

## Industrial Chemical Manufacturer Handles Rapid Growth and Gains Real-Time View of Production

### The Company: Innovative Industrial Chemical Manufacturer

Oxiquim S.A., a leading manufacturer of industrial chemicals based in the coastal city of Vina del Mar, offers a wide range of products, including industrial staples such as formaldehyde, molding compounds, and special resins. Oxiquim arguably offers the broadest range of products and services in the region, including the operation of its own marine terminals and as a provider of logistics to worldwide customers. To date, Oxiquim's customer list includes more than 3,000 companies in 40 countries on five different continents.

Oxiquim products are used throughout the world in the lumber, mining, fishing, paint, food, textile, pharmaceuticals and plastics industries. This extensive product line—along with its innovative business strategies—has made Oxiquim one of the world's fastest-growing industrial chemical companies.

After several years in which its sales have increased by more than 20 percent each year, Oxiquim posted annual revenues of \$120 million (U.S. dollars) in its most recent fiscal year. Its strategy of constantly seeking new ways of improving customer service has earned Oxiquim the distinction of being a truly world-class company.

### The Challenge: Rapid Growth Creates Inventory Issues

With its sales growing rapidly—roughly 20 percent to 25 percent a year—Oxiquim needed a better way to handle everything from the processing of customer orders to production planning and inventory tracking. Maintaining good relationships with its best customers was also a priority.

“We have more than 3,000 customers, but our top 200 or so clients represent about 70 percent of our revenues,” says Andres Loyola, Oxiquim's IT director. “So improving communication with those customers was especially important.”

Communicating with customers was one thing; filling their orders in a timely matter was another. Oxiquim had to work extra hard to ensure that customer orders could be filled because it had no formal process for moving

inventory through its supply chain. “It's difficult to create production and inventory management plans for our products because the process of making and delivering them is complex,” Loyola says. “The key to our success was being able to optimize the levels of inventory that we keep in warehouses.”

Oxiquim's inventory management problems were further complicated because it was among the first manufacturers to take on the task of managing inventory for its best customers. Things were especially difficult when Oxiquim had to manage inventory at a customer's site.

“We sell chemical products in large volumes, and we have done vendor-managed inventory (VMI) forever,” Loyola says. “But we struggled to maintain the proper levels of inventory at our customers' sites because we depended too much on the customers to tell us when to replenish their inventory.”

Ultimately, Loyola says, Oxiquim realized that, “We had to get a better information technology platform.” The business was running on an AS/400-based system with applications written in COBOL.

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“The COBOL-based applications we were using for sales, accounting and manufacturing prevented us from getting a real-time view of our production processes, not to mention our sales and inventory situations,” Loyola says. “That made production planning difficult; our billing was slow, and our customers were always nervous about whether we would get their orders right and deliver them on time. We simply needed a more modern ERP system.”

## **The Solution: Open Architecture Provides the Flexibility for Top Performance**

Working with QAD and IT Software, a QAD business partner based in Chile, Oxiquim installed the QAD MFG/PRO ERP suite at its 11 sites scattered across Chile in less than six months. This single move transformed

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Oxiquim into a real-time enterprise—an organization that can respond immediately to customer demand because its employees can easily access nearly any piece of corporate data in real time.

Oxiquim was introduced to QAD MFG/PRO in 1998. “They had looked at most of the well-known ERP systems—SAP, Oracle, etc.,” says Jorge Rios, general manager of IT Software, Chile. “They gave us their business initially because we showed them that QAD MFG/PRO could run on the AS/400.” Over time, Oxiquim has used QAD MFG/PRO on numerous platforms—Windows NT, SCO UNIX, and finally the HP-UX version of UNIX on which it runs today.

“We migrated to these different platforms because the amount of information we were processing was constantly growing,” Loyola says. “One of the advantages of MFG/PRO is that it allows you to use whatever hardware or operating system fits your business at a given time. We were able to increase our system’s capacity as we needed, and each migration to a new platform was completed in two days.”

Loyola says Oxiquim first used QAD MFG/PRO in a pilot project at a small subsidiary company because Rios

assured him the system could be installed in two months. “This subsidiary was just opening for business, and it didn’t have an ERP system,” Loyola says. “So, we had to get one installed as soon as possible. We also wanted to show both our users and company management the improvements that could come from using a new system rather than the one that was in place at Oxiquim.”

The subsidiary went live on QAD MFG/PRO in June of 1998. The Oxiquim implementation began in October 1998, and all of its sites in Chile were live on QAD MFG/PRO by April 1999. “We have installed all of the QAD MFG/PRO modules,” Loyola says. “It is running several manufacturing plants, distribution centers, and sales offices in Chile. QAD MFG/PRO allows us to operate different modes of manufacturing—from batch and repetitive to cell-based manufacturing. We also have a plant in Venezuela that uses QAD MFG/PRO to manage its manufacturing, distribution, sales and accounting functions. We host the system for that site in Chile.”

