

Steel Industry Leader Automates Transportation Execution, Saves Money & Ships with Confidence Using Descartes Shipper TMS™



North American Stainless (NAS) is the largest fully integrated stainless steel producer in the U.S., differentiated by quality, short lead times and variety of steel types. When manual load scheduling became too complex at the company's production facility and at one of its warehouse locations, NAS deployed Descartes' shipper transportation management system (TMS) to automate load scheduling, optimize flatbed operations, reduce shipping delays, save on carrier costs, and preserve its competitive advantage and market leadership by delivering product on time to a global customer base.

"Descartes has made our load scheduling process much more efficient, compared to when we were manually performing these tasks. The solution allows us to uncover greater freight savings because shipments now go to lower cost carriers more often than when we used manual practices."

Ericka Supplee
Traffic and Purchasing Manager
North American Stainless

Company Profile

U.S. Stainless Steel Producer

Descartes Solutions

Descartes Shipper TMS™

About the Client

Founded in 1990 and based in Kentucky, North American Stainless (NAS) is the largest fully integrated stainless steel producer in the U.S. NAS offers a full range of stainless flat products including slabs, billets, plate, sheet and strip, as well as long products including wire, rods, angles and rebar. NAS is a member of the Acerinox Group, based in Spain.

For more information, please visit www.northamericanstainless.com

Quick Overview

Challenge

Complex and Manual Load Scheduling

Solution

Automated Load Scheduling with Comprehensive TMS

Results

- More efficient load scheduling to minimize bottlenecks
- Improved load distribution for smoother daily throughput
- Reduced delays and improved reliability for customer satisfaction
- Cost savings due to prioritizing lower cost carriers



Challenge: Complex and Manual Load Scheduling

Headquartered in Kentucky, NAS offers a wide variety of stainless steel products and sets a high industry standard not only for product quality but also for the flexibility to meet short lead times for delivering product to customers throughout North America and overseas.

Managing load scheduling is a complex process for NAS, in particular at its Ghent, Kentucky production facility—which has multiple loading locations. “Prior to using Descartes, the challenge was that our load scheduling process was all manual,” recalls Ericka Supplee, Traffic and Purchasing Manager at NAS. “We had an Excel spreadsheet listing the different loading times and different locations where products were loaded from. It was a rough process because we ship from different areas of the facility. On any given day, a truck could be loading from three different locations within the plant.”

Supplee continues, “Given the complex manual loading process, there were quite a few occasions where we overloaded shipping capacity during peak hours, causing delays in the loading process, which can result in detention charges.”

Solution: Automated Load Scheduling with Comprehensive TMS

To optimize load scheduling and other transportation processes at its production facility in Ghent, Kentucky, as well as its warehouse location in Minooka, Illinois, NAS deployed the Descartes shipper TMS, a full suite of on-demand, cloud-based tools to improve overall efficiency by automating all aspects of transportation execution—from sourcing and booking carriers to contract rate management, load building and optimizing routes.

"With the Descartes solution, we now have all information on screen so both our team and the carriers can see it—the product, customer and material information—which is extremely helpful," Suplee confirms. "In addition, having scheduling rules built into the TMS has helped us avoid overloading shipping, especially during peak hours, so we can keep a steady loading flow throughout the day. Now we have far fewer bottlenecks of drivers waiting for their loads."

At its production facility, the Descartes system also enabled NAS to gain a more accurate assessment of how many shipments of different products can be loaded at each bay per hour, resulting in more efficient scheduling. Previously, four traffic schedulers relied on manual processes to plan an average of 160 outbound shipments per day (with peaks up to 200), often leading to overloaded schedules and operational bottlenecks. Today, a team of three uses the Descartes solution to manage similar volumes with greater precision—maintaining steady throughput without overloading bays or creating downstream disruptions.

NAS has also realized cost savings from the implementation, due to reduced delays and the resulting detention fees, as well as the ability to prioritize more economical carriers. "The system enables us to use the lowest cost freight carrier while preserving the service levels we expect. Because shipments are assigned to a lower cost carrier more often than when we used manual practices, we've seen significant freight savings. The TMS also provides the flexibility for us to designate preferred carriers for certain lanes if we have them," Suplee says.

"With Descartes' shipper TMS, we found the solution to our complex scheduling process," Suplee concludes. "There's always hesitation when it comes to change, but when you see a system like this do the job, that hesitation disappears. I see NAS using the solution for many years to come."

Results:



Efficient Scheduling

With more balanced and efficient load scheduling, NAS schedules 8 loads/bay per hour without overloading, minimizing lines of trucks and drivers waiting for loads.



Cost Savings

A more efficient loading process, enabled by the Descartes solution, results in fewer delays and detention charges, and the TMS also prioritizes the lowest cost carriers.



Improved Load Distribution

With the Descartes solution, the traffic team at NAS ensures high load volumes are distributed evenly throughout the day, creating a smoother, more predictable flow of outbound shipments.



Customer Satisfaction

By automating transportation execution and reducing delivery delays, the solution facilitates the smoother movement of product and greater customer satisfaction to help NAS maintain a competitive advantage.