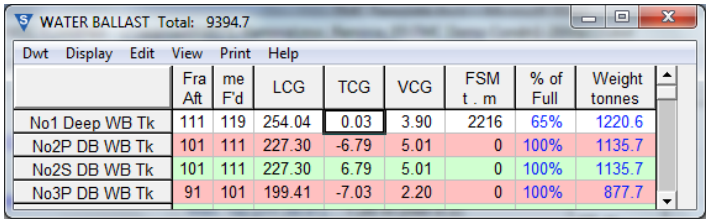
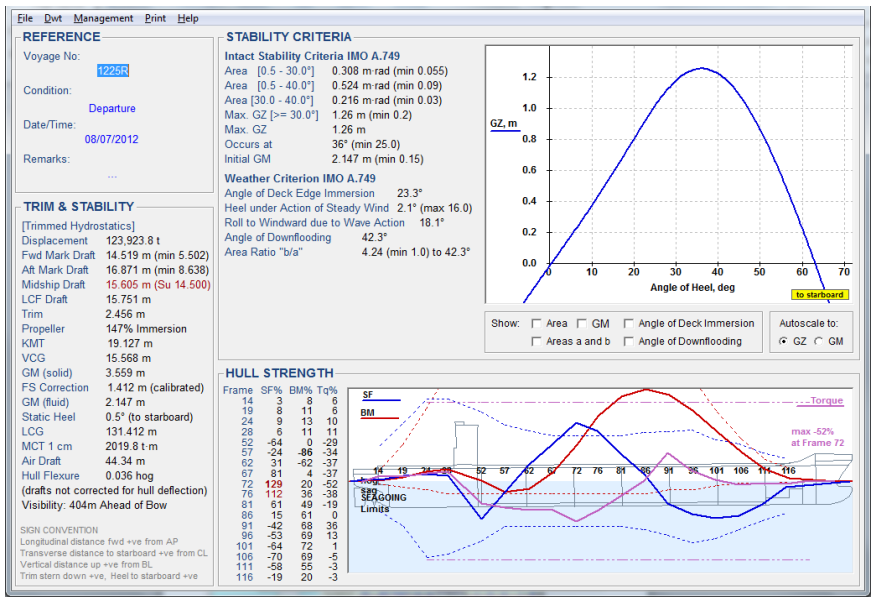
SEAMASTER Software Suite

The core of the SEAMASTER software suite is a longitudinal strength, intact stability and cargo loading program. It is used as the basis for over 250 loading instruments installed onboard all types of vessels trading worldwide. Seamaster programs have been approved for ships classed with LR, DnV, BV, ABS, NKK and GL and is usually used as a basis on which additional programs can be seamlessly added. Additional modules enable us to use the program in damage response and container lashing analysis. The software is written by experienced Naval Architects and benefits from TMC's on-site surveying and consultancy expertise.

SEAMASTER

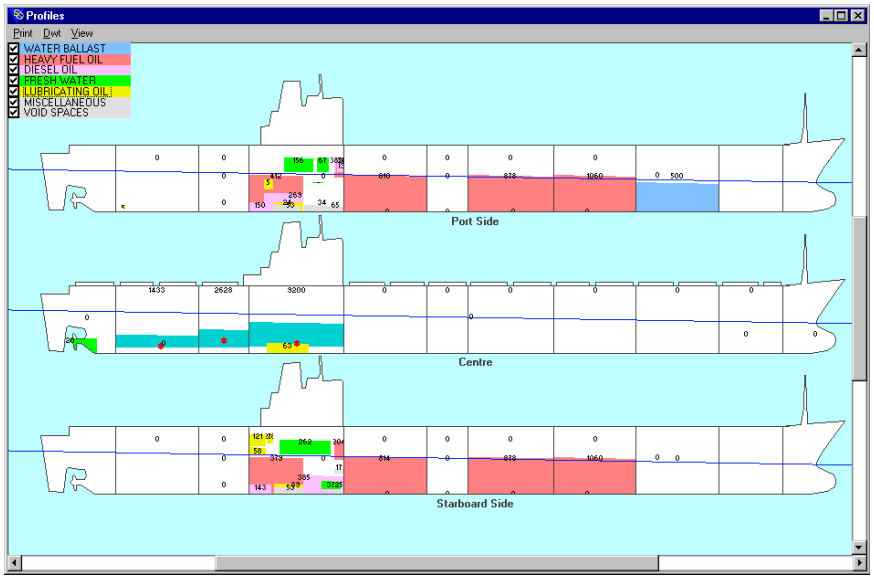
The principal features and operations of SEAMASTER program include the access of previous loading conditions, the entry of dwt (with the trim, stability and strength summary continuously updated and shown), display and printout of detailed stability and strength results, comparison between the calculated condition and that required (or observed from a draft survey), and the saving of each load condition as a file or for future reference.





