Overcoming Inventory Visibility Challenges

How the Construction Industry Benefits From Comprehensive Inventory Tracking Technology

Easily managing accurate inventory in the construction industry has been a universal problem that plagues all construction firms—no matter how large or small. Any contractor who has managed two or more projects can relate to having a piece of equipment or material at the wrong jobsite—and has wasted hours (or more) tracking it down.

As the industry became mobile and geographical territories increased, savvier inventory practices were adopted to enhance efficiency. Instead of going to the warehouse to pick up supplies, forward staging areas and vehicles were stocked with the equipment and tools. While this solved a few issues, like driving across town to the warehouse for supplies, it created new challenges.

Challenges With Managing Construction Inventory

Companies with operations in the field have the unique challenge of maintaining inventory visibility of high-value assets, such as vehicles, heavy equipment, generators and jobsite materials like steel beams, pipes and drywall. Whether the inventory or asset is part of a service, sales or delivery activity, real-time visibility is critical.

Scott Jennings, P.E., principal of SJ Construction Consulting, LLC, has over 25 years of experience working with hundreds of contractors across the country. He stated, "I'd agree that inventory control is a problem within the industry—both with construction equipment and materials needed on the jobsite."

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1
Proper visibility of high-value assets outside of the warehouse

Contractors store two kinds of inventory outside of a warehouse: consumable goods (materials used on the jobsite) and reusable goods (equipment). In the construction world, this inventory is positioned at forward staging areas before needed on site.

In a paper chain of custody, inventory and material are handed off from foreman to foreman and job to job, thus creating a paper trail. A common scenario is: A piece of equipment is taken from Jobsite A to be used at Jobsite B, and inadvertently never returned. This results in man-hours paid out trying to locate the item. This level of inefficiency can be detrimental to a business when it occurs over and over again.

Jennings recalls what one of his clients recently shared with him. "I was with an earth moving contractor who had received a call from a local farmer. The farmer inquired as to when the contractor would be coming to get his dozer which had been in the farmer's field for over six months. The contractor didn't even know it was missing from his fleet." He adds, "Unfortunately, misplaced or lost equipment happens quite often."

2
Limited visibility of inventory across many divisions

The construction industry is a competitive market, and companies need to make sound decisions based on data. While most companies have moved on from paper-based tracking, the lack of integration among backend systems is quite prevalent. The limited visibility to data between divisions can lead to struggles with invoicing, P&L visibility and performance metrics—all vital analytics to stay competitive in a tight market. Additionally, when challenges around limited visibility between divisions compound, it can lead to carrying excessive inventory.

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The Benefits: What Inventory Tracking Technology Can Do

Inventory tracking technology provides visibility to your high-level assets and materials. It connects your office team and your field to the entire end-to-end supply chain of inventory to keep your projects running smoothly and with greater efficiency. It is designed to address the biggest visibility challenges the construction industry faces.

1

View Inventory Across Multiple Locations

How do we track asset availability and location at all times?

When teams are charged with managing equipment or parts in yards, forward staging areas or on trucks, there is a real struggle to track receipt and usage of that inventory. Accurate, real-time visibility into inventory not only enables your workers to be nimble and responsive to customers, but it also is a key component to efficient operations.

Case Study: Womble Co.
Real-Time Data Collection Takes Customer Service Capabilities to a Whole New Level

Located in Houston, Texas, Womble Co. is a leading provider of specialty coating systems for steel pipe. They serve clients in the oil and gas, construction and industrial manufacturing industries. Womble's facilities include four vast stockyards of 165 acres that receive roughly 155,000 linear feet of pipe per day on trucks, railcars and barges.

When Womble's manual, paper-based processes offered limited visibility of inventory across their stockyards, the company found it increasingly difficult to keep up. "They had no way to ever go back and really figure out what happened without going out and physically putting their hands on every piece of pipe from the point of receipt through every process," explains Bryan Brewer, IT & Operations Manager for Womble.

