

Quality Assurance Gains on the Manufacturing Floor

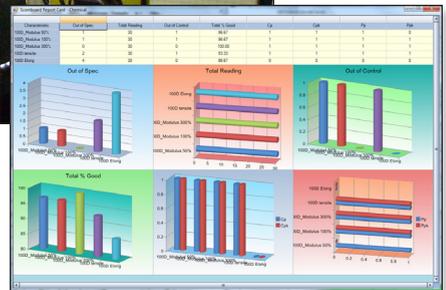
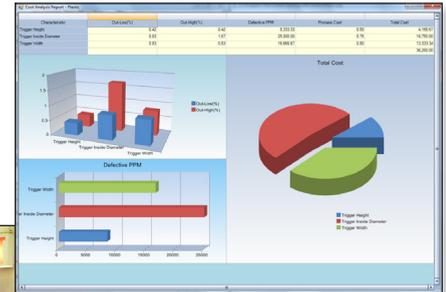
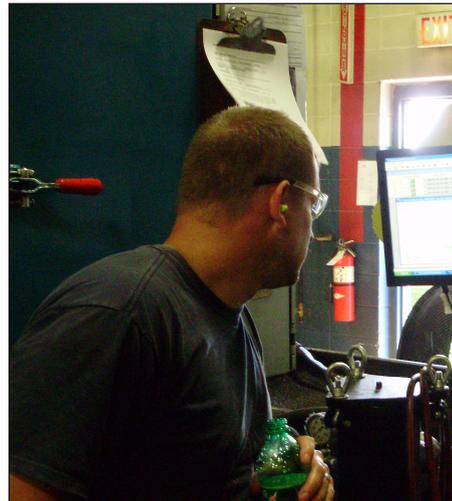
ZONTEC'S SPC SOFTWARE INCREASES PRODUCTIVITY FOR GEAR MANUFACTURER

In today's increasingly competitive landscape, companies that do not pay attention to their quality data do so at their own peril, according to Danei Edelen, marketing manager at Zontec Inc. "Capturing and utilizing quality data can reduce scrap, reduce work, increase user productivity, assist with tool lifecycle management and help generate new business."

Zontec Inc., located in Cincinnati, Ohio, is an international developer of Statistical Process Control (SPC) software solutions. The company recently updated its *Synergy 2000* software to maximize the users' access to information. "These new capabilities are focused on running a business more efficiently and effectively," says Warren Ha, Zontec president. "We are leading the industry by providing superior functionality so users have multiple ways to access the wealth of information available at the click of mouse."

This includes increasing productivity, reducing product defects, boosting production rates and generating new business. "*Synergy 2000* enables you to fine-tune your business by adding value at every step in the process. It's logically designed with the user in mind. Therefore, you are able to rapidly implement a quality solution, saving you time and money. Your users are easily able to navigate the system and utilize numerous ways to input data efficiently. Data is passed through SPC calculations, so that real-time charting and reporting is constantly available for decision-making," Edelen says.

Synergy 2000 is designed in three levels: engineer, manager and operator. This means that as operators are enter-



ing data, managers and engineers can be monitoring and reviewing this data in real-time. If a process goes out-of-specification, the appropriate people can view this information immediately on their screens and automatic e-mail notifications are sent out as well. With the tools available, a customer can integrate *Synergy 2000* with any system in your enterprise. With company-wide monitoring in place, key individuals, regardless of location, can supervise production to meet company objectives. Also, if your industry requires secure controls over your quality data, *Synergy 2000* has such security measures available.

United Gear Gains Business with *Synergy 2000*. When Douglas Winfrey, director of quality, started at United Gear and Assembly, the *Synergy* software had already been purchased, but was not fully utilized. "I inherited *Synergy*, and I enforced it," Winfrey says. He immediately saw the benefits of utilizing the quality assurance soft-

ware. "The real issue was that we were collecting all of this data, but not looking at the data. *Synergy* gave us a way to easily pull up the data and act on what we are seeing; it also gave us the ability to access the data anywhere in the world, including our customer sites."

United Gear has been in business for 50 years. During that time, they have evolved from a family-owned business into a multi-million dollar company and a core supplier of precision gears, shafts and related assemblies to companies in the automotive, agriculture, forestry, construction, mining, marine and rail industries. "We are now expanding our presence along with our parent company, United Stars, based out of Beloit, Wisconsin, into the Pacific Rim

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and recently opened an office in China,” Winfrey says.

Once United Gear began using *Synergy*, they found that the software made it easy for individuals without a statistics background to create charts on their machines, setup to receive notifications, reduce the number of errors and assist the inexperienced operator in understanding the process clearly. “It’s a very good teaching tool to be able to explain with visuals to describe where the process is running at and where we want to be,” Winfrey says. “Within seconds, we can call up a part number on a machine and know what’s going on with that machine or the current production run.”

“Since implementing *Synergy*, the reduction in paperwork is huge. Before every entry took us about 3½ minutes per sample size and now it takes us less than 30 seconds. There are 240 critical characteristics we could be measuring at any given time. Using *Synergy* has saved us about 12 man-hours per day,” Winfrey adds.

One of the benefits United Gear has experienced is that they came to a better understanding of their machines and their capabilities. “Through data gathering, charting and analysis, we can analyze data on every product produced in a particular machine. We can get to the root cause, whether it is the people, the process or the machine,” Winfrey says. “We run product on several machines; with *Synergy* we can compare a machine’s capability, which gives us the least variation and best product. We can see inconsistencies and make systematic changes across the entire process; we can see data points for all products, regardless of machine and resolve inconsistencies for all processes.”

Synergy also gives United Gear the ability to effectively manage the life-cycle of its tools. Through the use of Run Charts and other *Synergy* tools they can determine tool life and predict how many parts can run before needing to make adjustments or change out the tool. “We can budget our tool life management more accurately and effectively based on this data,” says Winfrey. “*Synergy* can show us if a particular machine can’t produce a particular product in a specific tolerance range. This data can then be used to justify procurement of new equipment.”

Additionally, *Synergy* has helped United Gear with their Six Sigma and continuous improvement initiatives. “In the aspects of our business where we are using *Synergy*, we have seen our PPM (parts per million) decrease,” Winfrey says. “On average, we have reduced our non-conformities by 20 percent. We also have a very low scrap rate in those applications.”

Winfrey says they use *Synergy* for new business development. “I have been in meetings at the customer’s location where we are discussing a new product. *Synergy* gives us the ability to log into our server, show them the exact machine that would be used to produce the new product, what tolerance the machine is currently running and the capability history of that machine,” Winfrey said. “This type of information shows the customer what they need to see before moving forward. *Synergy* provides us that edge to win the business.”

The Future of SPC. From a quality management perspective, Zontec has developed a solution that fully supports mobile technology and cloud computing architecture. Zontec’s *Synergy 3000* SPC software was designed from the outset so that users can gather, organize,

analyze and report on the huge data sets dictated by real-time, statistical process control over the Internet from highly dispersed global locations. “We see the use of cloud computing and mobile technology particularly applicable as it relates to managing your suppliers,” Edelen says. “With *Synergy 3000*, suppliers have access to customer standard operating procedures, engineering drawings and contract specifications during their production runs. Suppliers enjoy data collection and gage interfacing through the browser in addition to charting, process monitoring, real-time feedback and reporting.”

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