



Construction Firm Sees Improved Business Performance with BI Implementation

Overview

Country or Region: United States

Industry: Construction

Customer Profile

Based in Dallas, Texas, TDIndustries is an employee-owned commercial and multi-residential construction firm that is committed to continuous, aggressive improvement.

Business Situation

In order to move its ongoing productivity initiative to the next level, TDIndustries sought a more flexible and efficient reporting solution that provided timely access to productivity analysis.

Solution

With help from Artis Consulting (a Microsoft® Gold Certified Partner), TDIndustries implemented a business intelligence solution that delivered timely performance analysis to the field, enabling managers and field supervisors to implement changes that would better control project performance.

Benefits

- Evolves to fit business needs
- Fuels operational productivity
- Deepens business insight
- Integrates for extended applications

“At TDIndustries, we are always seeking ways to move our operations to the next stage of maturity. Integrating Microsoft Business Intelligence with our existing Dynamics SL implementation provides a means to elevate our operational excellence.”

Bob Hauck, Systems Analyst, TDIndustries

With a unique corporate culture – one where every employee is a partner and none of the offices have doors – TDIndustries’ mission is one of continued excellence based on improved business performance. As the company’s operations have grown, TDIndustries has relied on its business management solution to grow and evolve with the business. The project data stored within Microsoft Dynamics SL is crucial to the ability to track project productivity and key performance measures for every aspect of TDIndustries’ operations. By developing a custom business intelligence (BI) solution (built on Microsoft® SQL Server™ 2005), TDIndustries is able to leverage this crucial data in a fast, flexible reporting solution that enables dramatic gains in productivity. The reporting solution, implemented by Microsoft Gold Certified Partner **Artis Consulting**, helps managers at all levels of the organization gain insight.

During the first year of deployment, TDIndustries achieved more than a 7 percent productivity increase—equating to approximately U.S. \$3 million in cost reduction.



Situation

TDIndustries is committed to improved business performance and it's evident that the company demonstrates that commitment with numerous industry awards and an ongoing productivity initiative. Owned by its 1,350 employees, the Dallas - headquartered construction and facilities services firm has ranked among the "Fortune 100 Best Companies to Work For" in the past nine years.

Relying on Microsoft Dynamics™ SL since the late 1990's, TDIndustries first implemented Solomon to improve its business management – specifically new and existing construction, facilities services, manufacturing, and field services.

In 2001, TDIndustries implemented a productivity initiative when the company implemented the Project Series modules. At first, project data measured earned value against actual cost per accounting period, but when managers asked for more timely data, TDIndustries sped up the cycle to create weekly reports. New tables were created in the Microsoft Dynamics SL database to capture budget, cost, and job status on a weekly basis, and then were published using Crystal Reports. These reports required customization within the application and were used to promote its productivity initiative throughout the company.

"Our managers found the reports to be very valuable, and they started to ask our IT department to run 'what-if' scenarios. They wanted to determine variables like overall earned value versus actual cost for a project, as well as variations according to the type of project, the methods used, which vendors were involved, customers, and a host of other conditions. Our IT department was quickly overwhelmed by the number of requests," said Bob Hauck, Systems Analyst for TDIndustries.

TDIndustries' IT department was unable to react fast enough to the new reporting requests. They also wanted to incorporate a solution that would further improve efficiency in its manufacturing operation which was responsible for over 150,000 man hours in preassembling ductwork, piping, and other materials for company projects. TDIndustries' IT staff believed the solution to all these challenges was a customized business intelligence strategy that could provide more timely, tailored reports to empower people making decisions that would directly affect business performance – reports that required analytical modeling that only a business intelligence solution could provide. By enhancing and extending Microsoft Dynamics SL with Microsoft's business intelligence technology, TDIndustries was able to bolster its ongoing productivity initiative.

Solution

Presented with these challenges and a belief that Microsoft's business intelligence tools were the RIGHT solution; TDIndustries sought the best in the marketplace to develop a Microsoft BI solution. TDIndustries engaged Artis Consulting (a Microsoft Gold Certified Partner and business intelligence specialist) to implement a BI strategy that would pull project data housed in Microsoft Dynamics SL into a data mart that supported more flexible and timely reporting and analysis needs. "We chose Artis Consulting because we felt they were the 'best of the best' in terms of BI and not generalists who also did BI," said Hauck.

Through the process of requirements identification, Artis Consulting quickly scoped the business need for timely and accurate analysis of project performance. To address the defined requirements, a reporting and analysis solution was designed that utilized SQL Server 2005 Analysis Services and SQL Server 2005 Reporting Services – a solution

that would prove to be the most cost-effective for TDIndustries.

