

Software Solutions for Naval Architecture & Shipbuilding

## **NDAR - Mission Statement**

To team up, partner and excel as one with our customers and partners, maximize productivity and always be a step ahead!

# **SOFTWARE**

- Naval Architecture &
  - Design ₩
  - Engineering &
  - Production 🏶
- Enterprise Systems &
  - PLM ₩



## **TRAINING**

- ₱ Hands-On
- Specialized
- ₱ Project specific

## **CONSULTING**

- Business Process Assessment &
  - Implementation Consulting ®
    - Process Development ₩
      - Project Strategies &
    - Teamwork Optimization ®
    - Workflow Optimization &

# **SUPPORT**

- ₱ Project Support
- Project Assistance
- ⊕ Continued Proficiency
- Collaborative Organization

Founded in 1983, today **NDAR** offers comprehensive software solutions for Ship Design, Naval Architecture and Shipbuilding, fully integratable with existing systems. The **NDAR Design/Naval Architecture Solution** adds specialized plug-ins Orca3D, ExpressMarine, VisualARQ etc. to the Rhino3D platform, integrated with GHS, ShipWeight, MAESTRO, NavCad, Altair, etc. and the NDAR Shipbuilding Solution.

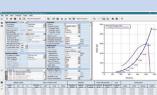
The **NDAR Shipbuilding Solution** builds on the AutoCAD/Autodesk platform with ShipConstructor, the realistic, 3D solid modeller AutoCAD plug-in, whose relational project database manages the AutoCAD modelling environment, output, deliverables, sisterships, series of

ships, plaftorms, submersibles, etc. to generate Digital Prototypes, as-built Digital Twins, PLM data and supports on-board operations, refits, conversion, etc.

Moreover, ShipConstructor feeds the one-of-a-kind SSI ShipbuildingPLM environment, integrated with formal PLM solutions.

**NDAR** purposely teams-up with other recognized specialists and seeks highest quality/cost ratio results by continually challenging, comparing and relentlessly testing against realworld situations. Not least, we place people first at NDAR, they are the diamond tip that delivers value with experience, innovation, flexibility, adaptability and creativity.













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#### SSI ShipConstructor

ShipConstructor is a complete line of solutions for the design, engineering, and construction of ships and offshore projects. Via the EnterprisePlatform, it directly supports the PLM ecosystem.



### SSI EnterprisePlatform

EnterprisePlatform makes the enormous wealth of engineering information present in every shipbuilding project available across the organization custom configured and in full automation.



## SSI ShipbuildingPLM

ShipbuildingPLM is the only product lifecycle management (PLM) platform that is specifically built for the business of shipbuilding.



#### **MAESTRO Marine**

MAESTRO is a design, analysis, and evaluation Finite Elements tool specifically tailored for water-bound structures that offers unique tools for rationally-based structural design, including integrated hydrodynamic loads.



#### GHS by Creative Systems

A most comprehensive, uniquely versatile and powerful stability calculator covering the marine domain with integrated probabilistic damage, seakeeping, longitudinal strength and 2nd generation intact stability tools.



#### Enscape3D

Enscape is a real-time rendering and virtual reality plugin for Revit, SketchUp, Rhino, Archicad, and Vectorworks. It plugs directly into your modeling software, giving you an integrated visualization and design workflow.



#### Rhino3D by McNeel

The ultimate industry standard general purpose CAD 3D modeler. Its NURBS-based surfaces and SubD modelling is used directly by most other marine software.



#### **VisualARQ**

Architectural design software which enhances Rhino by adding powerful architectural objects, styling and dynamic documentation tools. Also runs inside Revit



#### Orca3D

Naval Architecture in Rhino3D including hull design, hydrostatics, compartmentation, fluid loads and free surfaces, intact & damaged stability, resistance prediction, weight tracking.



#### **Orca3D Marine CFD**

Combination of the Orca3D marine design plugin for Rhino and the Simerics Multi-Phase CFD software, providing a fast, accurate, and easy-touse CFD solution for the naval architect.



#### ShipWeight by BA Software

A unique collection of Weight & CG Estimation, Tracking and Monitoring tools connected with Naval Architecture tools (NAPA, GHS, Orca3D, etc.) and ShipConstructor.



ExpressMarine

#### **ExpressMarine by BA Software**

Rapid parametric structure modelling inside Rhino3D, produces weight & cg reports, material take-off, volumes, exports to ShipWeight, ShipConstructor and NAPA.



## HydroComp NavCad ®

NavCad is the premier hydrodynamic and propulsion system simulation tool, providing powerful systems engineering calculations for the Vessel-Propulsor-Drive performance of marine vehicles.



## HydroComp PropElements ®

PropElements is an efficient wake-adapted propeller code that provides an optimizing design and analysis capability including benchmarking and full 3D preparation for CFD.











