

SWE Metadata Editors and SeaDataCloud SWE Ingestion Service

ODIP II – Prototype 3+

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Sensor Nanny

- Auto-completion from SKOS configuration (not from BODC yet, but soon)
- Applies for: outputs, identifier terms, classifier terms, contact roles

The screenshot displays the Sensor Nanny web application interface. At the top, the browser title is "Enregistreur d'actions utilisateur" and the user's name "Thomas.Loubrieu@ifremer.fr" is visible in the top right corner. The main interface features a dark blue header with a search bar and a toolbar containing icons for "Commencer l'enregistrement", "Save", "Export", and other actions. Below the header, there is a "Palette" section on the left with a search bar and several categories of sensor icons: "IMPORTED" (including "meteo station" and "emso") and "EMSO_ADCP" (including "Aquadopp Profiler 400"). The central workspace is a grid-based canvas where an "Aquadopp Profiler 400" icon is being dragged towards a "tatata" icon. On the right side, there is a "OTHER TAGS" panel with a "name:" field and a list of tags: "transmission mode", "vertical Reference", and "deployment status". Below this panel, there are expandable sections for "CONTACT", "POSITION", "VALID PERIOD", "EVENT", "GEOMETRY", "PRESENTATION", and "TEXT". The bottom left corner features the "Ifremer" logo, and the bottom right corner features the "ODIP II" logo.

- Already presented at the Hobart meeting
- Since then:
 - Evaluate the tasking of sensing by editing SensorML-based descriptions of sensor parameters
 - Improve usability and stability
 - Login mechanism to control write access (as part of the FixO³ project)
- Planned activities:
 - Allow the description of sensor interfaces (commands, parameters, outputs) → part of SeaDataCloud
 - Improve the integration of vocabularies
- Work performed as part of NeXOS and FixO³

localhost:3000/#/editor

52north exploring horizons

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FixO³ FIXED-POINT OPEN OCEAN OBSERVATORIES

nexos

smle/smatli/ — The Friendly SensorML Editor New Edit/View Delete Create from Template janschulte - logout

Classifier List Show all Reset Close Show tree

Type	x Remove
Angular range	x Remove
Scale factors	x Remove
Resolution	x Remove
Repeatability	x Remove
Linearity	x Remove
Temperature coefficient	x Remove
Time constant	x Remove
Tilt output	x Remove
Depth rating	x Remove
...	x Remove

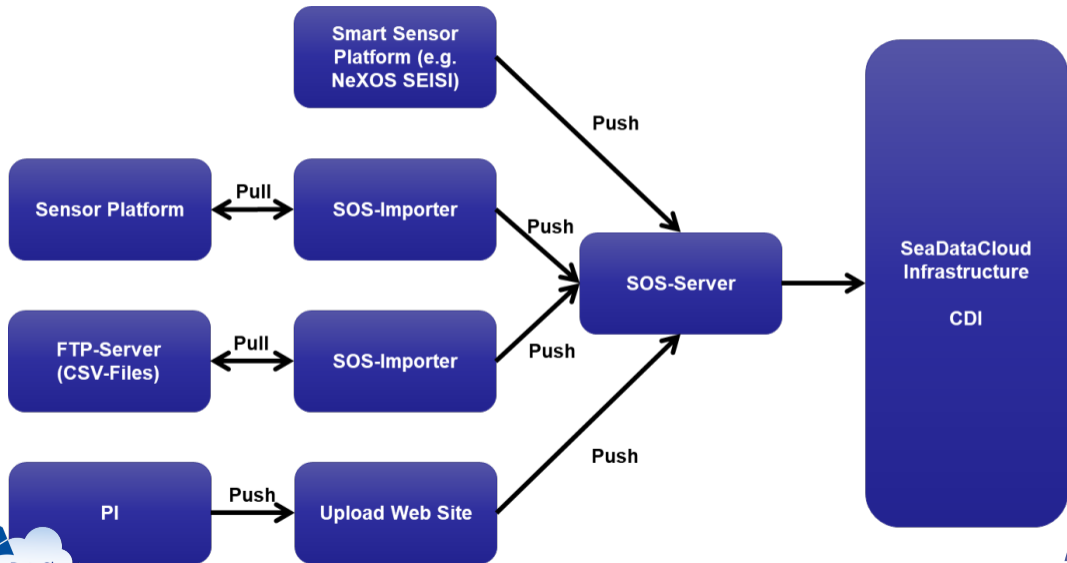
Physical System

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SeaDataCloud SWE Ingestion Service

- Two main results:
 - Online service to describe observatories (or networks of observatories)
 - Resulting descriptions will be encoded as SensorML metadata
 - Will be based on smle
 - Ingestion Service
 - Receive, to decode and to check data
 - Will be operated under the supervision of the PI of the observatories
 - Will make use of the SensorML descriptions of the observatories and will rely on SWE-based observation data streams
- Whenever possible rely on enhancing existing (open source) software components

SeaDataCloud SWE Ingestion Service



SeaDataCloud SWE Ingestion Service

- Ingestion Service - Interface Specification
- Will be based on the OGC Sensor Observation Service (SOS) 2.0-Standard
- Two approaches:
 - Regular Transactional Operations
 - Complete XML representation
 - Very easy to handle
 - ResultHandling Operations
 - More compact data representation
 - Requires slightly more business logic

SeaDataCloud SWE Ingestion Service

- How to describe data streams?
 - How to retrieve an input data stream from a platform?
 - commands
 - structure of outputs
 - Use SensorML 2.0 for describing sensor interfaces
 - Processing of incoming data requires knowledge about
 - content
 - structure
 - encoding
 - Provide descriptions of data structures as result templates
 - Use vocabularies for semantic interoperability in sensor interface and data stream descriptions

SeaDataCloud SWE Ingestion Service

- Specification of the SWE Ingestion Service is nearly complete
- Will be published as a SeaDataCloud deliverable
- Currently doing: Development of software components
 - Enhancing smle
 - Develop Ingestion Service based on an interpreter for SensorML based sensor and data stream descriptions

Thanks. *Questions?*