

# CAE STRIVE<sup>®</sup>-SONAR

## OVERVIEW

CAE's STRIVE-SONAR is a state-of-the-art, object-oriented, underwater sonar simulation software application built on CAE's 15 years of leading-edge expertise in underwater acoustic simulation. As a global acoustic training solution, STRIVE-SONAR can be used for sonar simulation and training or as a platform for the development and integration of new acoustic models in a realistic acoustic synthetic environment.

STRIVE-SONAR offers flexibility that allows customization, thus supporting underwater sonar applications from sonar training to ocean model analysis. The software offers a High Level Architecture (HLA) compliant, versatile, acoustic framework with integrated acoustic features. These features may be specialized, or may be replaced by the user (with classified or proprietary algorithms) or jointly with CAE.

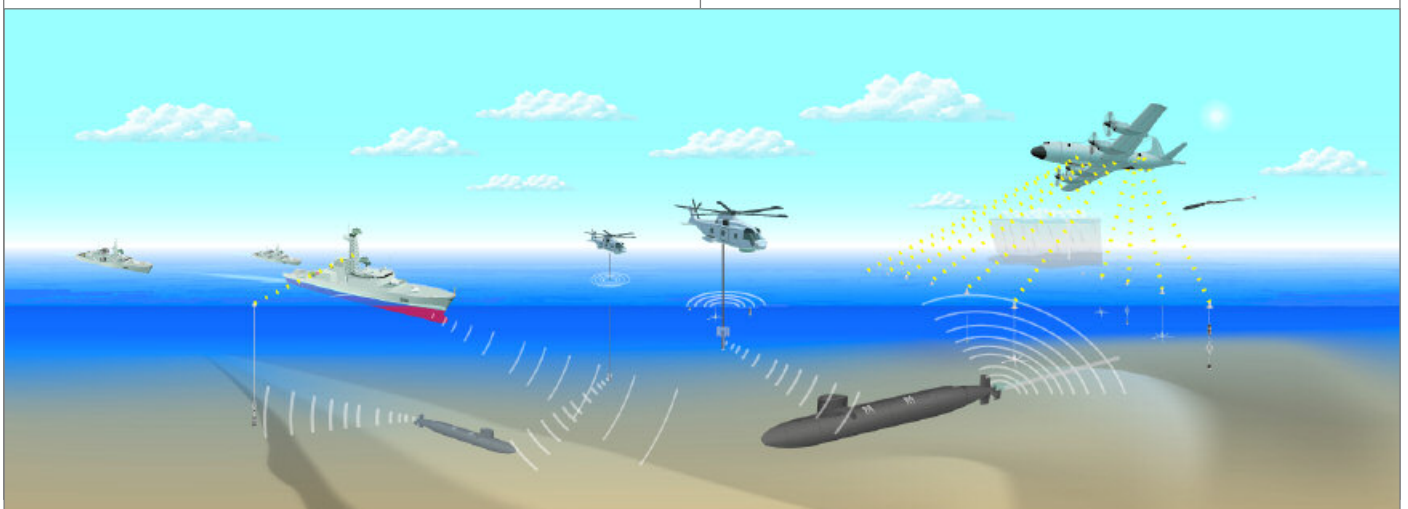
CAE STRIVE-SONAR provides:

- Ability to define complex target acoustic types
- Integration of ocean models with minimum effort
- Insertion and customization of signal processing algorithms
- Simulation of a variety of sonar types (hull-mounted sonar, towed arrays, dipping sonar, sonobuoy, mine hunters, and more) running in mono-static or multi-static scenarios
- Complete visibility of acoustic features in the scenario through integrated system tools.