SEAFLOOD

The SEAFLOOD additional module allows any compartment in the vessel to be flooded (including those which would normally be dry, for example the engine room, cargo spaces etc.). Each space may be free flooded, or a hole of a specific size and position may be entered and the effect on the vessel over a period of time can be seen. In addition to this, the program allows the progressive flooding of adjacent compartments through pipe ducts and other non-watertight areas, so that the effects on the vessel's strength and stability can be analysed.



Flooding Simulation

Display

Initialise | Step 1 min | Run to 25 | 11 mins Elapsed

Mins	Disp tonnes	Max Draft	Trim	GM	Max SF%	Max BM%	Max Tq%	Forepeak	No 1 WBT(C)	No 2 DB WBT(S)	Remarks
0	38401	8.98	-3.53	5.56	103	111	-33	593.9 F	0.0 L	886.0 R	Collision at time 1025 hr
1	38449	9.03	-3.59	5.56	103	112	-33	597.4 F	45.0 L	886.0 R	
2	38498	9.07	-3.66	5.56	103	112	-33	600.9 F	90.2 L	886.0 R	
3	38552	9.11	-3.74	5.57	103	112	-33	604.7 F	140.2 L	886.0 R	

WATER BALLAST Total: 16627.3

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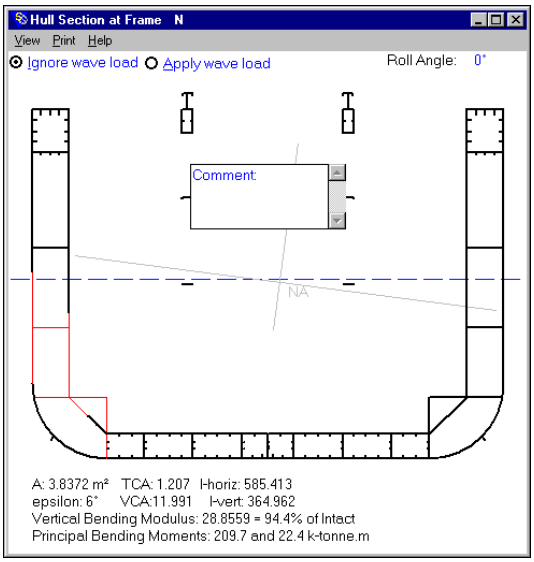
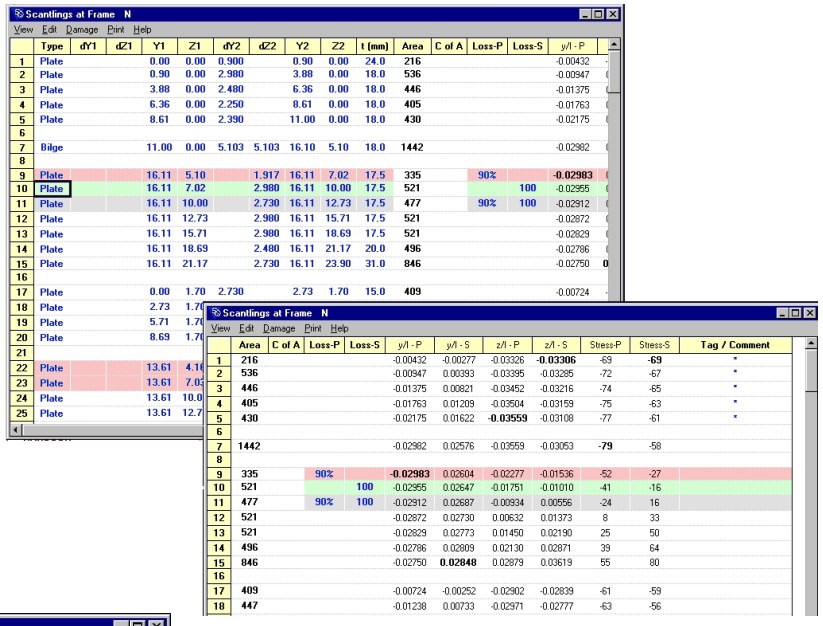
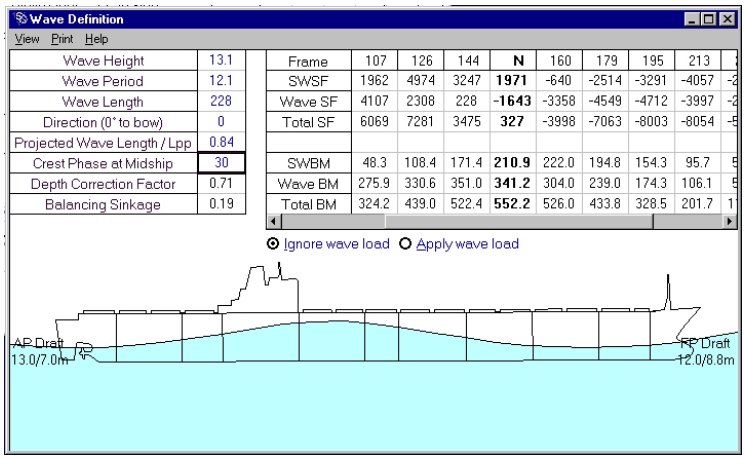
Tank Gauges	% of Full	Weight tonnes	Status I F L R	Vol Perm.	FSM Perm.	Connect to Compartment	Hole (cm²)	Ext Ht Hole	Int. Ht Hole	Pump (t/min)	O / P (t / m²)
Forepeak	72%	805.1	Flooding	1.00	1.00	Outside: Port	Large	0.0	0.0	0	0.00
No 1 WBT(C)	98%	903.0	Leaking	1.00	1.00	Forepeak	1500	5.0	5.0	0	0.00
No 2 DB WBT(P)	100%	889.1	Intact	1.00	1.00	Aft Peak(S)	0	0.0	0.0	-10	0.00
No 2 DB WBT(S)	100%	886.0	Repaired	1.00	1.00	No 5 WBT(P)	0	0.0	0.0	0	0.00
No 2 WBT(P)	87%	1525.1	Intact	1.00	1.00	No 5 WBT(S)	0	0.0	0.0	0	0.00
						No 6 DB WBT					
						No 6 DB WBT					

