

ADVIZOR Solutions

Synthesizing Analytics-Ready Data

Doug Cogswell, CEO, ADVIZOR Solutions, has good news for manufacturers and shop floor businesses. While analytics provides a huge incentive to businesses, mid-market manufacturers lack the resources to leverage it. Further, the data generated in manufacturing facilities is not analytics-ready but meant for daily workflow. Business intelligence expert, ADVIZOR bails manufacturers out of their predicament by enabling visibility into processes to combat the high cycle times and enable a realistic view of machine performance, which ultimately impacts revenue. ADVIZOR has pioneered accessing and blending disparate data sets to tailor them for analytics and uncover the “stories hidden” in them to obtain human understanding.



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ADVIZOR’s value proposition for analytics is spearheaded by a Bell Labs-sourced technology for in-memory analytics, which enables two major functions—storing data in memory and visualization. The technology efficiently integrates tables of data from multiple databases to display the client details and customer-to-order relationships, where each order has multiple items. “ADVIZOR has enriched Bell Labs’ technology further to provide the Visual Discovery software (VDS)—a user-friendly tool for interactive

data visualization—that operates on diverse on-premise environments like the Windows, iPads, and cloud,” says Cogswell. VDS prioritizes optimizing cycle time to increase the economic value for customers.

To deploy VDS, ADVIZOR thoroughly assesses clients’ key objectives and pain points concerning cycle times, pricing margins or even customer retention. Later, a tool to integrate data from multiple systems and formats such as MySQL and PostgreSQL is employed, following which VDS is loaded on to the memory and factory core system. “The ERP system has details of customers’ orders—the parts, pricing and the in-out times of machines—while machines provide operational information between the in and out times,” explains Cogswell. All the data is blended, and metrics are created to improve the delivery efficiency of each order and displayed as heat maps.

VDS simplifies analyzing orders, operations, and revenue for each customer. Order analysis checks cycle times and examines conditions hindering order flow. Operations analysis checks the machine utilization factor and oversees the blending of machine data packets with ERP data to aid the understanding of order patterns. Operations analysis also improves the margins and profitability for manufacturers by preventing the underpricing of parts or customers. Revenue analysis examines accounts payables, receivables and all financial models attached to ERP systems. Not surprisingly, the proposition has boosted delivery efficiency by 30 percent for ADVIZOR’s customers.

Cogswell shares the experience of working with a metal surface plating company that lacked visibility into the exact buckets-per-minute moved by the



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machines, for whom ADVIZOR created a heat map visual of dollars per bucket-minute. The heat map featured rectangles representing customers, sized by the number of orders from each customer and colored by dollars per bucket-minute (DPB). Higher DPB colors rectangles green, and lower values, red. Clicking on rectangles displays underlying order data, which the management can utilize to identify the steps and initiate corrective measures. Regression algorithms support dynamic linking of data to heat maps through charts and tables.

Heat maps helped SWD—a metal finishing, dip spin coatings facility—optimally use the data from its dip spin line facility, which improved collaboration between teams and personnel manifold. Costs and operation timelines were significantly optimized, which boosted the order delivery efficiency and hence customer satisfaction. The successful collaboration continues with ADVIZOR’s engagement in building dashboard-enabled visualization capabilities for SWD’s upgraded dip spin facility.

With in-memory analytics being the new buzzword in business, ADVIZOR is poised to engage with customers worldwide. “It would be about deriving insights from data that was never designed for analytics,” concludes Cogswell. 