

MARINE DESIGN

YachtSoft User Manual

Installation, Project Setup, Hull Editing, and Module Workflows in Rhino 8

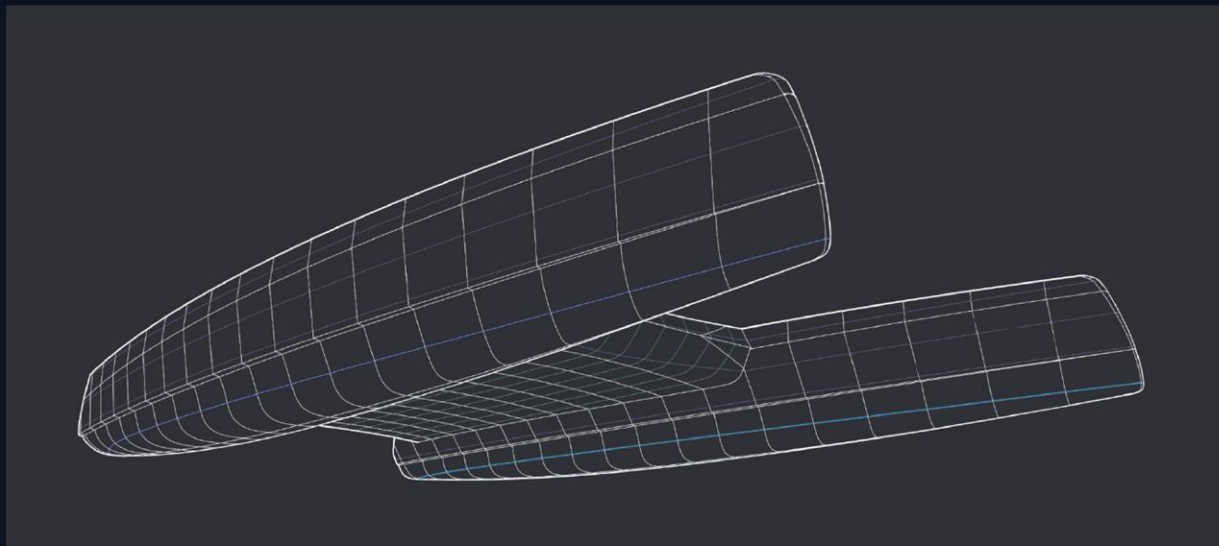


Figure 1 - Catamaran example created in HullZero (multihull workflow).

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1. Introduction

This document shows the complete workflow for installing, configuring, and operating YachtSoft inside Rhino 8. It is intended for professional naval architects, yacht designers, and advanced users who require a structured, repeatable workflow.

YachtSoft is a parametric hull-generation and analysis environment. Typical workflow stages are: software installation, project initialization, global configuration, detailed geometric adjustment, and modular analysis or detailing (performance, structure, styling, etc.).

YachtSoft supports multiple vessel types including planing V-chine powerboats, displacement chine and round-bilge forms, multihulls (e.g., catamarans), and sailing yachts via dedicated sail & displacement performance tools.

1.1 YachtSoft Ecosystem Overview

YachtSoft is part of the broader YachtSoft plug-in ecosystem for Rhino + Grasshopper. Depending on your license, additional modules may be available to support hydrostatics, engineering, collaboration, and documentation workflows.

- Hullzero – parametric hull generation (planing and displacement) with live hydrostatics and fairing tools.
- Performance – planing powerboat performance prediction (Savitsky) and geometry tools (rails/steps).
- Structure – internal structure generation and plating/BOM workflows.
- Sail & Displacement Performance – sails/rigging, appendages, and foil tools for sailboats.
- Asset Libraries – reusable components and project templates for rapid iteration.
- Collaboration (Speckle) – share and sync models between team members and stakeholders (when enabled).

Tip: If a module is shown as Disabled in Modules, it is not active for the current license level.

2. System Requirements

Before installing YachtSoft, ensure the following requirements are met:

- Operating System: Windows (64-bit)
- CAD Platform: Rhino 8 - English (US) build
- Recommended CPU: i9-14900k
- Recommended RAM: 64 GB
- Recommended Graphics: RTX 3060/ 4060/4070
- Validated Rhino installer
- YachtSoft: a YachtSoft Yak installer.

Use of older Rhino versions, languages, or builds may result in missing commands, licensing failures, or unstable behavior.

Rhino 8 SR28 2026-2-10 (Rhino 8, 8.28.26041.11001,

Figure 2 - Validated Rhino installer version/build for YachtSoft (example message/file).

3. Software Installation

3.1 Required Rhino Version

YachtSoft depends on specific Rhino APIs and build-level behavior. Install the validated Rhino 8 English (US) build shown above, then launch Rhino once to confirm it runs.

1. Install Rhino using rhino_en-us_rhino_8.28.26041.11001.exe (default settings).
2. Launch Rhino once to confirm it opens correctly.
3. Close Rhino before installing YachtSoft packages.

3.2 Installing YachtSoft and License Packages

Yachtsoft requires one YAK package:

- YachtSoft application package (.yak)

Installation procedure:

4. Launch Rhino.
5. Drag and drop the YachtSoft application .yak file directly into the Rhino window.
6. Allow Rhino to complete installation of both packages.
7. Close Rhino completely and restart Rhino.

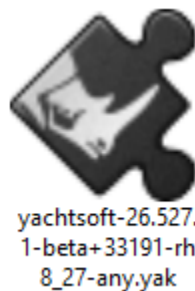


Figure 3 - YachtSoft main package (.yak) must be installed

4. Starting YachtSoft

YachtSoft is launched manually through the Rhino command line:

8. Click inside the Rhino command line.
9. Type YachtSoft.
10. Press Enter.

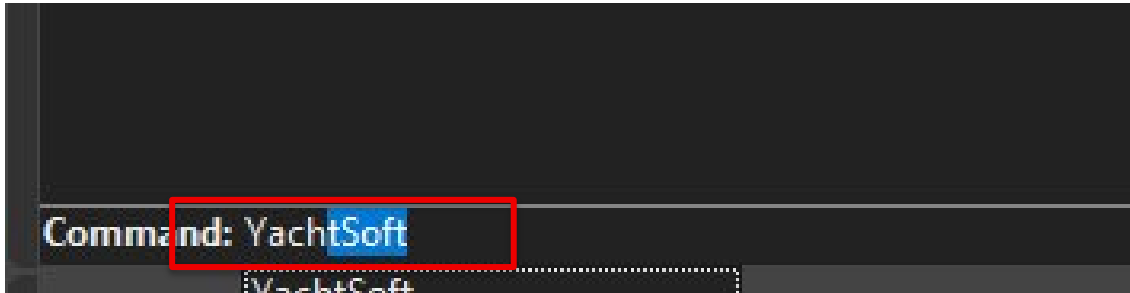


Figure 4 - Launch YachtSoft from Rhino by typing the command YachtSoft in the command line.

5. File Menu

The File menu initializes the Rhino workspace, file structure, and project context. No geometry is generated until a parent folder is set and the project is created or imported.

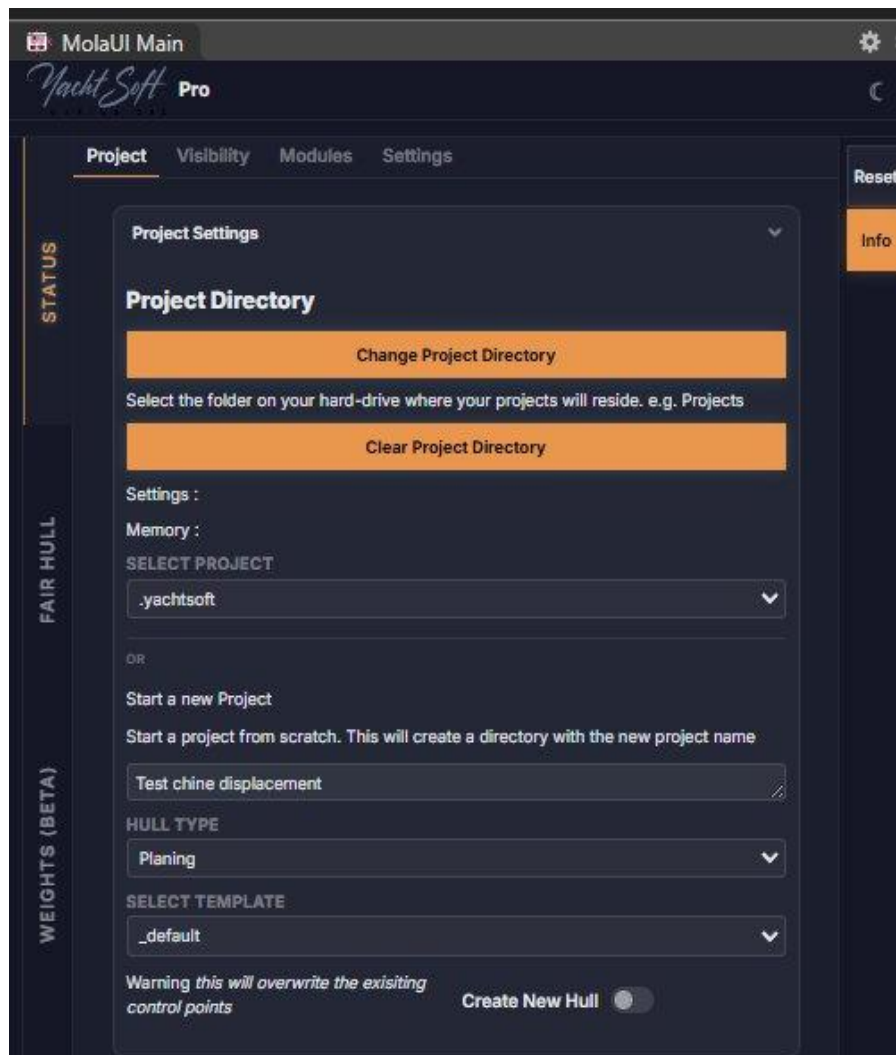


Figure 5 - YachtSoft File menu (first screen after launch).

5.1 Configuration

Key controls on the configuration tab:

- Model text height: controls annotation/text size used by YachtSoft labels in the Rhino viewport.
- Model layers (required): selects the layer scheme used for model organization.
 - YachtSoft Basic: minimal layers.
 - YachtSoft Full: full hierarchical layer system (recommended).

5.2 Project Directory

A parent folder must be selected to store project files and to allow YachtSoft to manage its Projects and Assets folders.

