



Case Study: Modernizing Barcode Technologies

T.L. Ashford's Barcode400 provides unparalleled resilience.

*Written by Thomas Stockwell
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What do you do when the mission-critical technology infrastructure that runs your company begins to erode beneath the daily workload? Do you scrap everything and begin anew? Or do you tough it out and pray for a miracle?

That's one of the challenges Bob Reckers faced at TOPICZ when the barcode infrastructure started to go south. But using common business sense and T.L. Ashford's resilient Barcode400 software, Reckers was able to implement an incremental reinvestment plan that could rescue TOPICZ's infrastructure while decreasing cost and increasing system performance.

TOPICZ Convenience Stores

TOPICZ is a small company located in Cincinnati, Ohio, distributing food and confections to a network of convenience stores in Ohio, Indiana, Illinois, Kentucky, Tennessee, and West Virginia. It's locally owned and operated as a division of the Novelart Manufacturing Company, an organization that's been in business for more than 100 years.

The 1200 convenience stores serviced by TOPICZ rely upon shelf-tags to control inventories—labels with barcodes that can be quickly scanned in the stores to notify TOPICZ when a re-order point has been reached. This system has been successful and productive for more than 20 years, so, like many small organizations, TOPICZ's management had been practicing the "If it ain't broke..." school of IT investment. Reckers' job, as TOPICZ's IT manager, is to keep the ship running and keep the costs down.

However, as the pace of technology changed, so too—over time—did the vendor support for TOPICZ's software and hardware. And it was this gradual change that created a dilemma for Reckers.

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Hostage

The initial dilemma showed up at central headquarters: the printing of the shelf-tags was taking too long. The company's inventory software package still used an old custom-written module to print a unique OEM barcode symbology. This custom programming module was paired with some troublesome laser printers, and their poor functionality necessitated hand-feeding each shelf-tag label through the printer.

The required volume of printing could be enormous: hundreds of shelf-tags for each store needed to be printed in a single run. The quality of the resulting shelf-tags using the old laser printers wasn't good, and the scan success rate in the stores was not acceptable.

Reckers knew he needed to replace the old printers with more-efficient devices. The problem was the custom barcode printing software: TOPICZ no longer had the source code, and the original programmer had disappeared long ago. But that was only the beginning of the dilemma.

The second problem was at the 1200 stores: they had each long in the past been equipped with Telxon scanners, an older technology that was no longer in production. These old scanners could read only a proprietary OEM barcode symbology, and no one knew exactly what that symbology was.

In other words, TOPICZ was being held hostage by a mission-critical infrastructure that had reached the end of its lifecycle. There was little or no support, and the technology itself was starting to fail. In a nutshell, time had run out on the printing hardware, the barcode software, and the scanners themselves. What could TOPICZ do?

Planning for Resilience

Another company might have scrapped the entire system and started over. But to replace everything—printers, custom software, and over 1200 scanners for the stores—would require hundreds of thousands of dollars in investment. Reckers knew this was not financially feasible for his small company. Moreover, teaching store employees across six states to use new scanner devices wasn't really an option either: Reckers was TOPICZ's only IT professional, responsible for a slew of servers as well as the company's two IBM i systems. He couldn't be two places at once.

What TOPICZ needed was a new plan that could deliver a new resilience to the existing sagging infrastructure, some piece of the technology puzzle that could enable Reckers to catapult its aging infrastructure into the 21st century. Reckers hoped that, with a modest investment, TOPICZ could slowly rebuild its mission-critical system, replacing printers and scanners over time. But what might that key puzzle piece be?

Barcode400 to the Rescue

Reckers turned to T.L. Ashford's Barcode400 software, the most trusted barcode printing software in the industry. T.L. Ashford has a long history of solving barcode problems with troublesome

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printers and scanners. It was founded in 1983 to provide government suppliers with the ability to print a LOGMARS barcode symbology. T.L. Ashford's focus has always been on the IBM midrange market. So if any company could solve the TOPICZ puzzle, T.L. Ashford could. And the more Reckers looked at T.L. Ashford's product, the more he understood how Barcode400 could bring a new resilience to TOPICZ's aging mission-critical application.

