

AIR TRACTOR™



A Nutech Systems Case Study

Precision in the Sky: Air Tractor Soars to New Heights with Elevated Inventory Accuracy

Air Tractor Automates Kanban and Increases Inventory Accuracy by Over 40% Using Viewpoint for Infor SyteLine

Nutech Systems

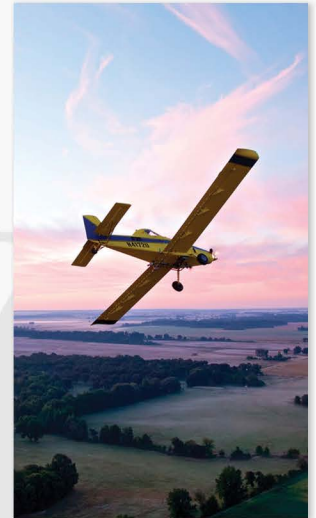
Company Snapshot – Air Tractor at a Snap

Air Tractor, Inc. is an American aircraft manufacturer based in Olney, Texas.

Air Tractor has been operating with Infor SyteLine since 2014 and initially had it installed to assist with accounting and basic shop floor activities.

Looking for a more efficient way to enter information from the shop floor back into SyteLine, Air Tractor began to search for a barcode data collection solution that would systematically connect the two and eliminate tedious manual processes along the way.

After an extensive search, Air Tractor turned to Viewpoint for Infor CloudSuite Industrial (SyteLine).



Introduction to Air Tractor

Air Tractor's roots date back to the early 1950s, when company Founder Leland Snow designed his first agricultural airplane, the S-1 model. He operated the S-1 on dusting and spraying jobs in the Texas Rio Grande Valley and in Nicaragua until 1957.

The next year, Snow moved his aircraft manufacturing activities to Olney—a small, cozy town in northern Texas where Air Tractor has now made its home for over 65 years.

Today, Air Tractor aircraft can be found working over fields and forests across the United States, Canada, and around the globe. While crop dusting and agriculture have always remained at the heart of the company, firefighting, and more recently, military services, are now also a part of Air Tractor's regular operations.

Primary Pain Points

When Air Tractor first installed SyteLine back in 2014, the plan was to implement a system that would allow them to do automated job tracking on the shop floor. However, the process did not go as planned due primarily to a variety of issues Air Tractor was having with their manual job ordering.

Employees would create manual shop orders, which in turn would be sent to a data-entry department responsible for physically keying the data into SyteLine. This created a delayed processing of information.

On top of that, shop orders would only be placed for Kanban parts after the area planner had physically checked the Kanban bins and discovered that they were empty. Sometimes, containers would remain empty for an extended period of time. When they were finally noticed, it was always a scramble to quickly replenish the stock.

“Typically, it was a rushed job,” said Keith Wood, Air Tractor's IT Director. “Everything was a rush because the area planner would only turn in an order for a bin when it was empty.”

As Air Tractor started looking for an alternative, COVID-19 entered the picture, and the need for an automated data collection solution was amplified.

“We knew we needed to do some things with inventory control,” Wood continued to explain. “We really didn’t have that much of an issue with inventory until COVID when the supply chain became an issue.” This meant they had to do a much better job at controlling their on-hand inventory.

Air Tractor needed a solution—and fast.

Discovering Viewpoint

Air Tractor always knew they wanted to implement a barcode data collection solution.

“As we started looking for a solution for data collection, we had a requirement as part of our lean manufacturing group to implement a specific automated version of Kanban,” Wood explained.

This specific requirement was the ability to automatically create job orders or purchase orders when a Kanban card or container was empty. When the container was reported to be empty, Air Tractor wanted to create a new job order automatically in SyteLine. The system they were using was manual and cumbersome, with Kanban cards being physically retrieved and brought elsewhere for refills. Things needed to change.

Wood started with Air Tractor in June 2021 and was first tasked with finding a reliable, automated Kanban solution they could immediately implement. While in the process of reviewing several options, he was forwarded a Nutech Systems marketing email from his CFO. One phone call later, and the wheels were set in motion.

Subsequently, Wood met Andy Fredricks, Client Services Manager at Nutech when he visited the Air Tractor site. Fredricks has over twenty years of experience in barcode data collection.

“That was one of the reasons why we liked the team at Nutech,” Wood had to say about his first encounter with Fredricks. “Andy understood what we were talking about. It wasn’t like we were talking to somebody and had to go way deep into explaining.”



“It’s just the experience level that the team at Nutech has. They understand the way I talk, so that’s a good thing,” Wood said with a smile.

Aside from the expert help and service, it quickly became apparent to Air Tractor that Viewpoint was a product that could drive data collection forward for them. Not only was Viewpoint an easy-to-implement solution but it also provided unique features they couldn’t find anywhere else.

When it comes down to choosing Viewpoint, over 30 years of experience sure makes a difference.

Viewpoint's Implementation & The Bus Route

The “Taxi Route” approach that Air Tractor was employing involved making single-purpose deliveries or pickups as parts were generally only delivered or picked up as needed—this was inefficient.

Viewpoint's implementation drastically improved this process.

Having accurate, real-time information and an automated solution like Viewpoint has enabled Air Tractor to move from the Taxi Route to a “Bus Route” system.

