

LOCOPIAS

LOADING COMPUTER SOFTWARE



SARC

MARITIME SOFTWARE AND SERVICES



WHAT IS **LOCOPIAS?**

LOCOPIAS is on-board loading computer software. Derived from the PIAS ship design software, it uses the same proven technology to achieve optimum loading within the limits for strength, stability, draft, etc. This ensures maximum safety of the vessel, it's crew, cargo or passengers and the environment.

WHY CHOOSE LOCOPIAS?

For its user-friendliness:

- Dedicated GUI's (Graphical User Interfaces) for distinct types of cargo or loads.
- Direct and continuous on-screen verification of compliance with limits for intact and damage stability, draft, shear forces, bending moments and torsion, grain heeling, and line of sight.
- Output in comprehensive or full reports, on paper or preview on screen and easy export of output to a word processor (e.g. Microsoft Word) or spreadsheet (e.g. Microsoft Excel).
- Developed in close collaboration with ship owners and crew members, which has led to intuitive and easy to operate software.



For its advanced computation method:

- Direct calculation method (type 3 according to IACS Unified Requirement L5). All results are calculated directly from the 3D geometry of hull and compartments, for every combination of trim, heel and draft.
- Tank volume and COG's can be calculated for actual heel and trim, directly from the 3D tank geometry rather than from pre-calculated tables. This 'first principles approach' makes the (over-) correction of free surface moments obsolete. For some ships this option allows larger drafts, hence more cargo.
- Damage stability computation not only for pre-defined (regulatory) damages, but just as well for a user-defined actual damage.
- Optionally, stability can be computed with heel around the axis of weakest stability.
- A wide variety of international (damage) stability criteria is supported, including specific naval criteria DDS-079 and NES 109, and the loss-of-load criterion for heavy-lift crane vessels.

