



How to contribute?

Governance

The maintenance of the Common Data Index (CDI) V2 system is coordinated at a national level by the National Oceanographic Data Centre / Marine Data Centre, belonging to the SeaDataNet partnership. They maintain the CDI references to the data sets, that they manage, and they operate the local components of the CDI V2 system for giving access to their data sets. They can also assist other data managing institutes in their country to become connected to the CDI V2 infrastructure with their collections of data sets. The national directories are compiled into the pan-European CDI V2 directory. Also initially per data centre, the configuration parameters, ruling the connections between the data centres and the SeaDataNet portal, are set and validated. The pan-European CDI V2 system is managed by the SeaDataNet partner.

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Formats

For the CDI V2, just like for each of the other SeaDataNet directories, a content model has been defined, based upon the ISO 19115 content model. Considerable effort has been applied in harmonising the CDI V2 and other directories by using common vocabularies and mutually comparable XML schema?s for exchange (XSD) between the national and pan-European directories. Detailed information about the formats and XML schema?s can be found

[here](#)

Maintenance modality

The CDI V2 directory is maintained by an XML export from the National Oceanographic Data Centres / Marine Data Centres to the pan-European directory:

- Using the [MIKADO software](#)

, provided by SeaDataNet, to generate new and updated CDI XML files from locally maintained databases

An

[XML validation web service](#)

is operated for data centres to test the validity of (samples of) their generated CDI XML files with respect to XML syntax and semantics.

System components and configuration

The CDI V2 system connects the SeaDataNet portal and the databases of the SeaDataNet distributed data centres. It enables that registered users can search for data sets, submit requests for data sets and if ok, can download data sets from the distributed data centres via a unique interface at the SeaDataNet portal. In practice, the user is downloading data sets directly from the relevant data centres, but all communication is facilitated through the SeaDataNet portal.

The CDI V2 system therefore consists of a number of components, centrally at the portal and locally at each data centre. The central components are:

- [CDI Metadatabase and User Interface](#)
: for searching and browsing of metadata of data sets; operated at the portal, while the CDI entries are imported from the XML CDI file deliveries by the data centres (see above)
- [Central User Register](#)
: contains details of users, their organisations and addresses, Id-Passwords, and their SeaDataNet roles; operated at the portal
- [Shopping Basket](#)
: part of the user interface for preparing a user request of multiple data sets, handling login validation of users, and routing requests to the Request Status Manager; operated at the portal
- [Request Status Manager \(RSM\)](#)
: for processing and administration of all requests and data deliveries (downloads); for users to handle the communication with data centres; for data centres to oversee all transactions; operated at the portal

For connecting to the CDI V2 system there are 2 modalities possible for data centres, both requiring local system arrangements:

- Connecting as a full V2 data centre: this means that the processing of data set requests is done in an automatic way, for as far as possible. This requires that a data centre installs locally a java component ?

[Download Manager \(DM\)](#)

?, that handles all communication between the data centre system and the Request Status Manager at the portal and that takes care that requested files are made ready for downloading by users (if OK) via their personal download pages at the data centre.

- Alternative is not to install the Download Manager, but to process all data set requests as registered in the Request Status Manager by data centre staff. This is the **V2 interim solution**. It is intended as interim, because it is strived that all SeaDataNet data centres become full V2 data centres.

The data sets might be locally managed as files in a file management system, possibly supported by a local metadatabase, or managed in a relational database management system. It is required that data sets are delivered to users via the CDI V2 system in

standard SeaDataNet Data Transport Formats

. This implies that a data centre, in case of a file management system configuration, must arrange that the data files are also available in the SeaDataNet formats. This might require pre-processing via a conversion routine. SeaDataNet provides useful software tools for that purpose:

- **NEMO**
software for converting from any kind of ASCII format to the SeaDataNet ODV4 ASCII format
- **Med2MedSDN**
software for converting from the original MedAtlas ASCII format to the SeaDataNet MedAtlas ASCII format.

In case of a relational database management system it might not be needed to arrange pre-processed files in the SeaDataNet formats, because the Download Manager software includes functionality to generate the requested files in the SeaDataNet data formats. However in case of a V2 Interim solution and a relational dbms, the data centre itself has to write software to arrange the required output.

In both situations, full V2 and V2 Interim, a number of configuration parameters have to be agreed and set at the system of the data centre and at the SeaDataNet portal. Therefore it is recommended that new data centres contact the CDI V2 system coordinator

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for detailed instructions and documentation.

MARIS will then provide guidance and validate the initial process of getting connected.