11. Click on Change the project directory
12. Choose a directory on disk (recommended: Documents).

13. Press OK to confirm.

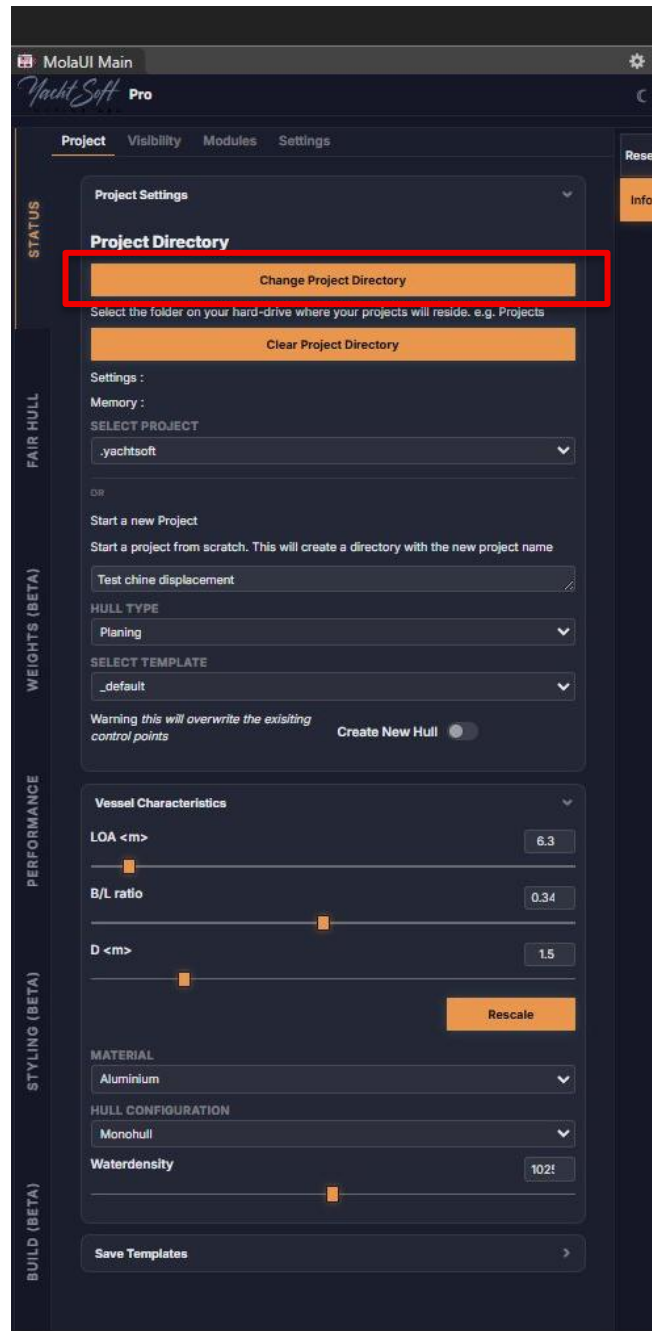


Figure 6 – Select change the project folder, then select the folder, recommended: documents.

5.3 Creating or Saving a Project

Creating a new project:

14. Select New default project.
15. Input project name in New Project Name textbox.
16. Select a Hull Type (**Planing V-chine, Displacement chine, or Displacement round bilge**).

Workflow tips:

- Set principal characteristics first before making detailed adjustments
- Use appropriate station and waterline spacing for your design stage - finer spacing for final design, coarser for initial exploration
- Enable Immersed mode early to validate hydrostatics as you design
- Disable Lines visibility if viewport performance becomes slow
- Adjust water density for different operating conditions (saltwater vs. freshwater)

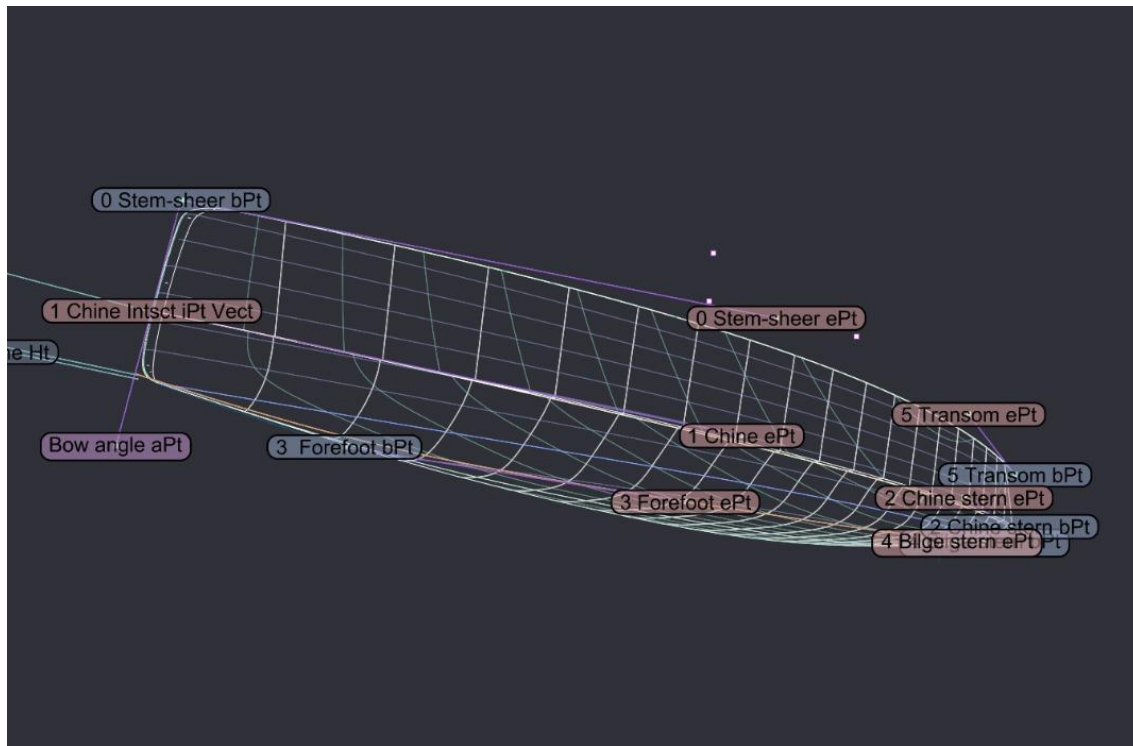


Figure 7 - Example: Displacement chine hull type (control points and reference curves).

Saving a project

17. Select Save Project
18. Select Save

Additional project-management notes:

- To continue work in a later session, save your Rhino .3dm file inside the YachtSoft project directory and re-open that file next time.

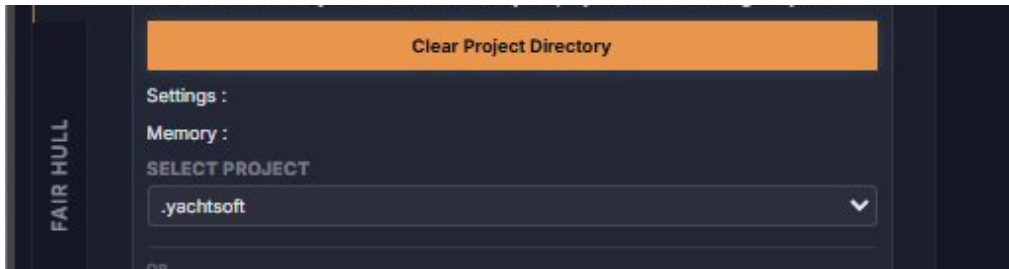


Figure 8 - Example of selecting a project.

5.4 Principal Characteristics

- LOA (m): length overall. **(Units are meters)**
- B/L ratio: beam-to-length ratio controlling slenderness.
- D (m): design draft.

6. Settings Menu

The Settings menu defines text visualization. Use this tab early to set visualization for text.

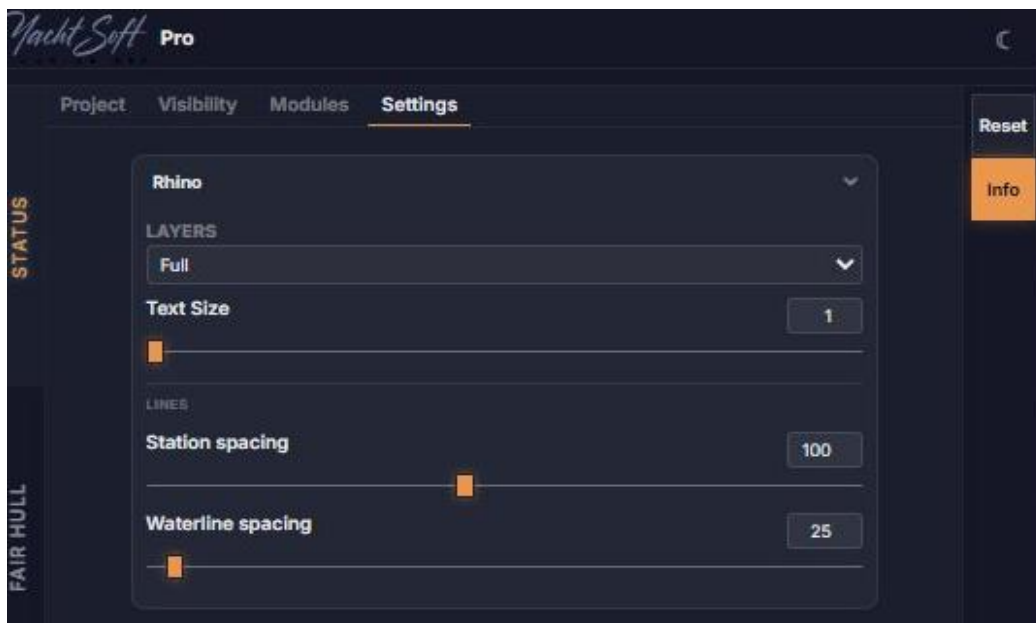


Figure 9 - text visualization, station spacing, and waterline spacing

6.1 Visibility, Resolution, and Hydrostatics Controls

Visibility controls determine what is drawn in the Rhino viewport:

A vessel must be selected for display. Each option in the process of creating a hull will have a visibility option. For example: options include the original hull, the stepped hull, the hull with rails, and multihull.

- Controls: labeled control points used to shape the hull.
- Hull: the primary surface/solid hull geometry.
- Lines: hull lines and reference curves (diagnostic).
- Panels: panelization/derived surfaces where available.
- Extras: additional helper geometry.
- Immersed: submerged geometry and hydrostatics readout.

Resolution and calculation parameters:

- Station spacing (cm): longitudinal resolution for lines/hydrostatics.
- Waterline spacing (cm): vertical resolution for lines/hydrostatics.
- Water density: fluid density used for displacement/hydrostatics.
- Smaller spacing values increase detail/accuracy but reduce performance.

