

§ Collaboration

We provide the O2A framework for AWI's research but also to the earth and environment community as long-term "software as a service". You can use the O2A services as they are, especially in project-contexts where AWI is involved. O2A is an ecosystem of different integrated components and tools aligned with AWI's technical infrastructure. Of course, technical implementation is based on this infrastructure.

This section describes aspects of collaboration in terms of metadata and data content, offered services as well as detailed software development of O2A components.

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Content

O2A components have been designed to provide solutions for managing the following types of content:

- **Metadata** on platforms, devices and sensors are described in [sensor.awi.de](#) (see [further information](#)). There is a **chief editor** concept, where experts for thematic topics or projects should care about metadata structure, quality and harmonization. Have a closer look to the [description](#) of the chief editor concept and / or write o2a-support@awi.de for help and feedback.
- **Raw data** can be automatically collected from different sources using [ingest.awi.de](#) and stored in AWI's storage solution in the form of flat files or, if wished, in databases (see [further information](#)). To allow automatic data processing, archiving, publication and provision in web services (e. g., [dashboard](#), [data web service](#), spatial data infrastructure), O2A uses adopts a pre-defined [directory structures](#), standard data formats ([simple data formats](#), [spatial data formats](#)) and basic [quality flagging](#). Three types of data ingestion are supported:
 - automatic data ingestion in near-real time mode
 - automatic data ingestion in delayed-mode
 - manual data ingestion
- **Primary data and data products** are derived from raw data. Scientific work can be self-managed in **projects** using [cloud.awi.de](#) (will be open end of 2020). Our cloud supports provides access to user-tailored virtual machines and containers as well as a pre-configured Jupyter Notebook environment at [jupyterhub.awi.de](#). For long-term archiving and data publication [PANGAEA](#) is used.

 Would you like to manage your data flows with O2A? We are happy if you contact us by o2a-support@awi.de.

Responsibility

As the software development process is aligned to SCRUM, each O2A component or product has its own product owner. The product owner is responsible for vision, wishes and requirements and maximizing the value of the software product for the community. This targeted view is merged and harmonized in the O2A strategic leader group. The members of the leader group have decades of experiences in natural science, research data management, information technology and software development.

 Do you have ideas improving an O2A component? We are happy if you contact us by o2a-support@awi.de.

Contributing

Contributions to O2A are very welcome. We mainly distinguish three types of contributions:

- **feedback** - We heartily invite you to give us feedback and describe what you like to have and makes your life easier. Our product owner will check your feedback, map and prioritize it into our goals to improve the software continuously.
- **significant contributions** - You are missing some major part in O2A and want to contribute within a project-context? One way is to negotiate a project-membership with financed effort for the desired feature in mind. On the other hand we are willing to integrate a developer for efforts about at least 3 person months (including training period, development, unit tests, review and integration tests).
- **join the team** - The preferred way is to join the development team permanently! This option makes sense if you are willing to contribute at least 10-20% working time for at least one year. Focus is on contributions for the community as defined by the product owner. The developer gets a thematic training period, attends and contributes to SCRUM meetings and feels responsible for the product.

The contribution process should look like this:

1. Provide a draft for extensions or changes (max. 2 pages). The draft should cover the contribution type, strategic impact, the value for the community (also who is the community) and a rough effort estimate. It should be as concrete as possible.
2. Get in contact with us o2a-support@awi.de.
3. We will decide if and how we can integrate your contribution. This covers also an estimation for the technical impact and effort for core functionality or extensions.
4. We get in touch with you and discuss the approach.

 Do you like to contribute? Send us a mail o2a-support@awi.de and describe how you like to contribute.

 You don't like to contribute but use O2A? Have a look to our public available application programming interfaces (API) here https://spaces.awi.de/x/_F2VEg.