SEADAM

The SEADAM additional module allows rapid assessment of the residual longitudinal strength of a vessel following explosion aboard, grounding, collision or some such other accident which leaves the vessel structurally damaged. The software permits the analysis of longitudinal strength of the vessel after the total or partial failure of girders, frames, plating etc. SEADAM allows for the recalculation of bending moments and sheer forces, allowing for the effect of grounding. There is a facility to use soundings taken around the vessel to calculate the reaction force taking into account the rise and fall of the tide. The effects of wave loading on the vessel may also be seen, dependant on the height, period, direction and phase of the waves.

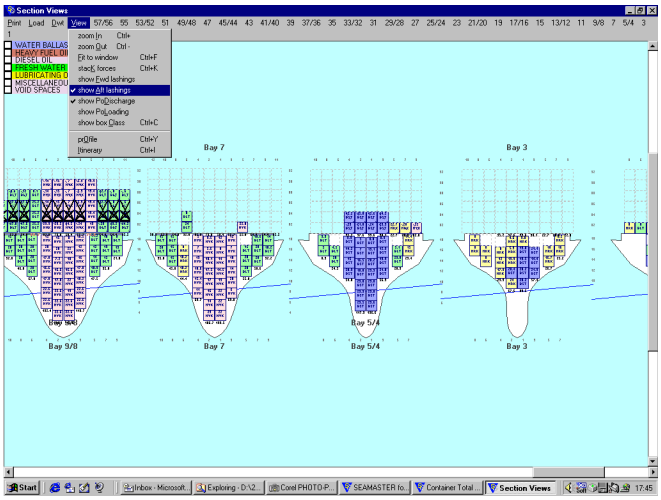


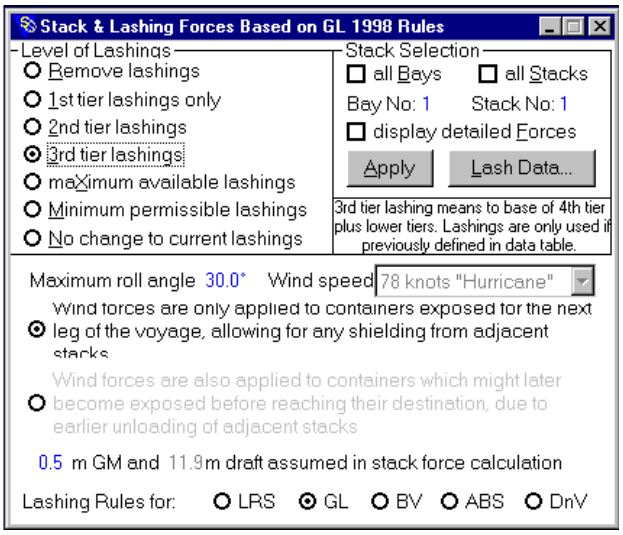


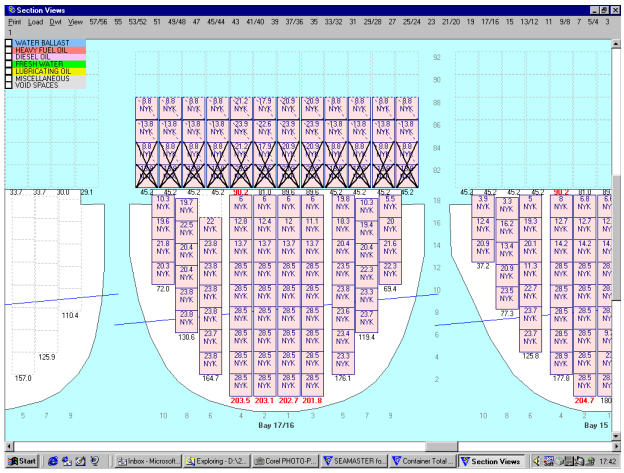


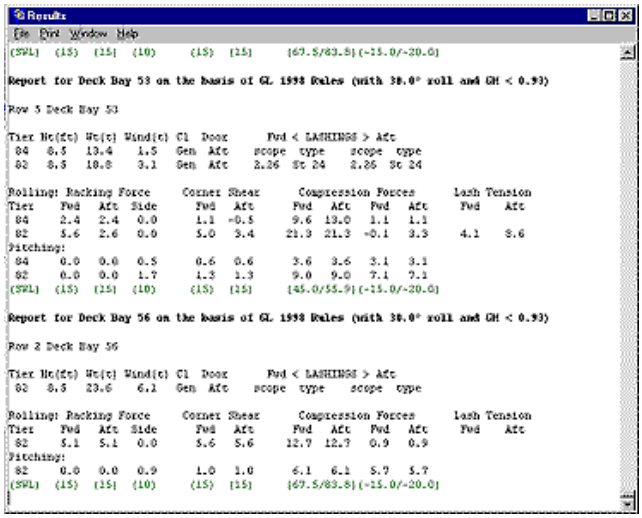
COMLASH

The COMLASH is a standalone module, which can be used in isolation or as an additional module to the main SEAMASTER program. With the COMLASH, the forces generated in any stack of containers can be calculated to see if the safe working loads of the lashing