

# Mobile RFID: Human Intervention in an Automated World

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Although RFID is often used as a way to automate and increase the efficiency and accuracy of existing processes, there are usually a handful of exceptions and special cases that have to be dealt through other processes. Perhaps that is why even factory processing lines have diverting arms and stack-off areas. In the real-world not everything works out quite as planned. As we try to divide and sub-divide all of our existing processes into neat and tidy use-cases, inevitably there will be some scenarios that have not been accounted for that contradict the defined norm.

Enter the human element. A factory worker can easily adapt to and solve an unexpected problem like pallet reconstruction that a closed or fully automated system would handle poorly. The RFID industry has long been dominated by fixed RFID readers and mounted antennas; systems that work well within the defined norm but lack the human element. These inflexible readers present an opportunity for the less popular, but ever advancing, mobile RFID handheld readers.

RFID mobile devices are often ruggedized, mini or handheld PCs, equipped with a radio frequency (RF) reading module and built-in antenna. These portable readers are often battery powered and connected via other wireless technologies, such as Wi-Fi to the LAN. They are portable and easily carried by an individual and include a color display panel for quick and simple user feedback.

*“The latest mobile RFID readers have a longer battery life, are more durable and have better read rates than ever before.”*

—Chris Kelley, Director of RFID, Intermec

These mobile RFID handheld readers have been a mainstay for the courier and transport industry, as workers need to scan tags in a wide range of locations, sometimes never visiting the same place twice. However, with the interactive nature of the mobile RFID handheld, these units can also be very useful in other situations as well, such as on the factory floor as part of an overall product serialization process. These powerful mini-computers can instantly look-up and download product and tag information while in the field. This functionality in turn allows users to inspect and react to situations immediately, without experiencing delays looking for desktop terminals to retrieve the data.

With the use of RFID mobile software and databases, such as the RFID Anywhere™ Mobile Edition and SQL Anywhere®, from Sybase, auxiliary information can be immediately viewed by the worker. With modern high-resolution touch screens, human operators can interactively add and update missing data right in the field. Mobile RFID handheld applications can be updated when the need arises, without any special retooling, down-time or modification to the factory line. In addition, new software updates can be pushed out instantaneously to the existing pool of mobile RFID readers with no down-time.

Mobile RFID handhelds, the little sibling of the fixed RFID reader, can still be a very useful part of an overall RFID solution. The addition of these units into an existing solution can provide some extremely flexible exception case handling. For your next RFID project consider RFID handhelds to get total coverage, exception cases included.