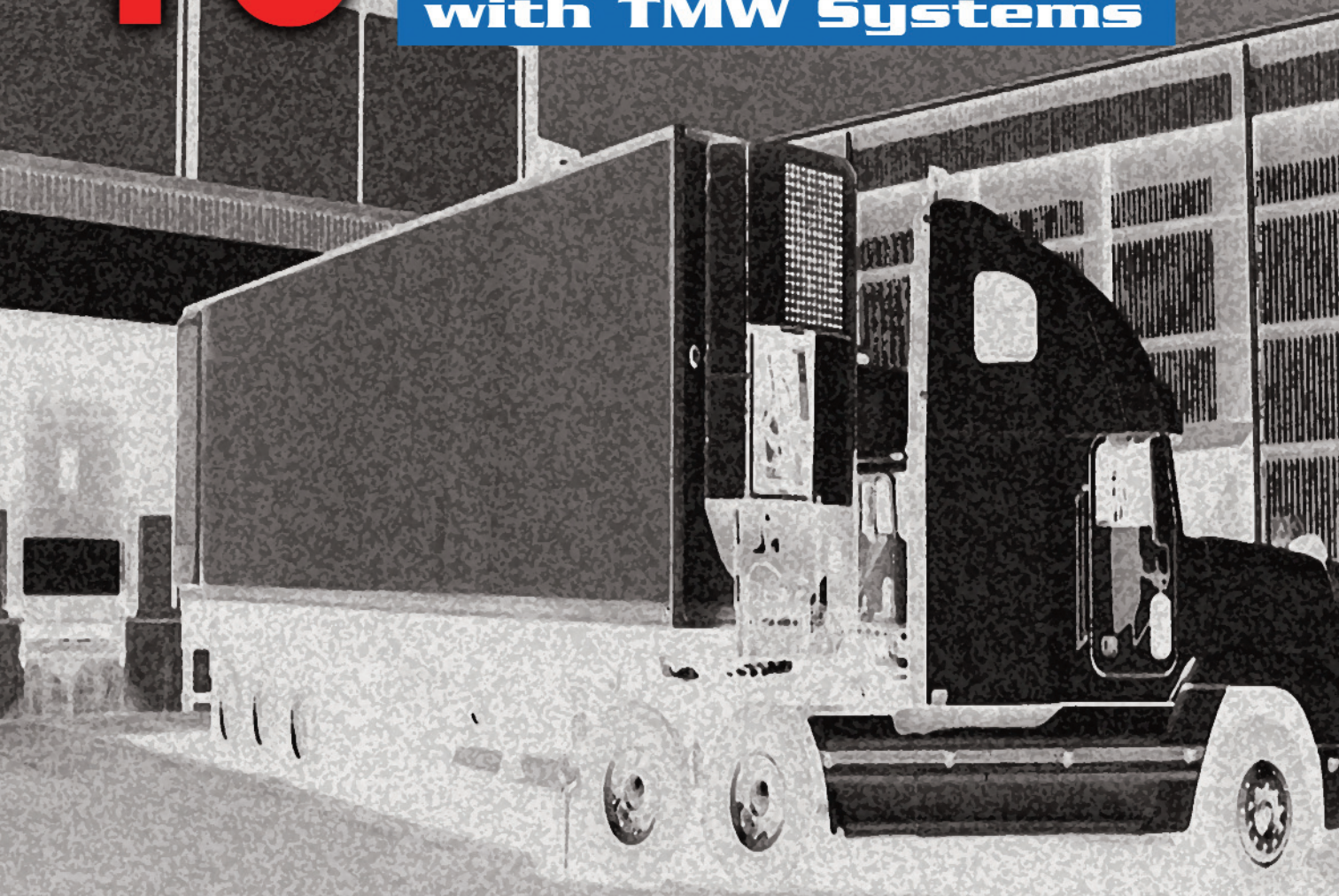


T3

Transport Technology Today

with TMW Systems



WMS/TMS logistics
Freight optimization
Managing "what if"

WMS/TMS logistics

What is logistics? In its simplest form, it is the practice of getting goods and services from point A to point B. For some of the world's biggest companies, technology and logistics are joined at the hip, ensuring the correct delivery reaches the right place at the right time.



