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Major Aircraft Manufacturing Facility Waves Away Bad Data

When organizations routinely analyze manufacturing processes on a continual basis, overall operational efficiency can be optimized, costs contained, and the highest levels of productivity maintained. However, if the data collected is unreliable, valuable time is wasted working on the wrong issues. When worn magnetic stripe cards were leading to high data-error rates, rf IDEAS® contactless readers solved the problem for this aircraft manufacturer, enabling dependable data to drive more efficient processes and higher production quality.

THE CHALLENGE

Worn-out magnetic stripe badges corrupt data

A large aircraft manufacturing facility in North America regularly captured and catalogued data at different workstations. As aircraft parts came into the assembly area, each employee would run his or her employee ID badge through the magnetic swipe reader. That employee's number would then be collected with a time stamp associating the production part with the employee doing the work.

From this data, inefficiencies in the way parts were being assembled could be identified and areas of the process where defects occurred could be flagged. The information was entered into a Pareto chart for analysis by the quality team so they could improve the process, implement programs to improve training, develop better assembly techniques, and even re-evaluate suppliers if necessary.

However, while inputting the data into the Pareto chart, the team began noticing that many employee numbers were being thrown out as "bad" data. The cause was eventually linked to the incorrect reading of the employees' magnetic stripe badges, resulting in a 15% error rate that skewed the data and rendered it unusable.

The quality team began brainstorming alternate ways to gather employee data and invited rf IDEAS to come in and complete an onsite survey.

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THE SOLUTION

Replace magnetic stripe reader with proximity badge readers

rf IDEAS found that the magnetic stripes on the badges were wearing out, and recommended replacing the existing readers with a WAVE ID® Solo proximity badge reader system—which allows for contactless data collection as employees simply wave their badge near the reader.

In addition, WAVE ID Solo readers provide both a visual three-color LED and an audible beep to confirm that the badge has been read and the data collected, ensuring an error-free process.

Because WAVE ID Solo readers are compatible with nearly all proximity badge technologies, the company would be able to use its existing ID badges for data capture. Recognizing the value, simplicity and cost effectiveness of this recommendation, the operations team began installing more than 1,000 new readers.

Since WAVE ID Solo readers from rf IDEAS are plug-and-play, they are seen by computers as just another human interface device, allowing for a quick and easy installation.

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THE RESULTS

Recovered lost revenue in the production process

The solution required virtually no training, as employees were already accustomed to using their badges to gain access. With no downtime required to implement the new system, plus the low cost of the solution and the ability to recover lost revenue by identifying the real problems in the production process, the company was able to pay for the entire solution within three months of the initial purchase.

Employee ID badges and the WAVE ID® family of readers can be used in a variety of applications throughout a manufacturing facility.
For example:

- HMI, PAC and PLC interface for automatic identification and authorization
- Single sign-on for computer and program authentication and access
- Secure print management
- Training compliance
- Time and attendance
- Mobile workforce
- Employee authorization to work on specific SKUs
- Industrial tool control
- Cashless cafeteria

For more application information, visit www.rfIDEAS.com

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