

Solving problems with

RFID

By Darren Morizet

Finding new ways to track event rental equipment

As the owner of an event rental company and an early adopter of radio frequency identification (RFID) technology, I truly believe that RFID will be a game changer for the rental industry.

RFID uses digitally encoded tags activated by a reader to send back a tag identification number. This is very similar to how an old-fashioned barcode works except RFID tags are not susceptible to the same damage incurred by a barcode label, like ripping, fading and smearing, and you do not need a direct line of sight.

This means you can read multiple items inside a bag without ever seeing the tags or the items. A complete RFID solution consists of RFID tags, a reader, software and a database. Once the reader receives data from the tag, it will communicate back to a database via software to tell you as much information as you would like about that item. It's that simple.

Countless hours are lost each week in a warehouse due to improperly tagged tents, bounce houses, linens, tools, equipment and more. Not only are these items often tagged incorrectly, but they are often misplaced or lost completely.

Some rental owners may say, "My operation is so perfect this never happens to me." They are not telling the truth.

How many rental items have you lost over the years? How many times do you have staff looking

for a misplaced item? You know it is in the building but where is it? Is it in the wrong bag? Is it in a crate? Still on a truck? Speaking of trucks, how many times have your drivers misplaced truck keys?

Rental folks work long hours and deal with everything from customer complaints and employee issues to scheduling problems, truck problems, equipment damage, storms and legal matters as well as mislabeled inventory items.

RFID can't solve all those problems, but the technology can help with some of the stresses of running a rental operation.

I first started looking at RFID technology for my linen operation. I suffered from staff packaging the wrong linens, shades of linens not matching and customers not returning the linens or linen bag.

I tried attaching tags to the bottom of bags, so I knew what linens belonged to what customer, but I always found that my staff would either not count and report the missing linens or by the time it was sorted, I didn't know which customer returned a linen with burn holes in it.

I kept telling myself that we make a good margin on linens and to not worry about it. It's never fun to call a customer and ask them if they still have linens that belong to us and if they can bring it back or have to send an employee there to get it.

In addition to tags, I also asked linen manufacturers to sew size labels into each linen and I bought a machine to heat-press washable labels

onto our existing linens. Looking back, I now believe all of that time and money was wasted after I started using RFID technology.

Using RFID changed my linen and tent operation, so it was easy to look at how this could change my inflatable rentals, chair rentals and every aspect of my rental operation. This technology has quickly become so addictive that we have expanded it across multiple areas of our operation.

For example, tent installers want to install tents. They don't want to use checklists, write tags or do DOT inspections. They especially don't want to work in the warehouse and the warehouse staff doesn't really want them there to mess things up anyway.

Delivery problems often start when the delivery driver and delivery staff place an item back in the wrong bag and fails to write out a tag to communicate with the warehouse team what the item is and what condition it is in. Drivers later end up with a dirty tent or the wrong items at a site, blame the warehouse and then it takes extra time to get the job done.

One solution is to open up every item, inspect it and tag it, but if the tent comes down clean because the staff used proper tarps and spot cleaned any imperfections, I would be paying someone to repeat the same task.

Some of you probably have metal tags, plastic tags or color codes attached directly to the tent on a cable. While that's great for identifying tent tops, it won't tell you the item's current condition and there's always the chance that it will get rolled into the tent or even fall off. I have tried pre-printed bags, hard tags, barcodes, QR codes, paper tags and Tyvek tags. None of them compare to how RFID technology has changed my tent operation.

In my operation, I decided that a mobile-based RFID solution was the best fit for my needs as it allowed me to scan items with portable readers. Some operations may find they prefer fixed readers, which are quite costly but can offer certain benefits.

Passive RFID tags that are used with mobile readers are a lower cost, have no batteries to replace and can last a long time. There are tags available for just about every application from fabrics and plastics to submersibles and even metal. While use on metal objects is probably the trickiest to read reliably, it is possible.

This means tags can be attached to tents, bounce houses, tools, small equipment, linens, chairs, tables and just about anything

in your rental operation that you want to track. I like mobile readers because it allows me to have an item in front of me and scan it. It doesn't matter if I can see the tag and it doesn't matter if it's 100 linens in a laundry bin. It reads the tags every time.

With my mobile reader I am able to see all the details about that item or items right on my screen. I know what it is, who

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had it last, its normal condition, its current condition, its bin location, the last time it was rented and so much more. The best part is that I can identify a lot more information than what is in my current rental software.

If I scan eight 90-in.-by-132-in. royal blue linens out on rent, for example, I instantly know if one of them is a slightly different shade than the rest. This has changed my operational efficiency and my customers have noticed it. I no longer need to unroll tents to see what it is or if it's wet because the tag always is attached and can read through

the bag or bulk crate.

I no longer suffer from missing parts on a water slide rental such as the pool or slide cover that wasn't rolled in with the water slide. My scan tells me if it is there. My staff also is very excited about this technology because it is quick and easy to use and doesn't require them to write or fill out a checklist. My warehouse team now has time to focus on other tasks. This extra time in my warehouse seems to have also fixed other incorrect load issues, perhaps because my staff is spending less time opening items and double-checking counts.

I did not solve the problem of staff putting items away in the wrong location at our warehouse, but with the RFID auto locate feature, we can find these items by following a beep in the reader.

The one thing I did not think about when first implementing RFID is how the technology could help me with a complete asset inventory. Once a year, typically during the winter, my staff would do a complete inventory of all our assets. This project would typically take 30 days to complete by a few employees and I would always laugh at how things that were lost last year were magically found or how things I never bought were somehow on that count sheet.

Since implementing RFID, my inventory is up to date so that the winter project no longer needs to happen. As assets go on and off rent, my inventory is tracked live. If I want to do a quick inventory to check counts, all I have to do is walk up and down the aisles with a reader and the inventory is complete. It's that simple and that quick.

The reader may miss a tag on occasion, but it's still better than the manual count and time-consuming inventory project. What used to take months can now be done in hours or days and the history of each item is always there. What used to be bulk assets like chairs, tables and even tents are now individual assets with a history report.

RFID technology also isn't just for tracking assets. It can be used for inventory management, employee tracking, building access and supply chain management. Running a rental operation is hard work and dealing with nonsense such as improperly tagged rental items, incorrect loads, missing or misplaced assets can now be a thing of the past. ♦

Darren Morizet is president of PartyTime Rentals, Poughquag, N.Y., and president of Easy RFID Pro. For more information, visit easyrfidpro.com.