“We created a solution that extended the value of the data, allowing TDIndustries to more quickly and accurately assess the overall health of their construction projects,” said Joe Randolph, Principal Consultant for Artis Consulting. “By developing the solution in this manner, TDIndustries’ end users were able to analyze project productivity from a variety of different perspectives while meeting a broader range of end user analysis needs through a smaller, but more flexible, set of reports.”

The overall BI strategy provided an infrastructure for creating, embedding, and managing enterprise reports. Because Microsoft Dynamics SL uses the SQL Server database, Artis Consulting was able to build a new data mart and customize the reporting package in just **six weeks**.

Additionally, the Reporting Services component was setup to automatically generate scheduled reports, which allowed TDIndustries’ business managers to use the Report Manager interface to view different variations of the reports.

Since SQL Server 2005 Reporting Services offers a Web-publishing option, TDIndustries also provided managers access to important Microsoft Dynamics SL operational data while they are in the field. Managers could access Web-based reports from their job sites via virtual private network (VPN) connections. In the future, TDIndustries intends to extend its new reporting structure to other business areas. “Our productivity initiative is not limited to project management, but also applies to manufacturing and vendor performance as well,” said Hauck.

Benefits

The ability to extend Microsoft Dynamics SL with Microsoft Business Intelligence tools allows TDIndustries to fuel productivity, increase business insight, and empower more people within the organization to make informed business decisions.

“At TDIndustries, we are always seeking ways to move our operations to the next stage of maturity. Microsoft Dynamics SL integrated with Microsoft Business Intelligence provides the tools we need to elevate our operational excellence,” said Hauck.

Evolves To Fit Business Needs

By designing the business intelligence solution to model its business, TDIndustries is well positioned to extend the reporting and analysis capabilities to other business areas. Future plans include the integration of accounting and financial data.

“Our business is very diverse, with commercial construction, systems service, facilities maintenance, multi-family construction, and manufacturing operations. Our reporting and analysis solutions must support our business diversity while giving our business users timely and flexible tools to manage their business. The business intelligence solution that Artis Consulting designed provides that flexibility.” said Hauck.

Fuels Operational Productivity

The integration of Microsoft Dynamics SL and Microsoft Business Intelligence technology has assisted TDIndustries’ managers in keeping complex construction projects on budget.

Before deploying the new reporting and analysis tools, TDIndustries projects overran projected cost, on average, by 4 percent. Six months after the project started, TDIndustries started to see real results – most of its projects were aligning within budget and

future project performance revealed actual to be 3% under budget. "We estimated annual budgeted project costs around \$42 million and with the 7% improvement in productivity, TDIndustries realized a \$3 million reduction in project costs," said Hauck. TDIndustries estimates another 10 percent improvement in productivity in 2007.

Similar gains are anticipated in TDIndustries' manufacturing operation, when plant managers are able to tap into the same productivity reporting and analysis tools.

Deepens Business Insight

The integration of BI, specifically SQL Server 2005 Reporting Services and SQL Server 2005 Analysis Services, makes vital data readily available to business decision makers at all levels within the organization. TDIndustries relies on Microsoft Dynamics SL to house data relevant to the health of its entire operations and business intelligence to impact their business performance.

"Our former CEO Jack Lowe often came to me with an idea about how to increase productivity and my job was to get the numbers to support it. With business intelligence in place, it was easy for me to explore and validate those ideas," said Hauck.

The reporting and analytics solution is not only available to executives, but also to front-line managers who use the information to impact their day-to-day plans, identify potential problems and take corrective action early on.

Integrates for Extended Applications

By implementing a BI strategy that utilizes SQL Server 2005 Reporting Services and SQL Server 2005 Analysis Services on top of Microsoft Dynamics SL, TDIndustries makes corporate data more accessible to more people. The generated reports are available

in various formats—including web based and PDF format—so project managers can easily print them out and take them to the job site. Business Intelligence extends Microsoft Dynamics SL data to employees who can view important information on the Web without logging into the corporate financial system from the job sites.

For More Information

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For more information about TDIndustries products and services, call (972) 888 - 9500 or visit the Web site at: www.tdindustries.com

For more information about Artis Consulting products and services, call (972) 702 - 9500 or visit the Web site at: www.artisconsulting.com

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 about Microsoft Dynamics, go to: www.microsoft.com/dynamics

Software and Services

- Microsoft Dynamics
 - Microsoft Dynamics SL
- Microsoft Servers
 - Microsoft SQL Server 2005

Technologies

- Microsoft SQL Server 2005 Analysis Services
- Microsoft SQL Server 2005 Reporting Services

Partners

- Artis Consulting

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