

RFID INNOVATOR IDENTIFIES EXTECH PRINTER AS ESSENTIAL PART OF LAB ANIMAL TRACKING SOLUTION

You manage an animal care facility – a facility trusted by medical research investigators to track and trace every step involved in the housing and care of thousands of genetically engineered rodents. Your facility plays a central role in testing for potential cures for diseases and predicting the effects of new pharmaceuticals on humans. By just about any standard, it's important work.

For obvious reasons, this testing is highly regulated by the federal government. To ensure the utmost accuracy and meet the standards of the government, Principal Investigators (your clients) and grant funding agencies, the animals under your care have to be regularly accounted for and the procedures they undergo have to be verified and documented.

This is a common problem facing hundreds of Animal Care facilities that deal with thousands of genetically altered, extremely important and valuable mice every day. How do these facilities eliminate discrepancies and ensure complete accountability in performing the care and tracking of these animals? It is a problem that one such facility, the University of Florida Animal Care Services, solved through the use of a revolutionary RFID technology solution.



A laboratory breakthrough from Dynasys

Dynasys is a leading developer and manufacturer of automatic data collection devices, as well as a distributor of other products in the data collection arena. Their offerings included everything from hand-held computers and bar code scanners to fixed and portable printer devices. For the past 10 years, Dynasys has focused on Radio Frequency Identification (RFID) technologies, while continuing to provide products for bar code scanning applications.

A few years back, Dr. August Battles of the University of Florida Animal Care Services recognized that RFID technology would serve as an ideal means for tracking and tracing lab animals. The University of Florida contracted Dynasys to develop an RFID based solution to track their animal census. This system utilized UHF EPC Generation 2 tags that are applied directly onto each metal cage's card holder, while the associated RFID tag ID is inducted into the database. At a "Reader Induction Station," an Intermec RFID reader encodes the tag and assigns a destination location. The cage is then filed and verified to its assigned location using an Intermec IP4 hand-held RFID scanner.

Subsequently, at periodic cycle counts, a "Mobile RFID Cart Reader" is rolled through the aisles, where it reads the tags and provides a complete inventory cycle count. The census is reconciled in real time through a WiFi connection with the main database server. Any missing or misplaced cages are noted, and corrective action is taken.

It is at the point when a cage is removed from inventory and its tag is placed at the "check-out" station that a portable printer from Extech Data Systems of Waltham, Mass. comes into play and the necessary documentation is created.

Documenting success

Dynasys CEO Bob Scher explains, "The Extech 3750THS Series printer provides a formal documentation of each 'check-out' transaction. The printed transaction report includes all the necessary information for complete accountability. It includes a record of the specific animal or animals being checked out, as well as the unique protocol guidelines for this particular project."

Extech's S3750THS is a robust three-inch (80mm) portable receipt printer that is available with multiple wireless communications options. According to Scher, there were a number of factors that made the Extech printer the solution of choice to complete his company's animal care management solution.

"Dynasys has a long history with Extech, which began when we were actually designing products for their company," Scher explained. "In 1990, we designed and embedded a small modem circuit into an Extech communications interface and printer. Also, in the early 90's, we developed Extech's first IrDA interface. Since this time, we have always sold Extech printers – and anytime we needed a portable printer or a small footprint printer to pair with one of our own products, we've gone with Extech."

The S3750THS uses thermal print contrast control to produce high-speed, high resolution print-outs. It is powered by a 2.2 amp lithium battery for more print-outs per charge, and is built to withstand the rigors of mobile computing applications. The printer supports all Windows font sets and has print utilities for most mobile operating systems. It features a lot of power and functionality in a compact package (4.75 inches wide, 6 inches long and 2.25 inches high), which makes it a practical and unobtrusive choice for potentially space-strapped lab environments.

Scher particularly appreciates the flexibility that this portable printer affords animal management technicians. "The printer's Bluetooth capability allows for convenient wireless connectivity and remote placement away from the associated workstation," he said. "This is a product that adapts to its environment with no need to ever worry about wires strewn throughout the room. It has the rugged design, high reliability and flexible functionality that the application demands."

Identifying results



Prior to utilizing the Dynasys RFID system, University of Florida Animal Care facility employees used mobile barcode readers to scan cage numbers. Human error – cages misplaced or skipped and misrecorded written data– led to serious inaccuracies and incomplete invoicing. Thankfully, with the implementation of the Dynasys Animal Care Warehouse Management System (DACWMS) about a year ago, the inaccuracies have all but disappeared. In fact, according to Scher, the accuracy rate at the facility has jumped from 60 percent to 99 percent.

The University of Florida facility has been testing and expanding its Dynasys RFID system for a year now, and currently tracks about 6,000 cages of lab rats and mice with plans to track all 11,000 cages in its custody – 35,000 rodents -- by early 2008. Functions of the DACWMS include tracking veterinary health care, breeding activities, purchasing, financial accounting and tracking transgenic genotyping.

Scher expects his company's complete animal management solution will soon become the worldwide standard, with applications in a range of industries including universities, pharmaceutical companies, government agencies and private medical research facilities. "It has proven to be cost-effective and provides the most accurate accounting possible by taking full advantage of today's technologies," he said.

Scher expects that as applications for the system expand, Dynasys will continue to reap the rewards of its relationship with Extech. "We have always felt comfortable specifying Extech products for our unique data collection applications. They have always provided the highest level of technical and after sales support, in addition of course to rugged, reliable products. I expect that we will continue to rely on Extech for many years to come."