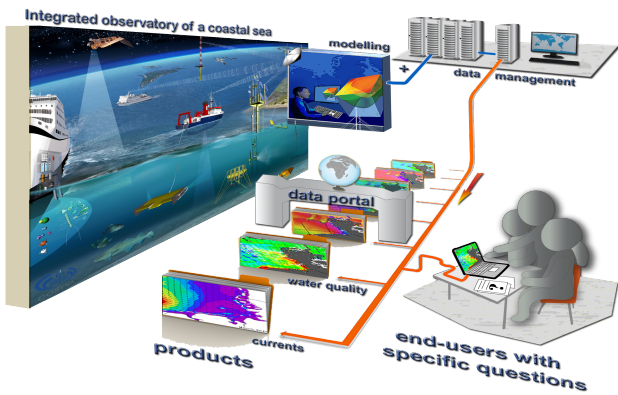


A new Approach in Data Management for an Integrated Coastal Observation System

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The Objective

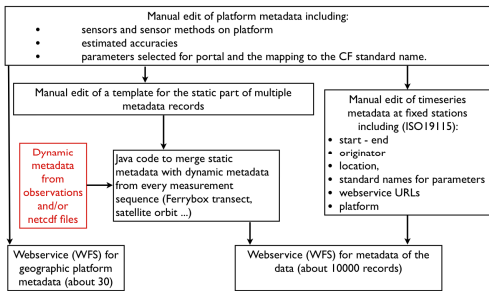
A modern coastal observation system like COSYNA shall present a complete and exact image of nature to the user by means of data-taking, -processing, and -storing, and finally compiling and presenting 'products'.

This task is assessed by mapping the manifold parameters from satellites, shore based remote sensing, Ferryboxes on ships of opportunity, land stations, wadden sea poles, buoys, gliders, under water nodes and others to CF standard names where possible to make them interoperable. The mapping details are part of the metadata.

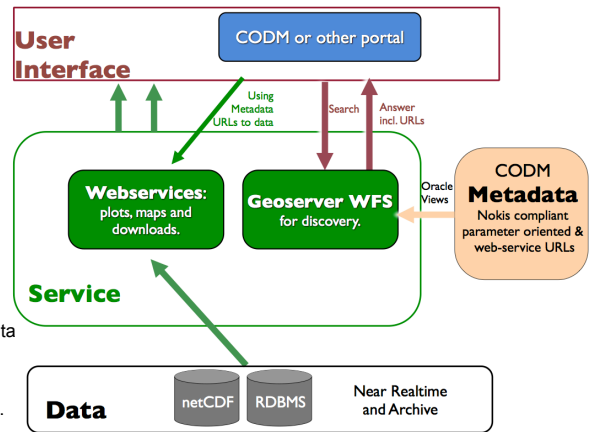
This implementation of the COSYNA data management system allows specific users a comprehensive view by maps, plots, and data download.

Metadata

Metadata for platforms (with sensor informations) and fixed stations are created manually. Some metadata provides information for single transects or single measurements. These metadata can get numerous and couldn't be created manually. They are created by computer code as shown in the image below. From about 10000 metadata records only 100 are created manually.



Webservices
The connection between the user interface on one side and data and metadata on the other side is completely done by different webservices.



CODM Portal

The metadata based portal offers a spatial-temporal search interface for observed or modelled properties. The results could be visualised as maps, plots or could be downloaded as data file.

Online Validation

The example shows the comparison between 3 different methods to get the currents in the German Bight