How can we identify quality issues sooner to reduce scrap and rework?

**YOUR GOAL:** Improve quality while containing or even reducing costs

The price that companies pay for poor product quality is steep. From costly rework and product recalls to a decline in customer satisfaction, eroding brand image and loss of shareholder confidence, the bottom line is that profitability suffers – often to the point where it threatens a company’s very existence. As such, it’s no surprise that every company’s goal is to produce high-quality products at the lowest possible cost. However, regardless of the product being produced – electronics, automobiles, consumer packaged goods, pharmaceuticals, etc. – achieving that goal isn’t easy. With each new product development or improvement, complicated manufacturing processes get even more complex. Rather than viewing the business as a whole, siloed business units tend to view each step in the process – from product development, to procurement, to manufacturing and so on – as discrete functions. As a result, supporting systems are fragmented with data scattered among systems that don’t talk to each other and formats that don’t match. Further complicating matters are the legacy systems, such as ERP, MES and SPC solutions, that most manufacturers use. Their limited scope and inability to handle large data volumes and complex calculations render them incapable of performing the kind of analyses necessary to go beyond correcting problems to preventing them from happening in the first place.

**OUR APPROACH**

Real quality improvement can be achieved while simultaneously containing or even reducing costs – with the right combination of data integration, automation and analytics to create the most unbiased insight into processes on a large scale. SAS approaches the problem by delivering software and services to help you:

- **Gain visibility into quality processes** by accessing large volumes of data regardless of format or source – from legacy to modern MES, ERP and other systems – then transforming, standardizing and cleansing the data to prepare it for analysis.

- **Monitor the health of your processes** with large-scale, automatic parameter checking against predefined or custom business rules in batch or on demand.

- **Reduce process variability** with state-of-the-art root cause analytics to weed out quality excursions, and with unparalleled design of experiments.

- **Proactively address quality and performance issues** with early-warning analytics that alert you to potential failures and latent defects before they become costly problems, and before they reach the customer.

- **Establish a real closed-loop system for sustained quality** by automating key processes and refining and integrating business rules for repeated use through workflows and case management.

- **Align performance and quality strategies** by sharing appropriate information with whoever needs it so you can close the gap between targets and performance.

By automating certain labor-intensive tasks, SAS® helps you adopt lean processes that can significantly reduce the time it takes to produce reliable analyses, while providing a basis for future-improvement analysis.
THE SAS® DIFFERENCE: Highest performance, lowest total cost of ownership

From data integration and storage, to simple and high-end analytics, to flexible and robust reporting, to workflows and case management only SAS offers unmatched end-to-end capabilities for pulling data together, analyzing it and then making it available to those who need it throughout the entire organization and to foster collaboration across the enterprise. The SAS solution delivers:

- **Reduced costs.** State-of-the-art analytics and predictive modeling capabilities drive tighter controls and improved processes, resulting in decreasing scrap and rework rates and minimized cost of quality.
- **Early-warning analytics.** The system monitors thousands of parameters continuously, sends automated alerts to warn of potential quality issues before they become costly problems and initiates workflows to start problem resolution.
- **Flexibility.** The solution’s data model can handle practically any type of data you may have, and is also customizable to incorporate any additional data types your organization may require. Workflows and case management can easily be customized to adopt changes in processes and the organization alike.

Unlike smaller niche vendors that can’t cope with a growing data volume and are unable to deliver the expected response times, the SAS solution is scalable to meet your growing needs, both today and tomorrow.

CASE STUDY: POSCO

**Situation**

In its quest to become the leading steel producer, POSCO needed to update its 30-year-old business practices in order to reduce scrap and improve overall throughput, output and quality. To accomplish these goals, the company sought to implement a corporatewide Six Sigma strategy.

**Solution**

SAS helped the company implement a comprehensive solution that brings together all relevant data in a data warehouse, and applies advanced analytics to uncover hidden interdependencies among processes.

**Results**

As a direct result of the SAS solution, the company realized an ROI of $14 million in less than two years. Even greater returns are expected in the future.

SAS FACTS

- SAS was named a Progressive Manufacturing 100 Technology Partner in connection with The Dow Chemical Company’s placement on the 2009 Progressive Manufacturing 100 list from Managing Automation Media.
- Manufacturing Business Technology named SAS to its annual Global 100 rankings in the Business Performance category.