Oxiquim also has taken advantage of the open architecture platform QAD MFG/PRO provides to link the system with third-party systems and technology that have helped improve its ability to design and execute unique supply chain strategies. For instance, customers can now tap into information in MFG/PRO through Oxiquim’s Web site to check the status of their orders, find out what inventory Oxiquim has on hand, or get detailed information about any of Oxiquim’s products.

“We can use this connection to create tailor-made solutions for individual customers,” Loyola says. He tells the story of one customer for whom Oxiquim manages inventory. “They buy the product and send it to our terminal,” he explains. “We unload the product and hold it until they tell us to ship it to one of their customers. They can come to our Web site and see that we have the inventory at our location. They can confirm when we load it for shipping and they can track it to their customer’s site. That allows them to do a better job of managing their own supply chain.”

The Oxiquim Web site also has a link to a Lotus Notes application that records all communications between Oxiquim and its customers as they negotiate prices and terms of delivery for specific product purchases. Loyola says this feature is important because the prices of Oxiquim’s products change daily. “This is good for customer relations,” he says, “because there is a record of everything that is said during the course of a negotiation.”

A particularly unique process involves the use of Short Messaging System (SMS) technology to pass inventory counts from customer sites to MFG/PRO via cell phones. Sensors are attached to tanks holding chemicals at the customer sites and they are programmed to send an

alarm when the amount of chemicals inside the tanks goes below a certain level. The sensors ring a specific cell phone number, which triggers a message to the MFG/PRO inventory module at Oxiquim's headquarters. "This is like having the tanks in our plant," Loyola says. "Our planners get the signal from MFG/PRO, place a replenishment order, and track its delivery to the customer's site."

### The Benefits: Streamlined Processes, Reduced Costs, Steady Growth

The installation of MFG/PRO has helped Oxiquim streamline its business processes, which in turn has lowered its overall operating costs. Some cost reductions were evident as soon as the system was rolled out at Oxiquim's 11 plants in Chile. "We were able to consolidate our IT staff," Loyola says. "Instead of having IT people at all of our locations, we have a single staff that can manage the systems for all of the sites from one location."

There also was an instant reduction in the time it took Oxiquim to close its books at the end of a quarter—from 35 days to five days. But Loyola says Oxiquim has received the greatest benefits from MFG/PRO's planning capabilities.

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## Highlights

### Company

<b>Company Name</b>	Oxiquim S.A.
<b>Industry</b>	Industrial Chemicals
<b>Products</b>	Gases such as genetron and chloroflurmethane, which serve as cooling agents in commercial cooling equipment; aluminum paste, acetone, and zinc oxide used in the making of paints and coatings; and gelatins and aromatic chemicals used to add flavor and fragrance to foods

### Solution

<b>QAD Solutions</b>	QAD MFG/PRO
<b>Hardware</b>	HP-UX
<b>Sites</b>	11 manufacturing, distribution, and sales facilities in Chile  1 manufacturing and distribution site in Venezuela
<b>Implementation Time</b>	6 months for 11 sites
<b>Platform</b>	HP-UX
<b>Environment</b>	Hewlett-Packard hardware

### Results

- Improved inventory tracking
- Lower inventory on hand by more than 60%
- Lower overall operating costs
- Improved visibility of the entire supply chain
- Improved communication with customers
- Improved customer service

In fact, Loyola says its use of the MFG/PRO MRP and DRP modules has helped Oxiquim reduce the average inventory it keeps on hand by more than 60 percent.

Shrewd use of the SMS-enabled cell phone links to the MFG/PRO inventory module also has helped Oxiquim improve its overall management of inventory.

“We actually are able to expand the capacity of our warehouse by using our customers’ tanks to store product when we need to,” Loyola says. “We know when those tanks are available for our use because we are tracking those levels ourselves rather than asking the customer to do it for us.”

In essence, Loyola says, MFG/PRO has helped Oxiquim become a more efficient business. "We have been increasing sales more than 20 percent a year for the past several years," he says. "And surprisingly, we are operating with fewer people than we had four years ago. I don't think we could have managed our growth in the manner that we have without our QAD solution."

### **The Future: Performance Made Continuous**

Oxiquim considers MFG/PRO to be its primary information technology platform, and Loyola expects to expand its use as the company continues growing. "The only other real system we have is for managing human resources," he says.

New uses for MFG/PRO could include managing processes at additional Oxiquim sites or linking with other QAD applications such as Supply Visualization in order to further improve Oxiquim's ability to manage its supply chain.

In the short-term, Loyola says, Oxiquim plans to connect more of its customers to MFG/PRO through its Web interface and the cell phone-based inventory tracking system. "We are just at the beginning stages with those features, as well as with QAD enterprise applications in general," Loyola says. "We like the way these applications help us keep customers informed of everything that is going on. That is good for customer relations, which means it is also good for business."

*Story prepared by Oxiquim S.A. in cooperation with QAD.*



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