



Diskeeper®
2009 with InvisiTasking®

Real-time defragmentation,
zero overhead™

Disk fragmentation robs your system of performance and increases time and hardware costs.

Disk fragmentation occurs when a file is broken up into pieces to fit on the disk. Because files are constantly being written, deleted and resized, fragmentation is a natural occurrence. When a file is spread out over several locations, it takes much longer to read and write.


But the effects of fragmentation are far more widespread: slow performance, long boot-times, random crashes and freeze-ups—even a complete inability to boot up at all! Many users blame these problems on the operating systems, when disk fragmentation is often the real culprit.

Budgets are tight. When a system or server slows or crashes, time and money are lost. Getting in these ten points will keep your networked systems running at maximum reliability and speed.



10 critical facts you must know to keep your systems reliable and fast.

- 1. THE DISK IS THE SLOWEST PART OF ANY SYSTEM.** Say you are operating a 2.5 GHz processor. That's 2.5 billion operations every second. Many hard disks only spin at 7200 rotations per minute, or 120 cycles per second, or 120 Hz. This means your CPU is more than 20 million times faster than your hard disk—yet they are tied to the same work flow! Given this, it is imperative that the hard disk performs at its absolute peak performance level and stays there. Anything less is an unnecessary drag on the entire system.
- 2. FRAGMENTATION HAS SEVERE EFFECTS.** It might start out as progressively slower response times, but it leads to crashes, hangs, data errors, file corruption and boot-time failures, as programs error-out waiting for slow data retrieval. Worse, the effects of fragmentation are often disguised as many other things, leading to unnecessary upgrades and repairs that don't handle the problem.
- 3. SERVERS ARE ESPECIALLY SUSCEPTIBLE TO FRAGMENTATION.** Larger disk volumes, exponentially expanding storage capacity, virtualization, I/O heavy applications and increased demand for uptime result in fast fragmentation accumulation. Servers are pushed further toward the risk of failing, until a crash is inevitable. Because servers are the hub of business, keeping fragmentation eliminated is critical.
- 4. REAL-TIME DEFRAGMENTATION IS VITAL.** Peak work times are also the times a disk fragments most vigorously. At the same time a busy system's resource needs are the highest priority, especially if it is slowing from fragmentation. It needs all the help it can get. For this reason, IT managers will typically run a defrag schedule off hours and/or offline. There are two drawbacks. One is lost production due to downtime (e.g. AV scan, backups) and increased administrative overhead running a schedule. The second is that the machine is still hampered by fragmentation during peak production times.

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- 5. LIMITED SPACE IMPEDES PERFORMANCE RECOVERY.** Volumes with limited free space are the ones most in need of defragmentation. Most defrag solutions simply cannot operate efficiently in these conditions.
- 6. JUST-OUT-OF-THE-BOX SYSTEMS ARE ALREADY FRAGMENTED.** The installation of an operating system and core applications will typically fragment files and free space heavily. As a result, new machines rarely perform to benchmark standards. Worse, they continue to fragment rapidly, lowering performance even more. Because out-of-the-box performance is perceived as the benchmark, the true performance levels of a system are often unrealized.
- 7. THE FILES YOU USE MOST ARE THE ONES NEEDED FASTEST.** Obviously, the most frequently accessed files are the ones a company operates on. Improving access speed for these files will have a measurable effect on a company's production. But NTFS does not distinguish these files from files that are accessed only once a year. As a result, file retrieval speed is not weighted toward the files needed most often.
- 8. CRITICAL SYSTEM FILE FRAGMENTATION CAN CAUSE CRASHES.** System files are the most heavily used on any machine. When they fragment, they can be the source of slows, freezes, hangs and outright crashes. For true system performance protection, it is vital to prevent their fragmentation.
- 9. DISKEEPER 2009 INNOVATIVE PERFORMANCE TECHNOLOGY IS THE ONLY DEFRAGMENTATION SOLUTION.** New Diskeeper 2009 includes powerful breakthrough technology found nowhere else:
- InvisiTasking® processing technology allows true, real-time defragmentation with zero system resource conflicts. Your machine is restored to better-than-new performance standards. Servers can be run at peak speed without scheduling or administrator attention. Backup operations are notably faster and more reliable. Fragmentation has no chance to accumulate on a system, even during heavy traffic periods.
 - Diskeeper 2009 can handle any environment, even volumes with less than 1% free space, eliminating backup and restore labor.
 - Intelligent File Access Acceleration Sequencing Technology (I-FAAST® technology) is a revolutionary approach to accurately identifying the files that are most relied upon by the user and dynamically sequence them for up to 80% faster data retrieval on workstations and servers.
 - Titan Defrag Engine™ (TDE) and Terabyte Volume Engine™ technologies. The two most powerful defrag engines ever built, specially developed for very fast defrag of massive volume sizes and millions of file fragments.
- 10. DISKEEPER 2009 LOWERS TOTAL COST OF OWNERSHIP AND GIVES A FAST ROI. PERFECT FOR A TIGHT BUDGET.** This is the one investment that pays for itself many times over. Keeping systems fragmentation-free can extend the life of your hardware up to 3 additional years. Even extending system life an additional six months or a year, the savings are phenomenal. The elimination of defrag scheduling and administrator attention saves time and money, while keeping performance at peak levels throughout the day. The Help Desk traffic reduction is wide ranging. Your IT department suddenly has more time to spend on those projects management needs finished yesterday.

You need Diskeeper 2009. Try it free at www.diskeeper.com/freedownload

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