

**QUALSTAR**

► **CASE STUDIES IN SUCCESS**



Purdue University Calumet

PURDUE UNIVERSITY

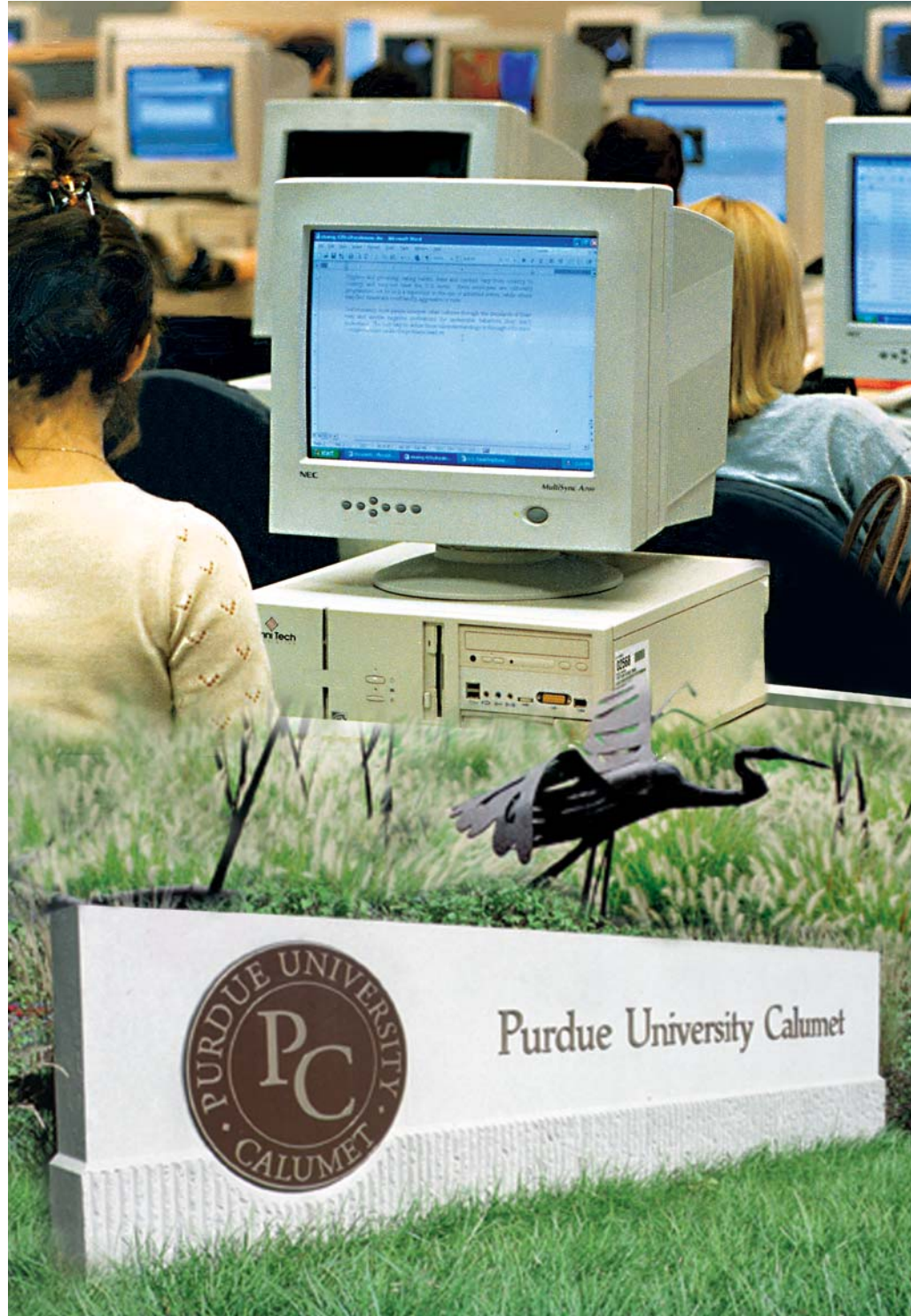
PROTECTS ITS

EDUCATIONAL

RESOURCES & DATA

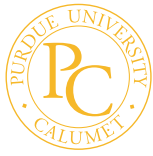
WITH QUALSTAR

TAPE LIBRARIES



**QUALSTAR**<sup>®</sup>  
The Tape Library Experts

► **WE HOLD THE WORLD'S RECORDS**



*Purdue quickly realized the value in Qualstar's Simply Reliable design, buying two additional products. It now uses three Qualstar Libraries to safeguard its data.*

## THE UNIVERSITY

Purdue University Calumet is part of the internationally respected Purdue University system with an enrollment of more than 9,000 students. The University offers over 100 fields of study and is known for its quality of service and education. Purdue Calumet offers many different educational options such as certificate (for quick professional training), associate,



*Located on the shores of Lake Michigan, Purdue University Calumet is a commuter campus occupying 15 buildings on 165 acres with an extensive networked computer system.*

baccalaureate and Master's degree programs. Purdue University Calumet is a commuter campus occupying 15 buildings on 165 acres in Hammond's attractive Woodmar district.

