STOWMAN

STOWMAN for terminals is innovative software for terminals that provide the handling and storage of containerized and general cargo. STOWMAN manages the planning process of efficient loading, discharge and shifting/restow, and also checks the arrival, discharge and intermediate loading conditions of container and multi-purpose vessels.

STOWMAN is used by large shipping line operators for their voyage cargo planning with multiple ports. They use our system to have full benefits of our integrated systems on board (MACS3) and on shore (STOWMAN) same data allow to maximize cargo load while reducing planning time significantly.

Our strategy is to set the global standard for container planning along the logistics chain.
Main features of the program

Advantages:
- Data import and export
- Cargo handling
- Crane split
- Visualization
- Checks

Significant Features:
- Homogeneous surface cargo by input of a stowing factor
- Wide range of information per item
- Items can be coloured according to a variety of criteria
- Hatch cover handling
- Extensive reporting facilities

Import and Export
- BAPLIE 1.5, 2.0 and 2.1
- MOVINS
- Online interface to Terminal Management System
- Container data exchange via text files, e.g. Excel Comma Separated-Values (CSV) format

Cargo Handling
- Arrival, departure, pre-plan, real-time and simulation loading conditions are handled independently
- Stowage instructions with clear graphical presentation (Pre-plan)
- Symbolic presentation of the pier
- Drag-and-drop planning for single pier containers and optimized area planning with stowage checks
- Automatic stowage suggestion, taking into account the maximum permitted stack weights and the segregation rules for dangerous cargo; based on stowage instructions or performed for selected containers
- Weight groups definition
- Flying containers allowed
- Distinction between restower (over pier) and shifter; input of final position, custom restower
- Computation of deadspace due to out-of-gauge cargo, high cubes, break bulk and stack weight limits
- Block shift
- Step-by-step, up-to-step and total undo
• Variable container sizes - both old and new ISO, as well as custom types
• Wide range of information per cargo unit: type, weight, port of loading/discharge, operator, non-dangerous and dangerous goods, overdimensions, handling instructions, etc.
• Port rotation with date/time and quay
• Hatch cover handling

Checks
• All-in-one condition check: exceeding stack weights, reefers at non-reefer positions, flying containers, dangerous goods check, hatch cover clearance, UN Locode, types and overdimensions, handling instructions, container serial numbers
• Visibility (IMO and Panama) check with blind sectors in relation to trim/draft change

Crane Split
• Individual colour, performance and geometry settings for each crane
• Work sequence by bay or bay group
• Several working strategies (stack or tierwise, start from berthing or water side) to define order of container handling operations
• Graphical and tabular presentation
• Working plan per crane
• Check for crane space conflict and overweight
• Twin/tandem moves
• Automatically calculated handling time for each container based on predefined crane performance
• Simultaneous usage of terminal and ship cranes is possible

Visualization
• Single-, twin-, plan- and total bay views
• Single-, scroll- and total layer views
• Top views
• Individual colour and display settings for each view
• Containers can be coloured and marked according to several criteria (e.g. by port of discharge, IMDG class, etc); multiple colours per container
• Loading, discharge and restow lists
• Hatch covers and tweendecks
• Longitudinal section and top view with tanks, holds, containers and visibility lines
• 3D-view based on hull data
• Screen and print reports in PDF, HTML and XML formats
Description of the modules

MACS3 Stability and Strength

The MACS3 module enhances the STOWMAN system with fast and easy stability and strength calculation features, covering all pertinent international regulations like e.g. IMO A.749.

Any changes to the container cargo are immediately reflected in the MACS3 stability and strength calculations.

Features:

- Approved by the following classification societies: GL, LR, ABS, DNV, BV, NKK, KR
- Numerical and graphical results for GM, trim, heel, draft, shear forces, bending moments and torsion
- GM check against various approved GM requirement curves
- GZ curve for dynamic stability
- Automatic wind pressure calculation

General Cargo

The General Cargo module enhances the STOWMAN system, providing the visual solution for managing all kinds of cargo: containers, trailers, single parts and homogeneous surface cargo.

Loading is done interactively: you can draw the cargo area as a polygon, i.e. an irregular shape, or use standard types. Guiding lines appear automatically to help you properly align the cargo. You can put it in any position and rotate it.

The cargo is shown both bay-wise and deck-wise, so you can easily rearrange it. Items can also be stowed on top of each other.

The loading check prevents the loading of any cargo unit in a position which is already occupied.

DAGO

This STOWMAN add-on manages dangerous goods. It checks the fulfillment of the stowage and segregation requirements imposed by the latest IMDG Code. Company-specific blacklists of IMDG classes and UN numbers in selectable positions can be enforced as well.

DAGO includes the IMDG database with all the relevant information from the:

- Code and the Emergency Schedules (EmS)
- Multiple dangerous goods per cargo unit
- Segregation checks, based on UN Number

SEALASH

This STOWMAN add-on lashes containers properly.

Forces are calculated on the basis of twistlock stowage, according to the rules of GL, DNV, BV, ABS and LR (can be different for hold and deck).
Features:

- Calculation of lash forces per container and max. percentage per stack
- Visual single-click lashing
- Various reports, e.g. inventory list; lash forces by bay, stack and tier

VSD³²

The Visual Ship Data system supports the input of ship data for the STOWMAN system and its modules. VSD³² consists of the user interface, a database and a help system. Any database, e.g. Microsoft Access, can be used.

An unlimited number of vessels can be created in the database. More than 3,600 predefined vessel profiles are already in our database.