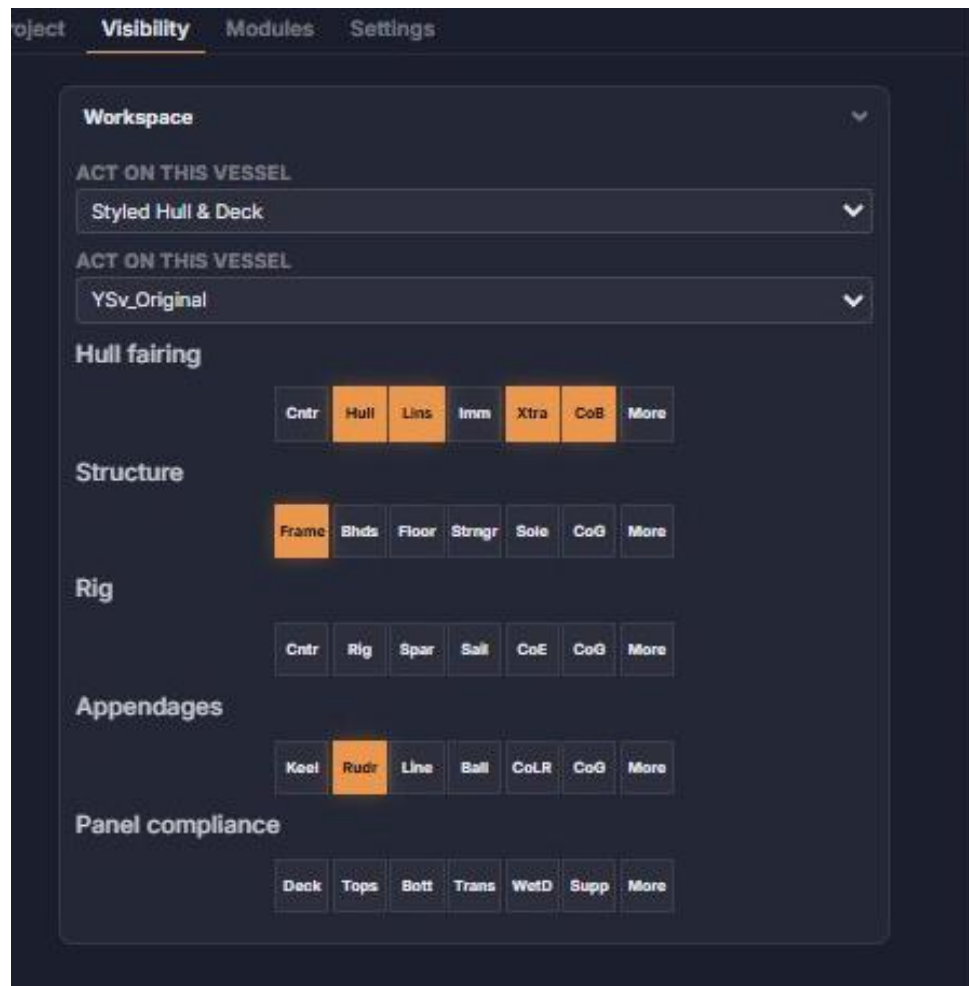


Figure 10 - Edit station spacing, waterline spacing, and density to control resolution and hydrostatics behavior.

6.2 Hull Lines Visualization

When Lines is enabled, YachtSoft displays hull lines (sheer/chine/bilge and related reference curves). These are used to inspect fairness, continuity, and geometric integrity. Disable Lines during heavy editing if performance slows.

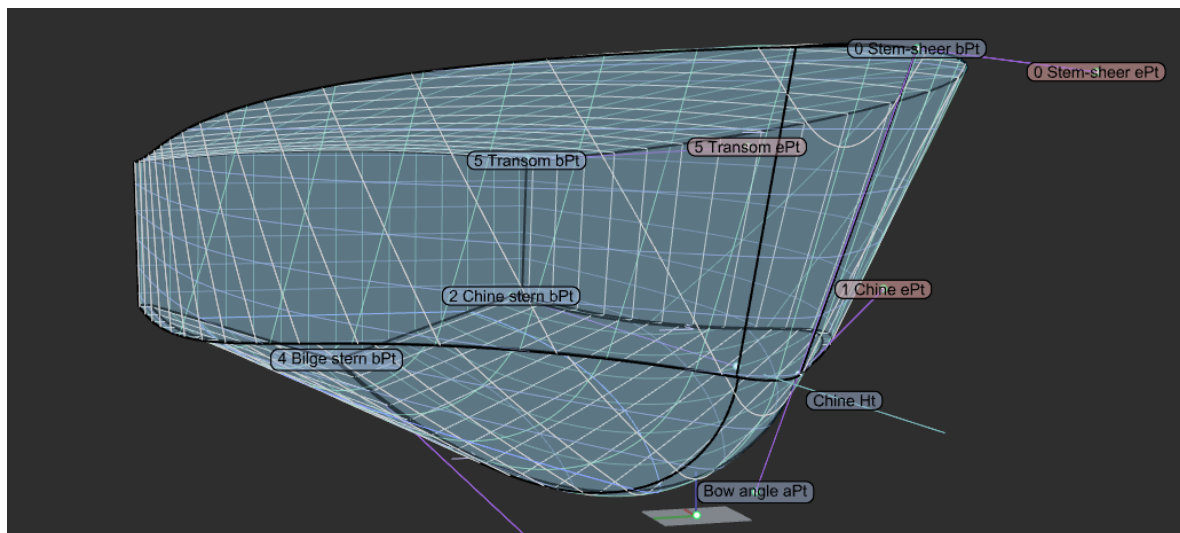


Figure 11 - Hull lines enabled: diagnostic curves and wireframe structure for fairness inspection.

6.3 Immersed Mode and Hydrostatics

When Immersed is enabled, YachtSoft displays submerged hull geometry and computes real-time hydrostatics. Reported hydrostatics are read-only and update automatically as geometry changes.

- Typical hydrostatics values include displacement, volume, LCB/VCB, LWL/BWL, WPA, LCF, wetted surface area, and angle of entry.
- **Hydrostatics – YachtSoft Config Menu**
 - Enables real-time hydrostatic calculations based on the current hull geometry and active waterplane.
 - Hydrostatics update automatically when control points, sliders, or hull parameters are modified.
 - Uses the defined water density value for all buoyancy and displacement calculations.
 - Optional inclusion of appendages such as keels and rudders when enabled.
 - Intended for early-stage design validation, trim assessment, and balance evaluation.
- **Reported Hydrostatic Outputs**
 - Displacement – total vessel weight supported by buoyancy.
 - Submerged Volume – underwater volume of the hull.
 - LCB / VCB – longitudinal and vertical centers of buoyancy.
 - LWL / BWL – waterline length and beam.
 - WPA – waterplane area.
 - LCF – longitudinal center of flotation.
 - Wetted Surface Area – total submerged surface area.

- Angle of Entry – bow entry angle at the waterline.

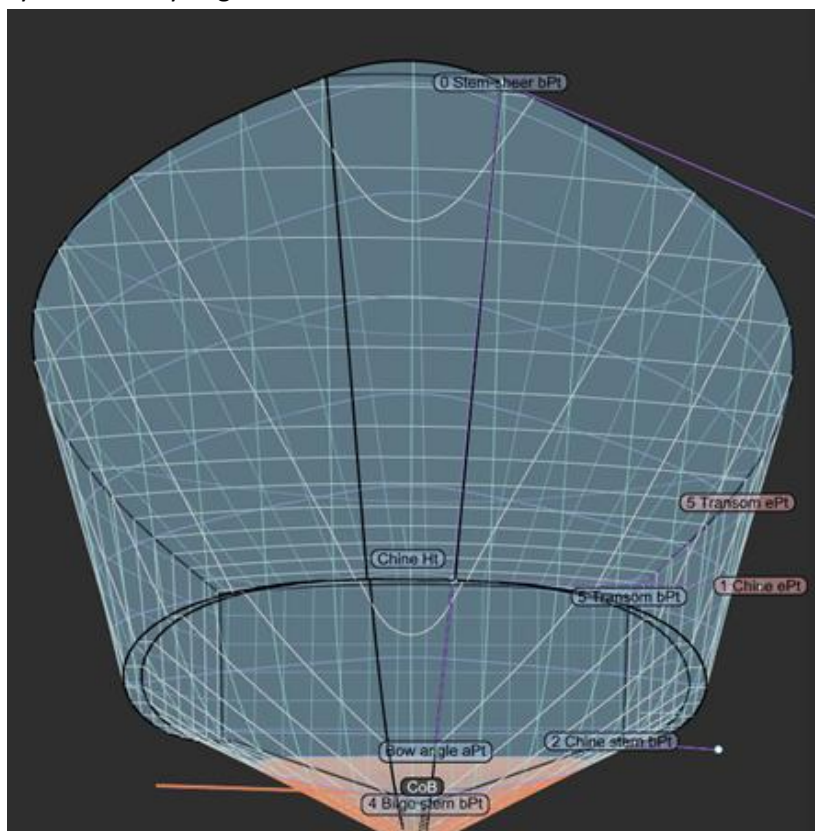


Figure 12 - Immersed enabled: hydrostatics update live as the hull is edited

7. Adjust Menu & Multihull Zero Module

The Adjust menu provides detailed parametric shaping of the hull geometry through sliders and optional profile selections. Use Adjust for major shaping, then refine using control points in the Rhino viewport.

Tips & best practices:

- Start with major adjustments using sliders before fine-tuning with control points
- Use reference overlays when matching existing designs
- Enable Lines visibility to check fairness while adjusting
- Monitor hydrostatics in Immersed mode as you make changes
- Save your work frequently to preserve control point positions
- For multihulls, adjust hull spacing and bridgedeck geometry carefully

