

Crane Group Flushes Green Screens For Standardized ERP Solution



Crane Group
North Sydney, Australia
www.crane.com.au

Industry:
Industrial Manufacturing

Annual Revenue:
US\$1.85 billion

Employees:
5,200

Oracle Products & Services:

JD Edwards EnterpriseOne Xe
Wholesale Distribution
Manufacturing
Oracle Database
Oracle Business Intelligence Suite
Hyperion Financial Management
Demetra Demand Planning
Oracle University

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The Crane Group Ltd manufactures and distributes non-ferrous metal products and plastic pipeline systems, and distributes plumbing and electrical supplies across Australia and New Zealand. Crane’s customers span the plumbing, industrial, building, mining, electrical, telecommunications, government, and rural industries.

During the 1990s, the group completed a number of major acquisitions. This program brought to the group several businesses with antiquated systems that would require massive investment to be integrated and modernized.

In 2001, Crane’s board of directors approved projects to extend enterprise resource planning (ERP) systems across its manufacturing and distribution businesses. The systems, based on JD Edwards EnterpriseOne Xe, enabled Crane to rationalize its financial and operational reporting and eliminate inefficiencies from its supply chain.

“The JD Edwards implementation has successfully delivered insight into our supply chain and sales performance, enabling the Crane Group to maximize its performance,” said James Madigan, Crane Group chief information officer.

Growth Created Integration Difficulties

Crane’s acquisition program enabled it to build a strong portfolio of related businesses and reinforce its market position. From 1994 to 1998, the company:

- doubled its plumbing supplies business with the acquisition of Tradelink Plumbing Supplies
- built its Australasian portfolio by purchasing New Zealand metal products and plumbing supplies distributor Mico Wakefield

Key Benefits:

- Standardized reporting on an hourly basis to keep managers apprised of sales performance against budget and against margin
- Delivered a single source of truth across the business
- Achieved a robust, scalable environment that can easily accommodate new acquisitions

- broadened its national plumbing supplies store network with the acquisition of Raymor
- purchased Iplex Pipelines in a joint venture with Netherlands company Wavin BV, expanding its manufacturing potential. (Crane later acquired Wavin's share of the business)
- gave critical mass to Austral Bronze by acquiring Wright & Co
- acquired Mainline Plastics to give capacity to Iplex Pipelines.

However, the acquisitions introduced a raft of IT issues for the company. "We inherited seven or eight new businesses that brought in their old, green-screen systems to the group, resulting in an extremely dated, complex, and difficult to manage information technology landscape," said Madigan.

As well as lacking integration capabilities, these systems could not deliver functionality required by Crane, including supply chain management, sales forecasting, and planning.

In the late 1990s, separate divisions within the group were developing business cases seeking approval to replace their ageing systems.

This prompted Crane's board to consider whether systems supporting multiple divisions or the group as a whole were required. After careful consideration Crane elected to implement a group-wide ERP system and issued a request for proposal to the market in early 2000.

After a thorough evaluation against competing solutions, in February–March 2001 Crane purchased JD Edwards EnterpriseOne Xe and commenced the implementation of two separate instances. One instance serves its manufacturing businesses and the other its distribution businesses. Crane executives branded the manufacturing businesses implementation Project Genesis and the distribution businesses effort Project Oneway.

Systems Required Infrastructure Refresh

Project Genesis started in February 2001 and saw the deployment of JD Edwards modules to all Crane manufacturing businesses, including Iplex, Austral Wright, Mico Metals, Crane Copper

Tube, and the subsequently sold Crane Aluminium Extrusion. Project Oneway kicked off in March 2001 and saw the software deployed across Tradelink and Mico Plumbing & Pipelines in New Zealand.

Following some software, custom development, and change management problems, both projects were eventually completed in June 2004. “However, it would be fair to say that both projects experienced their share of challenges, resulting in budget and schedule overruns and some business disruption,” said Madigan.

“Once we completed the deployment and go-live of JD Edwards EnterpriseOne in 2004, we worked on stabilizing the system,” he added. “From early 2006, we’ve been in a continuous improvement and optimization stage, and we’re still working to get the absolute best from the system.”

Crane is now operating the world’s single largest instance of JD Edwards across its distribution businesses, with about 1,700 concurrent users per day across 230 sites. With about 500 concurrent users across its manufacturing businesses in 40 sites, the business is also one of the five largest JD Edwards users worldwide.

Standardized Information Yields Benefits

The project has enabled Crane to standardize all its manufacturing and distribution businesses on common software platforms, enabling seamless processing, standardized charts of accounts, and consistent reporting.

