

From: Technical Account Manager
Sent: Tuesday, June 09, 2009 11:39 AM
To: Sales Engineer - Mark
Subject: Diskeeper 2K9 and ESX Servers

I recently visited a large pharmaceutical manufacturer who uses a large number of virtual systems throughout their production environment. In their environment I was given access to a typical virtual system (Windows 2003 Server) running on an ESX host. They had not yet defragmented or installed Diskeeper. I installed Diskeeper, but disabled the automatic defrag operation so I could get a true fragmentation analysis before Diskeeper had a chance to move any files. The result was that there were 28,809 Total Files. 6,228 of these files were fragmented into a total of 55,393 fragments. I then used a tool from the internet <http://www.winimage.com> called Readfile.exe which measures the time and throughput to perform an open, read to end of file, and close of a given file.

I targeted the top 10 most fragmented files from the analysis previously taken and noted the results. I then defragmented this virtual system using Diskeeper. Once the defragmentation was finished I again used Readfile.exe to take another performance measurement.

| | | Before Diskeeper | | | After Diskeeper | | | Improvement | | |
|------------------------------------|---------|------------------|--------|--------|-----------------|--------|-------|-------------|--------|--------|
| ReadFile.EXE Most Fragmented Files | | Fragments | Kb/Sec | msec | Fragments | Kb/Sec | msec | Fragments | Kb/Sec | msec |
| File 1 | 49MB | 12,187 | 1,079 | 48,018 | 0 | 66,655 | 777 | 100.00% | 98.38% | 98.38% |
| File 2 | 163MB | 2,883 | 12,827 | 13,333 | 0 | 68,911 | 2,481 | 100.00% | 81.39% | 81.39% |
| File 3 | 116MB | 2,810 | 10,298 | 11,759 | 0 | 68,119 | 1,777 | 100.00% | 84.88% | 84.89% |
| File 4 | 114MB | 2,489 | 10,891 | 11,018 | 0 | 68,932 | 1,740 | 100.00% | 84.20% | 84.21% |
| File 5 | 81MB | 2,469 | 8,468 | 10,037 | 0 | 69,508 | 1,222 | 100.00% | 87.82% | 87.83% |
| File 6 | 8,203KB | 1,299 | 2,015 | 4,166 | 0 | 56,374 | 148 | 100.00% | 96.43% | 96.45% |
| File 7 | 8,151KB | 1,294 | 1,934 | 4,314 | 0 | 56,017 | 148 | 100.00% | 96.55% | 96.57% |
| File 8 | 57MB | 1,115 | 11,489 | 5,240 | 0 | 67,732 | 888 | 100.00% | 83.04% | 83.05% |
| File 9 | 6,953KB | 1,092 | 2,023 | 3,518 | 0 | 54,768 | 129 | 100.00% | 96.31% | 96.33% |
| File 10 | 6,143KB | 1,080 | 1,768 | 3,555 | 0 | 48,386 | 129 | 100.00% | 96.35% | 96.37% |

The data above clearly documents that there is a performance benefit in both elapse time and throughput of a defragmented virtual Windows System as compared to the same exact system in its fragmented condition.

Best Regards,

Howard Butler
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Diskeeper Corporation
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