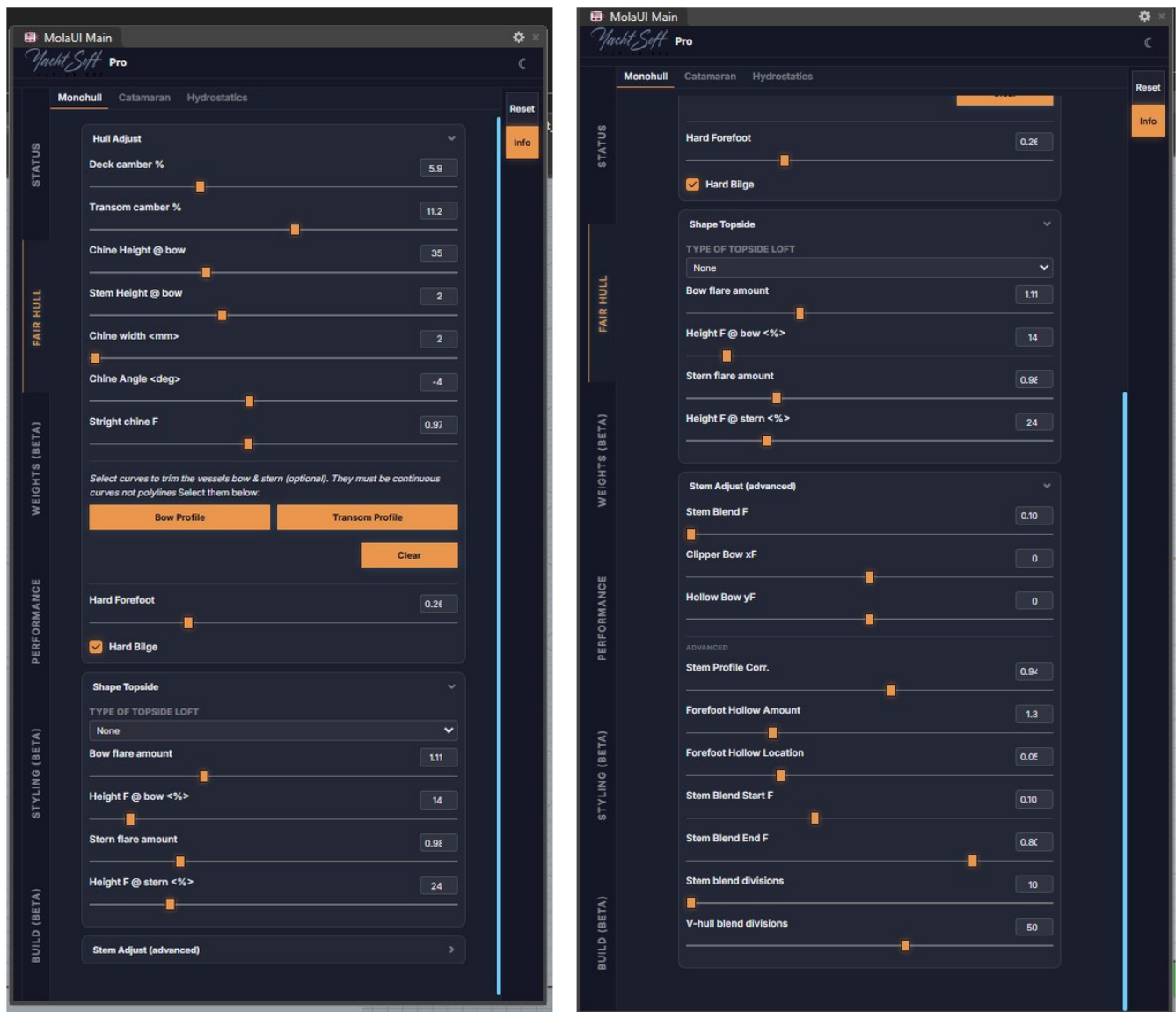


Figure 13 - Adjust menu: detailed hull shaping controls (deck, chine, topsides, multihull, stem advanced).

7.1 Deck, Chine, and Hull Geometry

- Deck camber (%), transom camber (mm), chine height/width/angle, and straightness/blend factors define the primary hull transitions.

7.2 Bow and Stern Controls

- Optional trimming: click user curves to trim bow/stern. Trimming curves must be continuous splines.
- Select transom profile: choose or define the transom profile used by the hull form.

7.3 Topsides and Flare

- Topsides shaping controls bow hollows, clipper bow behavior, loft mode (loose/tight/straight), and flare magnitude/height at bow and stern.

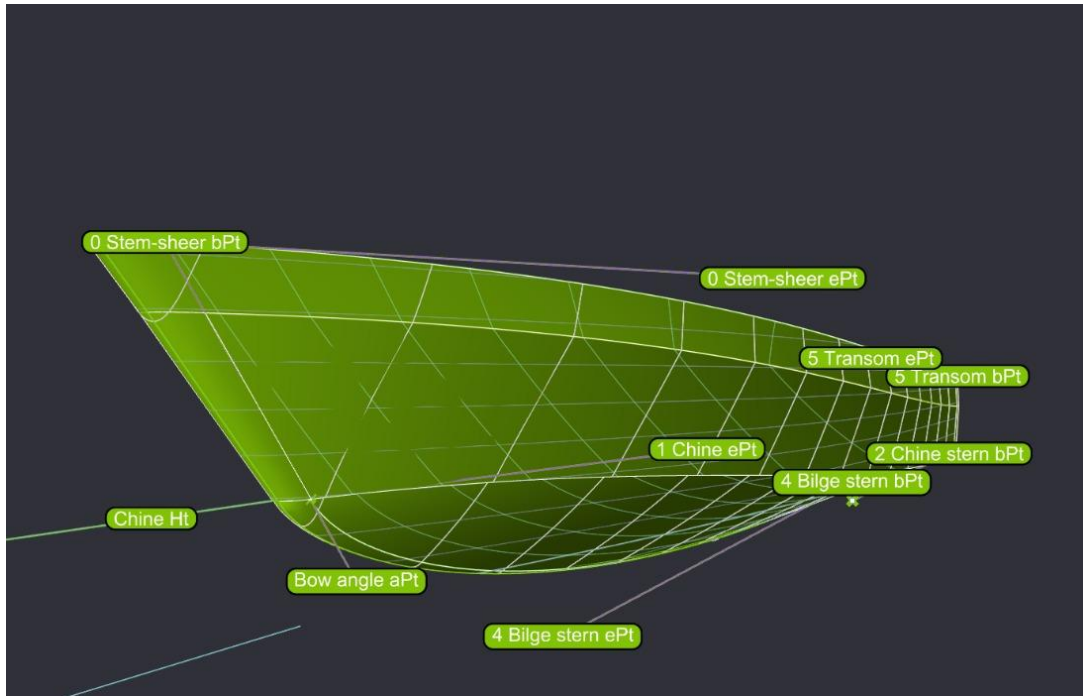


Figure 14 - Topsides enabled: topside surfaces and control points visible for refinement.

7.4 Multihull Zero Module

- Enable Multihull Zero Module from modules tab.
- Multihull tools enable catamaran configurations, including hull spacing, asymmetry, bridgedeck geometry, and strake definitions.
- Enable Update Hull, and Bridgedeck to be able to create a multihull.
- **Start with all settings at the center of sliders (to make sure multihull shows in vessel visibility).**
- Use the Multihull type selector (e.g., Catamaran) and adjust BCL, asymmetry, inner flare, and bridgedeck parameters.

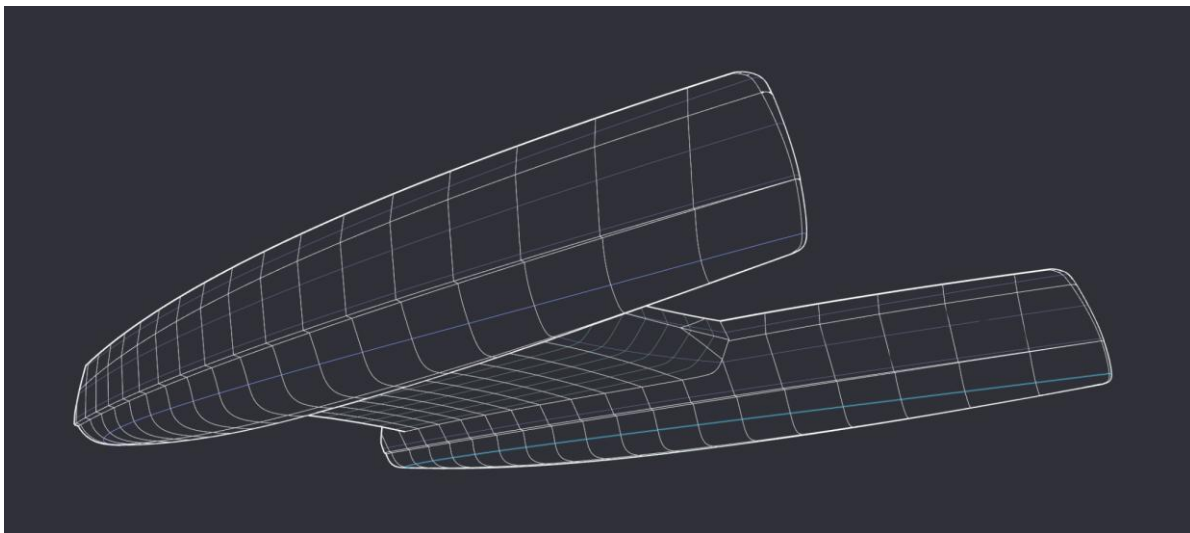


Figure 15 - Catamaran geometry example (multihull configuration).

7.5 Stem Advanced Controls

- Stem Advanced provides fine control of forefoot adjustment, stem blending start/end, blend divisions, and curvature correction.

8. Control Point Editing Workflow

YachtSoft exposes labeled control points directly in the Rhino viewport. Each control point corresponds to a specific hull feature; moving control points updates the hull surface in real time.

- Recommended workflow:
 - Set global proportions (Config).
 - Make major shape changes with sliders (Adjust).
 - Refine local geometry by moving labeled control points.
 - Validate using Lines and Immersed hydrostatics as needed.

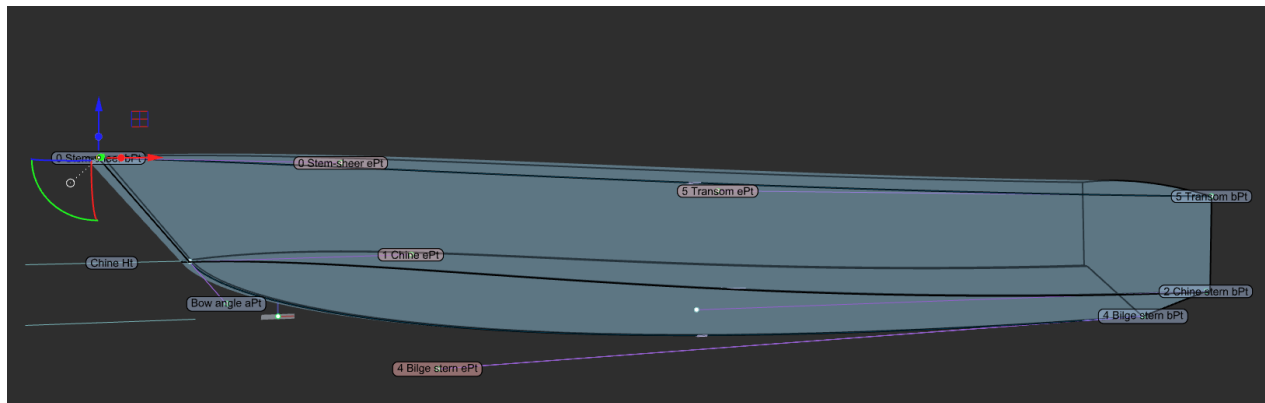


Figure 16 - Labeled control points used to shape the hull form (example side view).

8.1 Reference Overlays

Reference overlays can be used to match the YachtSoft model to drawings or concept renderings. Typical workflow: import/attach a reference image in Rhino, align it to the model view, then adjust control points to match the profile.

