# RORC scores 3 out of 3: Good, Fast & Affordable

Having been hindered over the years by having to revisit perfectly good business logic every time there was a major upgrade in the operating system, the database or development language, RORC (Retailed Owned Research Company) decided to redevelop its 15 year old Visual Basic-based retail system from the ground up with a development environment that would shield it from forced code revisions and having to maintain multiple versions.

RORC selected Visual LANSA and is now very successfully rolling out its new single-source Point-of-Sale and back office solution to over 700 retail locations across the USA, who have a mixture of Windows operating systems.

## The Challenge

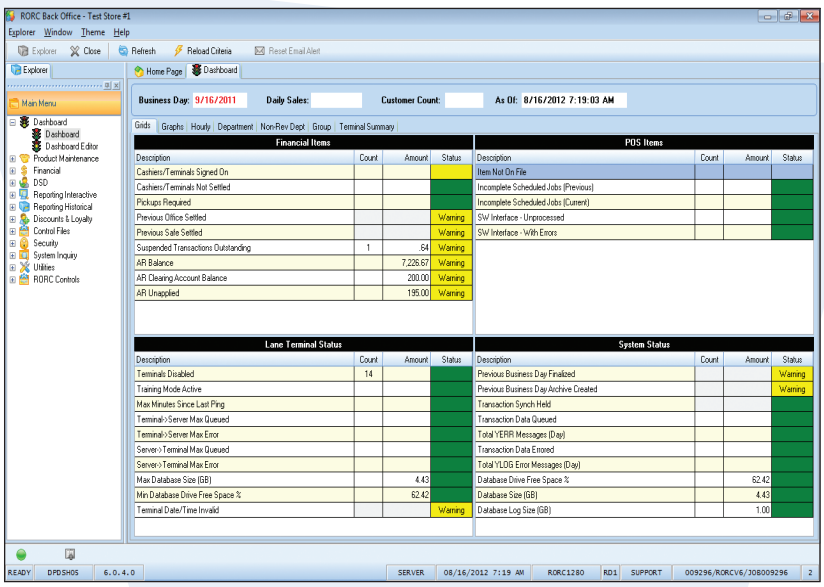
RORC is a co-operative, jointly owned by three wholesale distribution center co-ops, which translate their retailers' service needs into new product requirements and fund RORC's work to build solutions for their member retailers. Joe Jurich, President and CEO at RORC, refers to RORC's organizational structure as a co-op of co-ops.

RORC was established in 1985. In the early eighties the retail industry had started to move away from mechanical cash registers towards electronic systems that could scan goods at the checkout. "If a retailer wasn't scanning, the customer looked at them as if they were old fashioned. At that time there were only a few big name players in the retail automation market, charging over US$10,000 per lane to install a POS scanning system. While large retail chains could afford such an investment, those costs were usually prohibitive for independent retailers", explains Jurich.

In 1985, a group of wholesalers wanted to do something to help their retailers with in-store systems and subsequently founded RORC. RORC started with a back office price management system, which it named StoreWin. After that RORC developed viPOS, a simple POS scanning system that could run on a low-end PC. Based on input from its member retailers, both the back office and POS system evolved over the years.

"For significantly less cost per lane, our retailers could install scanning. The bulk of the cost was for hardware." says Jurich. "Historically we developed in VB (Visual Basic) with an MS Access database. Our solution had been doing well for 15 years, but its user interface needed updating, the configuration options were not flexible enough and MS Access was stretched to do things it was never intended to do."

RORC investigated whether there were any suitable packaged retail automation solutions available, but found that, after 15 years, they were still too expensive for its retailers. Moreover, a lot of the functionality of the packaged solutions was geared towards chain operators, with features that independent retailers could not use. RORC decided to redevelop its solution from scratch and started researching development environments.




*The dashboard provides a status overview of financial items, POS items, lane terminals and the system.*

> **"Being able to port to another platform is great for any solution provider."**

## Development Environment Options

"We were looking at moving to .NET, but found it was not going to eliminate a major VB problem: Code stability."

"Over the years, every time Microsoft reinvented VB or Access, which on the average is every three years, we found ourselves working countless hours rebuilding perfectly good business code, because the current version of the source was incompatible with the new IDE, database or OS," says Jurich. "We were spending a lot of time and resources, without any new functionality to show for it."

Jurich researched a number of other development options and found out about LANSA. "What we liked about LANSA was that it would take care of the low level plumbing code and that it would insulate our business logic from operating system and database incompatibilities. We could write the business logic once and - down the road if we wanted to - port it to another database or even to another operating system. And we could do all that maintaining a single set of source code, which is great for any solution provider. We also liked LANSA's Framework and 4GL productivity, because we were on a tight timeline to develop a new solution quickly," Jurich says.

