



Diskeeper[®] 2009

with InvisiTasking[™]

The #1 automatic defragmenter[™]

Server Problems:

(by server type)

Backup Server:

Problem – must be up and running 24x7

Backup Print Server:

Problem – server was failing on backups

CA Secure Content Manager Server:

Problem – slow system

Citrix Server:

Problem – performance bogged

Diskeeper Solutions:

“I would consider Diskeeper an important tool. We have a backup server which we cannot take down in order to defrag it. I would say that we could survive without Diskeeper, but it makes the job much easier to do.”

- Bradley Allen, South Plains Electric Coop

“We have 2 NAS units that we use for daily backups as well as storage. Because of the large amount of data going in and out of the units, we were having delays in read/write times. The NAS units are used to store backups and user Home folders; the servers are Dell PowerVault NF500.

When we got Diskeeper, the Servers were completely fragmented. Now they are in a much better state and I don't even have to manage them. Since getting the product I also discovered our other Servers were not in the shape I thought they were in and Diskeeper has helped me clean them up as well.

I cannot give you a monetary value on this; it's more a pain level. The server was failing on backups at least twice a week. Some of the reasons that the server was failing, were because of disk read/write errors due to fragmentation. Now that the errors are fixed, I don't have to spend my morning fixing the backup strategy.”

- Mike Lamar, Network Administrator,
Northwest Mississippi Community College

“If I were to pick one, I would say CA Secure Content Manager software benefits greatly from Diskeeper. CA SCM keeps a fairly large database for reporting and quarantine. I'm sure the CA SCM Server would be a lot slower if I did not have Diskeeper on it.”

- Robert Peronick, Turbine Services

“We installed Diskeeper on our Citrix servers, and installed the management console on another server. We were experiencing performance problems that we believe were related to fragmentation. As you may or may not be aware, the logon process with Citrix/RDP is resource intensive, especially on the hard drive(s).

In our case, a profile folder has to be pulled from another server, and written to disk each time someone logged on. This constant writing to disk would fragment the drive, thus slowing the logon, thus slowing other functions to the point that all users on that server were affected.

Before Diskeeper, we would alleviate this by manually defragging the servers (all 6 of them) every few weeks or so (fun fun). I am happy to report that I have not had to manually defrag a Citrix server since Diskeeper was installed, and that we no longer are bogged down by anything relating to disk fragmentation.

Thanks to Diskeeper, the amount of time I spend maintaining our Citrix servers has dropped dramatically. I no longer have to spend time on the weekends worrying about defrags. With Diskeeper we get the best of both worlds: less maintenance, more performance.

- Ben Mercer, Network Analyst,
Daymar Colleges Group-Campus Resource Center

**Data Server:
Problem – slow virus scans**

“Absolutely, Diskeeper is necessary because I want the servers to run as fast as possible. Keeping the disks optimized helps to do just that. Diskeeper has been a good tool for us; we noticed a decrease in time to virus scan our data servers.”

- David Weiss, Lockheed Martin IS&GS Civil

**Database Servers:
Problem – slow due to high levels
of fragmentation**

“We have Diskeeper running on our database servers. We have been using one version or another of Diskeeper for a long time and I think it does increase performance. We mainly use Diskeeper on our backend database servers which have SANs. Our production system has three enclosures with 15 drives each and I think Diskeeper Server does a fine job of keeping the system defragmented. The data structure and performance views are almost always completely blue every time I look at them.”

- Jason Brown, Network Admin, ServiceU Corporation.

**Dell PowerEdge:
Problem – performance issues**

“We had definite performance problems caused by heavy amounts of fragmentation. During the first two hours after installation we saw a significant improvement in access and delivery perceived timings. This was a big surprise for us. The web application that runs on all of our servers was responding faster, pages popped a little quicker and the time between pages was reduced enough to notice without a stopwatch.