To overcome their inventory accuracy issues, Womble integrated DSI's on-premise and off-premise mobility solution with the company's ERP. "The main goal of the system was to obtain an inventory accuracy that would allow us to not be forced to have people spending hours upon hours searching hundreds of racks for an individual piece of pipe," adds Brewer.

Womble immediately began realizing the benefits of mobile, real-time data collection. They can enter an order faster and produce their product quicker, allowing them to respond to their customers in a timely manner. This, in turn, allows them to invoice faster and get paid quicker for improved cash flow.

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2

Create Discrete Locations

*How do we track the inventory located on
a temporary site without cluttering our ERP?*

Another challenge with the construction industry is that companies don't
always want to track every piece of inventory within their ERP solution.
In certain situations where the location of the work is temporary, like after
a natural disaster, companies want to keep track of assets without spending
valuable human resources setting a temporary site within the ERP.

- **Practical Application: Disaster Restoration**

A restoration company comes into an area recently devastated by
a tornado. They have their equipment stationed at various locations
throughout the area. They know the equipment is on location, but in
a paper-based system, they are unable to catalog precisely where it is.
In this situation, equipment can easily get lost.

Using a cloud-based inventory solution, they can set up a "temporary
location" within the cloud using the project foreman as the location.
This allows for a streamlined methodology of tracking equipment and
materials, and the restoration crew can easily check their mobile devices
to see exactly what equipment and materials are on the ground and
available. Additionally, if the project runs longer than anticipated
and oversight changes hands, the temporary location can easily be
transferred person-to-person.

3

Allow Inventory Tracking From the Field

How do we increase our field team's productivity?

One of the biggest productivity sieves is man-hours lost tracking down materials and equipment. Field teams need mobile tools that enable them to capture data and maintain visibility of materials and supplies in real time—tools that allows them to search for parts in multiple locations including the employee's truck, a co-worker's truck or the closest warehouse.

▪ Practical Application: Electrical Contractor

An electrical contractor is on a job and realizes he needs a particular switch. He checks his truck, but doesn't have it. He can use the location tracking feature on the mobile app to search and find the part closest to him—often at another jobsite or inside a co-worker's vehicle. From there, he can arrange a transfer in real time while updating the system for inventory accuracy at all points.

4

Ensure Real-Time Inventory Visibility Whether On or Offline

How do we track assets when working in remote locations?

Working in remote locations, such as building energy solutions or off-shore oil platforms, can create a real problem with inventory visibility. Limited visibility of assets at and between remote jobsites can cost construction firms time searching for assets and/or expense in purchasing new ones. When you are dealing with heavy equipment, the price can quickly add up.

▪ **Case Study: Leading Power Generation Contractor
Major Energy Construction Contractor Powers Up
With Supply Chain Optimization**

A leading power generation engineering, procurement and construction (EPC) contractor builds energy solutions to deliver solar and wind power. Many of their projects, including the largest windfarm in the United States, stretch across hundreds of miles.
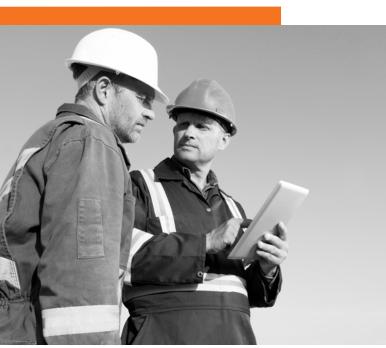
The company used an ERP system to track assets and jobs, but in these disconnected, remote environments, movement of inventory and assets between and within jobsites wasn't automatically updated in EnterpriseOne. Because they could not easily locate existing equipment, the company bought additional assets they didn't need—such as bulldozers and cranes.