Because RORC's solution needs to work with a lot of devices, such as scanner scales, cash drawers and receipt printers, an intensive proof of concept was needed. After some small adjustments were made to speed up the communication with those devices, LANSA passed the test. ➔

## The Project and Solution

A project team was put together consisting of three business analysts (one from each wholesaler), four developers (existing VB programmers and college recruits) and a mentor from LANSA Professional Services.

RORC's retailers range in size from small 'mom and pop' stores with just one or two checkout lanes, to stores with over 30 lanes. The requirements of the small retailers differ enormously from the larger stores. In addition, the three wholesale co-operatives each have their own standards and procedures. RORC's solution therefore needed to be very flexible.

The analysts took the existing system and dissected it completely. They then categorized features as 'what retailers liked about the current product', 'what they hated' and 'what needed to be fixed or added'. With that input, a new system was designed from the ground up.

After 30 months, which included requirement analysis, system design, development and testing, the bulk of the solution was ready for a pilot implementation at the first retailer. "This implementation went very well, with only minor issues. The second site went live soon after, without any technical problems," says Jurich.

For those not familiar with grocery retail automation, functionality is quite complex. The back office system provides price management, inventory management & replenishment and sales statistics. It keeps a balance of cash 'on the floor' (at the cashiers), in physical safes and for back office operations. Productivity reporting is elaborate and includes detailed statistics on how many items each cashier processes per minute, how much time is spent on giving change, and so on.

The POS system handles a variety of electronic devices and integrates with third party applications, such as frequent shopper programs, couponing and store security applications. When interfaced to a loyalty or e-coupon application, the solution sends information and receives instructions ranging from receipt messages to special prices. All that has to occur very fast. "When you scan an item, you have less than a second to display the correct price," explains Jurich.

## Stable, Functional and Productive

"So far, 20 stores have implemented the new system and the feedback has been very positive, The main benefits for the retailer are the stability of the new system, new functionality and a productive modern user interface."

"Both the back-office and POS system are developed with LANSA and use SQL Anywhere as the database. Retailers can power off the backend server or a POS client in the middle of the day inadvertently, then turn it back on and everything recovers. Commitment control

*RORC president and CEO Joe Jurich (left) and AWI VP of IS Glenn Kriczky (right) with Foodland owner Ron Monahan and his RORC system.*

**"The POS system integrates with a variety of electronic devices and with third party applications."**

is a huge positive in the new design," continues Jurich.

"It is a fairly complex application, with lots of functionality and implementation options, but at the same time it is also very intuitive. Training is straightforward and takes about 20 minutes for a cashier, and another 20 minutes for the store manager."

"From an IT point of view, the LANSA-developed solution is far simpler to manage than the VB solution. The code is object-oriented now, which makes it easy to maintain. By insulating us from having to worry about underlying version incompatibilities in the operating system or database, we saved both time and removed a prior headache – code instability," Jurich says.

One of the biggest benefits comes from the system being data driven, rather than hard coded. This allowed RORC to provide a custom look and feel within the same application, by only displaying those fields and options that are enabled for a specific user.

## Three out of Three

"The user interface has been drastically updated, processes simplified, and user configurable flexibility has been added throughout the system. We refer to the system as designed for independent retailers, by independent retailers," says Jurich. "It allows an independent retailer to implement a system that rivals, and in some cases surpasses, the functionality used by the chains, but at a much smaller cost."

"Having highly capable business analysts involved really enhanced our ability to deliver a great system in a timely manner," concludes Jurich.

"There is an old adage, that when building systems three factors are always desired: Good, Fast and Cheap. In reality, you can pick two knowing that the third is the trade-off. For instance, it may be good and fast, but it won't be cheap. Or, fast and cheap, but it won't be any good. With LANSA, we achieved all three. The deliverables are very good. They were built much faster than we could have built them in any other language. And the end result was significantly cheaper than it would have cost using other methods." ■

## *Snapshot*

**Customer:** RORC (Retailed Owned Research Company) is a cooperative that builds retail automation systems for its member retailers. www.rorc.com

**Challenge:** Lack of user configurable flexibility and code instability due to underlying version incompatibilities.

**Solution:** Redevelop from scratch a Visual Basic based system with Visual LANSA.

**Key Benefits:** One set of source code for a solution that is highly configurable, deployed by over 700 retailers that run a mixture of Windows operating systems.

**Product Used:** Visual LANSA.