

How Rentex Used RFID to Simplify Rental Asset Tracking

RENTEX

Audio Visual & Computer Rentals *"Since 1980"*

Rent from a Partner, Not a Competitor

One of the country's largest wholesale audio and video rental companies was spending thousands of hours on manual processes each month before implementing RFID with Vizinex.

In 2020, Rentex CTO Marcus De Luco resolved to find a way to streamline the company's operations. The company – which rents out pro-level audio/visual, production, and computer equipment to all industry levels from hotels to film and television production – relied on warehouse processes that were largely effective, but inefficient.

This included functions like assembling rental kits with the correct items, processing returns, and performing maintenance. Auditing the methods used for data collection revealed a manual, time-consuming process, that involved a combination of scanning conventional barcodes and manually transferring data.

The process, according to De Luco, "took a lot of human interaction to get gear checked in and gear checked out." And that made it susceptible to human error.

Each step was extremely labor intensive. For example, if employees wanted to add an item to a kit or process a return, they had to:

1. manually find it in the warehouse,
2. visually confirm it was the piece ordered
3. scan the barcode or write down the serial number by hand

Rentex owns hundreds of thousands of items spread across its 10 facilities. Since each item could take minutes to process, the hours added up fast. This drove up operating costs and slowed delivery of equipment to customers.

If De Luco was going to streamline operations, he would need a technology solution that could identify rental assets both accurately and rapidly (in seconds).

Finding the Right Partners

While researching the paths to improvement, De Luco found an integrated solution from an experienced software provider that specializes in the rental asset space and Vizinex – an RFID tag manufacturer with a line of tags well suited for tagging the type of assets deployed by rental companies in the entertainment space.

RFID (radio frequency identification) technology uses radio waves to automate the tracking of assets. This lets users rapidly collect high quality data about a given asset and track its location.

For rental companies, RFID provides an automated way to identify and locate rental assets in seconds, including equipment inside road cases and stacked on warehouse racks.

After seeing positive results from an internal test of RFID, Rentex partnered with Vizinex and the software provider to build a system that could automate and improve the efficiency of their rental processes.

Understanding RFID Needs

Deploying RFID requires three components:

- ▶ A tag that gets mounted on an asset.
- ▶ A reader that pings the tag and relays information.
- ▶ Specialized software that receives data from the reader and presents it in a way that enables workers and managers to make better decisions.

The RFID software company provided the tracking software and recommended the readers that are most suitable to the needs of the rental industry.

To perform well, an RFID tag needs to be compatible with the material it's mounted on. Rentex has a diverse range of assets to tag including cameras, projectors, audio, LED, and lighting. This comprises a very broad spectrum of material types, but ultimately, only three types of Vizinex tags would be needed to tag virtually their entire portfolio of assets.

“Inventory control of tags is tough,” said De Luco. “You have to know how many of each tag you need and how they match up with the assets’ materials.”

Designing the Solution

To ensure each asset had exactly the right tag, Vizinex used multiple tag designs.

Most assets were tagged with heavy-duty tags purpose-built for the rental industry. The tags are all very durable and could withstand the kind of rough handling and extreme conditions rental assets typically face.

Rentex tested this by placing a tag on a metal plate and hitting it with a ball peen hammer. It withstood three crushing blows of significant force before the tag stopped transmitting. These forces were significantly higher than anything the tags would encounter during normal use.

For assets where it wasn't clear if the materials were metal or plastic, Vizinex provided their Sentry Duo II tag that could be compatible with any surface.

A particularly troublesome asset to track, cable assemblies, were tagged with Vizinex's Sentry Cable II mount-on-insulated metal cable tags. They were held in place with Vizinex's tag holders that include a rope holder feature to aid in coiling the cables for storage and handling.

Getting Results

In December 2020, Rentex deployed their new RFID system to all 10 of their locations.

The process of tagging and inventorying 200,000 assets across the country took time. But once the rollout was finished, Rentex saw an immediate impact to their operations.

Working with RFID allowed Rentex to streamline their process times down to a fraction of what it used to take.



In one case, they were able to reduce a 2.5 hour, two-person process to a 15-minute, one-person process. A 95% reduction in time and labor costs.

In another case, Rentex replaced a 22-minute check-in process with one that took 10 seconds, a staggering 99.24% reduction.

Even though the solution is in its early stages of implementation, it's clear that the efficiencies gained from such dramatic reductions in time and labor costs will have a significant financial return. Based on early results, their estimates of long-term ROI are already substantially greater than expected.

In addition to the immediate improvement in the speed and accuracy of warehouse operations, De Luco and the Rentex team are happy to have eliminated many manual tasks. By automating with RFID, they can refocus on tasks that provide customer satisfaction and prioritize on higher level, strategic objectives.

With more timely and accurate data about asset utilization, Rentex can also improve its asset management process. They can more rapidly identify assets with the greatest customer demand and those that underperform.

Having successfully deployed RFID, Rentex plans to explore more ways to use it in their business. "Over time, we will probably add more scanning through reader portals and location tracking with antennas," said De Luco.

Transitioning to RFID on the scale of Rentex is not an inexpensive endeavor, but after only weeks of going live with the RFID implementation, it became abundantly clear Rentex made the right decision.

"Any concerns over ROI were immediately erased," said De Luco. "The systems capabilities have even reverberated out to our customers, who have now started to ask us how we did it, and what kind of advantages we are experiencing."



For asset rental companies, success depends on two factors: kit accuracy and how quickly you can get gear to your customers. With thousands of assets leaving a facility every day, having a system that can provide efficiencies at scale is crucial. With RFID, rental companies can streamline their business processes and enjoy more efficiency and accuracy than ever before.