

# Diskeeper<sup>®</sup> 18

## Overview

Everyone knows the frustration of a Windows<sup>®</sup> system becoming progressively slower the longer it is used and burdened with more software and data.

With over 100 million licenses sold, Diskeeper<sup>®</sup> has been the undisputed leader in keeping Windows systems running like new. Diskeeper 18 with DRAM caching builds on the powerful legacy of Diskeeper by going well beyond just keeping Windows systems running like new but actually guarantees to fix your worst performing physical servers or Windows PCs with faster than new performance or your money back for 90 days—no questions asked. Simply install and watch performance problems disappear – no reboot required.



## Diskeeper 18 Now With DRAM Caching

Instead of “defragging,” Diskeeper 18’s patented engine ensures large, clean contiguous writes from Windows so fragmentation is no longer an issue for HDDs or SSDs. This eliminates the “death by a thousand cuts” scenario of small, tiny writes that inflates I/Os per second, robs throughput, and shortens the lifespan of HDDs and SSDs alike. Diskeeper 18 delivers dramatic improvements to Windows system performance with the new addition of dynamic memory caching—using idle, available DRAM to serve hot reads without creating an issue of memory starvation or resource contention.

The latest PCMark benchmarks reveal that Diskeeper 18 increases the performance of Microsoft Office by 73%. Diskeeper 18 Server speeds system performance of the most I/O intensive applications like those running on MS-SQL Server. Intel Iometer tests that simulate MS-SQL workloads according to Microsoft’s specs on physical servers, show that Diskeeper 18 Server can boost performance by as much as 10X depending on the amount of available DRAM that can be leveraged for cache.

## Diskeeper 18 with Write and Read Optimizations

Where typical defragmentation utilities consume resources to operate and deal with fragmentation only after the performance penalty has already been incurred, Diskeeper 18 is the only proactive solution that solves the problem in real-time while running transparently in the background, eliminating fragmentation issues from occurring on HDDs, SSDs, and SAN storage systems while also eliminating the IOPS inflation from many small writes and reads. Diskeeper 18 boosts performance faster than new with DRAM caching. The real genius in Diskeeper’s newest engine is that nothing has to be allocated for cache. Diskeeper dynamically uses only what is idle and available at any given moment and throttles according to the need of the application. If memory is under-provisioned and the application or processes ask for some or all memory, the caching engine throttles back. However, with as little as 4GB of available DRAM that can be leveraged for cache, Diskeeper commonly serves 50% of read traffic straight from memory which is 15X faster than SSDs.

The net effect of both fragmentation elimination and DRAM caching means Diskeeper 18 offloads a minimum of 30-40% of I/O traffic while systems with a little more DRAM see upwards of 50% for big performance gains. Since Diskeeper is transparent, “set-and-forget” software, and operates with near zero overhead as a lightweight file system driver, organizations achieve significant performance gains without management or system resource overhead.

## Enhanced Reporting

If you never knew how much Windows inefficiencies were robbing system performance, Diskeeper 18 calculates time saved from eliminating unnecessary I/O traffic to underlying storage via proactive fragmentation elimination and caching hot reads from idle DRAM. Diskeeper 18 enables IT Administrators can see the percentage of all read and write traffic offloaded from storage by Diskeeper and see how much I/O capacity has been handed back to underlying SSD and/or HDD storage.

## Features

**IntelliWrite<sup>®</sup> write I/O optimization technology** prevents files from being fractured and broken apart into smaller pieces before being written to disk or SSD in a non-sequential manner.

**IntelliMemory<sup>®</sup> read I/O optimization technology** dynamically caches active read requests from memory that is otherwise idle and available. This engine backs off if memory is requested by other processes.

**InvisiTasking<sup>®</sup> intelligent monitoring technology** allows all “background” Diskeeper operations to run with near-zero resource impact on current activities.

**Instant Defrag<sup>™</sup> technology** has been enhanced to monitor volumes to resolve critically fragmented files in real-time that are known to cause performance problems, making it SAN-friendly. This feature is turned off in the event of solid-state drives.

**Enhanced Reporting** shows how many fragments are eliminated, what that means to percentage of write I/O traffic has been reduced and how much I/O time has been saved on the system as a result. Furthermore, see what percentage of read requests are cached from idle memory and how much time that saved your system by serving reads from DRAM instead of underlying HDD or SSD storage. See free spaces consolidated and many more I/O performance metrics to understand what is occurring on your system and how much benefit Diskeeper is providing.

**Efficient Mode** offers the greatest net gain in system I/O resource savings ever available. It immediately targets and eliminates only fragmentation on HDDs that directly impacts system performance that is on the system before Diskeeper was installed since Diskeeper automatically prevents any new fragmentation after installation.

**Free Space Consolidation Engine** swiftly consolidates free space and tightly integrates with Instant Defrag to handle new fragmentation as soon as it is created.

**Terabyte Volume Engine<sup>®</sup> Technology** engineered to rapidly defragment volumes with hundreds of thousands of files.

**Diskeeper Administrator Management Console** makes centralized deployment and management of Diskeeper easy even on the largest networks with hundreds or thousands of physical servers or PCs. No reboot required.

**MediWrite<sup>™</sup> technology** engine resolves extreme file fragmentation issues that can cause the File Attribute List (FAL) to reach its maximum size limit and risk downtime in environments like MS Exchange, MS-SQL or some EHR applications like MEDITECH.

## About ConduSiv

ConduSiv<sup>®</sup> Technologies is the world leader in software-only storage performance solutions for virtual and physical server environments, enabling systems to process more data in less time for faster application performance. ConduSiv guarantees to solve the toughest application performance challenges with faster than new performance via V-locity<sup>®</sup> for virtual servers or Diskeeper<sup>®</sup> for physical servers or PCs. With over 100 million licenses sold, ConduSiv solutions are used by 90% of the Fortune 1000 and almost three-quarters of the Forbes Global 100 to increase business productivity and reduce datacenter costs while extending the life of existing hardware.

## Diskeeper Benefits

- Keep Windows systems running faster than new
- Extends the life of hardware
- Prevents fragmentation at the Windows OS level
- Caches hot reads with idle DRAM
- True “Set It and Forget It” management
- Deploys to hundreds or thousands of servers or PCs in a few clicks. No reboot required

## System Requirements

250MB of available hard drive space. IntelliMemory caching requires a minimum of 3GB of memory on the system and at least 1.5GB of idle, available memory before caching will initiate.

## Supported Platforms

Windows 7 and above for Client OS  
Windows Server 2008r2 and above for Server OS

## More Information

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