

BAE Systems

Demonstrating the potential of RFID.

Technology innovation is at the heart of the business for BAE Systems. But innovation is not only important for the systems that they deliver; it also plays a vital role in their internal processes.

Recognising the value of RFID to a wide range of possible uses across their business, BAE Systems wanted to provide staff with the way to explore the potential and to envisage how electronic tagging technology could help improve business operations in manufacturing, maintenance and repair, materials logistics and many other areas.

To support this, BAE Systems decided to establish an internal Auto-ID Laboratory at their Samlesbury location to demonstrate RFID technology. To equip the Auto-ID laboratory they turned to CoreRFID.

Essential Applications

Samlesbury is the centre for a major investment programme by BAE Systems in manufacturing capability. Delivering programmes for the Typhoon Eurofighter and the F-35 Lightning II, Samlesbury is home to some of the most advanced aircraft manufacturing and assembly technologies in the world.



F35 Lightning II

As part of a programme to develop the organisation's understanding of the capability of different technologies, BAE Systems wanted to be able to show managers real applications using available technology in an environment where staff could explore the possibilities and the relevance to their own business processes.

Initially two applications were selected, allowing staff to see RFID being used in areas where it offers potential benefits to BAE Systems.

To support these demonstration applications, CoreRFID is delivering a version of a solution developed for tool tracking in maintenance management for a commercial airline operator and an implementation of its room tag software.

Recognising that the challenge for users in applying technology is in seeing the way in which the technical capabilities of a particular solution can be related to specific improvements in business processes or practices, CoreRFID is also supporting the laboratory with cases studies on the use of RFID in a range of industries.

Other solutions provided for the RFID Demonstrator Laboratory include a version of CoreRFID's Portable Data Collector (PDC) application to show uses of RFID in shop-floor or other on-site information collection applications and an example of a room audit application.

"The Laboratory is helping BAE Systems plan our future use of RFID. CoreRFID is helping us to envisage applications that will benefit the whole business." Ewan Bell – Head of Operations Logistics, BAE Systems.

Tool Tracking Demonstration

The first application available in the Auto-ID Laboratory is tool tracking. This application closely mirrors a CoreRFID barcode solution already deployed by BAE Systems but uses UHF RFID tags to identify tools, jigs, mounting cradles and other maintenance related assets. This application offers benefits over barcode solutions by being able to read data from tags from a distance and being able to read data very rapidly from many items at once. With this approach it is possible to check in a collection of tools very rapidly, speeding administration and reducing the time engineers spend collecting and returning tools. Tool tracking also shows other benefits of auto-id by demonstrating GPRS for real time data collection and the use of a web based data store/reporting server as a simple way to collect and analyse data about assets.

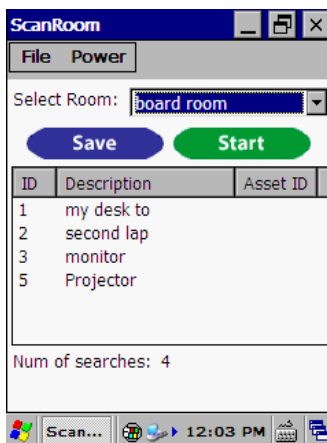
The Benefits

BAE Systems Auto-ID Laboratory provides:

- Practical working environment to trial RFID applications.
- Opportunity to brain-storm new application ideas.
- Chance to identify the possibilities and limitations of technology in a vendor-free environment.

Room Audit Demonstration

The second solution is for Room Audit. This system has been devised to



The room audit demonstration lists items found .

allow the tagged contents of rooms to be checked quickly, accurately and automatically, detailing exactly what equipment is present. The room audit demonstration allows a range of items, small and large, to be tagged with UHF tags of various formats, including button tags; label tags and more robust tags with ruggedised housings depending on the item being tagged and the location. Using the application on a hand held computer all the items in a room can be scanned and recognised in seconds. Since the application can hold a list of the items that are expected to be found it is easy to indicate immediately any items that are missing from the expected list or present but unexpected. The application makes it easy not only to track what is where but also helps to track down items that have been misplaced. The system also includes the ability to time check when inspections are carried out and which staff member did them. Because of this it can help to increase accountability by providing an inspection audit trail.

Laboratory Explorations

Although the two applications are both real world systems, designed for real customer installations, they give BAE Systems' staff ways to explore the basic principles of RFID systems. Staff have the opportunity to discover what systems can achieve and the limits imposed on applications by features such as the materials tags are mounted on, the relative performance of different tag types and the reading distance required by the particular business process. Staff can also see the way in

About CoreRFID

CoreRFID specialise in the technologies that help track, trace, audit and control; to learn more, contact us today:

CoreRFID Ltd. Dallam Court, Dallam Lane, Warrington U.K. WA2 7LT

T: +44 (0) 845 071 0985 F: +44 (0) 845 071 0989 W: www.corerfid.com E: info@corerfid.com