



db4o | The Open Source Object Database | Java and .NET

# Seagate Personal Server Gets Boost in Efficiency and Performance with db4o

By Amy Tenderich

The world's leading hard disc drive and consumer storage supplier Seagate Technology recently gave its Mirra Sync and Share Personal Server a makeover, including a new design, Mac compatibility, and a boost in capacity and performance. db4o played a key role in improving the product's performance and scalability.

The Mirra Sync and Share Personal Server is a data access and management solution that includes an always-on networked appliance, powerful Macintosh and Windows PC software, and a free online web service. Mirra enables small businesses, home offices, and connected families to automatically back up and protect their digital data, remotely access it over the Internet with full encryption, synchronize files among multiple computers, and share digital content freely with anyone, anywhere, any time.

"The goal in developing our second-generation Mirra Sync and Share Personal Server was to further enhance our backup and data protection capabilities for consumers and small business owners," said Bret Savage, chief architect of the Seagate Mirra solution.

"One key element was working with db4o", said Savage, "to help us re-architect our database, leveraging its query strengths, so the Personal Server could back up more data and use fewer system resources, ultimately providing more efficiency for our customers." Seagate evaluated a number of options for its redesign. Its Mirra client software is written in C# .NET, so the company looked for an object database solution that would be compatible.

One alternative considered worked well from a performance standpoint, but was in essence too "heavy" because it required installing a 30 MB runtime version of SQL server on the product. Taking pride in simplicity and ease of use, Seagate didn't want its customers to be forced to install a complete database server on their PC or Mac just so they could back up files. Instead, the company was looking for a database library that would become a seamless, yet integral part of the product.



Seagate Technology LLC ([www.seagate.com](http://www.seagate.com)) in Scotts Valley, California, is the world's largest makers of disk drives. Throughout its history, Seagate has successfully relied on a strategy of ownership and vertical integration of key underlying technologies: designing, developing and producing the components that underpin its storage products, rather than relying solely on outside suppliers.

The Seagate Mirra Personal Server ([www.seagate.com/products/retail/mirra/](http://www.seagate.com/products/retail/mirra/)), an all-in-one multiple-PC backup system, provides home and small business professionals with the ability to automatically back up, remotely access, and securely share digital files. The Mirra Personal Server has three integrated components: an always-on network appliance with three storage options; Windows PC software, and Web access services.





“db4o was the most natural fit as its implementation was much better suited for Windows applications,” Savage said. “db4o was embedded in the sense that it functioned as part of Mirra’s client desktop package, rather than as a separate application and that is what was important to us. With db4o’s help, we were able to install and uninstall Mirra easily without being entangled with other products.”

## High Scores on Support, Reliability

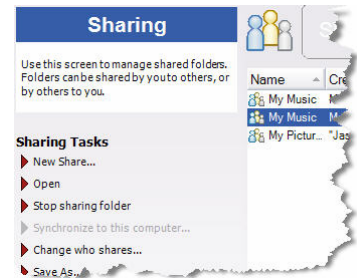
Equally important were the flexibility and support that db4o provided for Savage and his development team. Seagate relied on db4o’s quick and efficient response on advanced configuration options to test, integrate, and ultimately help boost performance of the Mirra Sync and Share Personal Server.

“If I had a problem, db4o would make me a custom build to fix it,” said Savage. “db4o helped us streamline our reliability testing to ensure that db4o would function properly in all sorts of environments and potential failure scenarios, because as a backup program for critical business and consumer data, the Mirra Sync and Share Personal Server requires 100 percent reliability.”

## Results and Impact

In the months since Seagate launched its second-generation Mirra Sync and Share Personal Server, it has been extremely well received by both new and existing customers, has garnered rave reviews from CNET.com and others, and has received the 2007 CES Best of Innovations Award in the mobile/home office category

Savage sums up Mirra’s experience with db4o by saying, “I would definitely endorse db4o’s use in commercial Windows software due to its performance, both in terms of memory overhead and transactional latency; its scalability in terms of how many items you can put in the database; and its solid reliability. But the overall endorsement comes down to db4o’s support, because if you hit a snag, the db4o team works with you to overcome it. That’s solid customer support.”



### db4o Key Benefits:

- Performance
- Low memory overhead
- Scalability
- Reliability
- Excellent Support

*“db4o helped us, so the Personal Server could back up more data and use fewer system resources, ultimately providing more efficiency for our customers.”*

### About db4objects

db4objects, Inc (www.db4o.com) provides db4o, the only native object database for both Java and .NET, available under open source and commercial licenses. 15,000 registered community members and more than 600,000 downloads make db4o the world’s most popular object database. Development managers at some of the world’s most innovative companies, including Boeing, BMW, Bosch, Seagate, and Intel, rely on db4o to cut development costs and deliver new products to market faster.