OceanTEA: Open Data Publication and Exploration of Ocean Observation Data

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Context
Autonomous ocean observation systems produce an increasing amount of time series data. The web-based tool OceanTEA supports scientists at interactively exploring and analyzing high-dimensional datasets.

Data Exploration

Interactive Publication

Observation
The stand-alone Modular Ocean Laboratory (MoLab) from GEOMAR enables the collection of multi-sensory observation data.

Extensible Architecture
OceanTEA is composed of microservices: Small self-contained applications with a singular functional responsibility. They can be developed and operated independently.

• Bespoke implementation and storage technologies for each microservice
• Scales from desktop computers to cloud computing infrastructure

Our exemplary setup supports:
• Interactive data visualization
• Spatial analysis
• Modelling distribution and movement patterns of cold-water corals

Try our live demo at: oceantea.uni-kiel.de

Downloads: github.com/a-johanson/oceantea

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