

S.A.MALLIAROUDAKIS MARITIME (UK) LTD.

Committed to improve your ship and operations



DESCRIPTION OF MULTILOAD LOADING INSTRUMENT



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BRIEF DESCRIPTION

MULTILOAD© for Windows is SMM Ltd.'s highly innovative software system to carry out the complex and tiresome ship loading calculations.

It is one of the most efficient, yet friendly packages of the international shipping market.

MULTILOAD© goes far beyond the basics, in order to become a major tool in the hands of Ship Operation and the Captain Onboard for more than 700 vessels.

The software is provided for both onboard and office use and can be installed easily on every operational PC that meets the mentioned system requirements (please refer to the last section) and it is accompanied by analytical guide for installation, training, guidance, as well as prompt support from SMM (UK) Ltd..

The analytical Manual for familiarization and training purposes is incorporated electronically in the software.

BENEFITS OF MULTILOAD

- Specially Designed for Easy-Use, by the Master, Chief Officer.
- Proven Reliability, having Major Market Share in Greek Shipping Industry.
- Computer Based Training Availability.
- For easy reference to the User, all information and indications appear in a single window
- There is guidance in a wizard environment about the next steps that should be followed for every option.
- Both Fleet & Ship Versions for harmonized Office and Onboard use.
- Multiload Option "Cargo Loading Sequence with report" including "Free Mode" method is a total solution to the requirement for Bulk Carriers to prepare a Loading or Unloading Plan before arriving to the Terminal (as per Common Structural Rules Chapter 4, Section 8, par. 2.1.2, where the Loading / Unloading Sequence is to be agreed with the terminal on the basis of achievable rates of change of ballast).
 - NOW in Multiload apart from the existing "Stage Wizard" method we also have included the "Free Mode" method:
 1. The "Stage Wizard" method, allows the user to create a sequence based on typical Loading / Unloading rates for cargo and ballast ensuring the following constraints are met in all intermediate phases (between steps):

Draft restrictions at port	Max / Min trim range
Air Draft from Hatches for each pour	GM Fluid
Longitudinal Strength (SF & BM)	Local Strength (Min/Max Cargo Mass)

2. With the "Free Mode" method, the user can create or modify a sequence where only the main stages are examined for above restrictions and corresponding cargo and ballast rates are disregarded. The newly added "Free Mode" method offers the freedom to revise the main steps of the sequence in order to accommodate "last minute" changes during Terminal operations.

NEW OPTION'S ADVANTAGES OFFERED
Get the IMO report in excel format
Save / Retrieve a sequence at any stage (finished or not)
Recall / Revise and Save any sequence
A sequence created by the "stage wizard" method may be revised by either "stage wizard" or "free mode" method
Import / Export any sequence by email, between any Multiload installation (vessel, office, etc.)

FEATURES OF MULTILOAD FOR VESSEL AND OFFICE APPLICATION

- *Available as Base Program, a self sustained loading package fully covering Class Requirements.*
- *The Base Program offers 43 functions (more than any other ship loading program on the market).*
- *There are up to 20 MULTILOAD© Options to choose from, if cargoes need extra features or more specialization.*
- *Full support and free training to your masters and chief officers, before they join the vessel.*
- *Approved by ABS, LRS, NKK, BV, DNV, HRS, etc..*
- *Main Options:*
 - *Draft Survey*
 - *Cargo Loading Sequence with Report (including "free mode" method)*
 - *Air Draft from Hatches*
 - *UR S1A - Local Strength Diagrams*
 - *UR S17 – Single Hold Flooding*
 - *Departure - Arrival Calculation*
 - *Print out of NCB Grain Loading Form*
 - *Print out of Canadian Grain Loading Form*
 - *Print out of Australian Grain Loading Form*
 - *Ship Loading Plan on screen (ship graphics)*
- *Basic Features:*
 - *Fleet Based Program for Office Use*
 - *Import/Export of Loading Conditions by e-mail*
 - *Electronic Dead Weight Scale*
 - *Automatic Shear Force Correction (if Applicable)*
 - *Automatic Cargo Distribution*
 - *Autotrim*