“On the manufacturing side, we have been able to implement a lot of benefits through the supply chain,” said Madigan. “We are feeding sales information into constraint-based planning systems at our factories, enabling us to align our production more effectively with demand.”

A daily sales report for the Tradelink and Mico Plumbing & Pipelines businesses demonstrates the benefits Crane has obtained from the JD Edwards EnterpriseOne system.

The report provides everyone from individual branch managers to executive general managers with hourly updates on sales. Not only can managers view sales on a per-day, per-month, and year-to-date basis, but they can also check sales against budget and gross and net margins against budget.

This enables managers to make quick decisions about pricing and inventory to maximize opportunities or address problem areas.

As well as a single source of truth, Crane's re-architected, scalable environment is easily able to support the business' ongoing program of growth and acquisition.

Becoming an Oracle Shop

As well as JD Edwards, Crane has turned to Oracle to supply key products such as its core database and business intelligence system.

The business completed a migration to Oracle9i Database in September 2007 from version 8.17 and is planning to upgrade to Oracle Database 10g within the next 24 months to take advantage of improved functionality and scalability.

Crane is also designing and building a superior business intelligence system based on Oracle Business Intelligence Suite Enterprise Edition (BIEE), replacing an existing legacy product.

"The quality of reporting we can obtain from Oracle BIEE is exceptional," said Madigan. "We can drill right down into the data held in our systems and provide sound, sophisticated support for decision-making."

Crane also deployed an Oracle Hyperion Financial Management System 9 solution in April 2007 to consolidate budgeting and other head office functions, and perform statutory consolidation, external reporting, and financial management reporting, replacing an ageing IBM Lotus 1-2-3 spreadsheet application.

In addition, Crane is examining Oracle Identity Management to deliver single sign-on across its user base. "At the moment, our workforce has a separate login for Microsoft Windows, business intelligence, and JD Edwards and we're looking to consolidate that," said Madigan.

The Future

Crane is starting to plan for an upgrade to a new version of JD Edwards. The current direction is to implement JD Edwards EnterpriseOne 8.12 or EnterpriseOne 8.12 with service pack (SP) 1, but Madigan is keeping an eye on the product's roadmap.

“From what we have seen so far, JD Edwards EnterpriseOne 8.12 is superior to Xe in overall design and usability as well as point-of-sale functionality,” he said. “However, if there is another release within the next couple of years that includes a healthy leap in functionality, we are likely to evaluate that as well.”

With growth likely to strain the already heavily used single-instance version of JD Edwards across its distribution businesses, Crane is also likely to shift to multiple instances across various groups.

Why Oracle?

Crane undertook an extensive evaluation in 1999–2000 of competing solutions before selecting JD Edwards EnterpriseOne Xe applications to meet its enterprise resource planning needs.

After short-listing JD Edwards EnterpriseOne Xe and SAP, the Crane Group compared pricing and undertook a detailed feature, function, and fit evaluation. The final result of the evaluation was the decision to purchase JD Edwards.

Implementation Process

Crane purchased a long list of JD Edwards EnterpriseOne Xe modules to obtain the deep functionality required to meet its ERP requirements. There were also a significant number of custom developments required to meet the needs of Crane’s wholesale distribution businesses.

JD Edwards assigned 12 consultants to help Crane and Accenture deploy the software across the manufacturing and distribution businesses. With Crane and Accenture managing business process implementation and design, and Accenture managing the project, JD Edwards helped with product configuration, testing, guidance, and setup management. The JD Edwards system runs on Sun Fire 15K servers under the UNIX-based Solaris 9 operating system.

“I now have 20 business analysts who are knowledgeable in JD Edwards,” said Madigan.

With the Oracle business intelligence deployment also underway, Crane sent four of its employees to Oracle University in Melbourne to build their skills in the area. “The feedback I had from my team about Oracle University was extremely positive,” said Madigan. “The quality of the training, the facility, the knowledge of the instructors, and the deep content of the

materials impressed them all. They arrived back from the course with enough knowledge to commence the implementation of Oracle BI with minimal assistance from external consultants.”

Advice from Crane Group

- Do not underestimate the process redesign or change management required to deliver a major project.
- Do not underestimate the complexity of the underlying infrastructure needed to support an enterprise-wide ERP project.
- If you're a diversified business, do not underestimate the complexity of varying divisions or subsidiaries or the impact this will have on project requirements.

Founded in 1867, the Crane Group is a leading manufacturer of non-ferrous metal products and plastic pipelines systems and is Australasia's largest distributor of plumbing supplies.