acumence Manufacturing Business Intelligence

VALUE BRIEF

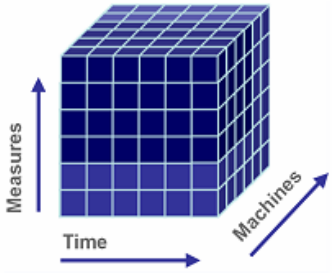
Intelligent Execution

Analysis Driven Performance Improvements using OLAP Cube Technology

by Chris Chandler

Everyone wants better performance, but companies today are finding it harder and harder to identify problem areas and opportunities for improvement. Not that performance is at its peak, though. The problems are there, they just can't be seen using normal methods.

Take, for example, a company operating at efficiencies above 93% across all of its bodymakers. Even on a bad day efficiencies were above 90%. How can a company operating this good actually think about improvements?



OLAP cubes enable slice-and-dice analysis of large data.

One manager knew that bodymakers running at their peak performance produced efficiencies of 97% - 99%. On a hunch, he decided to find out why *all* bodymakers couldn't achieve the same level of performance. The problem, however, was the downtime tracking and reporting systems in place did not provide the level of detail or ad-hoc analysys necessary to find the losses.

Getting Value Step-by-Step:

1. Capture & store high-resolution manufacturing data in a model-based environment that is optimized for analysis.
2. Use standard dashboards and reports to identify potential problem areas.
3. Use OLAP cubes and analysis tools to drill-down and identify the opportunities for improvement.

This manager needed a manufacturing intelligence and analysis system that would let him drill-down into the details. Without knowing it, this manager was asking for OLAP cube technology that would allow him to analyze high-resolution data across multiple dimensions – different machines, varying time periods, and multiple measures of performance.

With Acumence in place, all performance data was stored at high resolution, and ready for analysis. With Acumence's OLAP cube technology and portal analysis tools, the manager could drill-down into each machine, identify exact losses, and devise a strategy to achieve peak performance across all machines.

Machine Type	Infeed	Discharge	Spoilage	Spoilage %	Prod Eff	Run Eff
Cupper	1,743,456	1,734,600	0	0.00%	79.08%	96.40%
Bodymaker	1,727,368	1,736,455	159	0.01%	92.98%	90.90%

Machine	Infeed	Discharge	Spoilage	Spoilage %	Prod Eff	Run Eff
Bodymaker #01	88,112	88,528	15	0.02%	94.81%	92.33%
Bodymaker #02	84,410	84,883	-1	0.00%	90.90%	88.92%
Bodymaker #03	92,043	92,511	0	0.00%	99.07%	96.18%
Bodymaker #04	90,609	91,070	2	0.00%	97.53%	95.08%
Bodymaker #05	73,576	73,987	43	0.06%	79.23%	78.22%

Count	6:30A...	7:30A...	8:30A...	9:30A...	10:30...	11:30...	12:30...	1:30P...	2:30P...	3:30P...	4:30P...	5:30P...
Infeed	13,793	13,835	12,591	144	11,293	13,585	8,335					
Discharge	13,793	13,835	12,584	117	11,518	13,580	8,560					
Spoilage	0	0	7	27	4	5	0					
Short Can...	0	0	1	6	1	0	0					
Unloader...	0	0	2	7	1	0	0					

Drill-down analysis tools help to uncover the losses.