HullScant
WOLFSON UNIT SOFTWARE©

WOLFSON UNIT
FOR MARINE TECHNOLOGY & INDUSTRIAL AERODYNAMICS

WOLFSON UNIT
FOR MARINE TECHNOLOGY &
INDUSTRIAL AERODYNAMICS

in association with
RYA

HULLSCANT
HULL SCANTLINGS ISO-12215-5

The **HullScant** program is the **Wolfson Unit's Hull Scantlings program**. **HullScant**, has been developed in collaboration with the Royal Yachting Association.

HullScant is used to evaluate the scantlings for motor and sailing vessels under 24 metres. The program calculates the actual scantling structural properties of a vessel and can compare this with the requirements set out in the ISO standard 12215, Part 5, which deals with pressures and scantling equations for fibre reinforced plastic, metal and wood monohull boats.
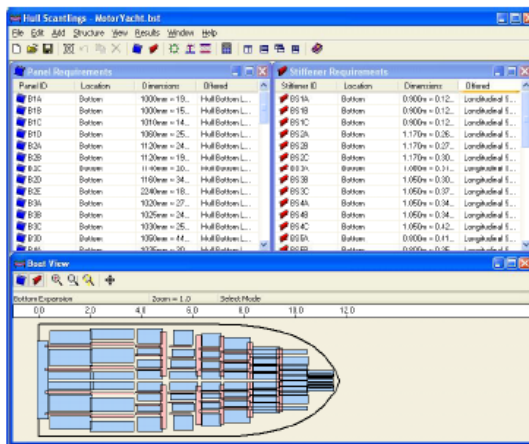
The **HullScant** software is specifically designed for all builders and designers conducting a scantling assessment and will greatly simplify the process of Recreational Craft Directive design category assessment for pleasure craft.

The user builds a set of libraries of materials, laminates and stiffeners, which can then be used to calculate the actual structural properties of the vessel scantlings or can be compared to the requirements based on the calculations from the ISO12215-5 standard.

HullScant can calculate requirements and properties for boats constructed of aluminium alloys, steel, wood and fibre reinforced plastic single skin and sandwich laminates.

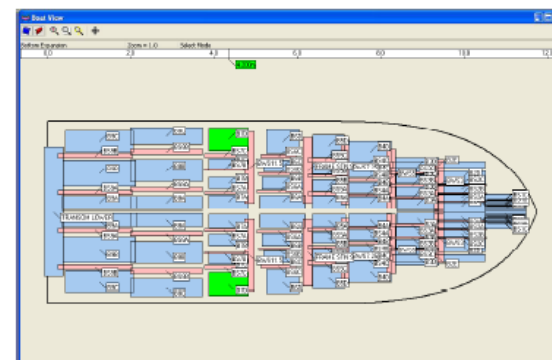**HullScant** features include:

VESSEL PARTICULARS
- Input vessel particulars and obtain design pressures and requirements based on the ISO12215-5 standard.
- A representative vessel view is produced from the input vessel particulars for ease of use, access and validation.

PLATING AND STIFFENERS
- Input panel and stiffener dimensions and location to obtain requirements based on the ISO12215-5 standard.
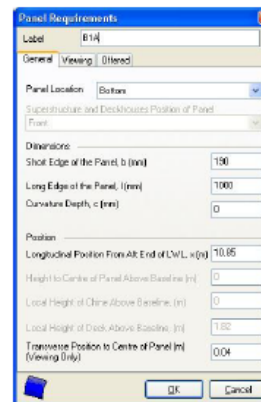
- Input panels and stiffeners are shown on the vessel view and can be easily selected for manipulation of the input data.

- Produce and analyse simple metal or single skin plating or complex sandwich laminates.

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- Input and analyse standard types of stiffeners including, L, T, bar, top-hat and wood shaped stiffeners.
- Produce and analyse laminated top hat stiffeners by quickly defining web, crown and taping laminates.
- Produce and analyse complex stiffener shapes.

ISO STANDARD 12215, PART 5
- The program incorporates the calculations and methods from the ISO12215-5 standard.
- Features scope and limit checking of input data.

MATERIALS LIBRARY
- The complete materials library from the ISO12215-5 standard, including mechanical properties for steel, aluminium, wood, core materials and glass, aramid and carbon reinforced plastic, is provided in the program.
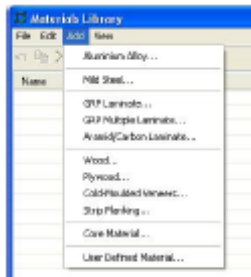
- Enter custom material properties for own test data or from other sources.
- Store a complete materials library to re-use data in other vessels.

LAMINATE STACK ANALYSIS
- Laminate stack analysis for calculating actual structural properties of panel laminates and stiffener lay ups.
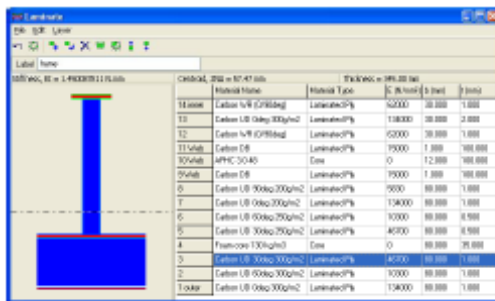
- Laminate and stiffener bending stress and shear force analysis.

CALCULATIONS
- Calculate requirements and produce reports of ISO12215-5 standard and deliver comparison with actual vessel structure including ratios of all actual versus requirement.
- Produce reports of actual vessel plating, laminate and stiffener structural properties.
- Produce weight, centre of gravity and inertia estimates from actual vessel plating and stiffening.

RESULTS OUTPUT
- Results in HTML format with built in results browser to produce neat readable and quickly navigable tables with hyperlinks to set conditions.
- Manipulate and customise results tables to suit your report format.

COMPATIBILITY
- Save results as formatted HTML or paste into other programs such as word processors.

HELP SYSTEM
- Full online help system describing the hull scantlings definition process and calculation methods.
- Full glossary of terms used
- *Please note the program should be used in conjunction with the ISO12215-5 standard.*

HULLSCANT PRICE INFORMATION

Windows 95/98/Me/2000/NT/XP	£950.00 ex. vat
Second copies available at 65%, subsequent copies at 50% of price.	
Educational discount of 33% on total price.	
Price includes full support.	

ACKNOWLEDGMENTS
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