



## CSR Extract web service explanation



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SeaDataNet - The pan-European infrastructure for marine and ocean data management

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Short title

CSR Extract web service explanation

Long title

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Short description

This document describes the web service to ease looking up SeaDataNet Cruise Summary Records (CSR) for linking these in CDI records

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## History

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## 1. Introduction

In SeaDataNet practice it is encouraged to include CSR references in existing and new CDIs in order to establish a direct relation between the CSR and CDI resources of SeaDataNet. This will make it possible to discover CDIs also by Cruises and be part of the Linked Data approach.

To assist in identifying relevant CSRs BSH as SeaDataNet CSR manager has developed an online CSR web service.

## 2. CSR extract web service:

The online CSR extract web service provides a subset of the CSR attributes for all entries. These are delivered as a .csv file. It covers the full scope of the latest CSR database; however only validated and published CSRs.

The service can be reached at:

[http://seadata.bsh.de/Cgi-csr/MARIS/refnum\\_query.pl](http://seadata.bsh.de/Cgi-csr/MARIS/refnum_query.pl)

It allows to download a CSV file with an extract of the latest CSR directory with the following attributes:

- **CSR Name Identifier** (like 'JC054')
- **CSR BSH code list value** (like '20127023')
- **Collating-Centre\_EDMO-code** (like '43')
- **Ship-name (as in C17)** (like 'James Cook')
- **Ship-code (as in C17)** (like '740H')
- **Cruise-Start-Date** (yyyymmdd) (like '20101204')
- **Cruise-End-Date** (yyyymmdd) (like '20110108')

This list will makes it easier to map local identifiers of cruises to the official SeaDataNet CSR references that are required in the CDI entries. For that purpose it is advised to load the extract CSV into excel or a local database and sort it, for example by collating centres as these represent countries.

In SeaDataNet NODCs function as collating centres for the various SeaDataNet directories for entries from their countries. The codes of these collating centres are included in the extract (see above) and facilitate finding all CSRs from a specific country. For example 43 = BODC and they collate the CSRs for the research vessel fleet of the UK. The EDMO\_codes can be translated to organisations using the EDMO directory:

[http://seadatanet.maris2.nl/v\\_edmo/print.asp?n\\_code=43](http://seadatanet.maris2.nl/v_edmo/print.asp?n_code=43) gives the detail page of EDMO for EDMO\_code = 43 = BODC

The research vessel names and their ICES codes are maintained in the SeaDataNet C17 vocabulary. A user interface for this list can be found at:

[http://seadatanet.maris2.nl/v\\_bodc\\_vocab\\_v2/search.asp?lib=C17](http://seadatanet.maris2.nl/v_bodc_vocab_v2/search.asp?lib=C17)



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### 3. Alternative CSR web service

There is also an online web service to download an online xml file describing all CSR entries present in the CSR directory:

<http://seadata.bsh.de/isoCodelists/sdnCodelists/csrCodeList.xml>

This is slower than the csv extractor as the XML page contains >30.000 instances. This service is used to build GUI lists in the **MIKADO XML editor** which can be used to generate CDI XML entries. The entries in this XML list contain:

```
<codeEntry>
  <CodeDefinition gml:id="SDN_CSRCode_20060018">
    <gml:metaDataProperty about="http://www.seadatanet.org/urnurl/SDN:EDMO::96"/>
    <gml:metaDataProperty about="http://www.seadatanet.org/urnurl/SDN:CSR::20060018"/>
    <gml:metaDataProperty about="http://seadata.bsh.de/Cgi-csr/XML/xmlDownload_V2.pl?csrref=20060018"/>
    <gml:description>452 - Gauss (06G2)</gml:description>
    <gml:identifier codeSpace="SeaDataNet">20060018</gml:identifier>
    <gml:name codeSpace="EDMO">96_BSH20060018</gml:name>
  </CodeDefinition>
</codeEntry>
```

In this example '20060018' is the **CSR BSH code list value** and this is the SeaDataNet global id to refer to a CSR entry. The URL:

[http://seadata.bsh.de/Cgi-csr/XML/xmlDownload\\_V2.pl?csrref=20060018](http://seadata.bsh.de/Cgi-csr/XML/xmlDownload_V2.pl?csrref=20060018)

allows to download the full CSR entry in XML.