The servers are relatively standard Dell PowerEdge rack servers, running 3-6 drives in a RAID 5 configuration. Unfortunately I don't have timing or supporting data for comparison and analysis. On the databases host servers, we saw query times drop rapidly.

Since changing pages in our application can require dozens (or hundreds) of database calls, a small increase in the database performance results in a significant difference for the application. Combined with a slightly faster access time for web resource files, it was a very positive change for server performance all around.

Diskeeper has been moved from the optional utilities list, to the required utilities list for all of our production server deployment.

We are also recommending Diskeeper for our mid-to-high volume enterprise clients for their own hardware. When the money-counters notice a difference dramatic enough to say, "We need this on every server", something good has happened!"

- Greg Porterfield, Pragmatic Software

**Domino Server:
Problem – slow backups**

"We are running Diskeeper EnterpriseServer on our Domino Lotus Notes application and also on the mail servers. We are running these across several Raid 5 arrays encompassing over 2.75 terabytes of user data. It used to take us 25 hours to perform our weekly backup of the Domino Servers. By using Diskeeper, we were able to reduce our backup time down to 9 hours. By enabling the automatic defragmentation feature, we increased the performance of the drive array on live production systems with no user impact other than an increase in performance.

- Jimmy Beltran, Sandvik SIT Americas

**Domain Controller:
Problem – slow performance**

"I use Diskeeper primarily on file servers, some of which are domain controllers and Exchange servers. Diskeeper allows me to set defragmentation policies (i.e. time frames – 24x7, 5 days a week, weekends only, certain hours, etc) and removes my requirement to have to worry whether the disk is being maintained at the highest possible level of performance or not. Diskeeper pulls its weight for the dollar saving time, money and effort."

- David Henry, Systems Administrator,
AOSmith Electrical Products Company

"We have been using Diskeeper for several years on the servers specifically including domain controllers/file servers, mail servers, and other application servers. We have an Apple Xserve RAID storage attached to a 4 TB domain controller.

Diskeeper runs seamlessly in the background with little interaction or configuration needed. Defragmentation does not interfere with performance so the InvisTasking technology works great! So, yes we would recommend automatic defragmentation to other network administrators."

- Wade Hamp, CSDNET, Inc.

**Exchange cluster servers:
Problem – freeze ups and corruption**

"We are currently running Diskeeper on our Exchange cluster servers and our main production file server. It is doing an excellent job! We have it set to Automatic defrag and so far, it has been performing flawlessly. We chose to run Diskeeper on our email system and our main file server due to the sizes of the files that are constantly in use which cause a great deal of fragmentation. Manually defragmenting these servers would be extremely time consuming – believe me, I've done it before. Diskeeper takes care of this task for us.

Before we started using Diskeeper on our Exchange cluster, the email system suffered from freeze ups and major database corruption issues.

Since instituting Diskeeper, the freeze ups are history and the database corruption has not recurred.”

- Gretchen Gantzer, Canoga Perkins

Faxserver:
Problem – fragmentation due to heavy use

“We are currently using Diskeeper on our Rightfax faxservers. The product works great. The faxservers become fragmented quite a bit as they use a proprietary database which is constantly getting reads/writes from the user community.”

- Ralph J. Rosen, State Street Bank

File Server:
Problem – time and slow system issues

“Without this tool, I would certainly be spending more time monitoring the fragmentation on my servers as well as more time in the office on the weekends defragmenting the drives. The only reason I would say that is does not qualify to be a vital tool is that these things are more nuisance items than critical ones. That being said, I do not think I would want to deploy any large Server 2003 file server without Diskeeper installed due to the increased maintenance required.”

- Josiah O'Donnell, CBD

What we do notice is that the systems that are running Diskeeper run at the same speed more consistently. The systems that we don't use Diskeeper on seem to, as time goes on, start to slow down. In our case, file servers benefit most from Diskeeper.

