

Profitable mining with QlikView and Microsoft Dynamics GP



Southern Pacific Sands is a sand mining company established approximately 13 years ago on a reserve of almost 2,500 acres of high quality large silica sands. The reserve is located east of Caboolture, roughly 50 kilometres from the Brisbane central business district. The company produces a range of quality processed sands suitable for the construction, foundry, filtration, golf course, glass, speciality sands, sporting oval and horticultural industries.

Moving with the times

Management at Southern Pacific Sands is highly focused. The company has one job: to get good quality sand out of the ground in a cost efficient manner and sell it for a reasonable margin. It's therefore understandable that the majority of attention goes towards the company's heavy machinery and onsite laboratory equipment essential for mining, processing and quality control.

Investment in IT has traditionally taken a back seat. All of this helps to explain why, in late 2010, Financial Controller and head of IT, Jason Miller, found himself faced with an ageing financial system that was on the verge of no longer being covered by support.

Miller explains, "Our old system was doing what we thought we needed at the time. It was stable, reliable and ran on a cheap server. That was our mindset with IT. The software gave us a way to get the data in, but we probably never utilised all the data we had available because of the hassle of getting it back out."

Recognising that an unsupported financial system was too great a business risk, Miller spoke to the company's IT provider, Professional Advantage, to arrange for a replacement. His main requirements included high levels of automation and integration with key software packages including I-Weigh, a weighbridge system which records sales data and is responsible for producing customer invoices.

"We already had a good relationship with Professional Advantage. We knew the Account Managers and had good experience with Professional Advantage's support. It became one of those things where it was easiest to stick with the supplier we trusted. They recommended Microsoft Dynamics GP. It integrated perfectly with Microsoft Office, I-Weigh, our payroll software and the fixed asset register, so the choice was very easy," Miller says.

"When we first went over to Microsoft Dynamics GP, it was because we had to, but once we saw what we could do with the new system, we realised it was the smartest thing that could have happened."



At a glance

Company

Southern Pacific

Industry

Mining

Problem

When informed that its old financial software package was no longer supported, Southern Pacific Sands realised the opportunity to move to a modern, integrated business system that would finally provide the process automation, reporting and analysis that had previously been missing from the organisation.

Solution

- Microsoft Dynamics GP
- QlikView Business Intelligence

Benefits

- Monthly sales reporting now takes hours rather than days to prepare
- Sales analysis are conducted based on science rather than the previous practice of "gut feel"
- Armed with a solid understanding of costs, the company has been able to adjust pricing to ensure reasonable profit margins

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History makes the change easy

Given the long history shared by Professional Advantage and Southern Pacific Sands, the project to deploy Microsoft Dynamics GP was almost effortless. Both companies were familiar with each other's capabilities and knew what to expect. Within a couple of months the old system was turned off and the new system had gone live.

"When we first went over to Microsoft Dynamics GP, it was because we had to, but once we saw what we could do with the new system, we realised it was the smartest thing that could have happened," Miller acknowledges. The time required to process month end was immediately reduced. Because it was only being entered once, there were less errors and data was more accurate. What's more, reports were available much faster than ever before. For a finance team of two full time staffers and a casual employee, the difference was immense.

Miller estimates, "We're probably saving two to three days per month just in journals because in the past, everything was manual. Then there's a day saved in reconciliation and general ledger accounts work because of the integration between Microsoft Dynamics GP, the payroll and fixed asset register systems. It leaves me with more time to offer strategic guidance and to look at trends rather than simply doing data entry."

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Adding analysis

Around the same time Southern Pacific Sands decided to also deploy QlikView, a business intelligence tool that allows users to easily assemble data from multiple sources, view and analyse the information and to solve business problems in new ways. The software offered a straightforward and elegant solution to Southern Pacific Sands' need for sales reporting and analysis.

Miller notes, "When we saw a demo of what QlikView could do, all the Managers loved it because of the way it could capture information and drill down on the data. In the past, to get sales reports we would have to physically type them all out, making it very labour intensive. For example it would take a couple of days to get the data for a marketing report. Now it takes just hours. Everything is pretty much automated," Miller notes.

Every time any sand is purchased, the weight and value of the sand is captured in I-Weigh and is uploaded into Microsoft Dynamics GP. QlikView enables management to easily access that data, export it to Microsoft Excel and create sales reports and graphs showing customer, product and industry analysis.

The information allows the company to better understand patterns of demand, production requirements and margins.

Managing a finite resource

This depth of reporting combined with greater financial functionality has given Southern Pacific Sands' management new insight and tighter control over operations.

"What we have as a company is 1.5 million tonnes of sand. It's a finite resource and once it is gone, it's gone. Therefore we need to be sure that we are making good margins on what we sell," Miller says. This makes it essential for management to know how much the company is making on each tonne of sand and the impact of factors such as the cost of extraction, weather and the state of the construction industry. If weather makes it impossible to obtain sand from one location and extraction moves to another site, cost for any additional road construction, time or equipment needs to be considered.

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Five years ago, before the global financial crisis and Queensland's devastating floods, business was forgiving. If margins weren't particularly high for any given area of the business, demand more than made up for it. Since the downturn however, demand has declined, margins are being squeezed and accurate cost/price analyses have become critical.

"In the past we've gone on gut feel but now that we are putting data to the analysis, we're finding that some of the gut feel has been wrong. For example, due to the changes we've made in the way we allocate costs, we've discovered that some areas of the business weren't as efficient as we thought they were. We're now moving to change prices to cover this shortfall.

The data isn't changing our business strategy but it is giving us information that allows us to understand our prices and costs, and this is changing how we work to achieve the business strategy," Miller adds.

The sales data is proving particularly useful for managing production. Increased demand for a product can be identified immediately, allowing production to plan, cost and schedule additional resources as required.

"Our fixed costs run to seventy per cent of total costs month to month. So when we go from selling 30,000 tonne per month to 60,000 tonne per month, the amount it costs to mine almost doubles. Volume becomes the key. If we're not getting volume out the door based on the amount of people and equipment, something has to give. Microsoft Dynamics GP lets us see the data behind the costs so we can identify other ways of mining to keep costs down. For example, do we look at hiring equipment? If access is a problem, do we look at dredging?" Miller explains.

Microsoft Dynamics GP is also helping to optimise use of heavy machinery. The company's loaders, for example, operate in an abrasive, muddy, acidic and demanding environment. Over time, loader efficiency inevitably declines. By analysing repair and maintenance data the company is becoming smarter about the way it schedules individual loaders, managing workloads to extend their lifespan.

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Under budget and delivering as promised

"Working with Professional Advantage has been a very good experience. I know when we did the original install with our previous implementation partner for the old accounting program; there was a great deal of heartache and drama. This time around I didn't know quite what to expect, but the professionalism of Professional Advantage made it very easy. The consultants were so willing to help and the project went very smoothly. Everything was up and running when we wanted it to be. Also, because the consultants made it easy to understand what was required, I was able to go away and get data ready for them. This helped to bring the project in well under budget. I can't say enough good things about the work Professional Advantage did," Miller concludes.

For more information

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