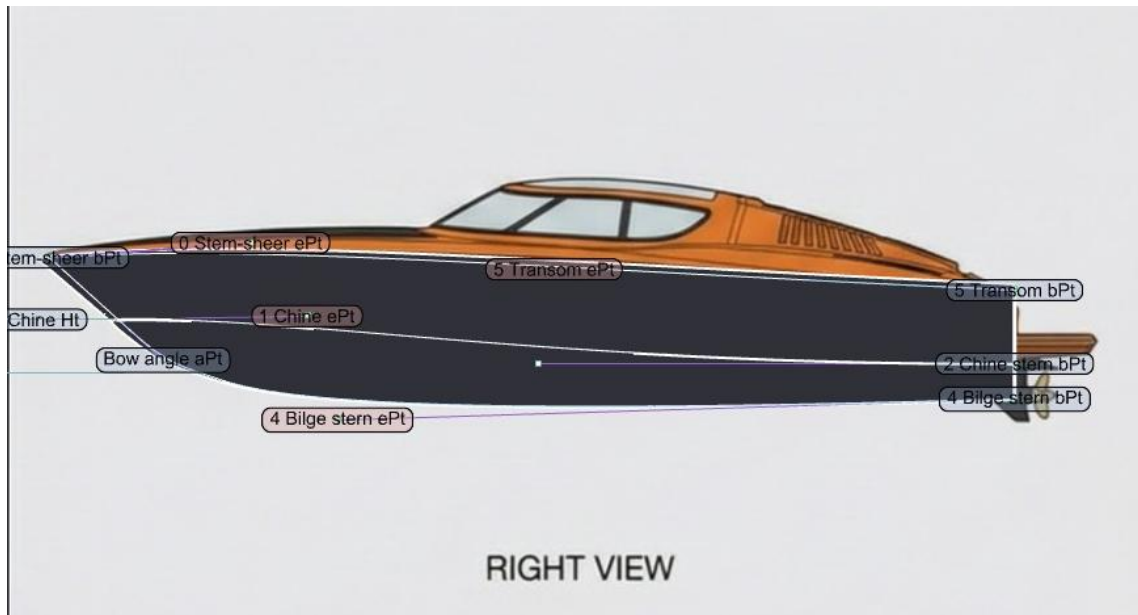


Figure 17 - Example: side-view overlay used as a reference while adjusting control points.

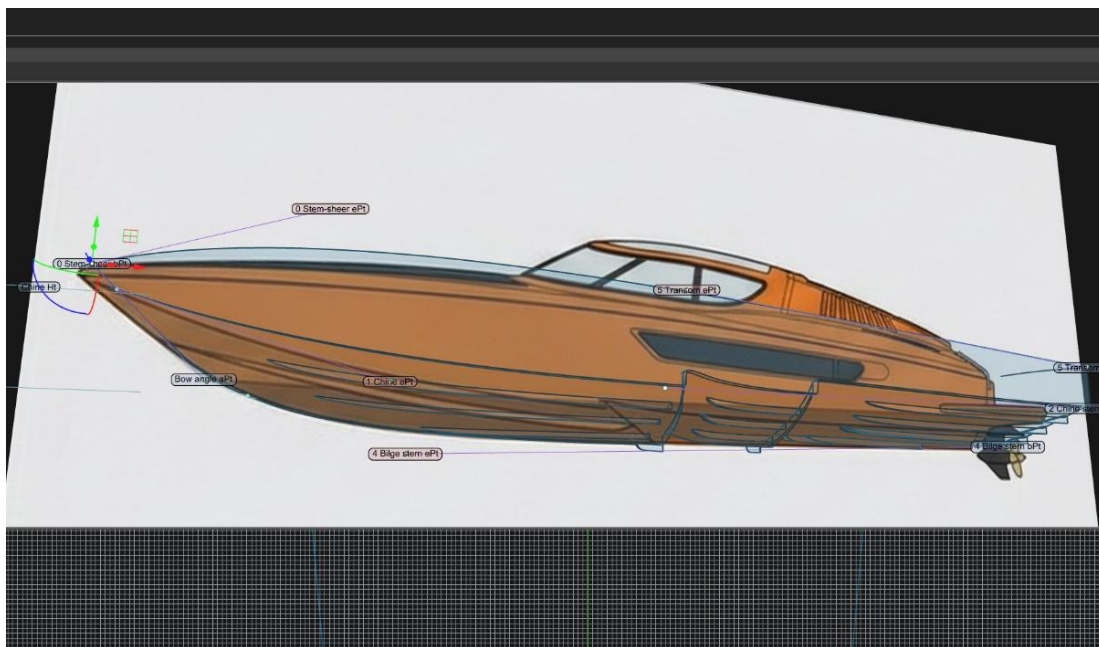


Figure 18 - Example: perspective overlay reference while shaping the hull form.

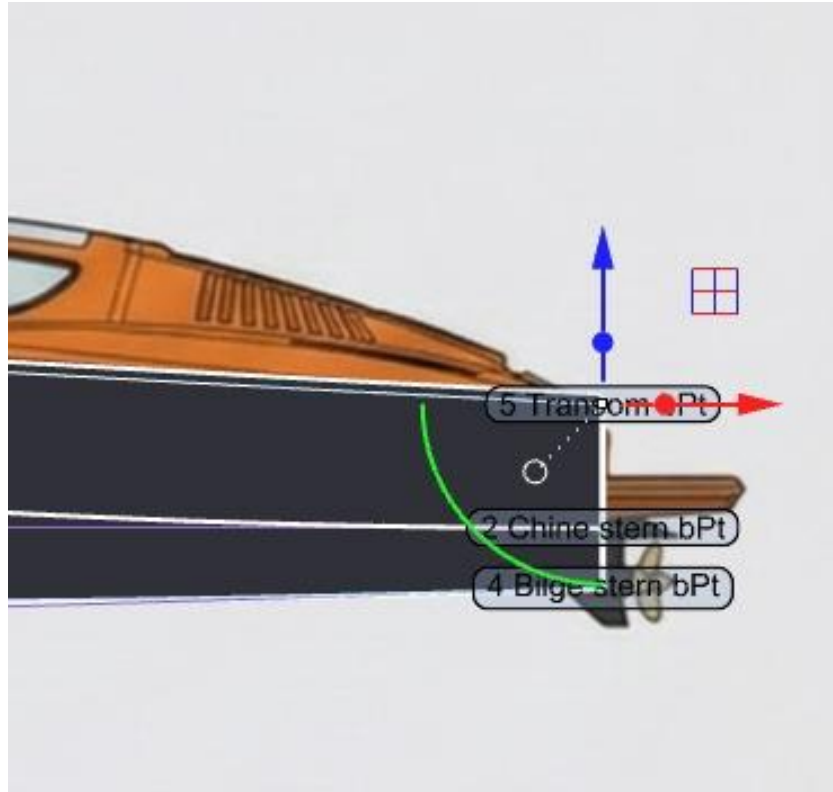


Figure 19 - Example: transom/sterndrive area overlay for local alignment.

9. Modules Menu and Module Workflows

The Modules menu controls which YachtSoft Pro modules are active in the current project. Module availability depends on the active license.

Note: A valid paid license is required to access Pro modules (modules shown as Disabled require an upgraded license).

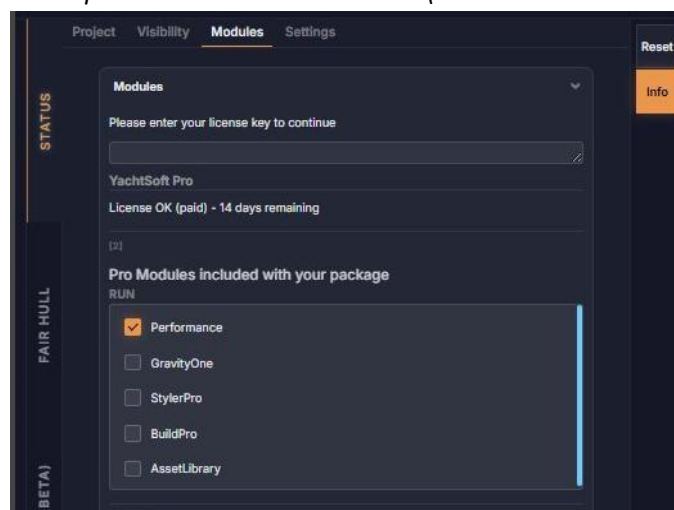


Figure 20 - Modules menu: enable available modules (license dependent).

9.1 Performance Module - Planing Powerboats

The Performance module (high-speed powerboats) supports Savitsky calculations and geometry features such as spray rails and steps.

- Spray rails:
 - Use Performance -> Spray rails to define rail count and geometry per rail (distance, height, face angle, start factor).



Figure 21 - Performance module: spray rails editing (example rail parameters and resulting geometry).

- Steps:

- Use Performance -> Steps to configure one or more steps. Each step includes position (%LWL), height and chine distances, riser angle, curvature, and lead-in/out factors.

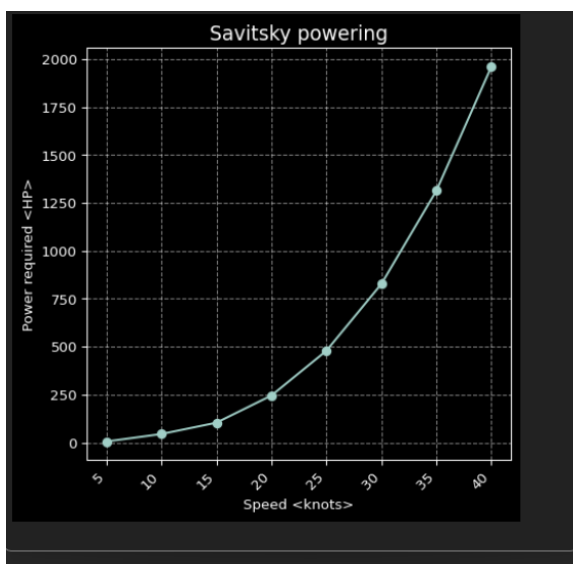
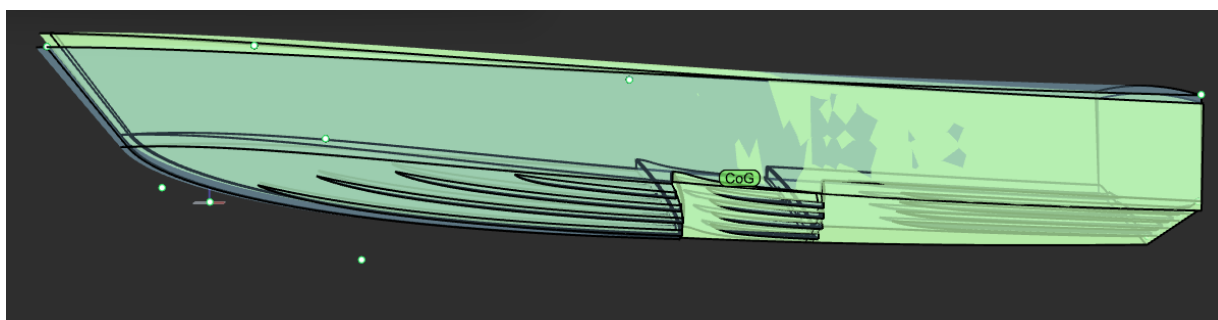


Figure 22 - Performance module: Steps tab (customize step geometry parameters).

- Savitsky powering and results:
 - Savitsky calculations can generate resistance/power estimates across speed and display a powering graph.

How to use Savitsky results:

- Use realistic all-up weight (displacement) and longitudinal CG - Savitsky results are very sensitive to weight and balance.
- Validate deadrise and wetted beam inputs against the hull geometry and expected running attitude.
- Use the graph to look for unstable trim regions or rapidly increasing power requirements; iterate hull parameters and appendages accordingly.
- Treat Savitsky as an early-stage predictor; confirm final designs using higher-fidelity methods (model testing/CFD) as needed.



```
Savitsky results
resistance_coef : 0.011
waterline_aft <m> : -10.314
trim_angle <deg> : 1.122
lambda <m> : 1.124
wetted_length <m> : 4.285
volume_coef : 0.018
resistance <N> : 63629.099
lcg <deg> : 60.1
wetted_area <m2> : 16.332
hull_beam <m> : 3.811
waterline_length <m> : 14.599
speed <kn> : 51.1
displacement <kg> : 3960
speed <ms> : 26.288
hull_length <m> : 14.599
deadrise_angle <deg> : 15
speed_coef : 2.197
```

Figure 23 - Performance module: Savitsky powering results and graph (example output).

