

Major Aircraft Manufacturing Facility Waves Away Bad Data

Implementing ID badge reader solution improves operational efficiency



When organizations routinely analyze manufacturing processes on a continual basis, overall operational efficiency can be optimized, costs contained, and highest levels of productivity maintained. However, if the data collected is unreliable, valuable time is wasted working on the wrong issues.

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 the aircraft part 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 resulting data was then 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 which skewed the data and rendered it unusable. The quality team then began brainstorming alternate ways to gather employee data and invited RF IDEAS to come in and complete an onsite survey.

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 pcProx® Enroll proximity badge reader system, which would allow employees access simply by waving their badge near the reader. In addition, pcProx Enroll provides both a visual three-color LED and an audible beep to confirm to the employee that the badge was read, the data collected, and ensures that the process would be error-free.

Because pcProx Enroll is compatible with nearly all proximity badge technologies, the company would be able to leverage its existing ID badges. Recognizing the value, simplicity, and cost effectiveness of the recommendation, the operations team began installing more than 1,000 new readers. Since RF IDEAS' pcProx readers are plug and play, they are seen by the computer as just another human interface device (HID), allowing for a quick and easy installation. The solution required virtually no training, as employees were already used to using their badges to gain access.

RESULTS: Recovered lost revenue in the production process

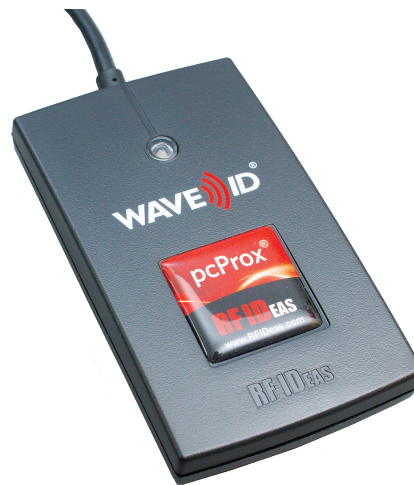
With the new system in place, the quality team gathered three weeks of data from the factory floor and began crunching the numbers and creating the charts. What they found stunned them. The charts now presented completely different data, confirming that they had been working on the wrong issues. The newly captured data identified the top three issues that were causing problems in the production line and demonstrated the value of the new readers to the process. With all the pieces of the puzzle put together, the team could now begin improving the production process with confidence that the data they were now gathering contained zero percent error.

Without any downtime required to implement the new system, 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 pcProx family of readers are used in a variety of applications throughout a manufacturing facility. Some examples of applications are:

- 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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