



INTEGRATED BOAT DESIGN IN CATIA

To keep pace with the increasing complexity of designs in the marine industry an integrated solution is required. The long and cumbersome data exchange has to be eliminated as well as the multiple, error-prone data re-entry which increases design time significantly, too. FASTMARINE integrates a complete set of functions to cover the most advanced requirements for weight evolution management, hydrostatic, and stability in CATIA. Both, FASTMARINE and CATIA, provide a breakthrough end-to-end solution that streamlines the boat design and engineering process to fully enable the naval architecture design spiral.

► PRODUCT FEATURES

- Preliminary hydrostatic analysis with dynamic impact of mass or hull form modifications on the equilibrium
- Automatic hydrostatic and stability reports generation in compliance with classification societies' criteria. Additional criteria can also be customized for specific reports.
- Selection of hull openings, tanks and capacities, ship silhouette and other calculation input directly in the CATIA model
- Management of Light Ship displacement weight maturity from estimated to computed status
- Advanced hydrostatic and stability calculations (intact and damaged) and real time simulation through a direct

connection to the volume based analysis engine MAAT Hydro+

- Creation of loading conditions for variable loads of tanks, freight, and passengers
- Automatic generation of hull lines drawing showing buttocks, stations and waterlines with automatic annotations

► CUSTOMER BENEFIT

- Superior hull surfaces data quality thanks to the powerful CATIA modeler
- Faster and easier modifications throughout the design spiral thanks to data continuity from preliminary design to detailed engineering
- Faster boat models review and optimization, including the most complex

models, based on real-time simulation of hydrostatic and stability variations

- Accurate calculation of complex hull shapes such as hydrojet tunnel or bow thruster thanks to volume-based solver

► SUMMARY

- Combined with CATIA, FASTMARINE offers a unique and powerful innovation platform that integrates the complete process from advanced shapes design to stability, fluid dynamics and structure calculations to facilitate the development of increasingly audacious boat designs.

fastMARINE
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