

# Disk Management Case Study



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](http://www.s4isystems.com)

**4.4 terabytes of DASD spelled big disk capacity management woes for Big Lots. Optimizing DASD was nearly impossible. New disk was added every three to six months, and backup and IPL times dragged out. Big Lots then deployed S4i DASD-Plus to help identify problem areas. Within the first month S4i DASD-Plus recovered 73 gigabytes of DASD from one file.**

## Big Lots: Girds Up With S4i Express

Big Lots, Inc. is the nation's largest broadline closeout retailer with annual revenues exceeding \$3 billion. Headquartered in Columbus, Ohio, Big Lots operates more than 1,300 retail stores serving 46 states. Four regional distribution centers throughout the country, ranging in size from 1 million to 3 million square feet, provide the company's stores with brand-name products from more than 3,000 manufacturers.

Big Lots offers merchandise at 20 to 40 percent below most discount retailers and up to 70 percent below conventional retailers. Founded in 1967, the company employs more than 40,000 associates across the U.S.

Big Lots currently employs five iSeries. The two largest systems, which house their retail and merchandising and data warehouse applications and data, contain 2.7 terabytes and 1.7 terabytes of DASD respectively.

Managing such huge amounts of DASD is a labor-intensive and time-consuming task. According to Karen Evans, Senior Technical Support Analyst, "We were constantly running queries to determine where the highest DASD utilization was, and chasing our tails to answer the ever-present question, 'Why has our disk utilization jumped so much in the last few days?' Our Operations/Technical Support staff was spending hours per week manually cleaning up output queues, journal receivers, and scheduling file reorganizations.

We were literally purchasing disk every 3-6 months to keep up with demand. The more DASD you have, and the more objects that reside on the system, the longer your backup and IPL times. We decided to do a system-wide audit of our files and programs to determine areas requiring purges, and to identify obsolete objects.

We decided to evaluate S4i DASD-Plus as a tool to help identify our disk space problem areas and "Within the first month of use we were able to recover 73 gigabytes of DASD by identifying a continually growing file in need of a purge process."

DASD-Plus is a comprehensive, menu-driven solution for managing iSeries disk utilization. On the fly, DASD-Plus performs up to 25 different routines, such as clearing history logs and resizing libraries, job queues and objects. The routines perform time-consuming storage management tasks automatically, and on a regularly scheduled basis.

S4i DASD-Plus includes a series of Save Disk Space utilities that manage disk space used by the operating system and applications, based on user-defined rules. Users have the ability to limit the libraries and objects that Save Disk Space utilities examine. In addition, DASD-Plus can operate in "What-if" mode, which simulates running the utilities without making permanent changes. Reclaim Disk Space functions, a subgroup of the Save Disk Space utilities; reduce disk usage by removing, re-organizing and re-sizing various objects that are no longer needed.

Karen continues the story: "Within the first month of use we were able to recover 73 gigabytes of DASD by identifying a continually growing file in need of a purge process. We have also been able to identify thousands of unused files, programs and duplicated objects.

With our growing business and data requirements, the need to purchase DASD in the future is a foregone conclusion. But DASD-Plus allows us to project system growth trends over time and make informative recommendations to management on those purchases. It is a very comprehensive product that is easily configurable to work within our environment and alleviates many of the mundane disk cleanup tasks.