9.2 Gravity Module: Metal, FRP cored, Wood Structures, and weight calculations

The Structure module generates and manages internal structure such as frames, bulkheads, floors, plating, flanges, and bill of materials inputs.

- Visibility toggles allow isolating major structural categories (bulkheads, frames, floors, sole, plating, labels, weights, etc.).
- Material presets (aluminium/steel/stainless) and key parameters (rat hole radius, plating thickness, offsets, flange types) control structural sizing.
- **Click OK in the frame spacing slider to show lines needed to select position of frames or to reset them.**

Internal Structures – Setup and Generation

YachtSoft Structure module can generate frames, bulkheads, watertight bulkheads, floors, and flanges directly from simple transverse guide lines. The workflow below follows the validated YachtSoft layer naming so the module can recognize inputs automatically. Click

19. Confirm you are using the YachtSoft Full layer scheme (recommended) so all required Structure layers are available.
20. Draw transverse guide lines across the hull on the appropriate layers (each line represents one structural member).
21. Open Modules → Structure and use the Internals/Generate controls to create frames, bulkheads, and floors from the guide lines.
22. Use visibility toggles to isolate elements (Frames, Bulkheads, Floors, Flanges, Sole, Plating, Labels, Weights) while reviewing the output.

Required transverse-line layers (inputs):

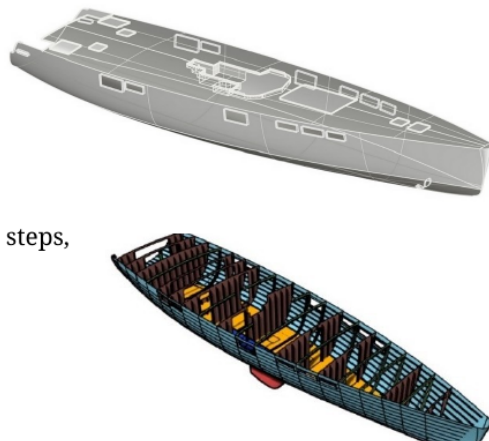
- G-XV-Frame - create Frames
- G-XV-BHD - create Bulkheads
- G-XV-BHwt - create Watertight BHds (no penetrations)
- G-XV-floor - create floors

Tip: Use G-XV-BHwt for watertight bulkheads (no penetrations). Use rat-hole radius and flange options to control service penetrations and edge reinforcement.

Automatically generate 3D models

Our software enables you to automatically generate 3D models of your vessel with incredible ease. With just a few clicks, you can create detailed models of the following:

1. Plating & Internal structures
2. Deck plating with cut-outs, cockpits, and hatches
3. Hull plating with cut-outs for windows, bow-thrusters, steps, and transom
4. Ballast studies for different keel types
5. Tankage with volumes, baffles, and access hatches
6. Keel plating & structure
7. Rudder shaft, bearings, and reinforcing



Tankage - plating & baffles, liquid volumes, appendages, ballast, engine beds, rudder

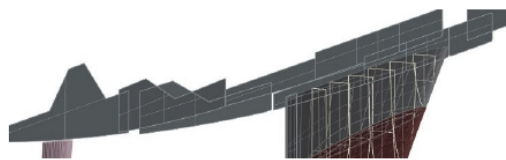


Figure 14 Keel framework, skin, capping bilge and

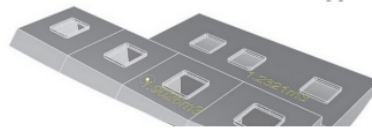


Figure 15 tank volumes, access hatches, baffles and openings

Figure 13 Hull stringers, deck stringers, bulkheads, partial bulkheads, ring frames and sole supports

Figure 24A - Structure + tankage examples (frames/bulkheads and weight/tank layouts) from YachtSoft Plugin for Rhino v0.47.

Plating – Panels, Materials, and Indexing

Plating tools organize hull/deck/bulkhead panels by layer, assign materials, and roll up weight and bill-of-materials information.

Select the appropriate material for your plating:

Thickness can be adjusted per panel using the material properties dialog.

Panel indexing:

The system automatically indexes panels based on their spatial position. You can also assign custom indices using panel user text:

```
Index=101
Category=Hull
Subcategory=Bottom
```

Panel weights are automatically calculated based on:

Weights are displayed in the Weights tab and included in the Bill of Materials.

Weight is calculated from:

- Panel surface area
- Material density
- Panel thickness

Plating tips:

- Use the Panel Indexing tool to automatically organize panels
- Check panel connectivity before generating reports
- Review material properties to ensure accurate weight calculations
- Use consistent naming conventions for easier management
- Verify panel normals are pointing outward from the hull

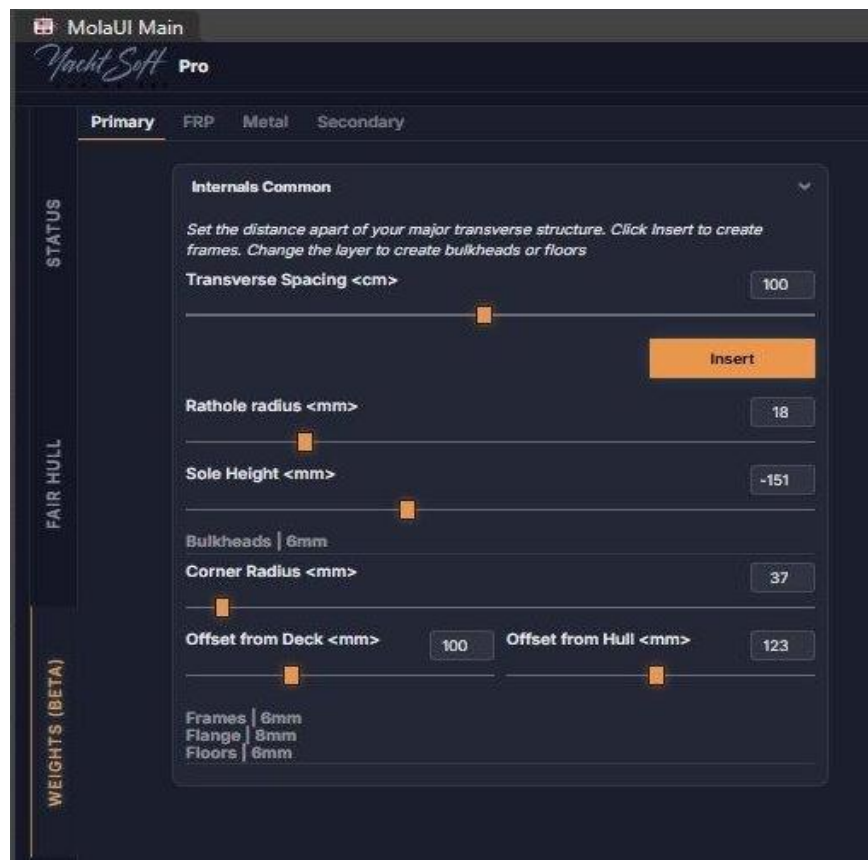


Figure 24 - Structure module: internals generation and parameter controls (frames, floors, bulkheads).

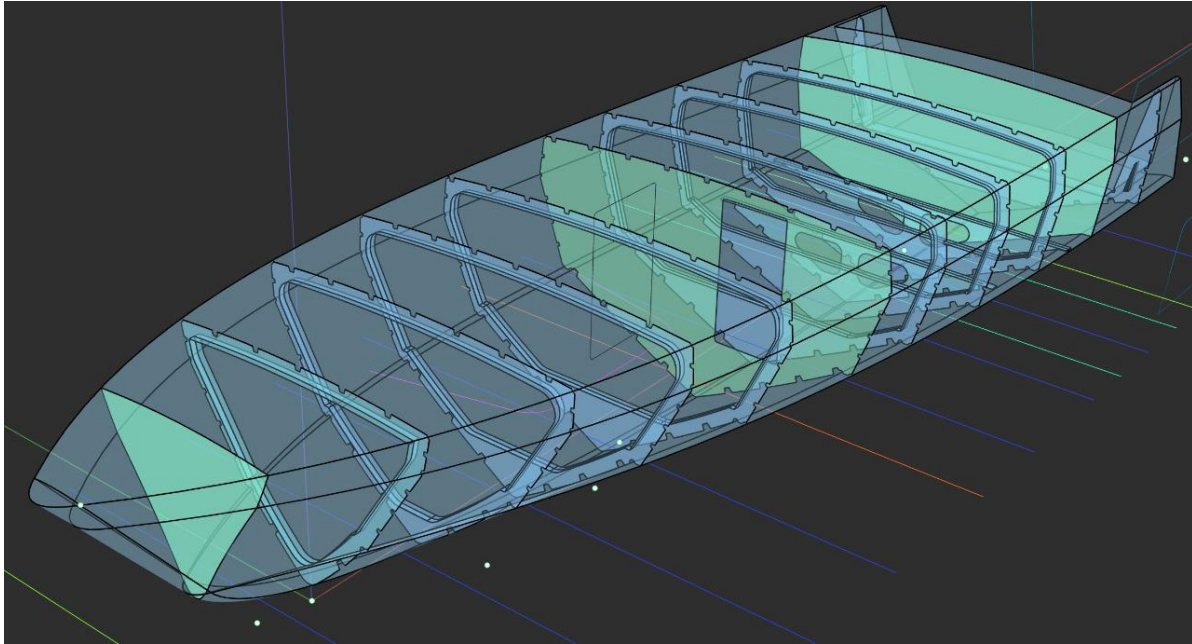


Figure 25 - Structure module: generated internal frames/bulkheads example (visual output).

