



### Optimize and Automate Vessel Planning

With more than 25 years of experience in providing automated operating systems for the world's largest marine terminals, Navis N4 terminal operating system optimizes and automates vessel planning with Navis Vessel AutoStow. Vessel AutoStow is an optimization module that automatically generates stow plans for the entire ship or by specific bay based on rules set by the ship planner and in compliance with vessel planning stowage strategy.

Vessel plans are traditionally created manually and with varying levels of expertise, open to human error and planning inconsistencies. Information sources can be disparate, with limited consideration of the operational environment and terminal constraints. These inefficiencies lead to extended planning times, unnecessary yard re-handles, crane delays, an inability to adapt quickly to scheduling and berthing changes and lower quayside productivity.

Navis Vessel AutoStow resolves these problems by combining stowage factors, like port of discharge and container length and weight with yard constraints and operating parameters to select an appropriate container to load. Ships are swiftly planned container-by-container, based on their assigned strategy set and estimated move times, determined by the order of work and associated crane rates.

In addition, Vessel AutoStow gives ports and terminals a competitive advantage over their neighbors with consistency and speed in planning, saving significant time during those critical operational periods and throughout the vessel planning phase.

## Benefits Of Vessel Autostow:

- 1 Reduce planning time
- 2 Consistent sequencing strategy
- 3 Increase yard productivity
- 4 Improve operational responsiveness
- 5 Significantly reduce manual errors
- 6 Decrease re-handles and delays
- 7 Improve vessel stow plans

## ❖ Features of Vessel AutoStow:

- Supports automatic stacking crane, straddle carrier, rubber tired gantry, rail mounted gantry and frontloader operations by yard block definition
- Provides stow factor filtering and over 40 strategy parameters online
- Allows for a variety of strategy sets mapping to a range of operational goals
- Models equipment properties such as separation, clashing and alternating fetch
- Ability to plan equipment availability by shift or vessel visit
- Supports twin-lift load operations at the quay and provides parameters to consider yard opportunities
- Defineable yard flow patterns with optional creation of independent rehandle instructions
- Associates strategy to vessel class
- The modeless wizard guides its user through the stowage process and reports on the results
- Supports automated planning with chosen containers, selected bay or the entire vessel
- Allows for progressive planning with combinations of manual and/or automated sequencing
- Supports solution explorer and allows the user to compare sequencing decisions
- A new algorithm provides better weight distribution on vessel
- Considers user defined weight thresholds and stack weight and height restrictions from the first container loaded
- Supports just-in-time planning



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### About Navis

For more than 25 years, Navis has provided the global technology standard for managing the movement of cargo through terminals. The Navis N4 terminal operating system optimizes operations, unlocking operational efficiency, productivity and visibility for terminal operators. Navis combines industry best practices with innovative technology and world-class services that enable marine terminal operators worldwide to optimize their operations and maximize performance with reduced risk.

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