



KNUD E. HANSEN
SHIP DESIGN SINCE 1937



ShipSpace™

— **Virtual Reality for Mega Projects** —



ShipSpace is a groundbreaking Virtual Reality (VR) design system that allows engineers, designers and owners to walk on board their new vessels from early design all the way through construction. The unique ShipSpace rendering engine brings your 3D concepts or CAD models to life with startling clarity and solidity, regardless of size or complexity and allows you to explore your creations in new ways. Avoid costly mistakes and try innovative solutions by proving ideas in ShipSpace, or just hold a meeting to consider details with everyone right there and able to see what they are talking about. Integrating seamlessly with your existing CAD workflow means that you don't have to slow down in order to test out an idea. ShipSpace converts your models automatically so there's no effort required to get your creation into VR and your latest changes can always be viewed.

Right from the concept phase, you can walk around all areas of your new design and gain a better understanding of the spaces, with a true sense of depth and scale. This is a unique and very fast way of validating a design concept and reducing the risk of innovation and complexity

ShipSpace has proven to be an excellent tool for communicating and developing designs and ideas between designers, engineers, customers and other stakeholders, by enabling them to experience the design in an immersive and interactive virtual reality environment.



SHIPSPACE™

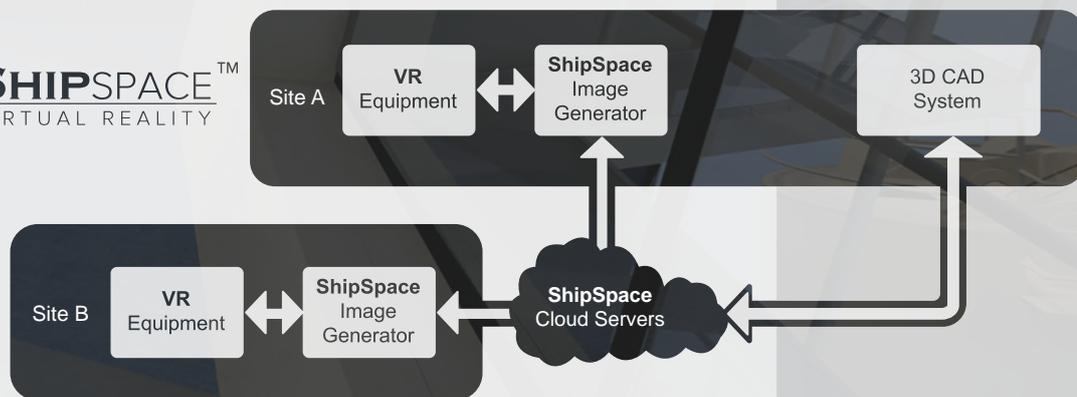
VIRTUAL REALITY

DESIGN & BUILD

During the detailed engineering phase, engineers use ShipSpace to better understand the structure and spaces of a new vessel. This is useful not just for optimising human and technical spaces but also when it comes to routing pipes, cables and placing equipment. Since ShipSpace is directly visualising the actual CAD/PLM models themselves, all spaces are perfectly accurate at all times. Deeper integration with the PLM system will enable material and equipment specifications etc. to be accessed from within the virtual environment.

ShipSpace enables the engineering and production modelling teams, who are usually located in different parts of the world, to meet inside the virtual ship to solve production issues that always result during the detail design phase. Not only will travel be reduced, but teams will be encouraged to discuss problems more regularly and solve problems earlier because ShipSpace will make visualising and communicating design issues so much easier.

Holding design meetings in ShipSpace means that all relevant members of the team can fully understand the idea being discussed and they can communicate naturally with each other. Standard behaviours like pointing and gesturing are communicated perfectly, no matter where the team is located or what languages are shared. The combination of body language and speech together can dramatically improve understanding, leading to better design choices and better ships.



CONCEPT & SALES

ShipSpace imports artistic concept models from your existing 3D modelling tools and is revolutionising the sales experience for the customer. Enable owners to walk aboard their new vessel years before delivery and to fully appreciate the design of their new vessel.

Allow designers and customers to walk through the ship design at any stage of development and see the recent changes, plus be able to hold meetings to discuss ideas right there in the ship. Being able to see the concept design full-scale in an immersive VR environment improves everyone's understanding of the design and ability to talk effectively about it. Better communication leads directly to happier customers and quicker sales.

Our automatic model processing and seamless dynamic optimisation means that 3D artists don't need to consider any limitations of VR when creating the models, they can work just as fast and fluidly as always. Productivity is further improved because existing models that might also be used in other media can be re-used for VR.

ShipSpace has unrivalled capability to communicate your 3D designs in immersive VR without additional labour-intensive optimisation and loss of detail, which is normally required to work with other VR systems. Our advanced systems take away all of the technical challenges and allow you to benefit from the sales potential of Virtual Reality in your business.



Excellence

KNUD E. HANSEN provides design solutions for all types of marine vessel and offshore structure.



Experience

Over 700 vessels have been built and more than 300 conversions carried out to KNUD E. HANSEN designs.



Consultancy

Consultancy services spanning the entire lifecycle of a vessel, including upgrade solutions in line with new regulations.



Coverage

An international team able to bridge cultural and linguistic divides and active on all seven continents.



Guidance

Independent advice covering contract negotiations as well as review of specifications and design, planning and cost-evaluation.



Vision

Supervision of construction and conversion processes on behalf of vessel owner or shipyard.

"We began to work with KNUD E. HANSEN, when we needed an HVAC specialist for the Queen Elizabeth Class. They performed very well for us and we've gone on to work with them on other projects as a result. In particular, KNUD E. HANSEN showed themselves to be incredibly flexible, willing to mobilise as many people as we needed, wherever we needed them to be. I attribute this adaptability to the close-knit, trusting relationships between personnel. The culture at KNUD E. HANSEN ensures total efficiency."

SHANKAR RASHIA, AERIUS

"KNUD E. HANSEN showed themselves to be very professional and totally dedicated to our project. Our cooperation could not have been better. We started out with one A4 page of specifications and, from this, KNUD E. HANSEN quickly developed the entire yacht."

PER BLINKENBERG-THRANE, 24 M EXPLORER TYPE MOTOR YACHTS

"KNUD E. HANSEN designed a total of 18 ships for my family's company. We spent countless days discussing our dreams, aspirations and passions. The relationships we developed became so personal that design decisions became automatic. The creativity and talent in KNUD E. HANSEN is boundless. KNUD E. HANSEN provided us with precision, accuracy and consistent quality. We knew we had a reliable design to work on. And, of course, the personal attention was outstanding – we felt we were one big family."

ALEX PANAGOPOLOUS



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