Many top corporations rely on the expertise of outside logistics companies to help manage the flow of goods and services that we use every day.

"With proper planning and optimization, companies can reduce their transportation and operations costs," says Tom McKenna, senior vice president of engineering and technology for Penske Logistics. "The use of technology in the logistics field helps drive efficiencies that weren't possible 20 years ago."

Penske Logistics employs two industry technology processes: transportation management system (TMS) and

warehouse management system (WMS). TMS allows Penske, its transport partners and customers to manage the complexities of the transportation planning and execution environment. WMS is a tool that directs warehouse activities that include moving and storing goods and enhancing worker productivity.

Penske has crafted custom enhancements utilizing TMS and WMS in a cutting-edge fashion to benefit a customer roster that includes global auto, pharmaceutical, beverage, industrial, retail and appliance customers.

Three innovative uses of TMS include:

1. User-friendly interfaces: "TMS systems can be complicated, so we created web-based interfaces for multiple stakeholders to use," McKenna explains.

Instead of requiring customers to learn the industry-specific software, Penske created an order-tracking interface that compares favorably to parcel delivery websites the general public accesses daily, providing information about the status of inbound and outbound customer orders.

**Logistics
technology
drives
complexities
of commerce**

2. Direct carrier interfaces: Penske Logistics employs local, regional and national transportation carriers, requiring different operating systems to communicate the same information. A separate web interface for smaller carriers to use was built to focus on delivery updates: status, on-time, delivered and when. Several years ago, this information was either phoned in or virtually unavailable in real time.

3. Making transportation planning easier: "With supply chain complexities comes many choices; our ability to make the planning process simple but still drive cost reductions is vital," says Dave Bushee, vice president-information technology, Penske Logistics.

The company accomplished this by creating and attaching planning modules for fixed routes, private or dedicated fleet routes and dynamic routes to optimize the overall solution for a variety of situations for each customer. Each scenario is designed and tested using historical data prior to deployment to ensure fit and function.

There are also WMS custom fittings that Penske integrated to drive warehouse productivity and control labor costs.

Sequencing programs

"When an automotive company needs to ensure specific parts arrive on a Tuesday morning to coordinate with the assembly plant's production schedule, it's vital, for example, that the doors arrive in a certain order for that day's production," says McKenna.

In this case, Penske introduced its proprietary software that works with the core WMS system to sequence the picking and delivery of these parts according to the production schedule. Penske also uses a custom web interface that allows materials planners at the auto company to closely track the availability of parts and to ensure the assembly line does not run out of mirrors.

"It is vital for our auto customers to track existing and incoming inventory in real time," McKenna further explains. "In the event windows arrive with scratches and are unable to be assembled into cars, the material planner can signal for high priority items, which are retrieved from the warehouse and shipped much faster."

Labor productivity

As Bushee explains, proper planning and monitoring with WMS can reduce the need for warehouse workers from 50 to 40. "Through the creation of a web interface, Penske is able to offer customized views for warehouse supervisors," he states. "They know which workers are logged in, and the supervisors are able to monitor productivity."

For example, a forklift operator may pull a



pallet off the floor and place it into a truck destined for another location. The pallet is then scanned at the shipping dock, and the warehouse supervisor instantly knows what the driver is doing. Additionally, the remaining inventory and truck content is updated.

A customized slotting module is also vital to warehouse layout. "Our engineers have spent time with customers, finding out which products are fast moving," McKenna notes. "This aids Penske in creating plans that slot products into shelves that are easily accessible, and that's part of the process of establishing where products are stored and arranged throughout the entire warehouse."

For Penske Logistics, offering unique and proprietary solutions that complement and extend out-of-the-box TMS and WMS programs can have a positive impact.

"These customized processes, making use of the best that technology has to offer, can be a market differentiator in this ultra-competitive global economy," says McKenna. "We employ the best of technology to create the most efficient process for our customers." 13