To overcome this problem, the company chose the DSI Platform and the digital supply chain solutions deployed by partner Advanced Logistics Consulting (ALC) to create complete visibility in the field. With the solution in place, the company has access to real-time inventory monitoring and reporting, even at a remote jobsite. With visible inventory at all times, field supervisors can see the assets they need across jobsites and transfer assets between sites—saving manpower and excessive capital expense.

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Choosing the Right
Inventory Technology Solution

The value of a technology investment is only realized if someone adopts and uses it. Jennings notes that while cost is always a consideration, a bigger factor for the CEOs is whether or not the field will use it: "Not all who work in the field will take the integration of technology easily, so any tech they are asked to use needs to be simple and straightforward."

Some key questions to ask when choosing an inventory technology solution:

Can your solution …

▪ Provide Analytics?

Is the technology equipped with analytics to allow you to see how your people are using it? The reason why mobile solutions fail is not because the mobile solution did not work, but because it did not fit the work that the users do.

▪ Create a Personalized Experience?

Does your technology allow for a tailored user experience based on the roles within a company? For example, a site supervisor only needs access to information pertinent to one particular job, while the management team has access to all data. Your technology should be tailored accordingly.

▪ Produce an Intuitive Experience?

Does the mobile app provide a native/logical experience based on whether it is running on iOS or Android? This will affect adoption rate and ease of use.

Can your solution …

▪ Perform Multiple Functions?

Does the technology have the capability of consolidating many functions into one app? The technology you select should reduce the need to source multiple applications to solve various problems.

▪ Invest in R&D?

What is the technology solution doing to keep up with the rapid pace of technology? Your technology should not be in maintenance-only mode. It should be active in research and development to continue to produce even more efficiencies to help your business.

▪ Configurable for Your Unique Needs?

Is the technology a one-size-fits-all solution? The construction industry is unique and covers many trades, types of work, services, geographical reach and company sizes. No two companies are exactly alike and each comes with its own requirements. You'll want a tech solution that is robust enough to fit your individual requirements.

In construction, the differentiation factors are small, meaning there is little difference in the bids between competitors (usually five percent or less). How companies drive profit is by controlling costs and using technology to make the field more efficient and productive—hence saving money.
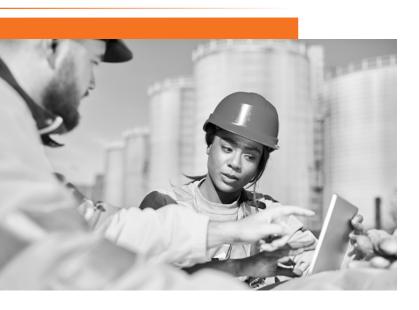
Take Control of Your Inventory

Do you know where your inventory is right now? With so many demands to provide a high-level of customer service and yet stay competitive, it's now even more imperative that you have visibility of your materials and equipment—from supplier to jobsite. Without it, you risk inefficiency, costly overstocks and higher labor costs.

With DSI's inventory management solutions, you take full control of your inventory across all locations. Using DSI's mobile-first solution, you'll eliminate manual, paper-based processes. And with complete inventory visibility, you'll equip both your field team and office with inventory information that results in minimized carrying costs and improved productivity and profit.

- **Achieve**

  real-time access to inventory information, regardless of where inventory activities happen.

- **Automate**

  manual inventory processes, in turn improving productivity and enabling you to adapt quickly to changing business situations.

- **Introduce**

  flexibility to deploy the right solution for your business, including on premise or in the cloud.

- **Implement**

  true inventory visibility on your terms—either outside of the ERP or integrate with leading ERPs and other software systems.

- **Improve**

  communications with field teams with real-time inventory locations.

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Mobile-First Solutions for the Digital Economy

Our mission is to make our customers successful as it relates to all things inventory in the digital economy. We continually immerse ourselves in our customers' business challenges, regardless of their industry or specific supply chain needs. Equipped with that knowledge, we create and deliver world-class technology solutions that enable DSI customers to run their businesses more efficiently, drive sustainable growth and make customers for life.

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