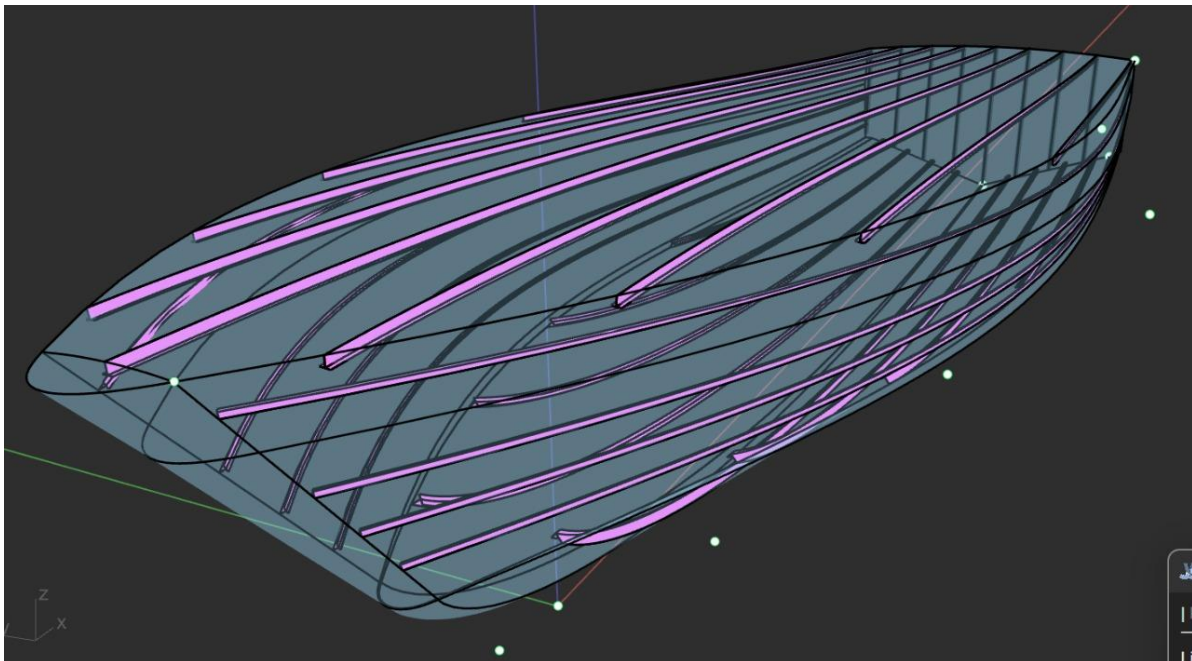


Figure 26 - Structure module: internal structure and plating example (alternate view).

Weights & Centre of Gravity analysis

Weights Summary

Summary of weight ledger with centres.
Summarised by category and sub category to light ship.

Category	Weights (kg)	LcG (m)	VcG (m)	TcG (m)	Items
Primary	3898.38	6.904	0.973	0.052	17
Primary Assembly	138.40	6.387	0.600	0.802	12
Rig	11314.29	6.603	8.561	0.313	9
Light Ship	15351.07	6.854	1.819	0.104	

Sub category

Category	Weights (kg)	LcG (m)	VcG (m)	TcG (m)	Items
Primary / Shell support	1949.19	6.904	0.973	0.052	6
Primary / Transverse	1949.19	6.904	0.973	0.052	11
Primary Assembly / Shell support	138.40	6.387	0.600	0.802	7
Primary Assembly / Transverse	0.00	—	—	—	5
Rig / Sails	224.55	5.790	7.381	0.717	4
Rig / Spars & Rigging	11089.74	7.233	9.476	-0.000	5

Warning. This will rebuild the model

Regenerate

Figure 27 - GravityOne + Structure: example weight breakdown alongside structure controls.

9.3 Styling Module

The Styling module provides tools for styling objects such as deck and transom geometry, superstructure, stairs, and teak decking workflows.

- Typical operations include selecting curves/solids for mirroring, adding/removing solids, applying release angles, and controlling fillet radius.

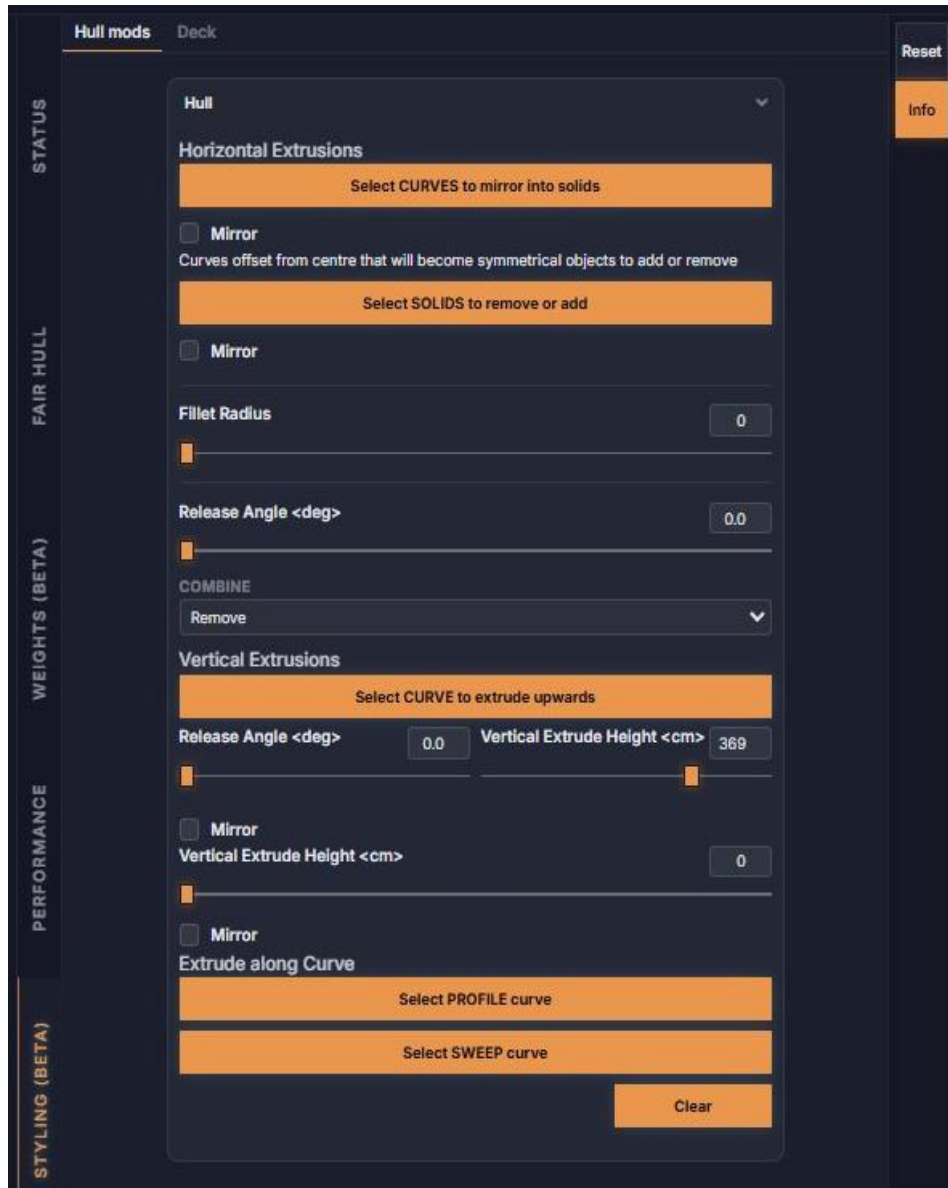


Figure 28 - Styling objects: Deck & transom tools (example controls for mirroring, fillets, and extrusion).

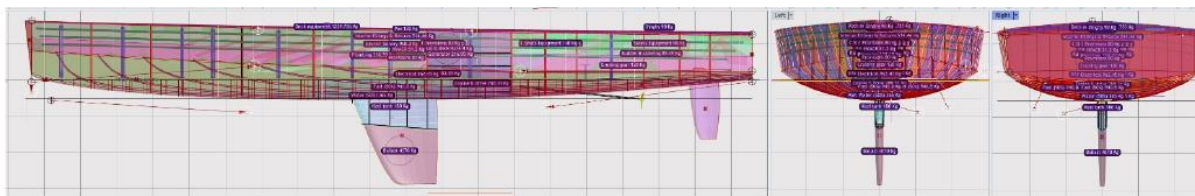
9.4 Sailboats and Sail & Displacement Performance

Sailboats can also be created and evaluated in YachtSoft. Sailboats use a dedicated Performance module focused on sails & rigging, appendages, and foils.

Sails & Rigging – Recommended Workflow

YachtSoft's sailboat tools generate sails, spars, spreaders, and standing rigging from a small set of reference curves and rig parameters. This enables rapid iterations and consistent weight/material roll-ups early in the concept stage.

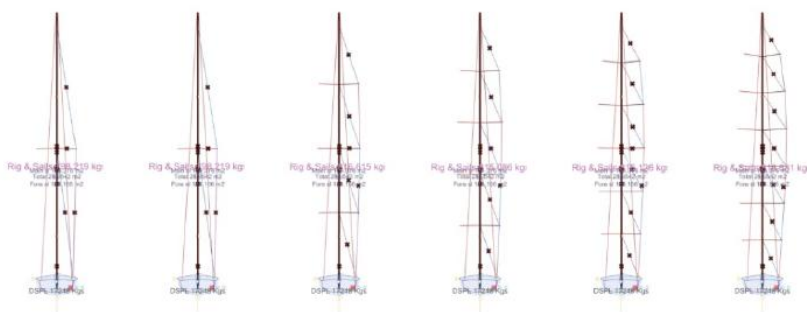
23. Start from a sailboat hull (displacement) and confirm principal dimensions and hydrostatics (Immersed mode).
24. Open the Sail & Displacement Performance module and select a rig type (sloop/cutter/etc.) and primary rig dimensions.
25. Provide the key reference curves (mast line, boom line, forestay and backstay/shroud guides as required by the rig generator).
26. Configure sails (main + headsail): sail area targets, roach/battens, luff/foot relationships, and any reefing or panel options available.
27. Generate/preview the 3D rig and sails, then Bake to Rhino when satisfied (so they can be included in drawings and exports).
28. Allocate engineering inputs: rigging wire sizes, spar material (carbon/aluminium, etc.), and sail cloth weights/materials from the material libraries to update weights and BOM outputs.



Sails, sail areas, spars, spreaders, rigging are generated from a mast line, a boom top, a forestay & backstay curves and a genoa clew point. Add cross sections from the Asset Library by selecting from the file system or drag-and-drop directly. Choose the number of required spreaders and all rigging is



generated. A 3D model can be previewed and baked out.



Allocate rigging wire dimensions, sail cloth weights and materials (carbon, aluminium etc) by selecting from the Material libraries.

All weights are calculated, and a complete Bill of Materials generated for costing and/or ordering. Weights are added to the Light Ship condition and can be extracted for launch logistics.

Figure 30A - Sail & rigging generation examples (rig types, sails, battens, and geometry previews) from YachtSoft Plugin for Rhino v0.47.

Appendages – Keels and Rudders

Use the Appendages tab to define keel and rudder geometry and to include these components in hydrostatics and performance evaluations when enabled.

- Select appendage type and configuration (keel + rudder, twin rudders, bulb keel, etc.).
- Control key geometric parameters (span/draft, planform area, taper, sweep, thickness, and section selection where available).
- Enable appendages in Immersed mode to include their contribution to displacement, centers, and wetted surface.

Refining, optimising and changing your design can be a time-consuming process, which is why our software is designed to make it as easy and efficient as possible.

