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For Immediate Release

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Datalogic Mobile and I&R Partners Lock Out Waste at Yale® Commercial Locks and Hardware

***Datalogic Mobile rugged computers and DC-Stat software
from I&R Partners reduced scrap by over \$25,000***

Eugene, OR - The quality department at Yale Commercial Locks and Hardware takes its job seriously – assuring that the products they manufacture meet the strict requirements of a name synonymous with security. But in an ultra competitive environment, simply meeting those requirements isn't enough. You've got to do it while increasing profitability and reducing costs. That is exactly what Jason DeWitt and Wayne Furniss did when they implemented a Statistical Process Control solution from I&R Partners that features the Datalogic Falcon® rugged mobile computer.

Yale Commercial Locks and Hardware develops and manufactures a comprehensive line of door hardware and locks, including an extensive range of mortise and cylindrical (bored) locks, exit devices, door closers, cylinders, electromechanical products and key systems. Their plant in Lenoir City, Tennessee is an impressive manufacturing facility with skilled machinists, operators, and the latest in CNC equipment. There they manufacture locking hardware that relies on tight tolerances and precision to provide smooth operation and security. Slight deviations in materials, wear on equipment, changes in temperature, and the dulling of cutting tools could lead to imperfect parts. That's where quality checks, tooling, gages, training and procedures come into play to keep parts within specification.

Yale has a strong commitment to quality with programs and procedures in place for operators to check parts as they are produced. Secondary independent sampling is performed by the quality team. Data collected is plotted to show trends and to make improvements in the process. Unfortunately, in the time it takes for the data to be collected and recorded by hand, then entered into a spreadsheet and graphed, several hundred out-of-specification parts could be

processed. Those parts would need to be reworked or scrapped. But this is not the case at Yale today.

I&R Partners are pioneers in the area of mobile data collection for Statistical Process Control (SPC) in manufacturing environments. Leveraging Datalogic Mobile rugged computers with wireless communications, I&R Partners' DC-Stat software products have shown they can save manufacturing companies hundreds of thousands of dollars. "We didn't invent statistical quality processes," says Paul Iannello of I&R Partners, "that started in the 1920s and was popularized by Deming in the 1940s and 50s. What we have done is take the power of SPC and make it useful in a revolutionary way that cuts costs, cuts time, and impacts the bottom line with a reduction in waste. We put computing power in the hands of the operators so they have the information they need to make adjustments and prevent imperfect parts before they happen."



Paul Iannello I&R Partners

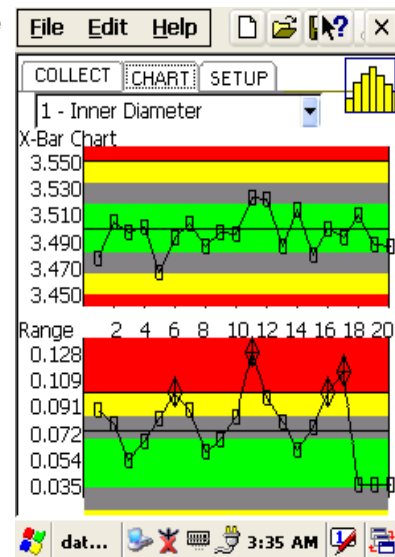
During the manufacturing process, parts are checked using the instruments and gages at a machining center by the operator. In the past, the values for critical measurements were recorded on paper. Records would be collected at the end of the shift, or at the end of the day. The collected data would be entered into a spreadsheet and graphed to show trend lines. This analysis was completed in some cases several days after the parts were created. By this time the number of parts that fell out of specifications could be significant. Quality personnel would need to identify complete lots to be sent to rework or be identified as scrap.



Datalogic Falcon connected to digital instrumentation for part inspection.

I&R Partners DC-Stat software runs on Datalogic Falcon mobile computers. Falcon computers have long been known for their great ergonomics and toughness. These features make them ideal for use on the manufacturing floor. Operators need a computer they can handle repeatedly that will not cause fatigue, and that has the ruggedness to survive in dirty, tough environments where it will be dropped, and exposed to oils and solvents. Falcon provides a rugged serial interface for connection of electronic instruments or gauging. Falcon also has integrated 802.11 wireless communications.

