



Netherlands-Based Ornamental Plant Industry Creates Supply Chain Monitoring System

Overview

Country or Region: Netherlands
Industry: Horticulture

Customer Profile

The Florilog Foundation was established in 2005 by the Netherlands-based ornamental plant industry to improve logistics within the sector for growers, auction houses, and transporters of pot plants.

Business Situation

The foundation wanted to use radio frequency identification (RFID) technology to offer industry players an internet-based monitoring system and improve supply chain logistics.

Solution

Systems integrator Interaxi built a solution with Microsoft Visual Studio 2008 using Microsoft Silverlight for the user interface and Microsoft BizTalk Server RFID 2009 for the orchestration layer.

Benefits

- Productivity gains in supply chain
- Potential to add retailers
- RFID helps with quality control
- Cost-effective toolset for industry body
- Monitoring creates competitive advantage

“The Microsoft BizTalk Server RFID Plant-to-Customer system is very important to us because we can track and trace our products throughout the supply chain.”

Danny Erkens, Logistics Manager, Oriental Group

The Florilog Foundation in the Netherlands is aiming at improving logistics for the country's ornamental plant industry—the biggest in the world. Industry players wanted an internet-based monitoring system for the supply chain using radio frequency identification (RFID) tracking and tracing. Systems integrator Interaxi built the solution with the Microsoft Silverlight browser plug-in, Microsoft BizTalk Server RFID 2009 for the orchestration layer, and Microsoft SQL Server 2005 data management software. Users gain insights into where their goods are going, while the whole sector benefits from savings in operational processes from fewer errors to shorter lead times. The foundation hopes to add new features, including applications for ordering and transport management, while also extending its use to retailers at the end of the supply chain.



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Johan Star, Project Manager, Florilog Foundation

Situation

The Florilog Foundation, based at Honselersdijk near The Hague, was set up in 2005 by the Netherlands-based ornamental plant industry. Its aim is to improve logistics for growers, auction houses, traders, and transport companies. Growers of flowers and plants are continuously innovating to remain competitive on the global horticultural market, but have suffered from having no automated insight into the supply chain, which stretches from Asia to Europe.

Johan Star, Project Manager, Florilog Foundation, says: “As a consequence, growers have no direct connection to the end customer and cannot quickly respond to changes in demand and preference. Our members want to establish transparency in the supply chain and all stakeholders need to streamline operations and reduce time to market.”

The organisation, which is the world’s biggest association of horticultural businesses, has pioneered several initiatives aimed at improving the global supply chain. These range from developing an international trading park to projects with radio frequency identification (RFID) tracking and tracing. Until RFID became a potential way of improving the supply chain, the only digital method was through e-mail messaging.

The foundation decided to commission a project called “van Plant tot Klant” or “Plant to Customer,” using RFID in the supply chain to maximise transparency. Through RFID, technology data can be remotely scanned from a chip without manual intervention.

Star says: “That gives us the opportunity to store data and information and make it available to interested parties to achieve

better technical and strategic planning within the supply chain. Not only does that improve operational excellence but it also strengthens alliances and cooperation within the industry. In the past, because of the total volume in the supply chain and the speed that’s needed to get from, for example, Spain to Russia, there’s not been much visibility into where some products are.”

The foundation specified a monitoring infrastructure based on RFID technology to track and trace individual containers with cut flowers and plants. Paper forms that used to be tagged to containers have been replaced by RFID tags, which are scanned by readers in the doors at each location in the supply chain.

Solution

Having obtained public funding for the Plant-to-Customer RFID logistics project, the foundation worked with systems integrator Interaxi, a part of Netherlands-based software company TODAY IT. It specialises in automatic identification solutions.

Interaxi started work in the first quarter of 2009 on building the monitoring solution and integrating it with users’ enterprise resource planning systems to provide an end-to-end automated and transparent supply chain. Two of the first users in the Netherlands were Breewel, the biggest transport company for flower deliveries in France, and Oriental Group, a market leader for many years in ornamental oriental plants, including bonsai and lucky bamboo.

