



SPECIAL REPORT

April / May 2007

Play by Play for Food Safety Coaches, Players

Arrowsight's RVA Keeps Score of Quality and Safety Highs and Lows

By S. Neil Vineberg

You may never know that a disassembly worker in the trimming department is directly affecting your yield, and while line workers may be unaware of their bad habits, poor trimming techniques will perhaps never be modified unless a quality control manager observes the process and instructs the employee to correct the problem.

“A line worker cutting meat with a \$3 value incorrectly can decrease that value to only \$1,” says Mark W. Moshier, division president for Arrowsight Inc.’s Food and Beverage Division, a Mount Kisco, N.Y.-based developer of remote video auditing (RVA) systems.

However, the presence of a manager on the processing line is not always possible, which is why Moshier believes RVA and software from Arrowsight is so valuable.

“Using RVA, we’ve monitored incorrect cutting, called the line manager, and corrected the practice, saving losses that might accrue over time,” he says. “Clients can also show their workers video to promote best practices and raise



productivity. We’ve seen seven to one returns.”

A Video’s Worth

If a picture is worth 1,000 words, video is worth much more to clients of Arrowsight, which recently opened a new Network Operations Center in Huntsville, Ala., to expand its RVA services for food processors.

“Arrowsight’s video auditing service is a cost-effective solution that sets a new standard in food safety, sanitation and quality assurance,” says Dr. Al Baroudi, president of the Food Safety Institute International (Henderson, NV).

Dr. Baroudi has coached USDA inspectors on safety for retail meat and poultry and provided training on dairy processing to the FDA and various local health departments. “New technologies such as remote video auditing can help improve the safety of the nation’s food supply,” he adds.

Arrowsight’s RVA services place cameras and digital video recorders in plants to capture and store footage of the production process. Third-party auditors and plant managers can view images on the Internet, allowing them to watch critical control points in real time. The system can be accessed by plant managers from anywhere in the world via the Internet.

Review and Report

At Arrowsight’s Network Operations Center, auditors review video captured during a procedure, process or alarm event, and monitor food safety, food defense and best practices in productivity, quality and employee welfare.

Then, they generate daily, weekly and monthly audit reports, containing Web links to video and still images that provide visual documentation of events noted by auditors. Auditors review with plant management weekly e-mail scorecards that summarize a facility’s performance.

“We live in a different world after 9/11. The biggest issue that customers have regarding products they purchase from manufacturers today is ensuring that the products they receive are safe and unadulterated,” says Ken Rutledge, CEO of Dakota Turkey Growers (Huron, S.D).

“We will now have an opportunity to visually scan and review activities in our

plant on a minute-by-minute basis. Any time you have a problem, you can review the video auditing reports and Web hyperlinks to determine what transpired and correct it.”

The system offers random audits to bioterrorism protection, quality assurance and productivity analysis. Auditors monitor an array of control points in the plant to improve process optimization, safety, quality assurance and compliance. Auditors contact plant management in real time if they see a problem, allowing for immediate evaluation and correction.

Strategic Location

While process analytical technologies (PAT) of the life sciences – such as data acquisition and analysis tools, process analyzers and process analytical chemistry – continues to catch on in the food industry, Moshier says Huntsville was chosen for its high tech business community and its close proximity to the firm’s southeast clients. “In Huntsville we have drawn staff from the food sector professional and engineer labor pools to meet the explosive growth we anticipate,” he added.

Currently, there are 15 employees in the Huntsville office, but Moshier expects to double the staff by the end of 2007, and again in 2008. Arrowsight’s corporate offices handle software, IT and administration.

“Our goal is to help processors drive savings through productivity and quality gains and internal security improvements that help protect their brands,” Moshier added. “Our customers are already showing higher yields.”

Pan-Tilt-Zoom for 64 Views

Each camera is able to see up to 64 different views using pan, tilt and zoom. This allows the viewer to see temperature gauges and employees' ergonomic techniques, providing information that could improve productivity. Multiple views enable auditors and management to monitor and measure key performance indicators.

Moshier sees the role of RVA in the same way a coach reviews game film with a team. The video allows the food quality and safety team to view performance from different vantage points. The technology literally provides a clearer image of the production environment, giving management better information for teaching, coaching and evaluating labor's processes.

“This leads to best practices that improve yield and can drive improvement in individual skills,” Moshier says. “The actual physical presence of management alters the environment. A camera, on the other hand, catches detail of daily routine and can target quality opportunities, productivity or safety, and drive improvements.”

Moshier has seen an investment in RVA deliver returns in as quickly as two to three months. Another advantage of RVA is that it offers processors a competitive advantage.

Moshier explains, “Clients can give their customers virtual access to the plant and also provide third-party certification. They can literally show their customers how they're reducing costs.”

Arrowsight monitors and records plant activity according to a schedule determined by the client. This can be 24/7, it can target certain shift hours, or be alert driven, such as activation of a camera to record specific



procedures. Another example might be a request to monitor each worker in a specific department.

Whether it's an *E. coli* outbreak in green leafy vegetables, a restaurant patron placing a severed finger in a bowl of chili or plot to poison the masses, the food supply is under constant threat of adulteration. For the latter unthinkable, the Arrowsight system also addresses bioterrorism prevention.

With cameras in place, a disgruntled worker or litigious patron will most likely think twice about willfully tainting food if there is the slightest chance of being caught.

“A significant amount of meat could be contaminated with strategically placed pathogens that cause foodborne illness,” according to Dr. Russell Cross, a well-known leader in the beef cattle and food safety industries, and deputy vice chancellor of agriculture for the Texas A&M University (College Station, Texas).

“Remote video auditing of hot zones should be a necessary element of every plant's food safety and security program,” adds Dr. James Marsden, a professor at Kansas State University (Manhattan, Kan.).

Moshier says a powerful search engine allows customers to monitor high-risk areas in the plant at high-risk times.

“The customer can study events and ascertain how the product was manufactured. We can cover points of entry, doors and protected areas of the plant,” he adds.

The system can be tailored to the client, whether they are in the retail, quick serve, grocery, manufacturing, food processing, military, industrial or homeland security arenas.

“Our application has open architecture to suit our client’s business needs,” Moshier says. “It’s a flexible tool helping people who already have the responsibility for these tasks. The technology is only limited by our client’s imagination.”

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