



A Nutech Systems Case Study

# Shaping the Future: ETS-Lindgren Tests New Possibilities with Real-Time Data and Increased Inventory Accuracy

Nutech Systems

## Company Snapshot – ETS-Lindgren at a Snap

ETS-Lindgren, Inc. is an industry-leading American testing-solutions company based in Cedar Park, Texas.

ETS-Lindgren has been operating with Infor SyteLine since 2000 and uses the Projects module extensively.

Struggling to manage the mounting spreadsheets and a delayed flow of information, ETS-Lindgren began to pursue a barcode data collection solution that would incorporate license plates and labeling, reduce manual labor, and provide real-time data seamlessly throughout the entire process.



After an intriguing introduction and positive early discussions, ETS-Lindgren selected Nutech Systems and Viewpoint for Infor CloudSuite Industrial (SyteLine).

## Introduction to ETS-Lindgren

ETS-Lindgren's origins date back to 1932, when parent company, Ray Proof, started as a supplier of medical X-ray shielding. Created over several decades through a combination of organic growth and strategic mergers of industry leaders, the company was officially formed in 1995 in Austin, Texas, under the name of EMC Test Systems (ETS). The acquisition of Lindgren RF Enclosures in 2000 doubled the size of the company and as a result, the company name was changed to ETS-Lindgren.

ETS-Lindgren are experts in providing energy management solutions for industrial and commercial markets. Their team of professionals design and manufacture the electromagnetic and acoustic test chambers and systems that make many aspects of modern life possible.

Today, ETS-Lindgren is a global leader in providing testing and measurement solutions, specializing in electromagnetic compatibility (EMC), radio frequency (RF) shielding, and wireless device testing.

## Primary Pain Points

After ETS-Lindgren's SyteLine implementation, ETS-Lindgren continued to experience a variety of issues with their manual processing and use of spreadsheets. Once an employee tested a part, they would write the serial number on the part with a marker and then enter that information into a spreadsheet before packaging the item.

Later on, that spreadsheet was used to determine what was shipped to the customer site. The problem was that there were often discrepancies, and the shipping accuracy wasn't close to where ETS-Lindgren felt it needed to be.

These inaccuracies were causing major problems. Sometimes the wrong parts were boxed and

sent, or not enough parts were sent. The manual system ETS-Lindgren was operating with at the time was throwing the production schedule off, causing delays, and creating extra costs and labor.

Manual job picking was not only inefficient but also disrupted the entire flow of projects as new jobs were released based on outdated inventory data. Pickers for the new jobs would discover that the required parts were out of stock causing the entire job to be put on hold.

ETS-Lindgren understood that without an automated data collection solution, these problems would only persist and grow larger as they continued to expand their operations. As ETS-Lindgren is committed to a smarter, more connected future, they were looking for a more intelligent solution they could trust.

## *Discovering Nutech Systems & Viewpoint*

ETS-Lindgren had long recognized the need for a barcode data collection solution in order to advance to the next level. They initially tried a different, non-Viewpoint software provider but eventually abandoned it due to cumbersome screens with too many data fields.

For a time, ETS-Lindgren struggled to get by relying on tedious manual labor and spreadsheets. “We were just kind of managing, but we knew it was a significant issue,” said Chris Hall, ETS-Lindgren’s Project Manager and Program Analyst.

Specifically, they wanted to implement a system that would automate job picking and assist with project creation. They understood that the process had to begin with labeling the entire warehouse, making license plating a key feature they wanted to focus on as well.



ETS-Lindgren was introduced to Nutech Systems in 2018 when Hall’s CIO returned from a networking conference in which he met Nutech and was intrigued by what they had to offer.

Hall contacted Nutech, and discussions and demonstrations were conducted. ETS-Lindgren was impressed right from the get-go as both the Viewpoint product and the professionalism and expertise of the Nutech Team stood out as significant highlights.

Viewpoint for CloudSuite Industrial (SyteLine) is an out-of-the-box software solution, from Nutech Systems, that seamlessly connects the factory and warehouse to Infor SyteLine.