Adding Up the Value

T.L. Ashford's Barcode400 software runs on the latest IBM i platform, and the company strives for a goal of 100 percent customer satisfaction. In fact, Barcode400 is considered the preeminent, most cost-effective IBM i barcode printing software with the best cutting-edge architecture in the industry. How does it manage this?

First of all, Barcode400 permits customers to print labels without the need of programmers. But it also includes an Enhanced Graphical Designer tool that supports the development of highly customized and sophisticated labels. These labels can include graphics, 2D barcodes, and even RFID support. Barcode400 even supports remote label design and printing. Moreover, there are no license restrictions on the number of people who can use the Enhanced Graphical Designer software. In fact, T.L. Ashford provides free compliance label templates and free training, making certain that its customers have the support they need over the long haul. Most importantly, Barcode400 supports hundreds of third-party printers (including HP/AFP PCL printer devices) and can print hundreds of different barcode symbologies.

Finally, Barcode400 is a low-cost solution for the IBM i, with single-tier pricing, making it one of the most affordable, high-value solutions available in the marketplace.

Reckers liked what he'd heard about Barcode400, so he went to T.L. Ashford's Web site and downloaded the fully functional trial of Barcode400 software to the IBM i. With no training on the Barcode400 software, Reckers found he could easily recreate the design his company needed for its shelf-tags, and he was impressed with the software's ease of use.

In fact, he was so impressed that he moved ahead and purchased the software. The only problems he could foresee were the Telxon scanners in the TOPICZ stores. What, exactly, was the barcode symbology that these old scanners used?

Technology Tales: Checking the Expiration Dates

Like many small distributors, TOPICZ's client stores had invested in Telxon scanners to read its shelf-tags. Telxon was once one of the most successful and advanced manufacturers of wireless barcode scanning equipment in the industry, but, unfortunately, proprietary technologies often have limited lifecycles, and now TOPICZ discovered that no one remembered what barcode symbology was being used at in the TOPICZ stores.

In other words, the barcode symbology used on the shelf-tags had reached its "end-of-life" expiration date.

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Clearly, TOPICZ needed to extend that end-of-life date, if only to create enough time to devise a plan of action to support its 1200 stores. And that's where T.L.Ashford's team of experts came to the rescue.

T.L. Ashford Support for 100 Percent Customer Satisfaction

Reckers contacted T.L. Ashford's support team: could they assist in researching the barcode symbology used at TOPICZ? Could Barcode400 software print that obsolete barcode symbology so that the Telxon scanners could read the barcodes?

Other software providers would have balked at the prospect or charged exorbitantly for the service. But not T.L. Ashford.

T.L. Ashford's technical team went through hundreds of different barcode types and then performed the painstaking process of printing the probable suspects and sending the samples to Reckers to see if his scanners could read them.

Reckers was impressed with the dedication of the team as they narrowed down the suspects through trial-and-error routine. At last, the right symbology was identified, and then—using Barcode400's integrated toolset—it was a snap to implement the code into the original shelf-tag printing system.

And how much did this trial-and-error search cost TOPICZ? T.L. Ashford did the entire search as a complimentary part of its policy of 100 percent customer satisfaction.

TOPICZ and the Future with Barcode400

Today TOPICZ is successfully using Barcode400 to print the Telxon-barcode shelf-tags. No longer are the tags being hand-fed through the printers. And, in the future, when the company chooses, Reckers will easily be able to configure the software to print a more conventional barcode when TOPICZ chooses to replace the Telxon terminals. This gives TOPICZ the flexibility it needs to move cautiously into the future with its 1200 stores, enabling Reckers to *plan* how best to address the continuing needs of the company.

Barcode400 gave TOPICZ the flexibility and resiliency it needed to advance its aging infrastructure into the 21st century. Its ease-of-use and its in-depth architectural advantages on the IBM i, combined with the incredible customer support of the T.L. Ashford team, made a success of the TOPICZ modernization.

This kind of resiliency is what T.L. Ashford's Barcode400 is all about: easy-to-use barcode printing software, flexible architecture, matchless customer service, and a price that is both affordable and justifiable to management.