

Case Study

WH Williams

Engineering Company Cuts Production Times with Integrated ERP System

Sheet metal engineering company WH Williams is a leading Australian manufacturer of custom-made metal products. A fast turnaround time is essential, so the company employs a mix of conventional and unique techniques, including laser cutting and bending. WH Williams wanted a resource planning tool that could assimilate resources, inventory, production, costs and billing data to enhance the efficiency of its production schedules and improve customer service. In 2005 the company implemented the enterprise resource planning solution, Microsoft Dynamics® AX 3.0, and progressively upgraded to Microsoft Dynamics AX 2009 in April 2008. As a result, WH Williams increased machine productivity by 30 per cent, cut inventory by 40 per cent and reduced its average dispatch-to-invoice time to one day. The company dramatically improved its cash flow and the ability to tell customers precisely when their order would be delivered. The company now saves approximately \$200,000 a year on administration costs.



Situation

Founded in 1948, WH Williams manufactures custom-made metal products, primarily for the mining, building and packaging industries. Using processes such as laser cutting, bending and welding, the

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Stephen Madeisky,
Chief Executive
Officer, ePartners,
Australia

sheet metal engineering company had established a strong reputation as a ‘jobbing shop’, handling one-off orders with extraordinarily quick turnaround times.

“Everything is based on time and materials,” says Dean Williams, Chief Executive Officer, WH Williams. “This means we need quick, accurate information in order to maintain production schedules that make the best use of our resources. Consequently, we’re very demanding on our resource planning system.”

By 2005 management was dissatisfied with its existing systems and believed its business could be improved by investing in new resource management tools.

“We had two separate systems, one for accounting and one for our material requirements planning, which didn’t communicate and weren’t always reliable,” says Williams. “There was a lot of doubling up, paper-based processing and downtime.”

The company’s systems were not optimised for stock control. If a sheet of metal had to be

laser-cut into several pieces for different customers, WH Williams needed to accurately apportion the material for each production order so individual customers were charged correctly.

“We had no way of doing that with our previous system,” says Williams. “We worked it out manually on paper, but it was nowhere near accurate enough.”

As a result, the company could not increase its machine utilisation rate beyond approximately 60 per cent without endangering its reputation for reliability and prompt turnaround.

Solution

WH Williams considered whether a single integrated enterprise resource planning (ERP) solution could help it handle multiple orders, manage inventory and increase production scheduling efficiency. To save on administration costs, the solution would also have to generate quotes on costs for each job – based on time and materials – and produce invoices as soon as the job was completed.

In mid-2005 Williams looked at a number of market-leading ERP solutions, but was wary of potential implementation costs given the company’s specific requirements.

Microsoft® Gold Partner ePartners suggested WH Williams examine Microsoft’s mid-market ERP solution – Microsoft Dynamics® AX – because its modular approach meant it could be adapted to the company’s particular requirements and implemented with relative ease.



“Invoicing used to take us a lot of time. Now our dispatch-to-invoice time has improved by 75 per cent. What took us four days now takes one.

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“We could see WH Williams needed a system that was fully integrated, flexible and easy to use,” says Stephen Madeisky, Chief Executive Officer, ePartners. “We believed we could build a modular solution that exactly matched their needs and would integrate well with other business applications and Microsoft technologies.”

“We were told that we could customise it,” says Williams. “In fact, over the years we were easily able to make changes to the system which made life simpler for us.”

WH Williams implemented Microsoft Dynamics AX 3.0 in mid-2006 and quickly upgraded to Microsoft Dynamics AX 4.0 in March 2007. Besides the core ERP product, WH Williams’ solution comprised a range of modules, including Production Suite, Shopfloor Control, Customer Relationship Management, Trade, Logistics, Finance and Payroll.



In April 2008 the company upgraded again to a pre-release version of Microsoft Dynamics AX 2009.

“This was an exciting upgrade,” explains Madeisky. “The emphasis in the latest version was toward improving specific functionality and providing better overall visibility – in terms of reporting. In particular, there are improvements in the costing models, total quality

management, and reporting of key performance indicators.

“The Microsoft Dynamics AX 2009 release also strengthened integration with other Microsoft Office products, including SharePoint Server 2007, so that business users have an instinctive feel for how it works.”

Benefits

WH Williams has comprehensively overhauled the way it manages inventory, runs production orders, schedules resources, generates quotes and invoices jobs. As a result, the company accurately predicts and measures its production times, resulting in dramatic productivity improvements.

Greater shop floor control

WH Williams now measures precisely how long each job takes to complete and attaches the labour costs directly to each production order.

“As a job shop, we wanted to be able to allocate every minute of the day,” says Williams. “We’ve set up Microsoft Dynamics AX so a machine operator clocks onto a new job as soon as they finish the old one, so there are absolutely no gaps between jobs.

