

# REGISTRY (fka SENSOR) Best Practices



Project specific best practices and recommendations are listed under "[§ Projects](#)"

Questions, feedback? Contact [o2a-support@awi.de](mailto:o2a-support@awi.de) or the respective chief editor(s) for your project data team

## Overview

### Item types

Generally speaking: everything is an item in [registry.awi.de](https://registry.awi.de), covering the whole range of platform-like items. Examples of items in [sensor.awi.de](https://sensor.awi.de) are not only vessels, AUVs, or measuring stations, but also collecting instruments, such as fish nets, pumps, or grabbing systems, and the sensor itself, such as methane sensor, piezometer, and nutrient analyser.

## Contacts

Contact information is crucial for the work with [registry.awi.de](https://registry.awi.de). Most important is the role of an **editor**, since this is **the only person/institution** that can alter the item, add other roles, or modify the state. When adding a new contact to your item you can choose (and filter) from a list of existing entries. If there is an entry that suits your needs, just assign a proper role.

## Actions

### Generally about Actions

In order to add certain 'Actions' to items, several ways are available:

- in case the item is located on one of the large or medium-sized german research vessels (Polarstern, Sonne, Meteor, Maria S. Merian, Alkor, Heincke, and Poseidon) you could use the autocompletion functionality (strongly recommended). Simply type the first three characters of the station label as listed in PANGAEA's expedition catalogue ([pangaea.de/expeditions/](https://pangaea.de/expeditions/)) to comfortably get the metadata fields under 'Action' filled out for you and this way avoiding possible typos,

## Parameters

Parameters are integral part of an item's description. New parameters can be added by clicking the little '+Add' in the upper left corner of the tab. Now either all mandatory entries can be filled in manually or by autocomplete.

**Manually** a (long) name and a short name need be assigned. As for the whole item the shortname should be as unique as possible. This can be achieved by attaching an index to the parameter, a serial number or something else which appears feasible. Keep in mind that the short names cannot be modified, because once created they are in use within [ingest](#) and storage (for setting the path to data files for a particular item). Be also aware that you cannot create items with the same short name under one parent (e.g. you cannot have two `temperature` parameters at the same item, rather choose `temperature01` and `temperature02`) and **avoid capital letters**.

## Resources

It is a valuable feature that additional information or context material can be assigned in [registry.awi.de](https://registry.awi.de) directly. These resources can be of different type:

Available resource types

systemName	id	description	uuid
Article	23	An Article	478b137a-2aa2-40c9-8de0-258913996702

## Properties

### Quality Control and beyond

During ingest ([spaces.awi.de/x/VS1UEg](https://spaces.awi.de/x/VS1UEg)) several elaborated plausibility and quality checks (`autoQC`, see [spaces.awi.de/x/22WjEw](https://spaces.awi.de/x/22WjEw)) are applied to the incoming data. This is done for various purposes: These tests shall ensure that each observation is properly flagged when it enters the database. In our opinion estimates about quality, plausibility, and integrity of the data play a significant role in the metadata. Estimates on data quality help the user to evaluate her/his input data as well as possible data products.

## Local Frame

The term 'Frame' comes from naval architecture and defines the timber or rib of a ship from keel to side rail. All frames shape the hull. With a defined origin and stated in a reasonable unit, it can be seen as a local reference system which is helpful in bigger ships to locate items. But the 'Local Frame' can be used in other contexts as well e.g. for station, containers, moorings, etc. as long as a fix origin is given.

## Subdevices

Items can be concatenated at will. Theoretically it is possible to mount a vessel to a thermometer (even if this does not make sense). The only restriction is that a parental item cannot be mounted to its own child item.

Item tree of Helgoland Underwater Observatory

## Images

Under the tab 'Images' all images are shown that are attached to the respective item. They can show for example the item itself, the local setup of a device, the specific location in a compartment, etc. Furthermore the images can be annotated as well to clarify specifications to colleagues unfamiliar with it.

## Ingest Tab

By myself aka [ingest.awi.de](https://ingest.awi.de)

Especially when you would like to submit one-time only data (e.g. missing data from a campaign, faulty re-processed data, etc.) we offer a way to do so without further stress. If you would like to submit data for archival only go ahead without further restrictions. If you would also like to have your data available via [dashboard.awi.de/data/](https://dashboard.awi.de/data/), currently only data submission in [NRT data format](#) is supported.