“It was clear we needed an intelligent solution; we just didn’t know what that solution was going to be yet,” said Hall. Fortunately for ETS-Lindgren, a partnership with Nutech Systems was formed at the perfect time.



## *Viewpoint in Action: License Plate Innovation*

ETS-Lindgren's previous manual approach consisted of time-consuming job picking and spreadsheets that lacked real-time data. This led to several challenges, including difficulties in planning and scheduling, as well as tracking parts in the warehouse and after shipment.

Viewpoint's implementation has significantly accelerated the flow of data that they receive, enabling the entire warehouse to operate in real-time. This has resolved previous issues and allowed ETS-Lindgren to initiate new procedures that weren't possible with the old system.

One of the key processes that ETS-Lindgren was immediately able to install with the help of Viewpoint was implementing the use of labels and license plates throughout their facilities.

License Plating is the grouping and management of inventory in containers. A container can be a pallet, a box, a skid, or a kit for example. Each container is assigned a unique license plate number, enabling the tracking of container information with a single scan. Each license plate stores a multitude of information including item numbers, quantities, and location. Multi-level license plating is also supported. At ETS-Lindgren, the license plate also contains the project, task, and drawing number.

ETS-Lindgren constructs large metal rooms that are lined with specialized absorbers designed to absorb sound, radio frequencies, or other elements. The chambers are constructed like a jigsaw puzzle, requiring many unique parts to fit together perfectly.

One of the challenges ETS-Lindgren was facing was tracking each of their unique individual parts. Since many of the parts are nearly identical in size or cut direction, monitoring them in real-time became extremely difficult without the use of license plating and data automation.

"The problem was, since everything we do is so customized, if we were to create a new part number for every part that we special cut, we would never be able to keep up with it," explained Hall. Internally, they realized that this method would not be a possibility, and they needed to find another way to track and differentiate similarly cut parts.

Now, with advanced Viewpoint License Plating, ETS-Lindgren can effortlessly track and distinguish items with the same part number. All they require is the project, task, and drawing number on that task, all of which are integrated into the license plate label.

With one simple scan using Viewpoint on a handheld device, a shop worker can now access all the essential information for each item. "That was the only way we could build these unique parts and yet keep using generic part numbers," said Hall.

With Nutech's support throughout the process, ETS-Lindgren experienced major improvements in shop floor accuracy right away. "We were happy," exclaimed Hall. "After a while, once everybody got this going, our accuracy from before Nutech to after Nutech was astounding."



Using Viewpoint's multi-level license plating feature has taken warehouse visibility to the next level. Each part is assigned its own individual license plate, and when parts are packaged together based on their task, the box is labeled with clearly visible parent license plate labels.

The license plate on the box knows what license plates are stored inside, enabling users to effortlessly move, ship, track, and trace specific items. Additionally, the final truckload serves as a singular, master license plate.

It used to be a common occurrence for a worker to take parts from one area to cover for shortfalls in another. Later, when someone else would come to retrieve those items, they would often discover that they were unexpectedly missing.

Now, when a container is filled with license-plated parts, it only appears in Viewpoint inventory with its own license plate, is shrink-wrapped, and stored on the shelf so nobody touches it.



## *Automated Job Picking with Advanced License Plating*

The implementation of license plates across their warehouses has significantly enhanced the visibility and track and traceability of projects, tasks, and parts for ETS-Lindgren.

“One of the big things we ran into involved how we were processing jobs in Cedar Park,” said Hall. As ETS-Lindgren would begin job production, they needed to pick the parts. The problem was, they often struggled to pick the parts and process the information in a timely manner.

By leveraging the advanced license plating already established with Viewpoint, ETS-Lindgren has completely transformed their job picking process. They have now migrated to an automated job picking process that incorporates carts, tablets, barcodes, and mobile printers.

“In Cedar Park, we just started labeling everything,” said Hall. “Whenever items arrived through receiving, we would just slap a barcode on everything. Once we did that and labeled all our storage locations, we were able to start doing what we call automated job picking.”

