

MACS3

Cargo Management System for Multi Purpose Vessels



seacos Cargo Management

Stability calculation

Longitudinal strength calculation

Customizable user interface

User-defined warning points

Visualization of various vessel views

Automatic wind pressure calculation

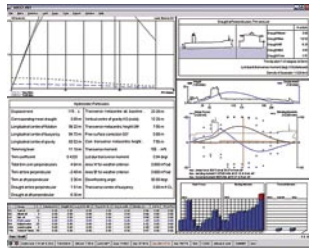
Automatic ballast tank optimization

Modular extension

Screen and print reports

MACS3 for multi purpose vessels enables the most complex and demanding loading activities, ranging from heavy lift operations including crane operations, stability pontoons and hatch cover handling.

Basic System

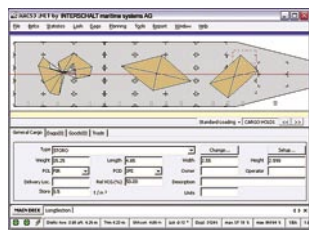


Basic Program MACS3.net

- Graphical tankplans of the vessel showing current conditions
- Optimization of trim, heel, stability and stress by ballast tanks
- Display and printout of loading conditions and calculations
- Saving and loading of loading conditions
- Online help
- Warning points (e.g. trim, draught, GM)
- Bulk cargo possible if holds permit



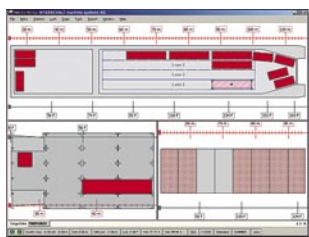
MIXCARGO enhances the MACS3 loading computer. It is a visual solution for managing all kinds of cargo: containers, trailers, single parts and homogeneous surface cargo. Loading is done interactively: The user can draw the cargo area as a polygon, i.e. an irregular shape, or use standard types. Guiding lines appear automatically to help properly align an item, or to put it in any position and even rotate it freely.



The cargo is shown both bay-wise and deck-wise. Items can easily be rearranged and also be stowed on top of each other.

Other features include:

- Homogeneous surface cargo by input of a stowing factor
- Wide range of information per item: type, weight, port of loading/discharge, dangerous goods IMDG codes, owner, operator etc.
- Items can be colored according to a variety of criteria, e.g. by port of discharge
- Hatch cover handling
- Extensive reporting facilities, e.g. bays, bay overview, decks, lists of all items that match selected criteria, centers of gravity, various sums and statistics

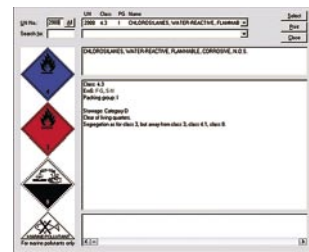
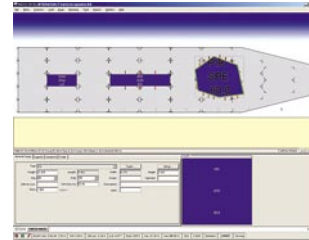
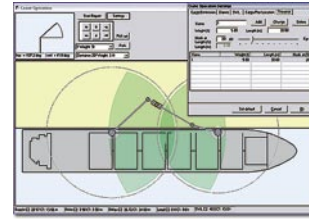


Selected add-ons

CRANE OPERATION simulates the handling of on-board cranes. It helps to plan the loading/unloading of containers and heavy items, and then safely execute the operation.

Features:

- Pre-defined but customizable crane profile including length, weight, reach and safe working load (SWL) table
- Traverse mode with coupled cranes and movable hook position on the traverse
- Real-time calculation of results like SWL, floating condition, stability and strength
- Visual and audio warnings if pre-defined limits for trim, list, SWL, GM, etc. are exceeded
- Use of ballast tanks, including ballast optimization, to keep the ship within the allowed limits
- Reporting function creates an operating schedule for the crane and ballast operator, including the complete crane move and all the ballasting during crane operation
- Stability pontoon for safe under-crane operations



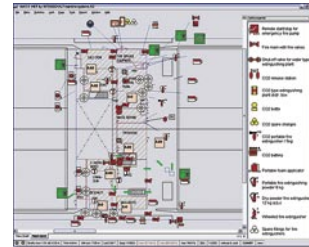
CARGO SECURING

This MIXCARGO add-on lashes non-standardized cargo.

It calculates acceleration forces according to the CSS Code (MSC/Circ. 664-1994), using the “Advanced calculation method”.

Both wind pressure and sea sloshing are taken into account, as well as the opposing forces of friction and lashing.

The lashings can be set generally for each cargo type, individually for each item, or automatically. They are shown in the cargo view. A table highlights insufficiently lashed items in red color.



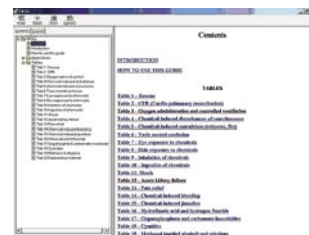
DAGO for general cargo manages dangerous goods.

It checks the fulfillment of the stowage and segregation requirements imposed by the latest IMDG Code and BC Code respectively.

DAGO I includes the IMDG database with all the relevant information from the Code and the Emergency Schedules (EmS).

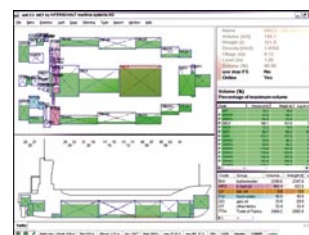
DAGO II adds the fire-fighting and safety plans.

DAGO III contains the complete Medical First Aid Guide (MFAG).



TANK ONLINE reads current tank volumes or levels into MACS3. It relieves the user of manually entering the values that are needed for the stability and strength calculations. Drafts, trim and heeling can also be read online and compared with the MACS3 calculations.

TANK ONLINE is available for all major on-board measurement systems, connecting to over 25 different makers.



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