Tests to Verify Simulator Works Correctly

Test \ Feature	Download Correctly for Buffer None	Download Correctly for Buffer One	Download Correctly for Buffer Multiple	Download Correctly for Download Early	Checkpointing	Workunit Completion and Abortion
Download: Buffer None	X				X	X
Download: Buffer One		X			X	X
Download: Buffer Multiple			X		X	X
Download: Download Early				X	X	X
Checkpoint					X	

Test Traces

The traces and the results were for the simulator when we assumed tat checkpointing took 10 seconds, restoring from a checkpoint took 10 seconds, and checkpoints were created after completing each 8640 seconds of a workunit (except the final portion). If those values are changed, the values of the traces and results must all be adjusted accordingly to re-test the simulator.

Buffer None

Trace Time,626918
AVAIL,8667
ON-UN,20
OFF,3600
ON-UN,250
AVAIL,17299
ON-UN,27
OFF,60
ON-UN,160
AVAIL,86529
ON-UN,60
OFF,250472
ON-UN,150
AVAIL,25
OFF,140
AVAIL,10

OFF,100
AVAIL,29
ON-UN,259320

Buffer One

Trace Time,631732
AVAIL,86523
OFF,20
AVAIL,8660
OFF,450000
AVAIL,86529

Buffer Many

Trace Time,778039
AVAIL,86518
ON-UN,100
OFF,604800
ON-UN,100
AVAIL,86521

Download Early

Trace Time,519168
AVAIL,168699
OFF,100
AVAIL,90841
OFF,173000
AVAIL,86528

Checkpoint

Trace Time,117120
AVAIL,8667
ON-UN,20
OFF,3600
ON-UN,250
AVAIL,17099
ON-UN,27
OFF,60
ON-UN,160
AVAIL,5
ON-UN,5
OFF,10
ON-UN,180

AVAIL,17305
ON-UN,27
OFF,60
ON-UN,160
AVAIL,17310
ON-UN,27
OFF,60
ON-UN,160
AVAIL,51928

Business Trace 10

Trace Time,2416460
ON-UN,1300
AVAIL,230
ON-UN,2530
AVAIL,54380
ON-UN,2280
AVAIL,670
ON-UN,1220
AVAIL,1080
ON-UN,1470
AVAIL,490
ON-UN,6960
AVAIL,910
ON-UN,1970
AVAIL,20
ON-UN,8740
AVAIL,2030
ON-UN,4150
AVAIL,53130
ON-UN,13520
AVAIL,2500
ON-UN,17270
AVAIL,56930
ON-UN,590
AVAIL,6780
ON-UN,590
AVAIL,6290
ON-UN,1190
AVAIL,450
ON-UN,11990
AVAIL,920
ON-UN,710
AVAIL,54230
ON-UN,17250

AVAIL,970
ON-UN,4260
AVAIL,170
ON-UN,740
OFF,590
ON-UN,7770
AVAIL,226630
OFF,17
ON-UN,10680
AVAIL,5480
ON-UN,3930
AVAIL,170
ON-UN,12080
AVAIL,6660
OFF,47000
ON-UN,14860
AVAIL,830
ON-UN,2810
AVAIL,300
ON-UN,14010
AVAIL,54010
ON-UN,2060
AVAIL,20
ON-UN,8370
AVAIL,1140
ON-UN,1170
AVAIL,180
ON-UN,1650
AVAIL,640
ON-UN,2170
AVAIL,120
ON-UN,7300
AVAIL,6520
ON-UN,1020
AVAIL,54560
ON-UN,5020
OFF,99
ON-UN,2880
AVAIL,120
ON-UN,11520
OFF,56
ON-UN,4720
AVAIL,3660
ON-UN,1220
AVAIL,500
ON-UN,1850

AVAIL,53260
ON-UN,2850
AVAIL,10
ON-UN,8110
AVAIL,160
ON-UN,9440
AVAIL,30
ON-UN,3550
AVAIL,2140
ON-UN,2840
AVAIL,1410
ON-UN,1640
AVAIL,227810
OFF,18
ON-UN,3320
AVAIL,4970
ON-UN,11280
AVAIL,170
ON-UN,1050
AVAIL,2500
ON-UN,3020
AVAIL,290
ON-UN,6280
AVAIL,52900
ON-UN,14020
AVAIL,2720
ON-UN,4580
AVAIL,390
ON-UN,10530
AVAIL,53760
OFF,262
ON-UN,1880
AVAIL,740
ON-UN,8230
AVAIL,420
ON-UN,8130
AVAIL,130
ON-UN,9650
AVAIL,310
ON-UN,2840
AVAIL,53940
ON-UN,3760
AVAIL,210
ON-UN,9740
AVAIL,420
ON-UN,710

AVAIL,740
ON-UN,2230
AVAIL,2790
ON-UN,4220
AVAIL,180
ON-UN,7180
AVAIL,54520
ON-UN,30740
AVAIL,228110
OFF,19
ON-UN,950
AVAIL,1190
ON-UN,1560
AVAIL,80
ON-UN,7900
AVAIL,100
ON-UN,2570
AVAIL,3780
ON-UN,1290
AVAIL,2180
ON-UN,14390
AVAIL,49280
ON-UN,32800
AVAIL,53760
OFF,212
ON-UN,1360
AVAIL,440
ON-UN,8020
AVAIL,40
ON-UN,1820
AVAIL,240
ON-UN,3430
AVAIL,650
ON-UN,2590
AVAIL,190
ON-UN,2570
AVAIL,510
ON-UN,80
OFF,284
ON-UN,1600
AVAIL,210
ON-UN,1030
AVAIL,2830
ON-UN,4350
AVAIL,54470
ON-UN,3390

AVAIL,30
ON-UN,24880
AVAIL,1420
ON-UN,650
AVAIL,1300
ON-UN,590
AVAIL,55140
ON-UN,10440
AVAIL,20
ON-UN,1390
AVAIL,780
ON-UN,950
AVAIL,300
ON-UN,730
AVAIL,780
ON-UN,1190
AVAIL,20
ON-UN,3780
AVAIL,10
ON-UN,1400
OFF,78
ON-UN,1350
AVAIL,940
ON-UN,3520
AVAIL,180
ON-UN,1110
OFF,75
ON-UN,590
AVAIL,256220

Spreadsheets of Expected Results for Test Traces

   The spreadsheets are in Microsoft Excel format. See the
simulator_testing_files.zip file. Run the batch files. Compare the console output with the
.xls files to determine when tasks were completed or aborted, checkpoints were created or
failed to be created, when a task was restored from a checkpoint or failed to be restored
from a checkpoint, and when files were downloaded and downloads completed or were
aborted. Compare the .trc files with the .xls files to verify the stats in the .dmt files that
are produced by running the tests are the same as in the corresponding .xls files.