## KEY BENEFITS

CAE's STRIVE-SONAR is a versatile acoustic framework that promotes flexibility and customization. The software offers:

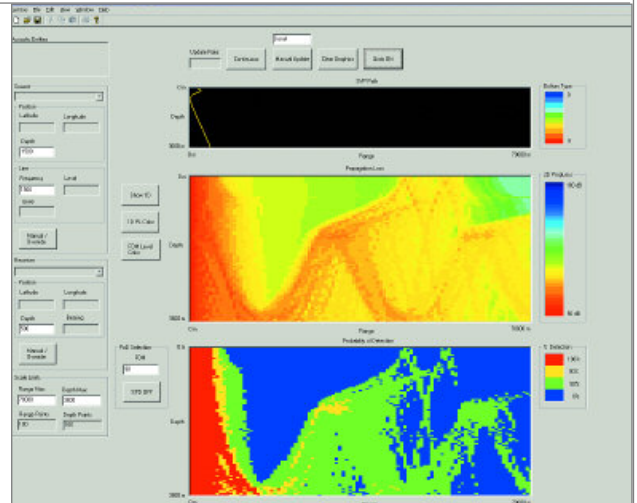
- Customizable integrated acoustic components for various degrees of fidelity. These may be replaced by third-party components. As well, new components can be added to the framework.
- Acoustic environment behaviour visibility, clarifying the behavior of implemented models.
- Configuration supporting the simulation of sonar systems such as towed arrays, flank arrays, dipping sonar, passive and active sonobuoys, mine hunting sonar, and more.
- Excellent environment for underwater acoustic model development (ocean models, sonar signal processing algorithms). Combines all effects related to underwater acoustics.
- Supports user database integration and management with minimal effort. This is especially useful with ocean model applications where numerous databases are required.
- Enables the integration of classified and proprietary algorithms within the framework.
- Architecture with flexible application programming interfaces (APIs) allowing external applications to be inserted efficiently.
- Structure integration of the acoustic framework's internal design, supporting multiple sensor operations and correlations needed for multi-static situations.
- Acoustic framework for the distribution of components over the network, including various acoustic re-usable components to support many sonar applications.



**USABILITY**

CAE's STRIVE-SONAR is utilized for naval and airborne training in classroom trainers or integrated as part of a full mission trainer. The software's usability features include:

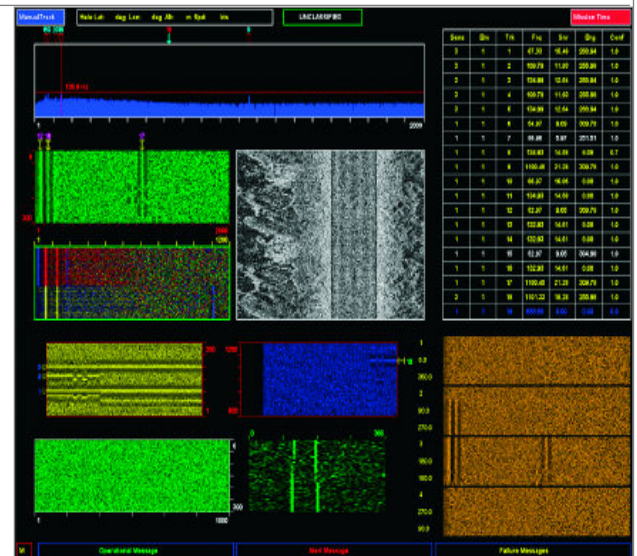
- Integration of a developed simulated sonar with a real sonar product for embedded training (made possible by the modular approach of the acoustic framework along with its flexible interfaces).
- New tactics evaluation, through stored system information and the correlation of operator reported information (in detection, classification and tracking) with real tactical information (tactical map and simulated acoustic data).
- New sonar display and menus evaluation, through the integration of real sonar processing algorithms and displays in a realistic environment for sonar system performance evaluation.
- Study of ocean models performance in a realistic environment with comprehensive graphical monitoring tools.
- Evaluation of acoustic performance for multi-static scenarios.
- Test signal processing algorithms in a real acoustic environment.



**FEATURES**

CAE's STRIVE-SONAR comprises a variety of user-friendly features, including:

- Open architecture for the integration of new sonar characteristics and/or model features.
- Intuitive user interface based on Windows®.
- Software runs on the CAE STRIVE framework and uses an object-oriented approach.
- Customizable functionality to support various degrees of training, from classroom trainers to full mission trainers.
- Configurable components for multiple machine processing.
- HLA compliant.
- Allows the integration of multiple ocean propagation models to cover various propagation frequency bandwidths.
- Supports sonar passive and active display formats and their related processing.
- Includes a complete generic customizable processing suite.
- Offers exclusive simulation visibility and control through the use of a Graphical User Interface (GUI).



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