Previously, when parts were needed from the stock room, an employee had to manually go in, pick the items, check off details, and write notes. If they couldn't find the item, they would search for it in SyteLine, and could potentially run into various obstacles along the way.

“It was very time-consuming, and again, it all came down to accuracy,” said Hall.

Utilizing Viewpoint for automated job picking has drastically improved the efficiency of job pulling for ETS-Lindgren. Viewpoint's screens now instantly provide a list of materials and locations required for each job.

Once the correct quantity is counted, the employees pull the parts, and with just a single click of a button, a label is generated for each picked item. The inventory immediately reflects the true quantity of remaining items.

“This is all in real-time, and it helps the flow of jobs and projects throughout our system because we’re finally getting real-time numbers,” said Hall. In the past, their manual process could take them over an hour to find the items, review them, and enter all the data into the system.

The major issue was that during this time, additional jobs were being released based on the outdated information. Since the necessary parts weren’t actually available, jobs got delayed, and the entire schedule was thrown off as a result.

“This was causing us a lot of issues,” said Hall. “The automated job picking and job moves we’ve implemented with Viewpoint have been an amazing help to us. What we needed was real-time processing, and that’s what Nutech provided. It just makes a world of a difference when you’re trying to schedule, order parts, or explain to your customer the current progress of their project.”

## *Results & Benefits Using the Projects Module*

ETS-Lindgren thought that if they could achieve real-time data across the board, it would have a large-scale positive effect on the entire flow of projects, tasks, and parts in their warehouses.

Essentially, a project was what they would call the entire order they received from a customer. It could consist of a number of different tasks, each being shipped to different site locations. The Project Module is a feature in CSI SyteLine.

Making a room or a group of rooms is considered a project in the Project Module in SyteLine to ETS-Lindgren, similar to a job. There is one specialized room constructed per task. For example, a client may request a project consisting of ten tasks to be shipped to three different locations. ETS-Lindgren would then construct boxes of parts, with each box filled according to the specific task it’s for.

Viewpoint enabled ETS-Lindgren frontline workers to have up-to-date access to the progress of any given job or task. As soon as workers closed a box, they could easily view the current status of the task, see exactly what had already been packed, and identify what still needed to be cut and boxed to complete the project.



The license plate on the box contains all the key details, including the project, task, client, and box number. Workers would then insert a packing list of all the parts, quantities, and serial numbers in the box. This ensured that recipients of the shipment had complete clarity on what they would receive.

At this stage, ETS-Lindgren would create what they call a “load license plate”. ETS-Lindgren employees would scan all the boxes being loaded for shipment and scan the truckload as a master license plate. So once the door was closed, they could immediately email another packing slip with all the included parts to the on-site installers.

“These shipments are time-sensitive,” said Hall. “Our workers on site need to know exactly what they just received and where it is. Beforehand, they really didn’t

have that ability, and it would cost the company money with overages, shortages, or if the wrong parts were sent”.

Now, when a truck arrives on site, the on-site installers no longer need to randomly open each box to find the parts. Instead, they can refer to the packing list and see exactly which parts are needed and in which specific boxes they are located.

“We used to have regular debates back and forth over the spreadsheet we produced and sent to the site,” said Hall. “Now, they can’t argue the accuracy, because if they open the box, they’re going to find the part that they need exactly where it’s listed.”

“I no longer receive phone calls to defend a certain shipment because everybody accepts the accuracy of what was shipped to them now. If their load sheet says we sent a certain amount of a part to them, they can be absolutely sure they received that quantity,” added Hall.

The entire process has shifted ETS-Lindgren from being reactive to proactive and prepared for any situation that may arise. “All I ask now is if they checked the load sheet, and if they checked the box, because that’s all it takes to ensure they have the right part,” said Hall.

“The accuracy to this point has changed immensely,” Hall added. Not to mention, the immediate improvement in warehouse visibility has led to other unforeseen benefits as well.

## *Unforeseen Benefits*

Improving accuracy and implementing real-time data has been ground-breaking for ETS-Lindgren. Not only is ETS-Lindgren far more confident in the precision of their projects and shipments, but they have also experienced unforeseen benefits that are yielding significant returns for the company.

