



The future of Integrated Sail, Rig and Yacht design debated at YRF

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The Yacht Racing Forum held in Geneva on the 7th and 8th of December brought together many industry players to discuss the future of sailing and the best technology employed.

Within the Design and Technology conference, moderated by Seahorse Magazine's Dobbs Davis, there was a large panel discussion about the impact of integrated yacht design technology to enable yacht, rig and sail designers not only to exchange information but moreover to collaborate to enhance yacht performance.

The session started with the views of Jeremy Elliott (sail designer, North Sails) and Phill Maxwell (project manager, Doyle Sails). Both companies' designers use sail design and analysis software technologies to design fast sail. Their challenge is to have information about the rig and yacht performance in order to design sails, but also to provide rig designers information regarding the sailing loads.

Then, David Barnaby (manager, BMSea Consult) and Damon Roberts (Director, Magma Global & Magma Structures) discussed the challenges associated with the design of rigs for super-yachts, which are becoming larger and heavier, and special rigs. It was said that – although software

solutions are nowadays available - a more proactive interaction with certification agencies could support the rig designer work.

On the other hand, for special rigs prototyping seems the best practice for testing the sail rig manoeuvrability.

The session was closed by Dr. Sabrina Malpede, director of SMAR Azure, who has pioneered the development of a number of applications to support integrated sail-rig and yacht design,

Most of the time a proper design team, composed by designers of sails, rig and yacht, is in place only in special cases (e.g. Volvo).

S. Malpede emphasised that design is key since the outset of any project, when technical specifications and relative costs are quoted. Sailplan dimensions and forces influence hull and appendices shapes and dimensions, while rig design affects the structural design of the whole boat. Superficial load scaling is the sources of misleading cost, longer design and engineering phases and delayed delivery to the customer.

Today, the SMAR Azure technology and products, AzureProject and RigEdge are still the most unique, commercially available solution for sail and rig design, providing accurate information about sailing loads for Velocity Prediction Programs for boat performance design and weights and loads for the structural design of yachts.

Please note: RigEdge has been chosen by Lloyds Register and RINA for the certification of sailing rigs.



AzureProject – new version released

This robust and user friendly software is the world's leading solution for sail design, fiber layout and optimization.

New version developments include:

- New version of Img2Des tool has been added, which allows the shape of a sail to be captured from digital images of sails using the camber stripes.
- Updates focusing on improving sail production and use of analysis results.



RigEdge – latest developments

RigEdge enables to quickly define rig's dimensions, evaluate the sailing loads and the rig and relative loads.

Latest developments include:

- NEW PREMIUM FEATURE: SAIL- IGES File import
- Spar Composite Layup exported as Excel file
- Improved sailing loads application on the rig routine



Nest panels quickly and efficiently with this automatic nesting software. With an intuitive and easy to use interface, NestFab v2 provides a world-class automatic nesting engine for quicker ROI (return on investment) thanks to excellent material utilisation.

Now fully integrated with the AzureProject : AzureProject user can have panels and patches automatically nested within seconds with only one click (typical performance is 85% of cloth usage) saving time and cloth.

[AzureProject demo](#)

[RigEdge demo](#)

[NestFab demo](#)

Merry Christmas and Happy 2016!

**SMAR Azure will be closed on:
the 25th and 28th Dec 2015
and the 1st and 4th Jan 2016.**