

LANSA Case Study

Eagle replaces dispatch board with Visual LANSA

Eagle Systems, Inc. (ESI) is part of the Eagle Group based in Wenatchee, Washington, USA and a leader in intermodal transportation with locations throughout the USA and Canada. Using the Visual LANSA Framework, ESI built a dispatch system, called eDray, which integrates with its core Synon 2E-based logistics system. LANSA Integrator is used to exchange dispatch information via SMS with drivers and send real-time EDI status updates to customers.



Larry Ronhovde, president of Eagle Information Systems, says, "Our decision to use Visual LANSA Framework saved us a lot of time, especially considering we are new to large Windows-based projects. The framework acts like an on-site mentor who helps get things done the right way the first time. It gave us a head start on proper coding techniques and standards, instead of starting with a blank page."

Replacing a Paper-based System

Intermodal transportation involves last-mile logistics, such as ramping and de-ramping containers at railway hubs or shipping ports, delivering containers by truck to the final destination and returning empty containers to the railroad or shipping company, typically over short distances.

"In regular transportation, a driver may take a week to carry a load across the country," explains Ronhovde who supervises application development and support for the Eagle Group. "But in intermodal transportation, a driver may move several loads per day. The high frequency and large number of loads that we handle each day requires a high degree of coordination by our dispatchers."

ESI's paper-based dispatch system was error prone and did not integrate with other systems. T-shaped cards representing a load were moved around a large planning board by dispatchers who wrote notes on them indicating schedule, destination, driver and status. While billing information from the T-cards was manually entered into the core iSeries system, it was of little use for dispatch management or history and the physical T-cards were kept for five to ten years.

Chreston Knutson, Director of Information Systems at ESI, says, "The only way to access information was to look at the board in each terminal. Occasionally a driver would call after office hours for clarification on a load, but we couldn't look it up on the computer."

"eDray has all the flexibility of the manual system, but is more accurate and accessible."

ESI wanted to improve the efficiency and capacity of their dispatch function by replacing the manual card system with a graphical drag-and-drop Windows solution that integrated with its core Synon 2E iSeries application.

Ronhovde evaluated several development tools before selecting Visual LANSA. "We looked at Java and also at the 2E follow-on product COOL:Plex. In terms of the graphical interface, drag-and-drop capability and iSeries integration, Visual LANSA was a clear winner."

"With Visual LANSA, and even more so with Visual LANSA Framework, we can rapidly create intuitive systems that are easy to maintain," says Ronhovde.

A Better, Integrated Solution

Using Visual LANSA Framework, Ronhovde's team developed a Windows-based dispatch system, called eDray, which interfaces directly with the iSeries database of its core Synon 2E logistics and billing system.

The graphical interface creatively mimics the card-based manual system. Small boxes, representing containers, can be dragged from one location to another and right-clicked to select functions like re-scheduling and changing drivers or status. Colors group containers, while the location on



the form indicates a geographic area or container status, progressing through open, available-for-pick-up, active – when ESI takes possession, to delivered to the customer and finally to completed – when the empty container is returned.

“The new interface retains all the benefits and flexibility of the manual T-card system, but is more accurate and the information can be accessed electronically. It also eliminates the need to enter data manually into the billing system,” says Knutson.

“In fact, during pilot trials we uncovered small procedures that, until the physical T-cards were gone, nobody knew the dispatchers were following. We had to cater for all these exceptions in eDray.”

“The Visual LANSA Framework shielded our newly trained LANSA developer from the complexities of inter-form communication, navigation and form management,” continues Ronhovde.

“It gave us a head start on proper coding techniques and standards, especially since eDray was our first major event-driven development project. Instead of starting with a blank page, we started with a framework into which we could add our business objects, filters, lists and detail forms.”

“The framework approach saved us a significant amount of time. We didn’t have to deal with a lot of the base decisions and base coding requirements. We could just focus on building the business application since we could use the framework’s default settings for security, forms design, message handling, and so on.”

“It took just one dedicated LANSA developer about nine months to develop and implement the system. We continue to drive and maintain the eDray system with just a single developer. So, from a productivity standpoint, we achieved a lot with Visual LANSA. It is hard to be exact, but I am sure it saved us a couple of months,” says Ronhovde.

Real-time Status Updates from Drivers and to Customers

“At the moment truck drivers call our dispatchers and write down load details, then call again when they deliver their load so the dispatcher can record the status change. Dealing with so many phone calls and sometimes unclear lines, it is hard to avoid mistakes,” says Knutson.



Company and System Information

- The Eagle Group of companies is based in Wenatchee, Washington, USA. Via its predecessor, Eagle Transfer, it has been part of the state of Washington’s transportation history since 1903. The Eagle Group has operations serving 32 states in the US and Western Canada with over three million truckload units handled annually by 30 Eagle-operated facilities. Eagle defined intermodal transportation at the turn of the century and is still bringing new meaning to the service-oriented, fast-paced, competitive intermodal marketplace of today.
- The Eagle Group of companies includes; Eagle Systems, Inc., Eagle Intermodal Services, Inc., Eagle Information Systems, LifeLine Ambulance, Inc., Eagle Transfer Co., HomePak Self Storage and Eagle Admin. Services. For more information about the Eagle Group visit: www.eaglegroup.com
- Eagle Systems Inc. uses an IBM System i model 810 and has approximately 120 internal users spread over its head office and 18 locations.

“The framework acts like an on-site mentor who gets things done right the first time.”

ESI is currently piloting automated SMS messaging to exchange load details with driver’s cell phones. LANSA Integrator exchanges XML transactions via a Java-based freeware application from ConWare to send and receive SMS messages with details about the container, when and where to pick it up, and where to deliver it.

“Informing drivers via SMS and getting status updates back electronically will reduce the number of phone calls and significantly improve efficiency,” adds Knutson.

“Eventually the dispatcher will only be called for missed appointments, broken containers or other exceptional situations.”

ESI also uses LANSA Integrator and Gentran to send its customers container status updates via EDI transactions when a container is picked-up, when it leaves the ramp and when it is delivered.

Currently, the EDI transactions are generated when the driver calls the dispatcher who updates the system. But when the SMS-based messaging is fully implemented, this will also happen in real time.

A Framework-based Future

“We want to move all the 5250 applications used at the terminals to LANSA,” says Ronhovde. “Redeveloping such a huge number of Synon 2E and RPG programs will take a long time, during which operations people at the terminals would have to live in both systems and switch continuously between Visual LANSA rich-client programs and the traditional 5250 screens.”

“We are currently doing a RAMP proof of concept to provide a modernization shortcut by letting our people at the terminals access re-animated versions of the existing 5250 screens through a single, consistent, easy-to-navigate graphical application environment.”

“RAMP could really shorten the time our users need to bounce between Windows and 5250 navigation while we redevelop our Synon 2E and RPG programs with LANSA.”

“In addition, RAMP will help us identify those functions that we should rewrite in Visual LANSA and those that we don’t really have to worry about and can simply refac.”

“Ultimately we plan to develop everything with Visual LANSA Framework. It will make our team more effective to have everything in one place and improve long-term maintainability. I feel confident that our investment in LANSA is the right one,” concludes Ronhovde.

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