Erik Heemskerk, New Business Developer, Interaxi, says: “When users log on through a virtual private network connection they see a dashboard for which we use the Microsoft Silverlight browser plug-in. The whole architecture behind the RFID

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Erik Heemskerk, New Business Developer,
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structure and the Plant-to-Customer project is based on Microsoft technology. One reason we use Microsoft is because it has scalable solutions.”

Interaxi built the solution with the Microsoft Visual Studio 2008 Professional Edition development environment, Windows Communication Foundation unified programming model, and Microsoft BizTalk Server RFID 2009 orchestration layer. The architecture includes Microsoft SQL Server 2005 data management software and Microsoft Internet Security and Acceleration (ISA) Server 2006 Standard Edition for the firewall.

Heemskerk says: “For the time being, the project is a standalone piece of work, but later on we will connect different systems to the solution—for example, transport management and ordering applications — using BizTalk Server RFID 2009.”

Benefits

By using RFID and Microsoft technologies for its supply chain overview system, the Florilog Foundation is giving a competitive advantage to the ornamental plant industry in the Netherlands. Users gain insights into where their goods are going, while the whole sector benefits from savings in operational processes from fewer errors to shorter lead times. Danny Erkens, Logistics Manager, Oriental Group, says: “The Microsoft BizTalk Server RFID Plant-to-Customer system is very important to us because we can track and trace our products throughout the supply chain.”

Productivity Gains and Savings in the Supply Chain

The Plant-to-Customer RFID-driven monitoring tool is resulting in productivity gains and savings at many stages of the supply chain. At trading companies, containers from different growers are often

reassembled to match orders from individual retailers. Once a manual process, this is now managed automatically through RFID.

Erkens says: “Oriental Group attaches great importance to the supply chain organisation in the ornamental plant industry. Our competitive position in Europe is largely determined by the performance of the chain. If we have a customer query about when we’re going to deliver or where the product is, we can now answer immediately without hesitation using the BizTalk Server RFID system.”

Potential to Bring Retailers into the Supply Chain

Both the Florilog Foundation and users of the system see the potential for integrating retailers into it. Star says: “By digitalising the supply chain we have benefited the entrepreneurs in the industry, but it would be advantageous for all parties to have the retailers on board at the end of the supply chain, making it fully integrated and transparent.”

Erkens says: “The future for us is to know with greater certainty which products are selling well for the retailer. If a product is not proving popular, we can adjust our purchases in Asia accordingly. When we fail to anticipate customer demand, we’re in danger of ordering the wrong products.”

RFID Helps Maintain Quality Control

The ornamental plant industry is a value-added business where quality and close attention to plant care mean the difference between success and failure. RFID is used to help predict arrival times of shipments for customers, but could also be used to monitor the health of the plants from the time they leave the grower to arriving in the importer’s nursery. Erkens says: “The plants can degrade in that time so we could

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use RFID to help sort the plants for pruning and cleaning.”

Cost-Effective Toolset for Industry-Wide Organisation

The choice of Microsoft for an industry-wide organisation was based on the cost-efficient toolset and the Microsoft reputation for quality. Heemskerk says: “We use mainly Microsoft technologies because it is an international company and its toolset—Silverlight, Visual Studio, and BizTalk Server—is both cost effective and easy to use.”

Supply Chain Monitoring Creates Competitive Advantage

The entire Dutch ornamental plant industry stands to benefit from wider adoption of the new RFID-led supply chain monitoring system. Product availability and having adequate stock are the keys to achieving customer satisfaction.

Star says: “This project has improved operational excellence, with fewer errors and shorter lead times. And, by making the supply chain more efficient, users will generate more profits and derive strategic advantage, as well as help make the industry more competitive.”

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