

# MSC extends MAPICS with Web and wireless access

Material Sciences Corporation (MSC), headquartered in Chicago, Illinois, USA, is a world-class supplier of engineered material solutions for acoustical and coated metal applications to automotive, appliance, electronic and telecom equipment manufacturers worldwide. MSC used Visual LANSAs Framework to extend MAPICS with a wireless shipping system and Web access for customers and partners. LANSAs EDI Direct is also used to exchange EDI transactions.

**Bob Needles**, acting IT project leader at MSC, says, "The customer portal raised service levels and the partner portal streamlined production reporting and delivery. Partners report production on the day and enter shipment details when material ships, with billing triggered automatically and finalized in 15 minutes. The whole delivery and payment cycle went from 7 days, to one day, to 15 minutes."

## Slow Payment and Delivery

MSC specializes in developing noise and vibration reducing coated metals and superior protective and decorative coatings used in a diverse range of applications including vehicle panels, refrigerators and other appliance cabinets, disk drive covers, disc brake shims, roofing panels and building materials.

MSC partners with outside processors who take MSC's materials for additional processing. While inventory, billing and order fulfillment remain under MSC's control, shipping is generally direct from the outside processor.

"This model requires a lot of communication with partners and customers," says Needles. "It used to take 7 to 10 days to record outside production as inventory and another 7 days on average to record shipment to customers."

"As a result, recorded inventory was never up-to-date and billing lagged behind the shipments. We wanted to streamline this by offering Web or EDI access to our partners and also give customers access to orders, shipments and inventory details over the Web, rather than running and emailing reports in response to phone calls."

Before joining MSC, Needles had evaluated tools that could build Web applications for the iSeries.

"I saw a LANSAs demo where a 5250 application was built that was also truly Web-enabled, not just screen scraped."

"What really convinced me was LANSAs EDI Repository architecture and its ability to generate code for green screen, Windows, Web and B2B Integration," says Needles.



LANSAs was also a good fit as it could build further and gradually replace MSC's Synon-based CASE environment.

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## Streamlining with Web and EDI

MSC's first LANSAs-based Web project was a customer service portal to give access to inventory, raw material, orders and shipment information in MAPICS.

"The site has raised the level of customer service we provide, especially to our customers who are in a different time zone," says Needles. "And we no longer have to produce action reports for customers."

For the partners that use EDI, usually the larger processors and customers, MSC used LANSAs EDI Direct to automate advance shipping notices and other transactions.

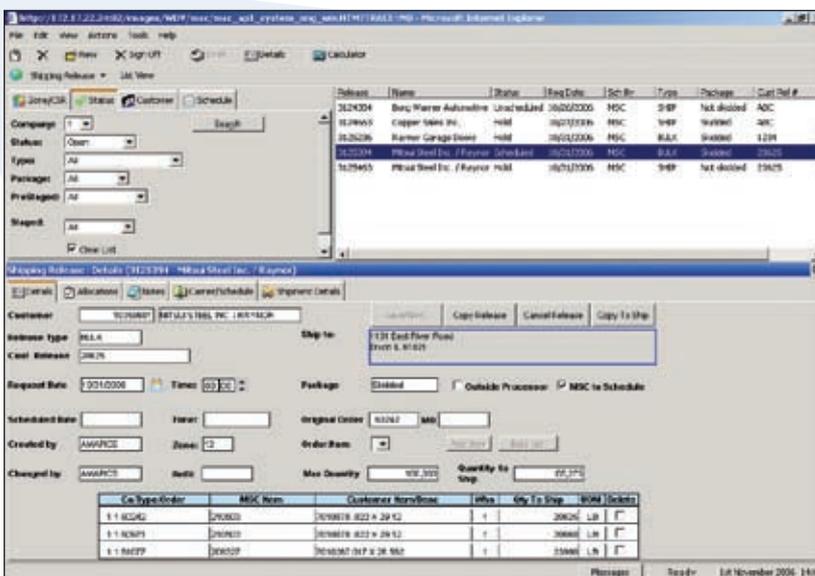
"At the time, MAPICS did not support all the EDI transactions that MSC needed," explains Needles. "So, we either had to contract a company to custom-build those transactions, or find an alternative."

"While the costs were similar, LANSAs EDI Direct provided the flexibility and control to deliver a dynamic solution that can expand to meet future requirements, unlike custom development where we would be charged for subsequent modifications."

For its smaller non-EDI partners, MSC used Visual LANSAs to create a self-service Web site to let them register production, enter customer shipments, receive-in-transit and other inventory transfer information.