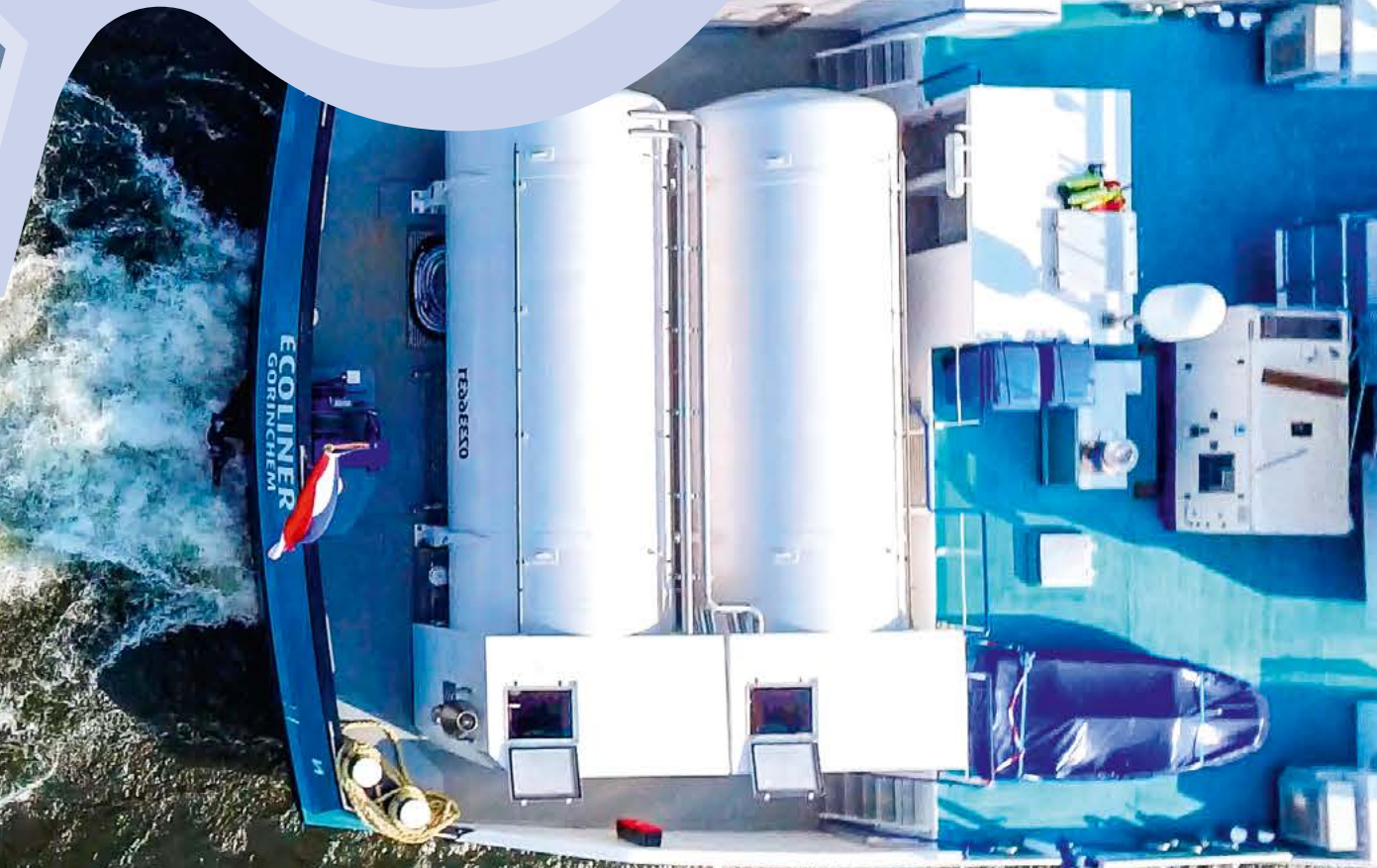


For its versatility and flexibility:

- Suitable for all kinds of vessels: dry cargo, passenger, container, RoRo, heavy lift, oil, chemical and gas tankers, special-purpose ships, naval vessels, inland waterway vessels, etc.
- LOCOPIAS can deal with single, composed and asymmetric hull forms, catamarans, trimarans and odd shapes.
- Storage of a (virtually) unlimited number of loading conditions.
- Easy selection of applicable settings, including dual load lines and multiple sets of stability and strength requirements for vessels operating under multiple regulation regimes.
- LOCOPIAS is modular: users only purchase the modules as required for their vessel(s).
- Multiple copies of LOCOPIAS can be installed and used independently, for the same vessel. For example, in the office as well as on board. Loading conditions can easily be exchanged between those installations.

For its wide acceptance:

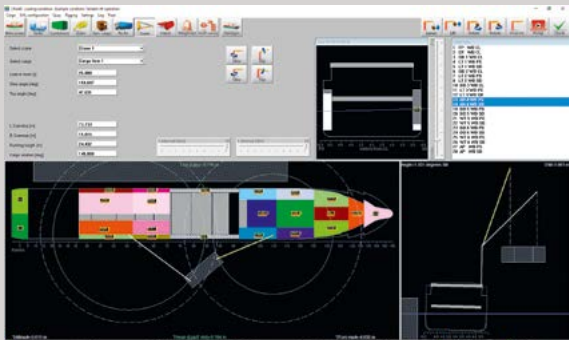
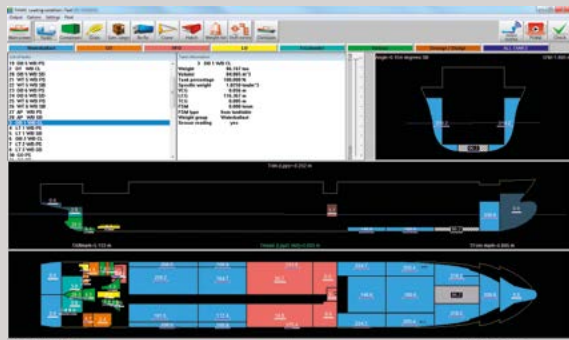
- LOCOPIAS is accepted by all major classification societies. It complies with Cat. B and C of ISO standard 16155 (Shipboard Loading Instruments) as well as IACS (International Association of Classification Societies) requirements.
- Automated printouts of test conditions as required by classification societies.



WHAT TOOLS ARE AVAILABLE?

