



SMARTMARINE® 3D

CHANGING THE WAY MARINE STRUCTURES ARE ENGINEERED AND DESIGNED

Intergraph® SmartMarine® 3D is the most advanced marine structure design software offered in two decades. It is the next-generation, data-centric, rule-driven solution for streamlining design processes while preserving existing data and making it more usable/reusable. SmartMarine 3D is a complementary, full-suite solution that provides all the capabilities needed to design and build many different types of marine assets: semi-submersible, fixed, and other types of platforms; naval and commercial ships; floating production, storage, and offloading (FPSO) systems; as well as other types of drilling vessels.

SmartMarine 3D comprehensively addresses the marine structure life cycle. The solution provides a full range of flexible design, production, and life cycle management capabilities within a single integrated environment. It offers better decision support capabilities to facilitate global design, production, and life cycle optimization – ultimately making your company more competitive.

SmartMarine 3D is a forward-looking product that will forever change the way marine structures are engineered and designed. It breaks through the constraints imposed by traditional design technology. Rather than focusing on simply achieving design, SmartMarine 3D effectively enables optimized design, increasing productivity and shortening project schedules.

PROVIDING A COMPETITIVE EDGE

SmartMarine 3D's advanced scalability and modular design enables organizations of any size to configure the exact type of system that meets their workflow and workload requirements. SmartMarine 3D will:

- Streamline building processes
- Lower manpower and material costs
- Reduce the time to design and construct world-class vessels
- Introduce production flexibility features yet unknown in traditional 3D design systems
- Meet the challenge faced by more and more companies –

distributed, multi-site design and production of marine structures

- Provide for better integration with complementary work processes and computer systems
- Bridge early design with detailed design and production

Projected to become the cornerstone for next-generation practices in design, construction, and management, SmartMarine 3D will render traditional marine structure software technologies obsolete. It will provide companies with the capabilities they need to gain and maintain an edge in a highly competitive industry. SmartMarine 3D offers organizations a competitive advantage by providing:

- **A full multidiscipline design environment.** SmartMarine 3D provides a true multidiscipline design environment where all designs are fully visible to all parties at any one time.
- **Unparalleled ease of use.** SmartMarine 3D's ease of use reduces the learning curve for new users, widens the user base, and increases productivity. It speeds up the design process by reducing the number of keystrokes and mouse-clicks required to perform design tasks.
- **Shortened project schedules.** SmartMarine 3D is capable of both early and detailed design. It enables streamlined design processes. These eliminate rework and time-intensive manual checking. They also shorten project schedules.
- **Global, concurrent engineering.** SmartMarine 3D allows designers, yards, subcontractors/suppliers, authorities, and others to easily and effectively manage and execute projects across company borders. Its global engineering and data reuse capabilities substantially reduce cost and shorten project schedules, while providing a wider range of users with valuable product model information.
- **Management of deliverables.** Automated drawings and reports reduce the cost of design and provide accurate, up-to-date documentation of the design at any time.

- **Integrated solutions.** SmartMarine 3D integrates with complementary Intergraph products such as SmartPlant® Instrumentation for instrumentation and SmartPlant P&ID via SmartMarine Enterprise, creating an optimal workflow throughout your enterprise. Your own legacy systems may be integrated by means of SmartPlant adapters.
- **Knowledge management.** Capturing new and existing design knowledge so it can be saved and reused in the future is the key to success in today's competitive global economy. SmartMarine 3D preserves your corporate knowledge and provides for continuity and design innovation. It preserves the integrity of design data and enables reuse for future projects based on existing designs.

Across disciplines or across the world, SmartMarine 3D provides all the tools you need to prosper in a dynamic and concurrent marine asset design and manufacturing environment.

EASE OF USE BOOSTS PRODUCTIVITY

SmartMarine 3D helps boost productivity because it is easy to use – you don't have to be a CAD specialist to use SmartMarine 3D. Its familiar Microsoft® Windows® interface encourages you to “test and explore” the software, and reduces the learning curve. SmartMarine 3D reduces the number of keystrokes and mouse-clicks required to perform a task, speeding up the design process. It includes “mini-wizards” that easily guide you through design steps.

SMARTMARINE 3D SHORTENS PROJECT SCHEDULES

SmartMarine 3D is the ideal tool for the contractor and yard to use on projects of all sizes and complexities – it reduces design costs and shortens project schedules (accomplishing distributed design and manufacturing, and supporting a transformation of the project team) to allow more multidiscipline work by a single engineer. The capabilities provided by SmartMarine 3D streamline and compress the entire design process, which, in turn, reduces project schedules. These capabilities include:

- **Design rules**, which increase data quality, ensure design integrity, and contribute to a level of automation for design and production unmatched by any other available marine structure design and production system.
- **Hull and outfitting interference checking**, which provides consistent management of change and enables interferences to be resolved at the most cost-effective time – the moment they are created.
- **Improved offshore capabilities**, such as enhanced modeling, detailing, and manufacturing of jacket legs and truss assemblies.
- **Advanced component and detailing catalogs**, which allow pre-configuration of manufacturing equipment characteristics to the particular detail, thus enabling full freedom in choosing shop fabrication lines for hull and outfitting without redesign.
- **Automation of routine tasks**, i.e., customized rules drive the detailing of structural plates and profiles; placing of stiffener end-cuts; definition of stiffener penetrations, seam cutouts, notches, etc.; and the determination of weld details, based on the geometry of the connection.
- **Automated drawing generation capabilities**, which reduce the cost of design and provide accurate, up-to-date documentation of the design at any time.

ABOUT INTERGRAPH

Intergraph is the leading global provider of engineering and geospatial software that enables customers to visualize complex data. Businesses and governments in more than 60 countries rely on Intergraph's industry-specific software to organize vast amounts of data to make processes and infrastructure better, safer and smarter. The company's software and services empower customers to build and operate more efficient plants and ships, create intelligent maps, and protect critical infrastructure and millions of people around the world.

Intergraph operates through two divisions: Process, Power & Marine (PP&M) and Security, Government & Infrastructure (SG&I). Intergraph PP&M provides enterprise engineering software for the design, construction, operation and data management of plants, ships and offshore facilities. Intergraph SG&I provides geospatially powered solutions, including ERDAS

technologies, to the public safety and security, defense and intelligence, government, transportation, photogrammetry, and utilities and communications industries. Intergraph Government Solutions (IGS) is a wholly owned subsidiary of Intergraph Corporation responsible for the SG&I U.S. federal business.

Intergraph is part of Hexagon (Nordic exchange: HEXA B; www.hexagon.com), a leading global provider of design, measurement, and visualization technologies that enable customers to design, measure and position objects, and process and present data.

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