"Now partners report production on the day goods are produced either using EDI or the Web and also enter shipment details on the day. We eliminated the 7 to 10 days delay for getting inventory recorded and cut down our billing time from 7 days to one."

"Initially, when partners entered shipment details the system sent an email to a customer representative to create the invoice. Now the billing process is triggered automatically and finalized within 15 minutes of the shipment. So, we went from 7 days, to one day to 15 minutes. The whole delivery and payment cycle has become much faster," says Needles. →



With the Visual LANSAs Framework, Material Sciences Corporation built a more accurate shipping release system to handle the dispatch of processed material from its warehouses.

## A Wireless Shipping Release System

MSC has also built many other applications with Visual LANSA. These include a Hold-For-Inspection solution to manage examining goods and a new Claims system integrated with MAPICS that manages customer claims and returned goods, replacing procedures based on printed Excel reports.

MSC also built a more accurate shipping release system to handle the dispatch of processed material from its warehouses.

Previously, the system only allowed one active pick list per order and material handlers used printed pick lists that showed all of the potential material to be shipped and marked off what was actually shipped. Once marked off, administration staff keyed in the pick list data to generate shipping transactions and even more paperwork.

"Material handlers might mark the wrong line as picked or administration staff misinterpret the handler's handwriting," says Needles. "So we would have to transfer inventory back into the system because it was erroneously shipped or marked as shipped."

MSC decided to extend MAPICS with a custom shipping release system using Visual LANSA Framework. A Web interface, rather than Windows, was used to simplify deployment.

"We used LANSA's XML/XSL-based Web Application Modules (WAM) technology to separate business logic from presentation. The WYSIWYG editor made it easy to paint the layout for both handheld Symbol devices for warehouse staff and traditional screens used by administration staff."

Now when a truck arrives to pick up the order, it is clocked-in and the driver is given a bar-coded release form and moves on to a material handler. The material handler scans the release barcode with a wireless handheld Symbol device which displays the location of goods to be picked for the first shipment. When the goods are loaded onto the truck, they are scanned and the details of the next shipment are displayed on the device.



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When the truck is ready to go, the material handler presses the process button and a completed packing list is printed for the driver to sign and the LANSA system calls a MAPICS routine to process the shipment.

"The Shipping Release system lets us build as many shipments as needed and tie them to the orders in MAPICS. The solution is real-time and far more accurate. We now get things right the first time around," says Needles.

"The handler just scans the release form, picks the coils and scans each coil as it is loaded. There are no pieces of paper shuffled back and forth and there is no data-entry. The number of missed shipments, other shipping problems and the costs of fixing them has been reduced significantly."

### Future Consolidation & Integration

"LANSA's real-time integration with MAPICS, the productivity of Visual LANSA Framework and the flexibility of LANSA EDI Direct have been the keys to delivering the applications to meet MSC processing requirements," continues Needles.

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"The LANSA applications are tightly integrated with MAPICS where they need to be. For example, when we bring material back from a customer claim, LANSA updates the MAPICS customer file directly, while it uses MAPICS APIs to process the inventory."

"Our immediate priority is to consolidate all four of MSC's plants on one iSeries running MAPICS and do all custom code and B2B extensions with Visual LANSA Framework. That is our target model. Three plants are already consolidated on a single IBM system i5, but there still is a mixture of systems."

"By the end of this year we will have also significantly increased the number and volume of EDI transactions handled by LANSA EDI Direct, building further on our integration with MAPICS. This will bring significant efficiencies across the organization and all its plants," concludes Needles. ■

## COMPANY AND SYSTEM INFORMATION

- Material Sciences Corporation (MSC), headquartered in Chicago, Illinois, USA, was founded in 1971 and went public in 1984. MSC's Engineered Materials and Solutions Group (EMS) is a world-class supplier of engineered material solutions. The EMS Group applies its expertise in metal composite technology to solve design challenges for automotive, appliance, electronic and telecom equipment manufacturers worldwide. MSC's 700 employees and a network of partners work to solve customer specific problems, overcoming technical barriers and enhancing performance. For more information visit: [www.matsci.com](http://www.matsci.com) and [www.quietsteel.com](http://www.quietsteel.com)
- MSC uses IBM System i and is extending and gradually replacing its Synon programs with LANSA applications that integrate with MAPICS Release 7. As a reporting standard, MSC uses Visual LANSA to create reports as Excel files or PDF documents. MAPICS reports are also generated with LANSA Reporter, a reporting tool specifically for high volume DB2/400 data. LANSA EDI Direct maps and translates EDI transaction sets into backend ERP systems and interface files. Visual LANSA Framework is a design framework that lets business developers rapidly prototype, design, implement and deploy commercially-focused and highly graphical Windows and Web applications.