



The CAD **Maritime Bridge Simulator** is designed to facilitate training of bridge teams in safe navigation of vessels as well as nearly all other aspects of commercial marine operations, such as ice navigation, anchor handling, towing, berthing, bunkering etc. The basic configuration has an integrated bridge desk with conning, radar and navigation positions. The conning console has an extension containing a configurable steering position (wheel or directional drive controls), autopilot, light panel, VHF radio, thruster controls, met station, internal and external communications. An Integrated Platform Management workstation is normally placed remotely from the above. In addition pelorus, workdeck station and navigation cabinet simulators are available. Deck- and bulkhead repeaters are fitted appropriately.

The **Maritime Bridge Simulator** utilises PRESAGIS Vega Prime for high fidelity graphics and simulated environment modelling. Presagis Stage is used for scenario handling and management and implements simulation interfacing standards such as **DIS** and **HLA** for ease of integration with other similarly equipped simulators. **VAPS XT** has been used to recreate realistic instrumentation allowing the operator a clear concise feedback within the **HMI**.

Image generation and display are accomplished by high-end PCs and low-bezel full-HD display wall technology. The hardware allows for deployment within a compact

footprint and in facilities with low ceilings.

### THE FOLLOWING ARE KEY FEATURES OF THE BRIDGE SIMULATOR:

- View from bridge with realistic ship motion.
- Multi-video wall displays.
- Multifunction bridge consoles.
- Realistic helm controls.
- ECDIS functionality.
- Simulated RADAR Display.
- Integrated Platform Management System (IPMS) instruments.
- Scenario definition.
- Compact installation footprint including facilities with low ceilings.
- Control over all simulated entities, including vessels, aircraft and helicopters.
- Set time of day.
- Control over weather conditions, including:
  - Sea state
  - Cloud cover
  - Precipitation
  - Visibility/Fog

# MARITIME BRIDGE SIMULATOR



**PRESAGIS**

COTS MODELING & SIMULATION  
SOFTWARE SOLUTIONS

**VEGA PRIME**  
MARINE

## VEGA PRIME

The **Maritime Bridge Simulator** makes use of PRESAGIS Vega Prime™ to render their respective 3D environments in real-time. Ideal for both high-performance and low cost hardware platforms, Vega Prime's extensible plug-in architecture facilitates the rapid design and prototyping of real time 3D applications by utilizing the most sophisticated technology available, within an easy-to-use toolkit. Vega Prime is used to create simulation applications that are completely customizable, scalable, and leverage open standards such as CDB and OpenFlight™.

## STAGE

The instructor component of the **Maritime Bridge Simulator** is a customised version of PRESAGIS STAGE™. STAGE simulation software provides users with the ability to generate and execute complex scenarios for training and analysis. From flight simulation training to new concepts analysis, STAGE is the ideal tool for solving critical problems in simulation applications, including:

- System Specification and Design Analysis
- Training
- Virtual Test Bench

## VAPS XT

PRESAGIS VAPS XT™ is used to create the Instrumentation Displays. VAPS XT provides a rapid prototyping, design, and deployment environment for the creation of 2D and 3D photorealistic graphical displays, including instrumentation and equipment models, specifically for real time 3D simulation and training applications.

## ABOUT CYBICOM ATLAS DEFENCE

**CYBICOM ATLAS DEFENCE** is a joint company between Cybicom (Africa) Technologies (Pty) Ltd and ATLAS ELEKTRONIK GmbH .

**CYBICOM ATLAS DEFENCE** was originally created to provide in-country, local support for the combat suite installed on the South African Navy Heroine Class Submarines. **CYBICOM ATLAS DEFENCE** has evolved from undertaking warranty related repairs to designing and developing graphical training simulators, interface stimulators and constructing and integrating a land based Submarine Combat Suite for the South African Navy.

**CYBICOM ATLAS DEFENCE** is a prime example of successful technology transfer that when coupled to an effective skills retention and development program leads to international award winning performance.

**CYBICOM ATLAS DEFENCE** is uniquely positioned to offer surface and subsurface naval combat system integration, image generation and command and control simulation.