

## Virtual-Aware defragmentation for optimal performance in vSphere and ESX Environments

PerfectDisk® vSphere is the next generation of disk defragmentation for virtual environments. Combining PerfectDisk's speed, thoroughness, flexibility, control and automation with virtual awareness, PerfectDisk vSphere boosts vSphere performance, while ensuring system resources in your vSphere and ESX environments are optimized and allocated properly. PerfectDisk vSphere includes the PerfectDisk Enterprise Console, at no extra cost, providing maximum ease of use and management flexibility.

### Improved vSphere performance

PerfectDisk vSphere significantly boosts the performance and throughput of ESX hosts, which improves performance in guest VMs. PerfectDisk vSphere provides the following performance improvements: Reduces Total I/O 30% or more, increases Large I/O usage 15% or more, reduces Latency by 40% or more and improves Sequential I/O 30% or more. VMware's own statistical tools provide proof that disks defragmented with PerfectDisk practically eliminate the total number of disk I/Os taking 50 milliseconds or longer, resulting in much greater throughput across the virtual environment.

### Exclusive Virtual Aware resource allocation

Unlike any other disk defragmenter available today, PerfectDisk® vSphere provides intelligence in vSphere and ESX environments to ensure optimal performance and eliminate unnecessary and harmful resource contention. PerfectDisk is not only aware of its resource availability and usage of individual machines, but of their physical hosts as well, ensuring the fastest possible performance for guests and the host machine, with no negative resource usage. Integration with vMotion further enhances usability.

### Exclusive Zero-fill free space

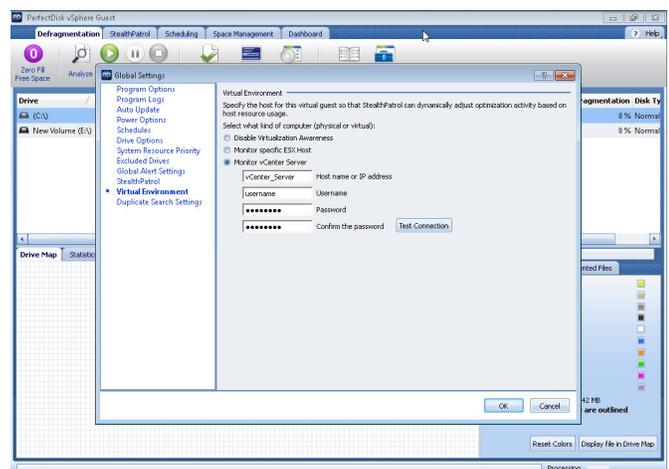
PerfectDisk's exclusive Zero-Fill free space technology consolidates free space and then zero-fills that space. This assists organizations moving from physical to virtual environments, since zero-filling the free space after optimization of the physical system saves storage space on the virtualized system. In a thinly-provisioned environment, zero-filling a virtual machine after optimization and then compacting it provides a smaller machine that uses less storage. This also allows for recovering of zero-filled free space when using one of the growing number of zero-detect SANs from HP/3PAR or HDS.

### Patented optimization technology

PerfectDisk's patented SMARTPlacement™ optimization strategy places files on disk drives according to usage patterns. This greatly reduces the rate of fragmentation and ensures future defragmentation passes run faster and utilize fewer resources than typical disk defragmenters. And PerfectDisk's exclusive Space Restoration Technology™ ensures drives have the largest amount of contiguous free space available. This helps boost write performance in addition to read performance. No other defragmenter leaves larger blocks of free space than PerfectDisk – and it does it in a single pass. Standard defragmenters do not consolidate free space effectively, resulting in poorly utilized storage, disks that will fragment more quickly, and poorer write performance.

### Highlights

- Dramatically improve vSphere performance (VscsiStats)
- Eliminate vSphere Guest I/O bottlenecks
- Automatic background optimization w/ VIA Tech™
- Zero-fill free space
- Patented SMARTPlacement™ file optimization
- VMware Technical Alliance Partner Solution
- Centrally Manage vSphere / ESX Optimization
- Sphere / VIM client integration
- Host based licensing – Unlimited Guests
- Includes Enterprise Console License
- Space management reports



PerfectDisk reduces Latency by 40% or more and practically eliminates the number of disk I/Os taking 50 milliseconds or longer.

## Total disk defragmentation and free space consolidation

PerfectDisk offers the most comprehensive solution for defragmentation by optimizing virtually every file on the system, including the Master File Table (MFT), all NTFS metadata files, paging files, directories, and data files, and completely consolidating free space. And it does it all in a single pass. There's also a File Defrag option that is useful for defragmenting very large files such as video files, rather than defragmenting the entire drive.

## CPU and I/O – Control over resource usage

PerfectDisk provides resource throttling capabilities to manage resource usage as efficiently as possible. I/O throttling allows PerfectDisk to run on very busy disks without imposing additional load on the disk. CPU throttling allows you to raise or lower the CPU priority at which it runs. PerfectDisk uses very minimal CPU resources in its standard processing.

The screenshot displays the PerfectDisk vSphere Guest interface with several tabs: Defragmentation, StealthPatrol, Scheduling, Space Management, and Dashboard. The main content is divided into three sections:

- OptiWrite - Real-time Fragmentation Prevention:** A table showing drive status for (C:) and New Volume (E:), both with 'ON' status.
- Auto-Optimization:** A table showing optimization methods for (C:) (SMARTPlacement, ON) and New Volume (E:) (Consolidate Free Space, OFF).
- Auto-Optimization Exclusion Settings:** A grid for selecting excluded periods. The grid shows 'Included Periods' (green) and 'Excluded Periods' (red). A red block covers the period from 8 AM to 11 PM on Monday through Friday. To the right, there is a text box for 'Do not optimize when the following programs are running' with 'Add...', 'Remove', and 'Remove All' buttons.

At the bottom, a text box states: "Auto-optimization & monitors host resources and dynamically adjusts defrag activity in order to minimize resource impact at the host level and other guests".

## PerfectDisk...A proven leader in system resource management solutions

PerfectDisk empowers system managers, small business and home users by delivering flexibility, automation, and high-performance to help you thrive in constantly changing system networks and home environments. PerfectDisk solutions extend the reach, power and versatility of your information systems for the most complex and demanding computer systems.

### Minimum System Requirements

#### Windows Guest Support:

Windows Server  
2012/2008/2003  
Windows 8/7/Vista/XP

#### VMware Support:

ESX 3.5 and above  
VIM 2.5 and above  
vSphere 5.x/4.x  
vMotion