Disk Management Case Study

S4i Systems

S4i Systems, Inc.
616 South El Camino Real
Suite M
San Clemente, CA 92672
949/366.5234 ph
800/231.5280 ph
949/366.5338 fax
www.s4isystems.com

The consolidation of IT services at Stanley Works diminished the window needed to perform routine DASD maintenance. S4i DASD-Plus solved the problem by performing DASD maintenance in a fraction of the time. Stanley can also target specific file systems, analyze and predict future DASD growth trends.

The Problem

In a 24x7 operation, the central issue was gaining control over scheduling: when and for how long DASD clean up would occur.

The Solution

DASD-Plus, the automated disk management and DASD clean-up tool from S4i Systems that offers control over scheduling and run-time, plus the ability to target specific file systems, analyze and predict future DASD growth trends.

The Result

Better use of available disk space, avoiding the purchase of new DASD, improved response time for end-users; more effective use of IT staff time.

The Story

If you own tools then you know Stanley. For over 150 years the $2.6 billion Stanley Works, headquartered in New Britain, CT, has made quality hand tools and hardware for both construction professionals and home maintenance projects. But, a couple of years ago the company discovered it needed some home-maintenance tools of its own.

IT services for multiple company divisions are provided by Stanley's North American Data Center, in East Greenwich, RI, running BPCS and SAP applications on a variety of IBM iSeries, both CISC- and RISC-based, with a combined 300 GB of DASD.

According to Al Lamarre, AS/400 Systems Programmer, each division has been responsible for maintenance and support of its own machines, although the company is in the process of consolidating all of its North American IT operations onto two or three large systems.

One consequence of the separate responsibilities was that disk management was a hit-or-miss affair. No organized procedures were established to manage the different divisions' DASD. The result was limited available disk storage space, longer backup time, and diminished performance.

"We realized we needed to clean up our DASD," Lamarre says. "Previously, the divisions did it themselves. Programmers had written different cleanup routines that were run intermittently, when someone felt like it, or when they finally ran out of room."

Hired by Stanley in September 1997, Lamarre brought experience with automated disk management tools, including DASD-Plus. After explaining the product, he was encouraged to install it at Stanley.

DASD-Plus performs up to 25 different routines, including clearing history logs and resizing libraries, job queues and objects. These routines can be performed automatically and on a regular basis, freeing operators from what normally is a time-consuming chore.

"The benefits for us are that all the DASD gets cleaned up the same way. Everyone is using the same product instead of writing their own routines," Lamarre says. "The big issue was not just cleaning up DASD, but that we clean it up on a regular basis."

The ability to schedule when the tool will run, and for how long, was an important feature for Stanley, a 24x7 operation. "We can tell it when to run, what actions to perform, and on what data. We can let it run as long as it needs to run, or we can tell it to run for two hours and stop. Previously, a clean-up routine might run for three or four hours and we'd run out of time for our weekly backups."

Besides control over scheduling, Lamarre likes the fact that the tool can clean up specific data file libraries. "If you want it to do the whole system it will do that. If you tell it to just do a certain group of libraries it will do that, too," Lamarre says. "When we get to the point where multiple divisions run on a single box, if someone tells us there is no more room in a library, we can tell DASD-Plus to just clean up the DASD for that specific division. That's a great feature that requires minimal effort for us."

DASD-Plus also allows Lamarre to set the level of "dirtiness" in files to be cleaned. For example, it can be instructed to clean up only those files that have more than five-percent dead records. "That reduces the time it takes to do each file," Lamarre says. "Without that feature, if you have a file that has only a half-percent deleted records, the entire file must be passed through the program to clean up something that's probably very minor. This capability allows the program to spool through a file system much faster."

"It has a bunch of other features to help you manage your DASD," Lamarre continues. "For instance, you can run an analysis report that will show you where your problem areas are. There are a variety of other reports to help you manage your DASD, including DASD utilization, and very useful trend and variance analyses."

The obvious benefit to Stanley Works is that use of DASD-Plus delays the purchase of DASD. As Lamarre notes, "If you keep it clean, you're able to squeeze a little more out of what you have." But there are indirect benefits too. "When an end-user hits the enter key, the response time is faster because the machine is not reading dead records," Lamarre says. "That's difficult to evaluate if, for example, it's a question of only a tenth of a second in response-time, but it definitely becomes a factor."

"If you have a lot of dirty records, when you go to read a file, that does have an effect on performance," Lamarre explains. "If you your keep files clean, the user gets the indirect benefit of faster response-time."

For Lamarre, DASD-Plus has made life easier. "Now disk management is automatic," he says. "It's all set up and scheduled. We know it's going to run every week. It runs by itself, and we don't have to worry about it, which is a great benefit to me, personally."