TRITON: SOFTWARE ENVIRONMENT FOR BISTATIC ACOUSTIC DETECTION ANALYSIS



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TRITON is a prototype PC/Windows-based software environment for the analysis of bistatic underwater acoustic detection systems in noise and reverberation environments. The analysis is performed taking into account hydroacoustic and geoacoustic conditions as well as operational characteristics of involved platforms including directional receiver characteristics. TRITON offers global geographic coverage and features electronic maps and user-friendly interfaces for the description of the analyzed systems.

100 m. -





- Prediction of bistatic detection performance in noise and reverberation environments
- 360° coverage around source and receive
- Account of directional receiver characteristic (incl. beam steering)
- Energy / matched-filter detection
- Interactive map with coastline / bathymetry features
- 3D presentation of results on geographical background
- PC/Windows no need for additional software





Types of results

- Transmission loss (from source/receiver, total)
- Scattered field intensity at the bottom
- Bistatic reverberation (directional) -
- Detection threshold (noise/reverberation-limited)
- Probability of detection (energy / matched-filter)
- Detection areas

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