N4: Expert Decking

Navis Optimization Module

Dynamic Planning of Yard Stowage

For most terminals, the conventional style of yard planning is extremely time consuming, costly and inaccurate. This makes it difficult for terminal operators to increase yard capacity and optimize terminal operations. Navis Expert Decking automates yard positioning, distributing containers throughout the yard based on predefined business rules. This comprehensive yard allocation module facilitates real-time, accurate and optimized stowage of containers in the yard and allows users to spend less time observing yard allocations and more time managing the yard.

Navis Expert Decking considers the state of the yard in real-time, dynamically assessing container volumes, CHE locations, stack configurations and terminal specific business rules for "best-case" stacking of import, export and empty containers. Using over 60 business rules, the design of Navis Expert Decking enables a terminal to set up an operational framework which can automatically manage yard stowage with a very comprehensive set of rules. This allows for enough operational flexibility to accommodate changes in how the gate, rail and vessel entry points direct containers to the yard.

With Navis Expert Decking, move decisions are made logically, minimizing the impact of future operations, such as container rehandles, and maximizing terminal operational efficiencies.

Navis Expert Decking Benefits

1. Increase yard utilization
2. Increase yard density
3. Handle more containers
4. Use fewer RTGs
5. Lower "Fail to Deck" impact at the gate
6. Reduce rehandles
7. Increase efficiency with faster, and more accurate moves

Expert Decking contributes to overall operational improvements in productivity and customer service, allowing the terminal to manage general allocations for a majority of the boxes, which in turn increases the flexibility of the system and the opportunity for equipment productivity improvements through PrimeRoute. Expert Decking also provides a holistic approach to total yard management while maintaining designated yard allocation for dangerous goods cargo as well as supporting improved reefer management and monitoring processes.

⁕ Features of Navis Expert Decking:

- Bases yard allocation decisions on where the RTGs are located in the yard at the time of the decking decision
- Manages existing yard stacks before moving on to an open yard stack
- Manages how cargo is mixed in yard stacks
- Segregates containers into general groups in specific yard areas
- Sets criteria for the best available section and stack for a container
- Saves separate strategies based on departure mode (road vs. rail vs. vessel)
- Supports the priority decking of 2x20' twin containers in the yard
- Ability to stack heavy containers closer to the truck lane
- Distance threshold extended to "distance from start" and "distance to next"
- Container turnover block modeling that accounts for stacking of containers by dwell time

About Navis

Navis provides operational technologies that unlock greater performance and efficiency for our customers, the world's leading terminal operators. The Navis N4 terminal operating system (TOS) represents more than 25 years of experience and innovation that enables terminals to optimize their operations and move cargo smarter, faster and more efficiently. As an industry leading technology, more than 250 container terminals worldwide have partnered with Navis to improve performance, reduce costs and minimize risk.

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