Automated electronic instruments and gages such as digital calipers, digital micrometers, digital height gages, and others have integrated serial ports for transmitting data. This port is connected to the Datalogic Falcon running DC-Stat software. As components are manufactured, machine operators inspect critical dimensions using the gages and instruments. The measurements are transmitted via the serial port to the Falcon. DC-Stat software, executing on the Falcon, gives instant feedback to the operator. Trend lines and analysis show the operator what is going on in real time. This allows corrections to be made during the manufacturing process before parts are made out of tolerance. Simultaneously, data from the instruments and gages is transmitted via wireless communications to a PC in the Quality Department office. The same analysis is automatically performed there indicating the performance at each manufacturing station.



Screen shot from DC Stat on Falcon

“SPC is a proven methodology for improving and maintaining a quality production operation,” continues Iannello. “You can use a simple spreadsheet to create the charts and follow the procedure. The problem is getting the data analyzed in a timely manner to affect your production. Our system is the only one that works in real time. With the Datalogic Falcon at the manufacturing point there is no delay in capturing, analyzing, and correcting the manufacturing process. DC-Stat empowers the operator to improve their work as it is being done; this has a huge impact on the amount of rework and scrap that is created.”

At Yale, the manufacturing facility is separated into four profit centers, Cylinders, Mortise, Exits, and Bored Locks. Jason DeWitt is the Quality Technician who supports the Cylinders profit center and Wayne Furniss is the Quality Manager overseeing all four units. “Jason was new to the position when the equipment came,” says Furniss. “He quickly implemented the system and the results have been remarkable.”

“I wanted to put it into use and it was easy”, says Dewitt who has been with the company for over 15 years. “The guys at I&R Partners were very helpful and supportive. Once I had the system set up it was easy to set up each operator with a mobile computer and show them how to use it.”



Jason DeWitt Quality Technician for Yale

It was clear the system was improving quality and reducing scrap but it wasn't easy to see how much of an improvement there was. The data collected prior to implementing the I&R Partners solution was not as easy to interpret. Jason decided to tackle this question too. “We had a Christmas shut down of the plant so I took all the old records home. I was able to separate the hand written data to match up with what we collect automatically now. What I learned was incredible. We have basically eliminated scrap from several of our processes”, says DeWitt.



Wayne Furniss Quality Manager

“When I saw the numbers Jason calculated I was amazed,” says Furniss. Overall scrap is down 80% and assembly rework is down 60%. The actual reduction in scrap cannot be published but the value is greater than \$25,000. “These savings are for only one profit center. I am looking to see how we can implement this system across our whole plant. “

About Datalogic Mobile

Datalogic Mobile is a global manufacturer of mobility solutions for retail applications, assisted shopping, warehouse solutions, and field-force automation.

Our diverse product range of rugged mobile computers includes pocket-sized computers, pistol grip computers, and industrial PDAs designed to keep workers connected to their enterprise inside or outside the four walls. Our mobile computers use Cisco Certified CCX radios for maximum levels of: RF security, data throughput, and efficiency. Datalogic Mobile computers use the latest technologies for voice and data communications giving mobile workers on-the-go connectivity.

Datalogic Mobile is the worldwide leader in Assisted Shopping. Over 350 retail stores have implemented Datalogic Shop evolution software and the Datalogic Joya handheld pod as their assisted shopping solution. Datalogic assisted shopping gives retailers a competitive advantage while reducing their operational costs. Joya makes shopping a multimedia experience that increases consumer loyalty.

Datalogic Mobile has worldwide presence in over 30 countries and over 800 business partners worldwide. A leader in technology, Datalogic has growing portfolio of over 850 patents, eight research and development centers, and 300 engineers.

See us on the web at www.mobile.datalogic.com or call 800-929-7899

About I&R Partners

I&R Partners, LLC is a manufacturer of Quality Control software designed for systems integration of turnkey data collection solutions. Wireless gauging, wireless networking, multi-gauge workstations, and handheld data collectors are integrated by I&R Partners into an innovative process control solution for today's manufacturers. Our goal is to eliminate waste, rework, sorting and warranty repair. At I&R Partners LLC we believe that "Lean always starts at the waste".
<http://www.iandrpartners.com>

About YALE

Yale® Commercial Locks and Hardware, with plant operations in Lenoir City, Tennessee, develops and manufactures a comprehensive line of door hardware and locks, including an extensive range of mortise and cylindrical locks, exit devices, door closers, electromechanical products and key systems.

About ASSA ABLOY

ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user demands for security, safety and convenience.

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