



PerfectDisk White Paper

# PerfectDisk ROI in a Server Environment

*January 2009*



*A regular program of proactively defragmenting can save tens to hundreds of thousands of dollars over the life cycle of a system.*

There are several areas where Raxco Software's PerfectDisk® can save an organization time and money, aside from the obvious performance gains. Each of these areas contributes to a positive ROI for the enterprise in both the near and long term. A regular program of proactive enterprise disk defragmentation can save tens to hundreds of thousands of dollars over the life cycle of a system. PerfectDisk is unique in that in some instances it can contribute to lengthening the life cycle of a platform, thereby lowering the total cost of ownership.

The following are some areas where PerfectDisk may positively affect server performance in a data center environment. Not all of these may apply in every instance, but they represent some of the ways PerfectDisk can improve operations in a non-intuitive way and contribute to streamlined operations and receiving more from the IT investment.

- 1. Backups.** File backup is one activity that exercises the entire disk drive, and with larger and larger drives the window to complete backups is getting smaller all the time. Defragmentation with PerfectDisk can improve backup time by 20%-70%. Shorter backups mean optimal server availability. When the servers are available, end users can work.
- 2. SQL and Exchange Servers.** Defragmenting SQL and Exchange databases improves the database performance. Using PerfectDisk in combination with database maintenance utilities generally improves the access time to the database. Just like regular data files, SQL and Exchange databases perform better when they are contiguous and their native utilities, like re-indexing, work better on a contiguous file.
- 3. Free Space Consolidation.** Only PerfectDisk offers complete free space consolidation combined with file defragmentation. When the file system can find contiguous free space, it can write files in a single piece, thereby slowing re-fragmentation. In addition, free space consolidation improves disk write speed since the file system can write a file in a single disk I/O. As a result, there are fewer wasted disk seeks, which are an expensive resource activity. Free space consolidation contributes to better performance in the following areas:



*Named 2008 Editors' Choice winner  
by Windows IT Pro Magazine.*

- **Print Servers** - Fragmented print files take longer to print than contiguous print files. The free space consolidation in PerfectDisk provides a greater likelihood print files will be spooled in a single piece.

- **File Servers** - While contiguous files can be read faster, the consolidated free space ensures new files are written faster and they are created in one piece.

- **Virtual Machines** - Virtual machine creation consumes a lot of disk space. Consolidated free space ensures a virtual machine can be created in one contiguous string of logical blocks or at least the minimum number of fragments. A contiguous virtual machine performs better than a fragmented virtual machine.

**4. SMARTPlacement™.** PerfectDisk uses a patented file placement strategy that intelligently organizes the files on the disk. As a result of SMARTPlacement, subsequent defragmentation passes take less time and use fewer resources since fewer files will be shuffled around. SMARTPlacement reduces new fragmentation so subsequent passes are quick and do not interfere with operations.

**5. Centralized Management.** The PerfectDisk Enterprise Console gives system administrators a single location from which they can deploy, configure, schedule and manage PerfectDisk across the enterprise. The Enterprise Console interface delivers "at-a-glance" alerts to problems which minimizes the time system administrators spend troubleshooting fragmentation-related problems.

## Summary

PerfectDisk saves an organization time and money. The savings comes from:



- Better end user productivity
- Shorter backup times
- Improved server availability
- Maximizing your hardware investment by getting the most from servers and disks
- Improved performance from virtual environments
- Reduced system administration time in defragmentation management and troubleshooting
- Possible life cycle extension due to a well-maintained storage environment

PerfectDisk proactively addresses a well-recognized problem associated with the Windows® operating systems. PerfectDisk is the most comprehensive solution available for the enterprise fragmentation problem.

*PerfectDisk and SMARTPlacement are trademarks or registered trademark of Raxco Software, Inc. Windows is a registered trademark of Microsoft Corporation. All other trademarks or trade names are the property of their respective owners.*