Tank filling

- Tank GUI showing tank layout, selection of tanks per content type (WB, FO, Cargo, etc).
- Interfacing with tank and draft gauge systems.
- Temperature corrections according to ASTM or NYNAS tables, complete offloading reports, flow rate and filling monitoring.
- Advice on amount and distribution of ballast water.



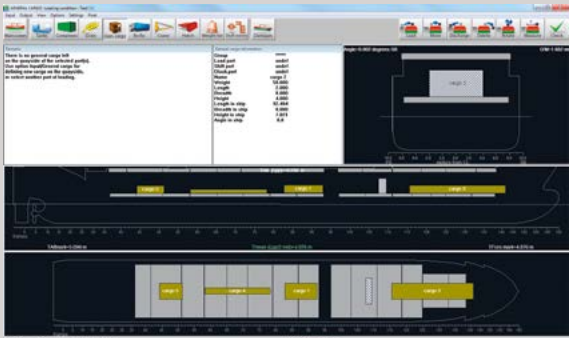
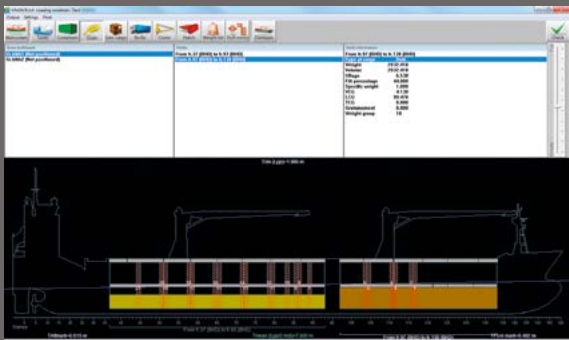
Crane operations

- Simulation of hoisting operations.
- Dual crane operations.
- Counter ballasting within crane loading module.
- Direct verification of load against SWL tables.
- Supports knuckle boom- and crawler cranes.



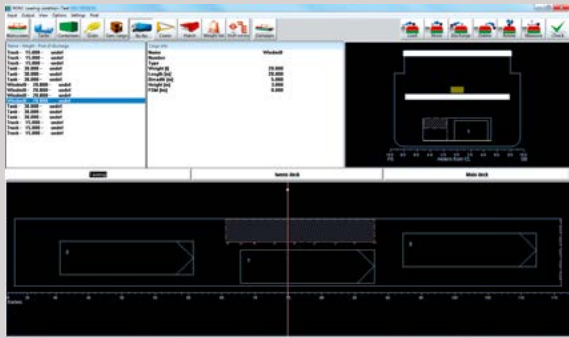
Grain and bulk loading

- Placing of bulkheads and tween decks.
- Selection of holds for grain or bulk loading.
- Automatic assessment against IMO Grain Code stability requirements.



General Cargo and RoRo loading

- Pre-defined holds, decks and obstructions, collision checking and a cargo database facilitate loading of defined cargo.



Container loading

- Dedicated GUI for the positioning and loading of containers.
- Import of container data from BAPLIE data file.
- Multiple sizes and types of containers according to container plan.
- Checks on stack-load and maximum allowable weights per container.
- Comprehensive output of loaded containers in tables, tier plan plot or BAPLIE file.

Custom-built features

- Different layouts of buoyant models to include pontoon hatches for heavy-lift vessels and open docks for Landing Platform Dock and other naval vessels, etc.
- The effect of (partial) grounding of landing craft in an open dock, depending on draft, trim and heel.
- Loading options for non-standard cargoes and vessels: pipes on deck (with entrapped water), pipe-laying vessels, stone-dumping vessels, stinger configurations etc.
- Maximum chain forces for anchor handlers.
- Interfacing with crane sensors to monitor crane operations.



Miscellaneous

- Polar diagram of dangerous combinations of speed, course and wave period in quartering and following seas, according to IMO recommendations.
- Draft survey function to determine loaded or offloaded cargo weights.



SARC
MARITIME SOFTWARE AND SERVICES

ADDRESS

Landstraat 5
1404 JD Bussum
The Netherlands

PHONE

+31 85 040 90 40

MAIL

sarc@sarc.nl

WEBSITE

www.sarc.nl