- *Detailed Printed Reports of Loading Conditions, Main Ship Particulars, Max. Allowable Shear Force, Bending and Torsional Moments.*
- *All Printouts also in PDF format for easy e-mail transmission*
- *Cargo Split and Autotrim (divide a cargo quantity between two compartments and also reach a required trim)*
- *Full Stability, Trim, Drafts, Longitudinal and Torsional Strength Analysis*
- *On-Line Help Utility in Every Screen*
- *Different colors for different cargo types*
- *Max. Allowable Shear Force & Bending Moment Values (Seagoing, Port, Alternate Loadings etc.)*
- *Shear Force & Bending Moment Diagrams on Screen*
- *Automatic Selection of Stability Criteria*
- *Plimsoll Marks and Port Draft Restrictions / Fwd. Draft Restriction for heavy weather*
- *Easy Cargo Definition / Stowage Factors (Metric-British Units). Holds Loading by Weight, Percentage (%), Ullage or Level*
- *Warning for Sloshing Effect in Tanks or Holds*
- *Bridge Visibility (if applicable)*
- *Optimum Capacity Utilization of Cargo Holds*
- *Viewing Details of Dead Weight items [Bounds, Volume (Trimmed, Untrimmed, Bale), V.C.G., L.C.G., Max. Tank Top Strength, Max. Homogeneous Load, Tank Top Areas etc.]*
- *Air Draught Calculation from Radar Mast / Propeller Immersion*
- *Vessel List Calculation*
- **Checks:**
 - Plimsoll & Port Draft Restrictions
 - Propeller Immersion
 - Bridge Visibility
 - Local Strength Diagrams
 - Air Draft from Hatches or Manifolds
 - Air Draft from Radar Mast
 - Automatic check on Sloshing danger
 - Minimum Forward Draft for Slamming
 - SOLAS Chapter XII Reg. 14
- **Provides *instantly technical information, such as:***
 - Capacities (grain, bale)
 - Trimmed & Untrimmed Volumes
 - Max. Homogeneous Load
 - Grain Heeling Moments
 - Tank Top Areas
 - Tank Top/Deck Strength
 - Cargo Tank Ullage/Level Data
- **Covers *all your Ship Operation Manuals:***
 - Trim and Stability
 - Grain Loading
 - Loading Manual
 - Loading & Unloading Sequence
 - Water Ballast Exchange Manuals
- **Offers *Special Functions, like:***

- Different Colors for Different Cargo Types
- Steel Coils Loading
- Automatic Selection of Stability Criteria
- Real Time Loading
- Automatic Shear Force Correction (in Alternate Loading Conditions)
- Cargo Split & Auto Trim
- Auto Loading
- Departure-Arrival Calculation
- Detailed General Cargo Loading
- Oil Calculation
- Bunkers Survey
- Electronic DWT & Cargo Scale
- Auto Trim
- Detailed Container Loading
- Detailed Tanker Loading
- Timber Loading
- The software has been developed in-house and can be customized subject to Company's Policy and to different system requirements.
- As an independent organization we serve exclusively owner's interest and we guarantee, as third party the correctness of the results as per shipyard's documentation

THE MAIN FEATURES DIFFERENTIATING MULTILOAD© FROM SIMILAR SYSTEMS WORLDWIDE ARE THE FOLLOWING:

