IMAGE SOFT

IS Engine Room Simulator

Flexibility and scalability for computer-based engine room operational training.

- *Process simulation based solution for training all engine room operations*
- *Customizable for different ship configurations and customer specified ships*
- *Full integration with Image Soft Full Mission Bridge Simulator*

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Image Soft Engine Room Simulator (IS ERS) is a comprehensive solution for the computer-based engine room operations training. It is designed from the ground up to comply with STCW training requirements and DNV standards to deliver all the essential tools for the instructor to illustrate the different aspects of marine power plant operations. It's scalability and customizability allow different installation configurations according to the individual customers needs.

Process simulation based

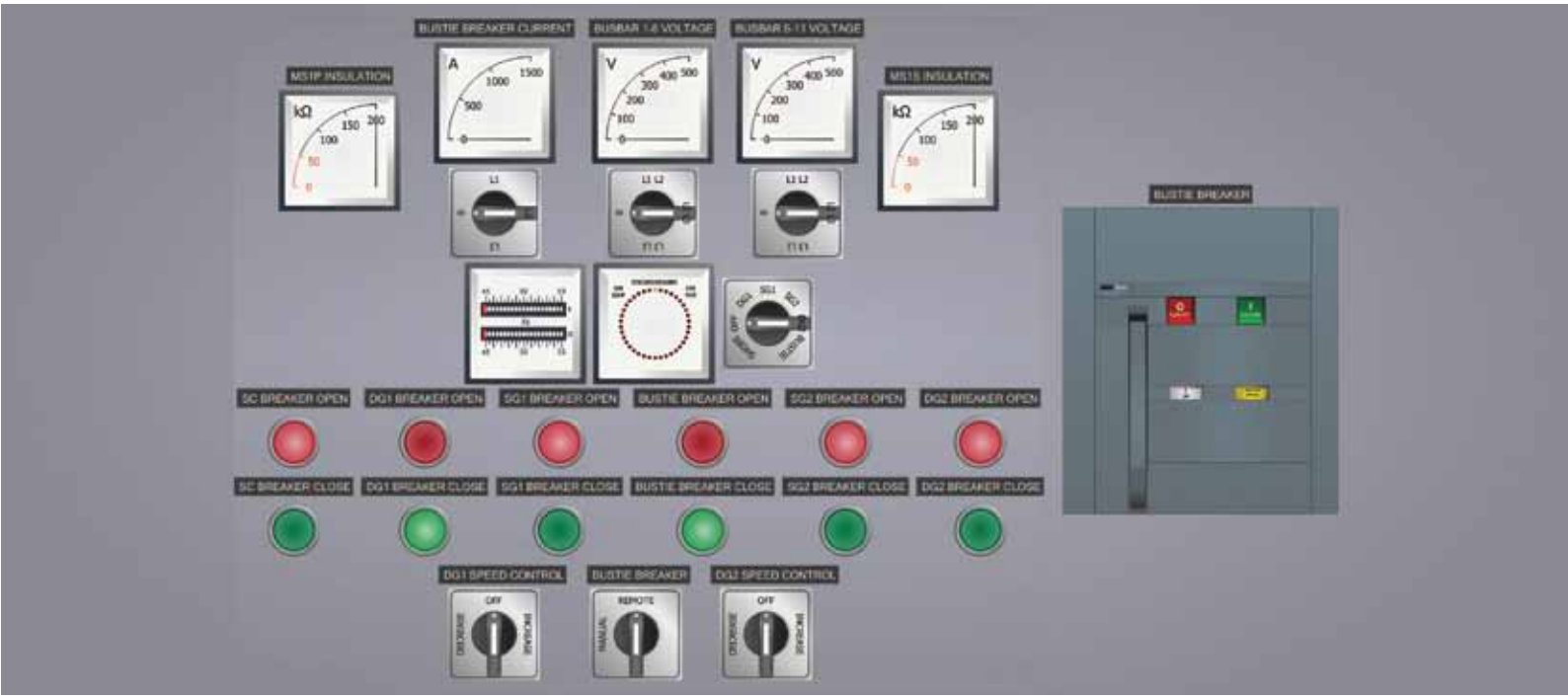
Image Soft ERS is based on the principles of process simulation to allow dynamic effects to propagate throughout the system in a similar way that a real ship would operate. The simulation runs in real time and trainees can monitor the progression of the scenario using different instrument panel configurations that can be customized for the customers needs. All the components have their own internal simulation models based on the real-world counterparts and their inputs and outputs are mapped as a network mesh of connected systems. Hydraulic, electrical and pneumatic systems are also interconnected, and the changes propagate from system to another so that a realistic training scenarios where multiple points of attention across the systems are needed can be created.

Realistic instruments and touch controls

Instruments that are shown are based on real world counterparts and their operation has been optimised so that when using large touch screen displays trainees can still learn how the actual switches, levers and buttons operate on the real ship panels. This allows teaching essential component operations like air circuit breakers and manual synchronization of generators to the trainees in a safe environment where any faults in the systems can also be simulated. Understanding the layout of ships panels and instruments onboard the ship is greatly enhanced by having these simulated panels that reflect the actual positioning and arrangement of the systems. All the components can be customized to fit any customer specified ship if needed to familiarize student to any specific ship's operations.

Flexible ship configurations

Image Soft ERS is designed so that the customer can specify the aspects of the specific ships that are used in the training so that with moderate work new ship models can be created with different power plant configurations and propulsion options. This gives customer the possibility of specifying their own real-world training vessels to the system and have the computer based and the real-world training to cooperate for the best learning experience. Now the system can also be operated remotely over the network. This option enables teaching separate groups accessing the learning platform concurrently, which makes it truly cost efficient.

Scalable and interoperable

The product is created to be connected to the other Image Soft simulators, especially to the Image Soft Full Mission Bridge Simulator so that all ship training activities can be trained together in a training environment that can fulfil all the maritime training needs. With the interoperability of the Bridge and Engine Room Simulator the communication between the Engine Room and Bridge crews can be trained and realistic real-world scenarios can be practiced.