Today, Viewpoint leads the operator throughout the day, directing them to deliver goods from the central warehouse to the workstations, and then pick up finished goods on the same trip to deliver to the next operation or the warehouse. The Bus Route, with its scheduled pick-ups and deliveries, has enabled employees to plan their day effectively and therefore manage their time more productively. It is proactive rather than reactive.



Additionally, the Bus Route system alongside the implementation of Viewpoint has provided Air Tractor with factory and warehouse visibility they never had before. Air Tractor can now see the entire flow of materials throughout the facility.

Air Tractor created a location in SyteLine for material handling equipment (MHE) such as forklifts, hand carts, and the trailers they pull behind tuggers. On pick-up, using Viewpoint, Air Tractor moves material from the source location to the MHE location. After completing the putaway, just a few scans later and Viewpoint records the move from the MHE to the new location.

Wood says, “So, we're pretty transaction heavy, but we see the chain of custody all the way through the facility”.

Results & Benefits

A large part of the lean transformation Air Tractor was implementing involved trying to increase the speed of their assembly lines. They felt they were being held back not due to the skill of their mechanics, but because they were constantly being diverted off task to find parts and materials.

Switching to Viewpoint with its automated Kanban system has made a huge difference. As soon as they are emptied, containers are automatically replenished with kits containing the necessary job parts. Mechanics no longer have to run around and find parts or place orders to refill empty bins, as this is all done automatically behind the scenes by Viewpoint.

The Kanban replenishment triggers job creation, purchase order creation, or a material request. Whatever is appropriate.

“The automated Kanban has helped with material outages,” said Wood. With the prior manual system, the delayed refilling of containers created a rushed atmosphere and added stress. “Everything was a rush because we would only turn in an order for a part when it was empty,” he added.

The results following Viewpoint’s implementation have been game-changing!

“Now, we run a two-bin system,” Wood continued. “The workers in the warehouse manage it and if they see an empty bin, they pull it down immediately and put it in the queue to be processed. So, refilling the Kanbans automatically with Viewpoint has helped a lot with the (reduction of) firefighting of hot jobs.”

Air Tractor’s shop employees now have access to information that was never available with their manual system. And with Viewpoint’s user-friendly transactions at their fingertips, their workers can focus much more on the task at hand, enabling them to make process improvements and reduce waste.

All of this has assisted Air Tractor in working towards their ultimate goal—to build more top-quality planes, faster.

Results That Count

Since implementing Viewpoint, Air Tractor has replaced the backflushing of materials with on-the-spot job moves, thereby greatly improving inventory accuracy. This has enabled Air Tractor to replace physical inventories with cycle counting and eliminate the shortage sheet for good. Warehouse visibility has also improved greatly.

The backflushing was a problem because it could not occur until the goods reached the next reporting point—and this could be days. “Eliminating backflushing helped give us real-time inventory,” Wood said. “We can actually trust what the counts are in the warehouse now”. Viewpoint has created a newfound confidence in inventory accuracy for Air Tractor. They feel that this is one of the first key steps towards maximizing SyteLine’s capabilities.



Air Tractor has also successfully established a cycle count program, a key move towards Air Tractor’s goal of eliminating an annual physical inventory count.

The elimination of the shortage sheet has been another major gain. In the past, each time the inventory was touched, an employee would conduct a physical count of the remaining quantity. If the count fell below five, they would mark it on a shortage sheet. These reports would be picked up throughout the day, usually with a lengthy delay before the orders were placed. Moving away from this manual and cumbersome ordering process has proven to be priceless. “Now we can trust the inventory in the warehouse, and we know we don’t have to do shortage reports anymore,” Wood said.

And with Viewpoint recording moves when and where they happen, Air Tractor’s warehouse visibility has greatly improved. They can now see exactly where goods are, whether they be in the warehouse, at a workstation, or in transit.

Wood believes they're now operating at 93% accuracy in their warehouse—a significant raise from the previously reported 51%. “For us, this is tremendous,” Wood exclaimed.

Wood expects even further gains to inventory accuracy. “That’s just the first win,” Wood said.

Air Tractor Flying Forward

In just a relatively short period of time, Air Tractor has experienced significant positive change since implementing Viewpoint in late 2021.

Air Tractor has greatly improved inventory accuracy and reduced the quantity of physical inventory that they keep on-hand. Air Tractor has also successfully implemented a cycle count program that will enable them to eliminate costly physical inventory counts. Furthermore, now tracking goods as they move to and from carts has provided powerful factory and warehouse visibility. Air Tractor has achieved its initial goals with flying colors.

However, Air Tractor is still in the early stages of the Viewpoint implementation and there are many more benefits to unlock. “We are still implementing Viewpoint,” said Wood.

Firstly, Air Tractor will move to system-driven FIFO alongside Viewpoint to ensure the oldest goods are used first.

Secondly, comes automated traceability. Operating in the aviation industry, traceability is crucial for Air Tractor. Today, Air Tractor performs lot tracking on a variety of items using a manual approach. To increase efficiency, reduce errors, and streamline the process of collecting and managing data all in real-time, Air Tractor plans to automate lot traceability using Viewpoint. “With a scanning solution it will be much easier to do that,” Wood said.

Looking forward, Air Tractor has an impressive production schedule already booked through 2025. While being in high demand is advantageous, it’s much less beneficial when you lack the tools to fulfill those demands. With Viewpoint, the production schedule is no longer a challenge.

Thanks to a successful and still flourishing partnership with Nutech Systems, Air Tractor’s goals have never been so achievable.

