



Grey Chameleon

Knowledge and software
Strategize. Adapt. Succeed

Call Now: **310.313.0047**

Tollfree: **866.419.6459**



Web:

www.aiminsight.com

Email:

intouch@aiminsight.com

All whitepapers are courtesy of grey chameleon and are copyrighted by friends of grey chameleon software

Maximize operational performance

Updated: June 6, 2005

Managers of today's manufacturing companies receive tons of data—about equipment, about products, about orders and deliveries, about conditions and quality and customers.

What they don't have, however, is current, coherent information in a format that supports sound, timely business decision making.

That's why a growing number of companies are moving to technology solutions that help to integrate silos of isolated information residing in disparate systems.

It's also why the Microsoft platform has been adopted by so many industries. The widely used and supported Microsoft platform enables the growing number of equipment and software vendors to develop solutions that can help manufacturers consolidate data from multiple information sources. These solutions help key decision makers make better use of business intelligence to drive tactical and strategic decision making.

Isolating and presenting the right data in the right context

For years, modern production enterprises have had multiple systems in place to monitor and control individual aspects of the business. An oil refinery, for example, has separate, discrete systems to track flow and pressure; to record equipment maintenance history; to manage customer orders and billing; and to analyze product quality. Each of these systems can produce reams of data, often in the form of thick reports stacked on the desk of an engineer or plant manager too busy to wade through them.

Manufacturers have struggled with this challenge for decades. Specific issues include:

- **No central location for information.** For business insight and smart decision-making, people need a comprehensive, holistic view of the enterprise that brings together key information from multiple systems. Such a direction could provide each decision maker with a precise view of the information he or she needs to act decisively in the face of changing situations.
- **Isolation of the right data.** With the millions of data points that are available in an automated manufacturing process, decision makers need help selecting and managing exactly the right data for the problems that confront them.
- **Availability.** To be useful, data must be available immediately to the right people in a format that highlights the condition or situation needing attention.
- **Presentation.** The presentation of the information must provide context that helps to inform the decision-making process.

As Chris Colyer, Microsoft's global industry manager for process manufacturing, points out, "People with different roles in the organization need different information, and also need to see it presented differently."

The need for integrated data across systems is not limited to plant managers and line supervisors.

Executives must make long-term decisions about product lines, equipment investments, and even plant consolidations.

For example, executive considerations include:

- **Integration with other business systems.** To make long-term business decisions, executives must blend financial information from enterprise resource planning (ERP) systems with operational data from maintenance, laboratory information, plant operation, and SCADA systems. True executive information systems contain much more than rolled up financial and personnel data.
- **Scalability.** The limiting factor in meeting business needs has not been the availability of the data, itself. As plant operations become increasingly automated, the amount of data available continues to expand.

- **Meaningful presentation of information.** Until recently, manufacturers did not have the collaboration engines to select, aggregate, and display data in a meaningful way based on the business role of the user.

Collaboration tools help to create plant floor visibility

Now that collaboration technology exists, it is being deployed very profitably by manufacturers who understand the business advantages of informed decision making. Suddenly, the processes, problems, and opportunities of the plant floor are visible and accessible throughout the organization.

The following technology can help increase plant floor visibility:

- **Enterprise resource planning (ERP).** By combining ERP data with plant floor manufacturing data, technology can help managers plan for changes in resource use and availability.
- **Scorecards.** Web-based scorecards enable people to easily see plant floor metrics on a continuous basis.
- **Trend analysis.** Long-term tracking of plant floor manufacturing data enables executives to see trends within their organizations and make the right changes to ensure success.
- **Collaboration.** Plant floor data is valuable across several groups within a manufacturing organization. By providing simple and secure access to that data, technology encourages collaboration among team members.

"The whole notion of [the] plant floor visibility is focused around leveraging data," says Chris Colyer, Microsoft's global industry manager for process manufacturing. "I want to take that information and derive intelligence from it, to drive analytics and *what-if* scenarios, to understand the meaning of the data. That's what companies need today, and that's what we do best. "

The right solution: Building on the Microsoft platform

Breakthroughs in plant floor operations using Microsoft technology is the result of strategic collaboration among Microsoft and its partners in the manufacturing technology sector. Companies such as Honeywell, Siemens, OSIsoft, and GE Fanuc are writing software that smoothly connects and integrates plant floor systems with sophisticated data repositories and analytical engines—helping executives, engineers, and plant managers make smart decisions that can improve profitability.

And Microsoft is providing the platform that ensures a standard, reliable way to aggregate, store, analyze, and display this data. Because Microsoft is already the industry leader throughout the manufacturing sector, companies can build on their existing investments in Microsoft services—e-mail, database, office automation, and data sharing services—to deliver effective business intelligence when and where it is needed.