/S+ utilizes an architecture that is based upon the Btrieve database engine. In a typical configuration, the Great Plains Dynamics C/S+ application programs are run on the workstation, and the Btrieve Microkernel (which handles database management tasks) runs on the server.

Test Design

The series of benchmark tests described here was designed to measure and compare the performance of the leading middle-market Windows® operating system based client/server accounting packages. The tests were designed to simulate a real world, day-to-day accounting environment, both from the standpoint of data volume and multi-user activity, and were modeled after PC Magazine tests published in October, 1995. The tests, completed in August, 1997, focused on measuring the time to complete common accounting functions, such as reporting activities, as well as posting activities through the general ledger from accounts payable and sales order modules. All applications were given the same data set, performed the same accounting tasks, and output the same or comparable reports. In order to simulate real world activity, a large test database was created which included, for example, 105,893 general ledger transactions. The test hardware configuration consisted of five Windows® 95 workstations (75 MHz Pentium® processor, 16MB RAM) connected to a Windows NT® 4.0 server (dual Pentium 200 MHz, 256 MB RAM). The accounting tasks were measured in two different environments:

- A single workstation connected to a server
- Five workstations connected to a server - four workstations processed general ledger detailed trial balance reports, and the fifth workstation performed the tasks measured

Conclusions

Stewart McKie, an independent financial software analyst, timed the tests, monitored the tests and verified the results. McKie concluded:

- “MAS 90 Client/Server times were often dramatically faster than Dynamics C/S+, especially in the Accounts Payable and Sales Order posting tests.”
- “MAS 90 Client/Server is likely to be a particularly good solution for businesses that have remote accounting users and want to avoid the installation and complexity of additional software ‘layers’ such as Citrix® WinFrame® software.”
- “MAS 90 Client/Server is also well positioned to take advantage of browser/server style processing across the Internet and eventually the use of low-cost network computers (NCs) as alternative desktop clients.”
Benchmark Test Results

Competitor: Solomon IV Server 2.05 (Scalable SQL Version)

- Test 1: Sales Order Invoice Update (500 invoices; four lines of inventory detail each)
  - MAS 90 Client/Server time: 1:46
  - Solomon IV Server time: 39:49
  - time: 34:53
- Test 2: Accounts Payable Invoice Update (500 invoices; four lines of GL distribution each)
  - MAS 90 Client/Server time: 0:35
  - Solomon IV Server time: 16:06
- Test 3: Accounts Receivable Aging Detail Report (5,508 invoices)
  - MAS 90 Client/Server time: 1:14
  - Solomon IV Server time: 10:58

About Solomon IV Server

Solomon IV Server utilizes a client/server architecture that is based on the Pervasive Scalable SQL database engine. The Solomon IV applications are run on the workstation, and the Scalable SQL database software runs on the server.

Test Design

The series of benchmark tests described here was designed to measure and compare the performance of the leading middle-market Windows® operating system based client/server accounting packages. The tests were designed to simulate a real world, day-to-day accounting environment, both from the standpoint of data volume and multi-user activity, and were modeled after PC Magazine tests published in October, 1995. The tests, completed in August, 1997, focused on measuring the time to complete common accounting functions, such as reporting activities, as well as posting activities through to the general ledger from accounts payable and sales order modules. All applications were given the same data set, performed the same accounting tasks, and output the same or comparable reports. In order to simulate real world activity, a large test database was created which included, for example, 105,893 general ledger transactions. The test hardware configuration consisted of five Windows® 95 workstations (75 MHz Pentium® processor, 16MB RAM) connected to a Windows NT® 4.0 server (dual Pentium 200 MHz, 256 MB RAM). The accounting tasks were measured in two different environments:

- A single workstation connected to a server
- Five workstations connected to a server – four workstations processed general ledger detailed trail balance reports, and the fifth workstation performed the tasks measured

Conclusions

Stewart McKie, an independent financial software analyst, timed the tests, monitored the tests for cross-application consistency and verified the results. McKie concluded:

- "MAS 90 Client/Server times were often dramatically faster than Solomon IV, especially in the Accounts Payable and Sales Order posting tests."
- "MAS 90 Client/Server is likely to be a particularly good solution for businesses that have remote accounting users and want to avoid the installation and complexity of additional software 'layers' such as Citrix® WinFrame® software."
- "MAS 90 Client/Server is also well positioned to take advantage of browser/server style processing across the Internet and eventually the use of low-cost network computers (NCs) as alternative desktop clients."

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MAS 90 Client/Server vs. Solomon IV® Software

<table>
<thead>
<tr>
<th>Test</th>
<th>Time to Complete Task (minutes:seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 1</td>
<td>1:46  20 times faster!</td>
</tr>
<tr>
<td>Test 2</td>
<td>0:35  28 times faster!</td>
</tr>
<tr>
<td>Test 3</td>
<td>1:14  9 times faster!</td>
</tr>
</tbody>
</table>

*System Setup 3.04
**Version 2.05 (Scalable SQL Version)