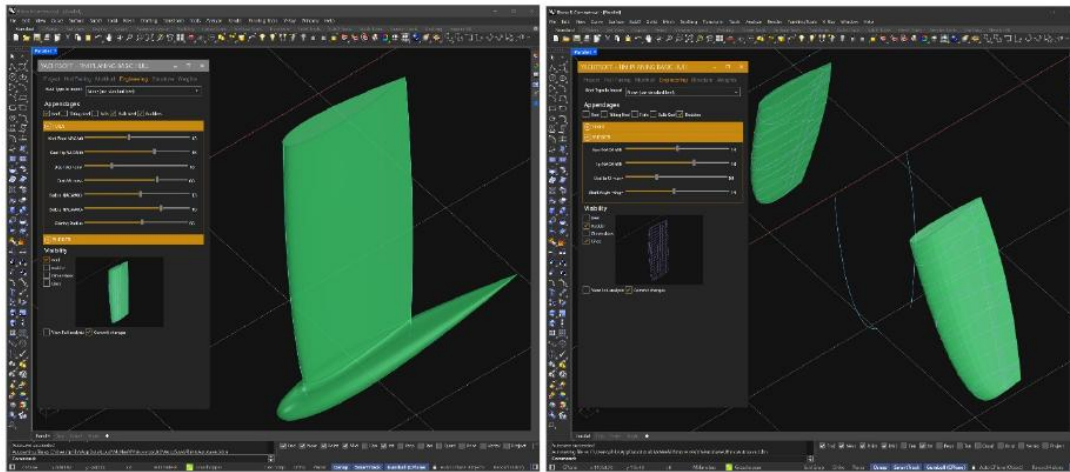


Figure 16 Keels, hydrofoils, rudders and bulbs

Further along the design process can extract weights and centres of gravity from 3D models developed by your teams, giving you the most accurate weight estimates possible. Plus, you can compare the refined design with the initial proposal surfaces generated by Gravity Two, using a special ratio to

enhance the accuracy of future projects.

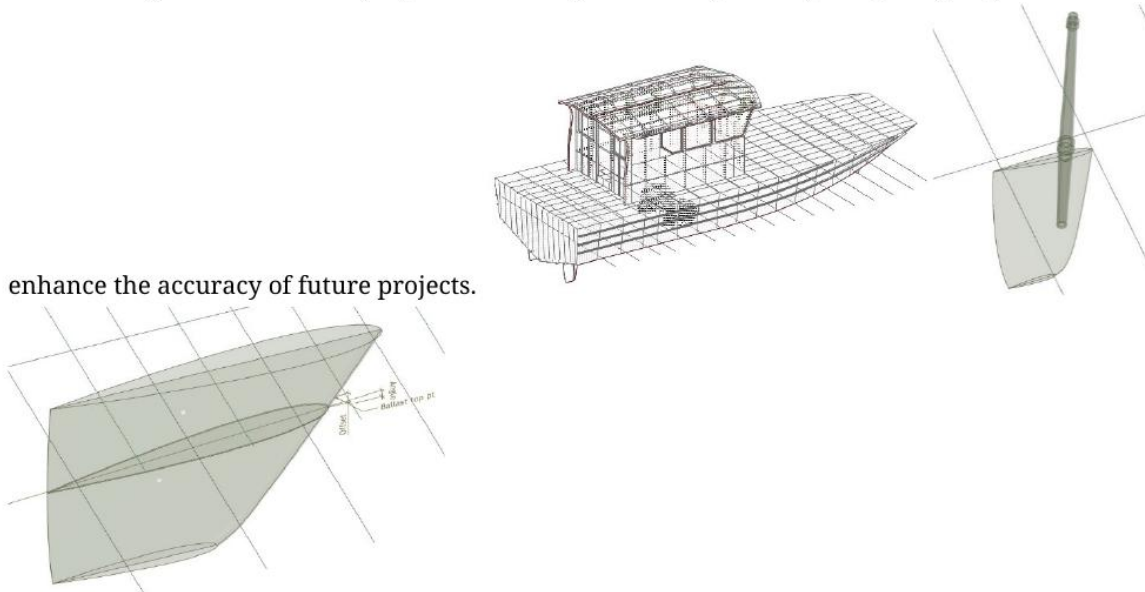


Figure 31A - Keel, bulb, rudder, and hydrofoil configuration examples from YachtSoft Plugin.

Foils – Setup Notes

- Foils are typically used to explore stability area, lift/drag trends, and configuration sensitivity (especially for performance sailboats).

- Keep foil sections and areas consistent with expected Reynolds numbers and structural limits; iterate section choice and planform together.
- If using foils/appendages for performance prediction, ensure water density and displacement are set correctly and consider running conditions (heel/leeway assumptions).

Note: Detailed scantlings, rig loads, and compliance checks are typically handled in dedicated engineering stages. Use the generated geometry and material/weight allocations as a strong starting point for those workflows.

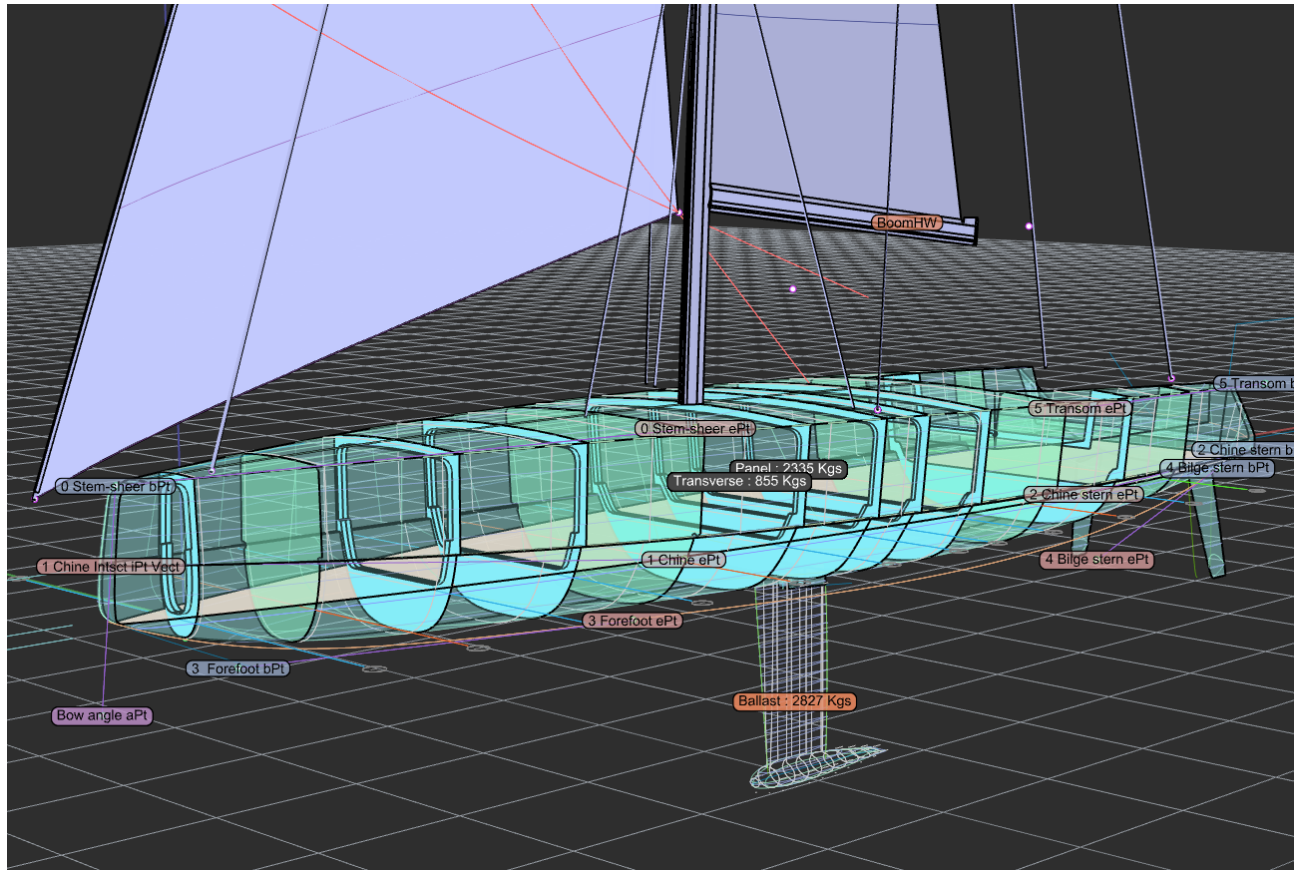


Figure 29 - Example sailboat model created in YachtSoft (sailboats supported).

STATUS

FAIR HULL

WEIGHTS (BETA)

PERFORMANCE

STYLING (BETA)

Rig

Appendages

Powering

Config

Add Rig

☒ Cutter
 ☐ Ketch
 ☐ Schooner

Spars & Rigging

Extrusions

Reload

MATERIAL

Carbon/Epoxy

MAST

A260-160-G-T.3dm

BOOM

A190x140-Gio.3dm

SPREADER

A104x22.3dm

FORESTAY

Facn-SX25-NS.3dm

Spreaders

4

Caps to Masthead <cm>

34

Forestay to Masthead <cm>

86

Mast Bury <cm>

0

MastheadCrane Length <cm>

37

Inner Shroud width F

0.55

☒ Babystay
 ☒ Single Lowers
 ☐ Forward Lowers

Sails

Sail camber flat - full

2

Reset

Info

Figure 30 - Sail & displacement performance: Sails & rigging tab (rig types, spars, sails, battens).

The screenshot displays the 'Appendages' tab in the YachtSoft Pro software. The interface is organized into a sidebar on the left with categories: STATUS, FAIR HULL, WEIGHTS (BETA), PERFORMANCE (highlighted), STYLING (BETA), and BUILD (BETA). The main area contains three sections: Keel, Ballast, and Rudder, each with various adjustable parameters and selection buttons.

Keel Section:

- Keel Root NACA # 00-: 15
- Keel Tip NACA # 00-: 15
- Root Fillet <mm>: 82
- Select the lines defining the front and back shape of the keel:
 - Keel Leading Edge
 - Keel Trailing Edge
 - Clear
- Mirror Keel 0=none or Angle <deg>: 0

Ballast Section:

- Bulb NACA # 00-: 15
- Bulb Aspect Ratio: 1.7
- Bulb Fillet Radius <mm>: 65
- Trailing edge width F: 0.7
- Select the lines defining the top of the ballast and the centre of the bulb:
 - Top of Ballast Line
 - Bulb Centreline
 - Clear

Rudder Section:

- Rudder Root NACA # 00-: 13
- Rudder Tip NACA # 00-: 14
- Select Rudder Tip NACA # 00- front and back of the rudder(s). Choosing mirror angle > 0 will make twin rudders:
 - Rudder Leading Edge
 - Rudder Trailing Edge
 - Clear

On the right side of the interface, there are 'Reset' and 'Info' buttons.

Figure 31 - Sail & displacement performance: Appendages tab (keel and rudder geometry controls).

10. Licensing Notes

A valid paid license is required to access Pro modules. License status is displayed at the top of the Modules menu (e.g., “License OK (Paid)”). Modules shown as Disabled require an upgraded license.

11. Disclaimer

All designs require approval by a qualified naval architect. Marine vessels are safety-critical. YachtSoft accepts no liability. Professional consultation is mandatory. Use at your own risk.