



ID BADGES CAN DO MORE THAN YOU THINK

RFID-enabled badge readers on your network can help users improve, control and secure operations while improving quality regulatory compliance.

By Ron Fiedler, Director of Business Development, RF Ideas, Inc.

➤➤ When a large North American paint manufacturer discovered that nearly 12 batches of paint per week were being deemed unusable and thrown out, managers immediately dispatched an investigation team to find the cause. Each batch contained up to 30 gallons, costing the company nearly \$2.5 million annually.

Tracing the process through the multiple stages of production on the factory floor, the team ultimately discovered that uncertified, untrained employees had been allowed to operate the highly complex machines. The company needed to quickly find a way to confirm that only authorized personnel with the appropriate training had access.

While advancing technology on the manufacturing floor has increased efficiency and quality, the industry itself has become extraordinarily complex. Regulatory and compliance pressures grow more daunting each year, security has become a constant concern, and sophisticated process control systems require ongoing training and expertise. Yet the cost of addressing all of those issues can be disheartening.

In spite of the new challenges, however, the bottom line remains the same. When the product ships out the door, it must be flawless, profitable, cost-effective, and meet tight specifications for highest quality.

So how do you connect the dots between your sophisticated technology investment and your ability to cost-effectively meet the new challenges?

One answer lies in a simple device that is a universal RFID-enabled badge reader. When employees tap their existing ID badge against the reader, that employee's ID is scanned and sent to the application software that quickly verifies it against an employee database on the network. Depending on the system, which can include training, certification, access privileges, and other authentications, the qualified employee will be authorized to proceed to complete his or her task.

By using proximity/contactless readers, users can quickly improve, control and secure operations while containing costs and maintaining regulatory compliance.

Connecting the Dots

Security and operator authentication. Getting the job done often requires an interface to operate sophisticated, automated process control systems. How can you confirm that only trained, certified, authorized employees have access to these processes?

A contactless reader enables accurate employee identification and validates that he or she is current on training, certification, safety and security measures, and other



criteria. Once the necessary criteria has been validated, the employee is then allowed to proceed with his or her task, whether it's entering a secure area, operating a specific machine, or performing any other task that requires authorization. Badge readers are increasingly being used with HMIs and PLCs to authenticate only those employees authorized to gain access.

With an RFID-enabled badge reader, the employee's ID is sent to application software that verifies it against an employee database on the network.

Efficiency with “tap and go” authentication. Sign-in that requires manual keystroke entry can take several minutes as employees re-enter incorrect codes or forget passwords. Magnetic swipe badges use magnetic strips that can erode over time, requiring multiple swipes. These minutes add up, especially when sign-ins and log-ins are required multiple times per day.

With a single tap, a contactless reader can save thousands of employee hours per year, improving workflow efficiency by eliminating the necessity of entering passwords. These readers allow users to use their employee ID badges, or any

125 kHz or 13.56 MHz tags or labels, for other forms of secure authentication throughout the workplace.

Training attendance tracked and validated for regulatory compliance. There are more than 130,000 pages of rules in the U.S. Code of Federal Regulations, with new regulations issued every year. Noncompliance can result in penalties. Proper training helps create the environment for compliance, and providing proof that the training has been completed is a must. Unfortunately, the old way of having employees sign an attendance sheet is no longer enough. The opportunity for error from incorrectly written IDs or illegible handwriting makes the process unreliable and raises the ante for regulatory noncompliance.

However, attendees wearing ID badges that have been encoded with a unique ID number assigned to each employee can simply tap or wave the badge against the contactless reader as they enter the room. The ID number is stored with the training session information, allowing the backend database to track who attended, identify when each employee is due for specific training, and issue alerts that enable the employee to maintain his or her specific certification.

Quality increased with validated operators. Using existing badge systems with readers helps verify that only



trained and authorized employees have access to machines that require specialized training and certification. In the case of the paint manufacturer cited previously, after identifying the problem with the bad batches, the company installed readers, which identified and authorized only employees who were certified to use that

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particular machine. As a result, the bad batches of paint immediately decreased from 12 unusable batches a week to less than one per week.

Easier asset management. Contactless readers also can help the maintenance repair and operations (MRO) team keep track of tools, indirect materials and other mobile assets. The problem occurs when the right tool is not at hand at the right time, requiring additional capital outlay to purchase lost or misplaced replacement tools, unexpected stock-outs, lack of usage data, and compromising general access to supplies. All of these situations increase costs and reduce workplace efficiency.

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Using readers to identify specific employees to use specific equipment puts tool monitoring at the point of issue — the tool crib. Users simply tap their ID badge to gain access to the tool crib and remove the tool. Third-party inventory management software can automatically assign supply costs to user-defined cost centers, manage the supply chain, and extract data from the built-in reporting system. This can help manufacturers save money on indirect materials.

Bottom Line

Contactless readers are designed to advance identification and authorization. They simplify the log-in process; enable higher levels of security and accountability; and helping management link employee data throughout the manufacturing process. They're used in numerous applications and OEM solutions, providing quantifiable benefits such as attendance management, mobile applications, physical access, manufacturing, dispensing, kiosks, point-of-sale and computer logon. □

RF IDEas, Inc., Rolling Meadows, Illinois, is a participating Encompass™ Product Partner in the Rockwell Automation® PartnerNetwork™. The company manufactures radio-frequency card readers for security access in industrial environments.

RFID EAS

Quickly Add Error-Free Identification and an Extra Layer of Security



RF IDEas smart card readers ensure only certified authorized personnel have secure access to plant-wide process control systems. A simple wave or tap of the ID badge to the reader saves valuable time during the login process, improves workflow processes, increases safety and security, and provides greater accountability and compliance.

Pair pcProx® Plus proximity and contactless readers including rugged IP67 versions with Rockwell PanelView™ Plus terminals or Logix™-based controllers to control access to manufacturing operations. As a Rockwell Automation partner, the RF IDEas readers are preconfigured to FactoryTalk® View Machine Edition and RSLogix™ software, saving time and engineering resources when designing a system.

pcProx® Plus Readers let you instantly authenticate with a wave of the badge

- Extract Employee ID credentials
- Generate encrypted password
- Securely transmit to HMI/PLC identifying employee
- Validate employee is trained and authorized
- Unlock the HMI/PLC
- Increase workflow efficiency



Easy to integrate. Simple to use. Configurable to your operations. Run your processes more efficiently and securely with **pcProx® Plus** proximity and contactless readers from RF IDEas.

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