



Speed, Quality and Anticipation at Heesen Yachts

Use of the 3D digital mockup resolves systems coordination.

By Alexander Breuning

Heesen Yachts adopts CATIA V5 for yacht design and provides its customers with insight into the final product early on in the development process.

Heesen Yachts is a designer and builder of high performance luxury yachts. Established in 1978, Heesen is based in the Netherlands and currently employs over 350 people.

Heesen's biggest challenge is to create a yacht that responds to the customer's vision for performance and quality, in a timely fashion. This is made possible thanks to Heesen's capacity to understand, very early in the product development process, a customer's requirements and to virtually visualize this vision thanks to the 3D capabilities of CATIA V5, before going into production.

CATIA V5 also provides, at a very early stage, interior design architects with high quality information



concerning the "net interior space" or available space inside the yacht. The architects use the 3D functional model of the boat to design the way the equipment, lighting and furnishings will be positioned.

The 3D representation of a complex digital mock-up, the use of parametric associative capabilities in modeling and the availability of functionalities specifically optimized for ship design are just some of the advantages noted by Heesen. "A 3D integrated model allows us to have more information faster and at an earlier stage than before", said Mr. Boerakker, Managing Director Heesen Yachts. "This makes it possible to circumvent errors prior to production."

All the disciplines involved in the design of a yacht follow a precise and phased workflow. By providing a common vision of the process throughout the company, the relationships between product design decisions are structured and made available to all. "The functional model makes it possible for the different departments to talk to each other and to work in collaboration",

3D Space allocation provides realistic early information.



Unique custom built Main Stateroom interiors according to the owners wishes.

said Mr. Boerakker. "This results in the rapid creation of complete interior layouts", he added.

The success of the initial pilot projects convinced Heesen that the time saved by using CATIA can be spent on innovation. As a result, they are currently implementing CATIA throughout the company. "We now have more insight into the product earlier than before and this inspires creativity", said Mr. Boerakker. "Plus, we can deliver drawings faster and of better quality and are able to perform feasibility studies in a matter of hours thanks to the power of 3D", he concluded.

Linea Concept chooses Dassault Systèmes Yachting Solutions for the design of yacht interiors and increases innovation and collaboration with customers and partners.



By Francois Mathieu

Our ambition is to export the "French touch" in interior wood design to other parts of the world.

COLLABORATE EARLY IN THE DESIGN PHASE

Linea Concept chose to work in collaboration with their partners and customers within a PLM framework to manage their projects and successfully meet their deadlines with reliable and high quality designs. For this, they integrate customer specifications for function, ergonomics and aesthetics very early in their designs using Dassault Systèmes' specific solutions for the yachting industry. "Working with digital mock-ups makes it easy for our designers to implement customer requirements and changes in terms of function or style", said Jean-Yves Carteret.

Linea Concept specializes in the design of interiors for luxury yachts. The company was founded in 2005 by Jean-Yves Carteret who decided to combine his passion for wood and cabinet making with that of yacht construction. The interior furnishings designed by Linea Concept are used in all types of pleasure boats, from high-end custom-made yachts to mass-produced boats. Some of their projects include custom interior design work for a 50 foot catamaran built by Catana, 30 and 37 meter yachts built by Couach Yachts, and the interior furnishings of the Dufour 485, the latter two in cooperation with designers from Couach and Dufour, respectively.

Linea Concept proposes a wide range of services to its customers, from preliminary sketches all the way to the complete modelling of a boat's interior. They also produce documentation for furniture production and installation. "Shipyards are often hindered by their limited capacity to perform studies and development activities for interior design. We wanted to fill this gap by becoming their development laboratory", said Jean-Yves Carteret, Manager of Linea Concept.

In the development process for interior fittings one of the most important steps is the design review stage. Designers at Linea Concept use 3D XML to help their customers validate space reservations, equipment installation such as electricity and ventilation systems, as well as choose colors and fabrics. Everyone can see how the boat will look very early in the

design phase and make important decisions before the actual construction even begins.

MANAGE COMPLEXITY AND REDUCE DEVELOPMENT TIME

"With CATIA V5 we are also able to work on large assemblies and intervene in all stages of a project", said Jean-Yves Carteret. "The wood interior of a 50-foot boat can contain up to 1200 pieces of wood. It was therefore essential for us to use a system that could handle this type of complexity while helping us reduce our development time", he added. In effect, CATIA V5 has helped Linea Concept automate various tasks such as detailing. As a result, time can be spent on managing more projects with new customers thereby expanding their business.

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