

Disk Management Case Study



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Finning, one of the largest heavy equipment dealers in the world, moved off a Bull mainframe onto an iSeries. Finning's IT department quickly found out how fast disk space was consumed and performance became degraded. Several attempts were made to manage DASD but none of them worked. Finning then tried DASD-Plus and immediately, disk space was reclaimed from several output queues and message queues.

Big Cat Finning International Uses DASD-Plus

Finning International, based in Vancouver, British Columbia, is a heavy equipment dealership that sells and services products manufactured by Caterpillar Inc.—earth-moving equipment, logging equipment, backhoes and graders—the yellow behemoths that are familiar on any large construction site. With annual sales of \$1.5 billion, Finning is one of the largest heavy equipment dealerships in the world. The firm’s subsidiaries in the UK and Chile are primarily Caterpillar dealerships.

The scenario

Formerly a mainframe shop, running in-house developed legacy applications on a Bull mainframe, Finning decided in 1994 to align itself more closely with Caterpillar’s suite of applications. According to Rick Tipple, Manager of Systems Development and Operations, the core system, an ERP application called Dealer Business System (DBS), was developed by Caterpillar for the OS/400 platform, so a move to the iSeries was necessary.

“None of us knew anything about the iSeries,” Tipple says. “We finally got our machine in production in late 1995. Caterpillar’s technical staff set up a large part of it, but the rest was up to us to learn.” The DBS system, with integrated human resources and timekeeping applications from Infinium, along with a Finning developed customs system for exporting, now runs on an IBM system i.

Disk space: a “consumed asset”

Once the new system was up and running, one of the things Tipple quickly found out how fast disk space was consumed. iSeries disk drives continually accumulate wasted and disorganized space, reducing capacity and degrading system performance. Companies can spend a great deal of time and money managing disk storage but most find it difficult to standardize procedures and optimize disk utilization throughout the iSeries environment, even using the IBM supplied system tools.

Searching for a solution

“The big question was how could we control our DASD,” Tipple says. “I talked to a few people in other firms. Several told me they had written CL programs in an attempt to manage their DASD, but it seemed to me there must be a software firm that had developed a professional solution for everyone. That way we wouldn’t have to reinvent the wheel and could share the benefit of their R&D efforts and client experience. Eventually, an IBM technician recommended DASD-Plus. The rest is history.”

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. Under the hood 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.

Cleaning up their DASD act

"The Reclaim Disk Space function deals with output queues for spool files, message queues, journals, folders and a bunch of other things," Tipple says. "The biggest thing for me was taking care of output queues, message queues and journals. I have fourteen hundred end-users, which means fourteen hundred message queues, and several hundred output queues. DASD-Plus allows me to make decisions and set parameters on each queue for how long I want to keep it available. Or, I can do a lump-sum change using generic naming. It is quite diverse."

Oh, what a (cost-saving) relief it is

Tipple acquired DASD-Plus in early 1996. "All I can say is that it was yours truly who was taking care of all the files and output queues on a manual basis, and it was becoming quite time consuming," he says, "In a one-week period I was probably spending one-half to three-quarters of a day going through and trying to clean up output and message queues. Over the period of a year, that cost our firm several thousands of dollars. DASD-Plus easily paid for itself inside of a year. Now, we rely very heavily on it to keep all our queues in synch."

Since DASD-Plus was installed, Finning's IT operations have been outsourced, so Tipple is more distanced from day-to-day disk management. "The outfit that is running it for us now doesn't know anything about DASD-Plus other than that it kicks in, does its own clean-up, and generates reports that I review," Tipple says. "I've instructed a couple of staff members on how to add or update processes within the jobs it runs. But basically, it just runs every day and quite effectively does its own thing."



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