- Ryan Winkler, Petroleum industry

“I can say from experience a file server without a defrag application is a mess in no time with very sluggish performance. Diskeeper was recommended to me many years ago by a network engineer and I've never had any real issues with it. With the InvisiTasking® technology it truly is set it and forget it®.”

- Christopher Crowell, Systems Manager, Salisbury Post

Diskeeper is vital to the health of our main fileserver environment. The fileservers contain over 3TB of data and fragmentation causes significant performance problems over time. We use Diskeeper in our main production file/print server environment which consists of two Windows 2003 servers running an active/active high availability cluster attached to a SAN.

There is roughly 3.8TB of storage on the SAN (1.9TB for each cluster). In 2007 we began to experience file corruption problems on the SAN particularly with Outlook .pst files. After repairing the corruption we began using the automatic defragmentation feature of Diskeeper to minimise this problem in the future. Since this point we have been running Diskeeper consistently and we have not experienced any more corruption problems.

- Midwestern University

**Flat file database server:
Problem – slow document retrieval**

“We have Diskeeper installed on most of our servers and PC’s as well as laptops. It has improved the performance of this equipment noticeably. It was a slow situation with the servers which have their data drives connected to the SAN. We had several servers (file servers, flat file Database servers, etc.) with over 80% fragmented drives. Diskeeper ran for 3 to 4 days before they were 100% defragmented. Now these critical servers remain defragmented. Diskeeper is an excellent product.

Most power users have noticed the difference. They report the speed of document retrieval is about 15% faster. For paralegals and assistants, this is always welcome.”

– Chuck Martel, IS Manager, Yellowknife

**Mailserver:
Problem – slow performance**

“I would highly recommend Diskeeper to an Admin looking to improve his mailserver performance and reliability. At our location we deployed it on our most critical servers and as you can see from the attached pictures, the difference was quite drastic.

My biggest fear was that the server would take a performance hit once the software was defragging, but the hit never materialized. In fact the system was noticeably faster after a few days, and after two weeks, a few people asked me if we had moved the mail to a new server.

On the reliability side, that server had 3 drive failures in 6 months prior to Diskeeper being installed. So far it's been running for 7 months and we haven't had a single drive failure on any server that Diskeeper is also running on.”

– Patrick Emery, Petrocard

**SQL Server:
Problem – sluggish with unexplained errors**

“We purchased Diskeeper to deal with heavy fragmentation on a very active file system with millions of files, and so far it has proven incredibly capable. In addition we have deployed to SQL Server to keep database files in top condition without having to shutdown the SQL Server Engine.”

- Nathan McDonald, Network Engineer, VNA of Cape Cod

Biggest impact on our environment: Mail server performs consistently. File server is more responsive and backs up quicker. SQL Server admins report far less unexplainable errors with Diskeeper running. Citrix Servers need rebooting less often for weird little errors.”

- Bill Adragna, Computer Repair

**Terminal Server:
Problem – lag issues**

“We are running Diskeeper on 3 of our production Terminal Servers and after running the product on these heavily fragmented systems they seem to have cleared most all of our lag issues related to fragmentation. I find that the product is truly “set it and forget it”. I have received no complaints after installing this product from users as it stays seamlessly out of the way of active work being done on the server.

Performance has definitely increased as a result of installing Diskeeper on our production Terminal servers.”

Jimmy J. Powell, Network Administrator, City of Rockwall

**Web Server:
Problem – memory issues and
slow performance**

“The best performance benefit has been from IIS 6 web servers and Apache web servers with their caches. Usually after the Diskeeper process finishes, we see improved times on the hits for the files.

We run Diskeeper on all Windows servers in our environment. These comprise IIS servers, Apache servers, SQL servers, MySQL servers, domain controllers and security servers. Overall we have been very pleased with the performance we have seen.”

- Seamus Hartmann, Senior Network Engineer, Fujifilm Color Processing

“Diskeeper is a vital tool for us, as we have large storage volumes that become highly fragmented. With Diskeeper, we can keep the fragmentation down to a minimum and increase our production capabilities with little slowdown.

