

Test - Platform Profile: Single VM at UNC Chapel Hill

UNC Chapel Hill libraries has allocated 8 VMs for testing Fedora performance.

Parameter	Value	Notes
Clustered?	No	run as single node (a node from cluster w/larger disk)
Processing hardware	2 Cores	Intel(R) Xeon(R) CPU E5-2690 @ 2.90GHz
Operating system	Ubuntu 13.10	GNU/Linux 3.11.0-12-generic x86_64
Memory	2048 MB	only setting JVM max, 4GB real memory per server
Allocated Storage	200GB	this persistence area /data is ext4 (/ partition is 12GB)
Persistence I/O	106 MB/s	Is a certain level of throughput to disk an important part of the test?
Network I/O	95MB/s	This is particularly important for clustered operation.

Results: Fedora 4 Baseline (Minimal Config)

threads	objects	DS MB	F3 MB/s (quick)				F4 MB/s (minimal)			
			Ingest	Read	Update	Delete	Ingest	Read	Update	Delete
1	100	50	88	129†	35	2417	56	56	52	1993
5	100	50	n/a				81	185	82	3225
10	100	50					81	210	79.5	3448

† This result was originally suspect at 1005 mb/s due to only reading data and not properties.

Fedora 4 start parameters were specified as follows:

```
-Dfcrepo.modeshape.configuration=classpath:/config/minimal/repository.json \  
-Dcom.arjuna.ats.arjuna.common.ObjectStoreEnvironmentBean.default.objectStoreDir=$STORE/arjuna.default.objectstore \  
-Dcom.arjuna.ats.arjuna.objectstore.objectStoreDir=$STORE/arjuna.objectstore \  
-Dfcrepo.ispn.CacheDirPath=$STORE/ispn \  
-Dfcrepo.ispn.binary.CacheDirPath=$STORE/ispn.binary \  
-Dfcrepo.modeshape.index.location=$STORE/modeshape.index \  
-Dfcrepo.ispn.alternative.CacheDirPath=$STORE/ispn.alternative \  
-Dfcrepo.ispn.binary.alternative.CacheDirPath=$STORE/ispn.binary.alternative \  
-Dfcrepo.ispn.repo.CacheDirPath=$STORE/ispn.repo"
```

Results: F4 No Versioning

threads	objects	DS MB	Ingest	Read	Update	Delete
1	100	50				
5	100	50				
10	100	50				

Results: F4 Modeshape Cache Eviction

Results: F4 ??