“Not only has this significantly reduced downtime, it has helped cut production lead times by about 20 per cent and spurred productivity. Our work centre’s utilisation rate has jumped from 60 per cent to more than 90 per cent. That means we can charge out more than 90 per cent of the day to clients.”

Improved scheduling

The ability to closely manage production time has led to improved scheduling, enabling WH Williams to service just-in-time job production.



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Says Williams: “If a customer forgets to order something, or they realise there’s a part they need to modify, or there’s a breakdown on a production line where time is critical, that’s where we come into play.

“With Microsoft Dynamics AX, our production scheduling is so accurate we can give customers a date and a time of completion for their job. Our competitors don’t do that and it’s where we differentiate ourselves. It’s a massive benefit.”

Tighter stock control

WH Williams has customised its system to improve resourcing. By creating run lists in Microsoft Dynamics AX, the company can allocate materials precisely to fit production orders.

“We can carefully track the stock we need and use,” says Williams. “With Microsoft Dynamics AX, every bit of material is given a location. Often, our laser cutting area might divide a sheet of metal for multiple jobs, so off-cuts may need to be reallocated. With the system, we can track where that off-cut is, so we know precisely what we have in stock and where it can be found.”

Partly as a result, the company has been able to reduce the stock it needs to hold.

“We’ve managed to reduce the value of our stock by 40 per cent,” says Williams. “That has significantly improved our cash flow.”

Faster dispatch-to-invoice time

By maintaining a precise quantity for the material and time used on each job, Microsoft Dynamics AX automatically costs each production order, and the company can invoice customers as soon as a job is completed. As a result, WH Williams has increased administration efficiency and cut administration costs.

“Invoicing used to take us a lot of time,” explains Williams. “Our dispatch-to-invoice time has improved by 75 per cent. What took us four days now takes one.”

Fast and accurate invoicing has fostered trust among clients, who are increasingly happy to provide the company with jobs on a do-and-charge basis, removing the need to quote. When it does need to quote, WH Williams uses its customer relationship management (CRM) module, built into Microsoft Dynamics AX, to generate and assimilate customer information.

“With an integrated CRM tool, we’re increasingly aware of what our customers are comfortable paying,” says Williams. “Some customers are highly price-sensitive; others are more attuned to quality and lead time.”

Increased administrative savings

Efficiencies in administration have also yielded valuable dividends. With Microsoft Dynamics AX 2009, Williams estimates he has trimmed about \$200,000 a year off administration costs.

“It’s integrated, so there’s no doubling up of processes, or multiple entries, or sorting through handwritten records in our archives,” he says. “We used to have someone who spent most of their day filing this information.”

Accountable reporting and visibility

With customised reporting available in Microsoft Dynamics AX 2009, the company better understands what is happening in each area of its business at any given moment.

“Everything is transparent – it is there in black and white,” says Williams. “We can see, for instance, the spread of staff workloads. Previously, one person might have been doing more than their share. The reporting module helps ensure work is fairly divided.

The company has also used the system to set up an enterprise portal. This lets customers track orders and check whether their job is running to schedule.

“When time is critical, customers can see if an order is running late or even ahead,” says Williams. “They can also check on other information, including invoices and quotes.”

Greater accuracy on purchase requests

While still experimenting with new functionality, WH Williams has already taken advantage of two new features of Microsoft Dynamics AX 2009: Purchase Requisition and Request for Quote.

“Previously we had to send an email to the purchasing officer but the requisition wasn’t tracked,” says Williams. “Now Dynamics AX keeps track of who requested the purchase and where the requisition went.

“This is where we can take advantage of another new feature: Request for Quote. The system follows the requisition sent to suppliers for a quote. It not only tracks quotes, it compares them on price and lead times, which can determine who gets the order.”

Microsoft Dynamics

Microsoft Dynamics is a line of integrated, adaptable business management solutions that enables you and your people to make business decisions with greater confidence. Microsoft Dynamics works like familiar Microsoft software such as Microsoft Office, which means less of a learning curve for your people, so they can get up and running quickly and focus on what’s most important. And because it is from Microsoft, it easily works with the systems that your company already has implemented. By automating and streamlining financial, customer relationship, and supply chain processes, Microsoft Dynamics brings together people, processes, and technologies, increasing the productivity and effectiveness of your business, and helping you drive business success.

For More Information

For more information about Microsoft products and services, call 1800 197 960.

To access information using the World Wide Web, go to:

www.microsoft.com/australia/dynamics/

For more information about WH Williams' products and services, call +61 2 9647 1277 or visit the Web site at: www.whwilliams.com.au

For more information about ePartners (Australia) products and services, call +61 2 8876 8300 or visit the Web site at: www.epartners.com.au