Diskeeper is currently running on some of our web servers and file servers. Using Diskeeper on our web servers has greatly increased the efficiency and performance of our websites and reduced the wait time for our end users.

*- Bradly Kerns, Systems Administrator,
Inter-State Studio & Publishing Company*

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What the customers say:

“To be honest with you I am very impressed with Diskeeper and its capabilities. It has already saved me several thousands of dollars. When I purchased the product I was just about to get rid of one of my servers as it was slow and anything I tried to revive some life and speed back into it failed. Diskeeper was able to recover up to 25 percent of the bad drives and the server is still running much more efficiently. I would recommend this product to anyone.”

- Richard Vela, Systems Administrator,
Department of Information Technology, Village Of Valley Stream

“Diskeeper has reduced some stability, reliability and performance issues on the servers we selected for use with Diskeeper. We are using Diskeeper on 4 servers with multiple SAN connected volumes and 2 servers with all DAS storage. On the occasions that for one reason or another the Diskeeper service has stopped, I have seen the original reliability, stability and performance issues resurface.”

- Steve Stevenson, TRI-AD

“All of our Servers utilize RAID 5 and Diskeeper is utilized to keep them running efficiently. It's working great. Diskeeper is utilized on our Exchange Servers and MS SQL Servers as well as our numerous applications servers.

Diskeeper ensures that the Exchange & SQL servers stay defragmented and running optimally so that we can continue to run older servers and saves on replacement cost. Now we only need to replace a server or hard drives when we have exceeded the capacity of the server's hard drives.”

- Chris Keen, Brevard Schools Systems & Security

Diskeeper EnterpriseServer is more suitable for servers that perform mission-critical tasks and manage massive amount of data.

Servers likely to require Diskeeper Enterprise Server:

- 1 **Audio/Video Servers:** Audio/Video servers bring multimedia capabilities to Web sites by enabling them to broadcast streaming multimedia content.
- 2 **Chat Servers:** Chat servers enable a large number of users to exchange information in an environment similar to Internet newsgroups that offer real-time discussion capabilities.
- 3 **Mail Servers:** Almost as ubiquitous and crucial as Web servers, mail servers move and store mail over corporate networks (via LANs and WANs) and across the Internet.
- 4 **News Servers:** News servers act as a distribution and delivery source for the thousands of public news groups currently accessible over the USENET news network.
- 5 **Web Servers:** At its core, a Web server serves static content to a Web browser by loading a file from a disk and serving it across the network to a user's Web browser. This entire exchange is mediated by the browser and server talking to each other using HTTP.

Diskeeper Server edition benefits these Server types:

- 1 **Application Servers:** Sometimes referred to as a type of middle-ware, application servers occupy a large chunk of computing territory between database servers and the end user, and they often connect the two.
- 2 **Fax Servers:** A fax server is an ideal solution for organizations looking to reduce incoming and outgoing telephone resources but that need to fax actual documents.
- 3 **FTP Servers:** One of the oldest of the Internet services, File Transfer Protocol makes it possible to move one or more files securely between computers while providing file security and organization as well as transfer control.
- 4 **Groupware Servers:** A groupware server is software designed to enable users to collaborate, regardless of location, via the Internet or a corporate intranet and to work together in a virtual atmosphere.
- 5 **IRC Servers:** An option for those seeking real-time discussion capabilities, Internet Relay Chat consists of various separate networks (or "nets") of servers that allow users to connect to each other via an IRC network.
- 6 **List Servers:** List servers offer a way to better manage mailing lists, whether they be interactive discussions open to the public or one-way lists that deliver announcements, newsletters, or advertising.
- 7 **Proxy Servers:** Proxy servers sit between a client program (typically a Web browser) and an external server (typically another server on the Web) to filter requests, improve performance, and share connections.
- 8 **Telnet Servers:** A Telnet server enables users to log on to a host computer and perform tasks as if they're working on the remote computer itself.