



## Pinnacle™ Enterprise 1.0 Performance White Paper

This white paper describes the performance of the **Pinnacle™ Enterprise Web Application, Pinnacle™ Enterprise Integration Server and Windows Client Tools** in a number of different scenarios.

Please see the *Test Environment* for details on the test hardware and software utilized in this experiment.

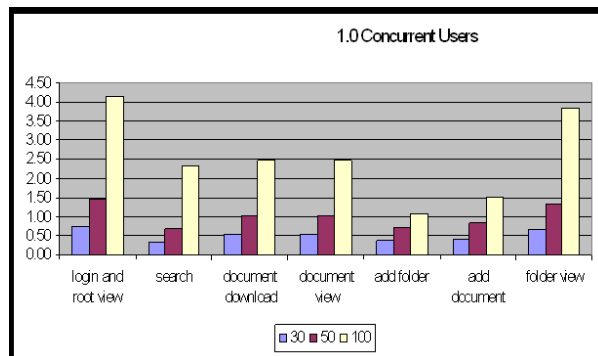
### Pinnacle Enterprise Web Application

A test program was developed that simulated a preset number of concurrent users performing a number of different common Pinnacle activities.

It should be noted that concurrent users equate to a significantly higher number of application users and this multiplier is highly dependant on an individual organization's repository usage patterns. Some organizations may see up to 2000 users equating 100 concurrent users.

Concurrent Users	30	50	100
login and root view	0.73	1.46	4.15
search	0.33	0.67	2.33
document download	0.52	1.04	2.47
document view	0.52	1.04	2.47
add folder	0.36	0.72	1.08
add document	0.42	0.84	1.53
folder view	0.67	1.33	3.86

Values above are in seconds.



### Pinnacle Integration Server and Windows Client Tools

Five core file operations were identified and these were performed with varying file sizes.

The core operations were as follows:

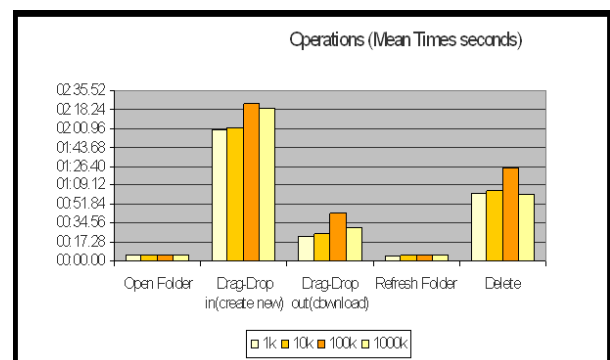
- Open Folder
- Drag and Drop into repository (create a managed document)
- Drag and Drop out of repository (download managed document)
- Refresh Folder
- Delete Document

All operations were performed with 100 documents of varying sizes, from 1Kb to 1024Kb.

Test conditions

- After each of the Drag-Drop in(create new) tests the server DB was blanked.
- All other tests were performed with only 100 documents on the system at a time.
- Five samples for each activity were recorded and the Mean, Max and Min is reported in this white paper.

Result format: mm.ss.00





# Pinnacle

Knowledge Management System

## Test Environment

The following server and client configurations were utilized in this experiment.

It is important to note that much activity in a document management system is IO-bound and that scaling out IO capacity would greatly enhance performance.

File Size	Number	Operation	Mean	Min	Max
1k	100	Open Folder	00:05.68	00:05.64	00:05.73
1k	100	Drag-Drop in(create new)	01:59.30	01:57.08	02:02.49
1k	100	Drag-Drop out(download)	00:23.08	00:20.17	00:26.21
1k	100	Refresh Folder	00:04.89	00:04.71	00:05.44
1k	100	Delete	01:01.97	01:00.89	01:05.67
File Size	Number	Operation	Mean	Min	Max
10k	100	Open Folder	00:05.43	00:05.09	00:05.69
10k	100	Drag-Drop in(create new)	02:01.47	02:00.45	02:04.04
10k	100	Drag-Drop out(download)	00:25.07	00:23.87	00:26.10
10k	100	Refresh Folder	00:05.49	00:05.42	00:05.59
10k	100	Delete	01:03.67	01:03.38	01:03.95
File Size	Number	Operation	Mean	Min	Max
100k	100	Open Folder	00:05.59	00:05.58	00:05.61
100k	100	Drag-Drop in(create new)	02:23.61	02:19.95	02:26.63
100k	100	Drag-Drop out(download)	00:43.11	00:41.62	00:44.23
100k	100	Refresh Folder	00:05.37	00:05.34	00:05.42
100k	100	Delete	01:24.42	01:23.62	01:24.74
File Size	Number	Operation	Mean	Min	Max
1000k	100	Open Folder	00:05.56	00:05.53	00:05.59
1000k	100	Drag-Drop in(create new)	02:18.85	02:18.24	02:19.54
1000k	100	Drag-Drop out(download)	00:30.91	00:24.66	00:33.93
1000k	100	Refresh Folder	00:05.42	00:05.34	00:05.51
1000k	100	Delete	01:00.87	01:00.52	01:01.36

### Test Client

Intel Pentium 4 3.20 GHz  
1.00GB RAM  
Microsoft Windows XP Professional SP2  
KT Explorer Version: 0.5.19.17545

### Test Server

Intel Xeon 64-bit HT 3.6GHz  
2GB RAM  
2X 200GB SATA HD  
Fedora Core Linux Release 4 (Stentz)  
Pinnacle Version: 3.0.1.1

### Test Network

Dedicated 100Mb switched network