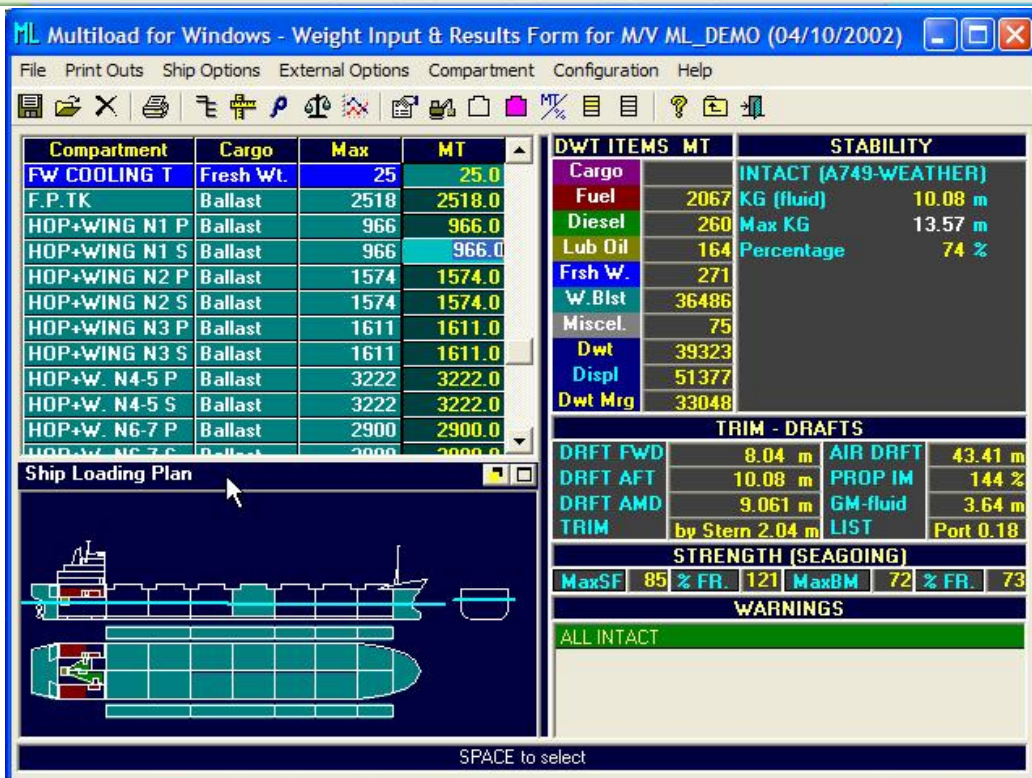
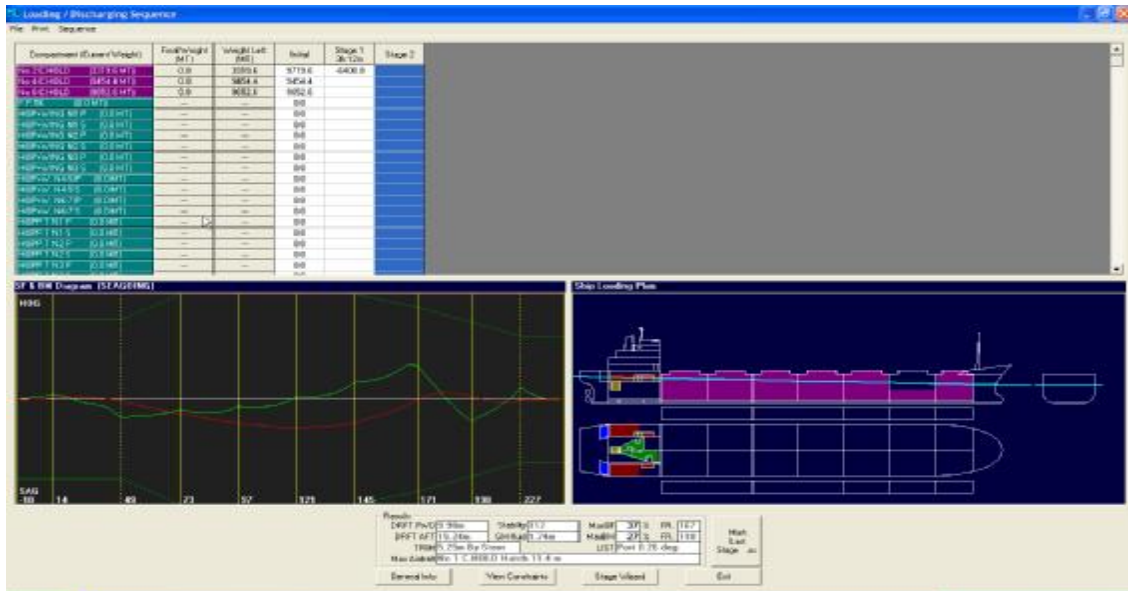
- MULTILOAD© covers 8 different ship types and 4 different stability criteria enabling any combination of cargoes on any single vessel, unlike any other system.
- On a single weight input/results screen MULTILOAD© can handle many different cargoes for any single vessel and automatically take care of all technical matters. MULTILOAD's built-in characteristics ensure that excellent maritime practice and international requirements are met.
- MULTILOAD© helps the operator to reach the optimal loading condition very fast by providing many weight input alternatives.
- MULTILOAD© offers, in addition to its Base Program, many powerful options for the ship operator's special needs such as:
 - *LOADING AND UNLOADING SEQUENCE*
 - *DETAILED TANKER LOADING*
 - *STEEL COILS LOADING*
 - *CONTAINER LOADING*
 - *DEPARTURE-ARRIVAL CALCULATIONS*

COMMUNICATION BETWEEN VESSEL AND OFFICE

In every onboard use of software, automatic synchronization of data between vessel and office is effected.

Besides above automatic data/entries synchronization, there is, also, the option, the entries to be exported and imported on every installed software.

The office version as fleet based, includes the list of the whole fleet and the user can select a certain vessel in order to examine further her records.





ML Multiload for Windows - Weight Input & Results Form for M/T ML_TANKER (04/10/2002)

File Print Outs Ship Options External Options Government Configuration Help

ML Air Draft from Manifolds

Compartment	Case	Location	Air Draft(m)
No 1 COT (C)	OIL1	MANIFOLD F. (P)	9.154
No 2 COT (C)	OIL1	MANIFOLD F. (S)	9.153
No 3 COT (C)	OIL1	MANIFOLD A. (P)	9.162
No 4 COT (C)	OIL1	MANIFOLD A. (S)	9.161
No 5 COT (C)	OIL1		
No 2 COT (P)	oil2		
No 2 COT (S)	oil2		
No 4 COT (P)	oil2		
No 4 COT (S)	oil2		
SLOP TNK. (P)	oil2		
SLOP TNK. (S)	oil2		
FWD FOT (C)	Fuel Oil		
FOT (P)	Fuel Oil		

Ship Loading Plan

Custom

Height (from BL) m

Distance (from AP) m

TCG (Port +, Stbd -) m

Angle (Port +, Stbd -) °

Air Draft m

DRAFT AMID (P): m

DRAFT AMID (S): m

Calculate Print Exit

ALL INTACT

SPACE to select

WE CAN SAIL TOGETHER.....

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