The campus is ideally located in Indiana's Northwest business corridor, 25 miles from Chicago and three miles from the Illinois border. This close relationship with the business community allows students to gain valuable, hands-on experience through intern, work-study and other coordinated programs. The University has five convenient locations to choose from – Hammond (Main Campus), Crown Point, St. John, Merrillville (Hellenic Cultural Center), and Merrillville (Georgia Street Learning Center).



*In addition to faculty and administrative needs, students, as in the Electrical Engineering Lab (above), use the University's extensive networked computer system to store a wide range of valuable information from research data to homework.*

## THE CHALLENGE

Purdue's data storage requirements were growing by leaps and bounds. Faculty members were storing electronic presentations packed with graphics and rich-media content used for classroom instruction, as well as extensive distance-learning materials. Students stored their homework assignments on the network, allowing them access from any of the 35 labs located around the campus. The University's administrative staff needed to securely store academic records, enrollment and budget information, and departmental business data in the form of spreadsheets, letters, e-mail . . . in short, the mission-critical information that keeps a complex organization in business.

Wayne Samardzich, Purdue's Manager of Systems Operations, realized that the routine backup of all that valuable data was becoming unmanageable. The data center was already storing more than 800GB of information,



both in user data and system configuration files, to enable his staff to restore a server in



*“We expect to have student storage double in the next few years,” Samardzich says. “And the configuration we were using simply could not handle that growth.”*

the event of a failure. “We expect to have student storage double in the next few years,” Samardzich says. “The configuration and manual systems we were using simply could not handle that growth. We were using multiple backup tape formats with several different backup devices. We were using DLT,

DAT, 4mm, 8mm, DC600a, and Maynard formats. We had three horizontal and two vertical Cybernetics drives along with single tape drives in most of the servers.”

“Backups had become a full-time problem,” Samardzich continued. “We had staff working from 6 AM to midnight. We had to manage multiple devices and formats as well as different software packages to do our backups. Full backups would take days to complete, taking up valuable network resources.”

Like many mid-sized businesses, Samardzich found that the approach that had served Purdue in its earlier days simply could not handle its current needs, let alone the growth in the years to come. It was time to start over; but this time, the solution had to be one that not only met the immediate needs, but would also scale as Purdue continued to grow.

## THE SOLUTION

Purdue Calumet decided to invest in an enterprise-wide solution. “We wanted one tape



*Wayne Samardzich, Purdue's Manager of Systems Operations, loading an AIT tape cartridge into one of the University's three Qualstar tape libraries with Sandy Golec, Senior Computer Operator.*