gear or of the container frame itself have been exceeded. The calculations can be carried out to all the major Classification Society rules, and investigations can be undertaken to see how various factors such as the weather conditions, the vessel's GM/draught etc. would affect the forces generated.









Lashing Data

Bay Row	Base Tier Scope Fwd (m)	Base Tier Diam Fwd (mm)	Base Tier Type Fwd (S W C N)	Base Tier Anchor Ht Fwd (m)	Base Tier Scope Aft (m)	Base Tier Diam Aft (mm)	Base Tier Type Aft (S W C N)	Base Tier Anchor Ht Aft (m)	2nd Tier Scope Fwd (m)	2nd Tier Diam Fwd (mm)
01 01	2.26	24	Steel Rod	0.00	2.26	24	Steel Rod	0.00	2.26	24
01 02	2.26	24	Steel Rod	0.00	2.26	24	Steel Rod	0.00	2.26	24
01 03	2.26	24	Steel Rod	0.00	2.26	24	Steel Rod	0.00	2.26	24
01 04	2.26	24	Steel Rod	0.00	2.26	24	Steel Rod	0.00	2.26	24
01 05	2.26	24	Steel Rod	0.00	2.26	24	Steel Rod	0.00	2.26	24
01 06	2.26	24	Steel Rod	0.00	2.26	24	Steel Rod	0.00	2.26	24
01 07	2.26	24	Steel Rod	0.00	2.26	24	Steel Rod	0.00	2.26	24
01 08	2.26	24	Steel Rod	0.00	2.26	24	Steel Rod	0.00	2.26	24
03 01	2.26	24	Steel Rod	0.00	2.26	24	Steel Rod	0.00	2.26	24
03 02	2.26	24	Steel Rod	0.00	2.26	24	Steel Rod	0.00	2.26	24