In regard to how ETS-Lindgren used to process projects, resource lines, and shipments in SyteLine, Viewpoint has dramatically accelerated the entire procedure. “This used to be a very slow and manual process for us,” explained Hall.

The problem was that SyteLine did not provide the capability to issue multiple lines simultaneously. The process required handling one line at a time, resulting in significant delays.

Using Viewpoint software, Nutech provided a solution that enabled ETS-Lindgren to issue or ship multiple parts at once with the push of a single button.

“Nutech has streamlined the process to just one button for issuing everything and one button for shipping. Now, they all go at once. I can take a whole truckload of stuff and with one button, I just ship the whole thing. Durant employees are now super excited about this, and Cedar Park is jealous,” Hall said with a laugh.





Another one of the unexpected benefits ETS-Lindgren has gained is the ability to produce comprehensive test reports they can send to customers.

These test reports provide clients with a list of all parts and the relevant testing data needed to ensure they have the right materials to complete a job. The data also confirms that the parts have been thoroughly tested and will meet industry standards.

This new feature has all been made possible by ETS-Lindgren's ability to track serial numbers on parts using Viewpoint. "When we cut a full-size part, we first send it over to our testing system to make sure it's a good part," said Hall. "That's to ensure that'll it do what it's supposed to do and meet customer expectations."

After the test is completed, a sequential serial number is assigned to the part. Previously, the issue was that they didn't have an efficient way of combining the testing data with the rest of the relevant data associated with the part's serial number.

Now, by scanning the serial numbers into Viewpoint in real-time immediately after testing, ETS-Lindgren has discovered that they can successfully merge their testing data with Viewpoint's data to generate detailed test reports that can be sent to clients.

This has completely transformed how ETS-Lindgren can confirm their shipments with clients and address any discrepancies that may arise. If a client requests testing data on a specific absorber they were sent, ETS-Lindgren can now quickly and easily send a detailed report using just a few prompts in the Viewpoint software.

"Sending over testing data is now effortless with Viewpoint," said Hall. "We can just enter the project number, enter the task number, hit a button, and the next thing you know they've got all the parts, and all the testing data merged based on the serial number. This has resulted in a monumental improvement in customer service."

## *Reactions to Implementation & Employee Feedback*

Once the migration to Viewpoint was finalized, it didn't take long for the employees to fully embrace the new system.

"Workers in the shop don't often like change, so there was a little reluctance at first," said Hall. "But, when they saw the accuracy of the software, how it sped things up, how they can find things faster, and how they know when they have a problem sooner—they all started buying into it."

Nutech also quickly earned the trust and support of the Production Manager at Cedar Park. "When he saw the effect Viewpoint was having on his job picking and inventory, he wanted everything switched to real-time data immediately," said Hall. "He could finally see the real-time movement of jobs and job picking. He was really excited about that."

The positive feedback from ETS-Lindgren highlights the user-friendly nature of the software and





the excellent support provided by the Nutech Team. With Nutech and ETS-Lindgren, the partnership has been successful, collaborative, and continues to strengthen over time.

“The fact that we can just discuss things, work together, and come up with solutions on everything quickly and efficiently—it really does help us a lot,” Hall added.

## *ETS-Lindgren Testing New Heights*

ETS-Lindgren has already experienced significant positive change since implementing Viewpoint in 2018.

ETS-Lindgren intends to further automate processes by utilizing Viewpoint for barcoding, labeling, and processing. Everything from crating to shipping is set to be automated in the near future. Additionally, they plan to bring all sites online with barcoding. Some sites have already adopted barcoding and are now exploring automated job picking as the next step.

ETS-Lindgren also has plans to escalate multi-level license plating. The extensive implementation of license plating has already significantly improved inventory accuracy. Their next objective is to add parent license plates on all skids to further enhance granularity in the warehouse and after shipment.

Thanks to ETS-Lindgren’s vision and innovative approach, ETS-Lindgren has not only achieved real-time information but has also significantly improved data accuracy, inventory management, customer satisfaction, and much more, paving the way for a smarter future.



## **Nutech Systems**

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