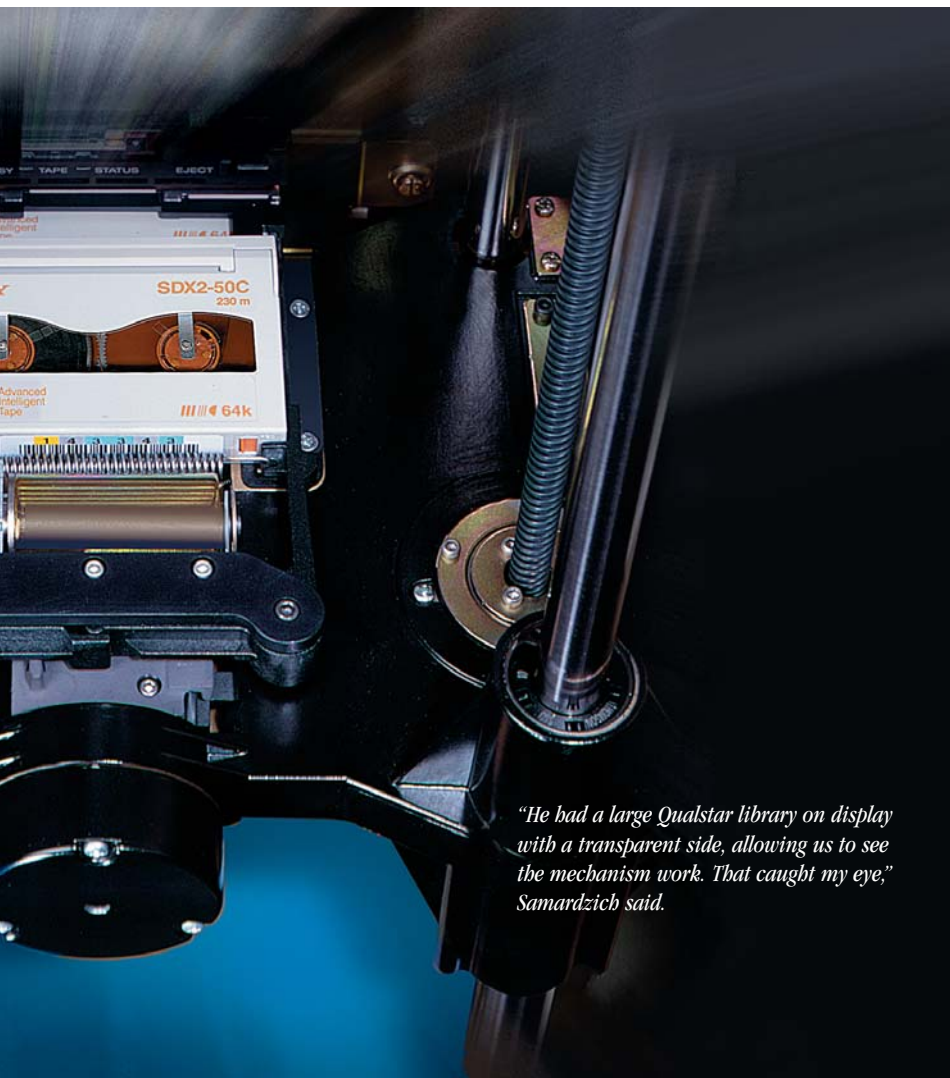
format in a large library, using a common backup software package,” Samardzich said. “By doing this, we would eliminate all of the problems we encountered by using multiple formats and problematic tape changers.” After doing extensive research into the high-performance tape formats available today for data storage, Samardzich focused on the advantages that Sony's AIT technology offered.

At an IT industry trade show in Chicago, he had an opportunity to closely examine several



Qualstar TLS-Series automated tape libraries and to talk with one of the company's leading integrators: “He had a large Qualstar library on display with a transparent side, allowing us to see the mechanism work. That caught my eye,” Samardzich said. “He asked if we were interested in AIT tech-

nology and I answered ‘yes,’ but that no one would let us test a unit on site. He immediately said that it would not be a problem and that I would have one delivered in a week or so.”

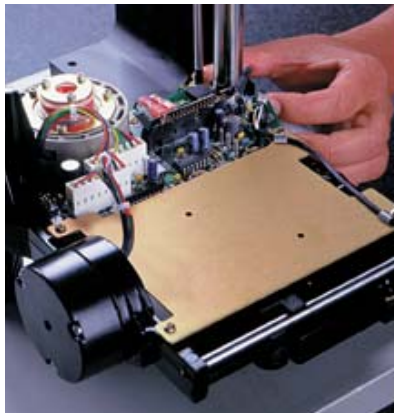


*“He had a large Qualstar library on display with a transparent side, allowing us to see the mechanism work. That caught my eye,” Samardzich said.*

# QUALSTAR

## THE SOLUTION, CONTINUED

The library arrived at Purdue the following week, and Samardzich and his staff were impressed from the start. "We were pleased by the library's performance," Samardzich added. "We are using AIT-2 tapes, each storing 50GB per tape. We no longer need to wait for ten tapes to be read in before performing a restore." Purdue quickly realized the value in Qualstar's *Simply Reliable* design, and



*Qualstar's unique robotic mechanism provides precise positioning and flawless media handling for years of dependable operation.*

bought two additional products. It now uses three Qualstar libraries to safeguard its data, including a model TLS-4440

library with room to hold eight terabytes of information.

Those libraries have made it possible for Purdue Calumet's staff to do their work



*Leadscrew-based robotics using brushless motors insure reliability, high performance and maximum value.*

far more efficiently than ever before. "Not having to have two or three backup devices out for repair each week did a great deal for my sanity," Samardzich commented. "We were walking on thin ice with the chance of not having enough working backup devices on hand in case we had a catastrophe. In addition, we no longer waste money having to use a half dozen different formats and associated drives."

## THE FUTURE

Purdue Calumet is in the process of moving files belonging to students to a SAN (storage area network) environment. Multiple servers are connected to the SAN with failover protection. The Qualstar libraries are an integral part of the University's new approach to data storage. "The technology," Samardzich said, "keeps our customers working and unaware that there was any problem. Qualstar's TLS-Series libraries and AIT technology help us quickly restore lost data and systems. As we continue to grow, we expect that Qualstar will play a major role in our information storage plans."



*"As we continue to grow, we expect that Qualstar will play a major role in our information storage plans," says Samardzich in front of the AIT tape cartridge library.*

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