### 4. How to enter CSR references in CDI XML entries?

For linking SeaDataNet CSR entries into CDI XML entries use is made of the CSR Reference which is composed of two fields:

- CSR Identifier
- CSR code list value

CDIs can be made in manual mode using the MIKADO XML editor. The following image concerns the relevant MIKADO screen and it shows that there is a look-up function to find and retrieve the two reference fields from the online CSR directory. This look-up function is powered by the CSR XML web service (see above).



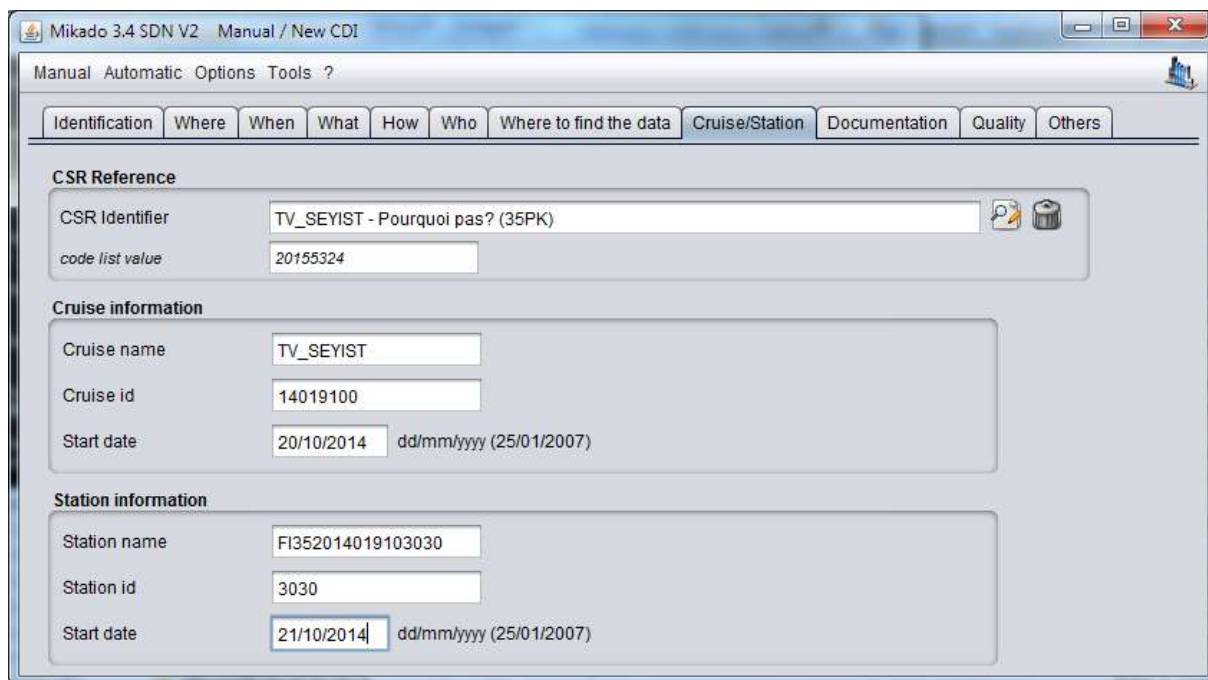


Figure 1 - 'Cruise/Station' window for CDI in MIKADO XML editor

As can be seen from the image:

- the **CSR Identifier** is built as a concatenation of the following fields from the CSV extract: **CSR Name Identifier – Ship-name (Ship-code)**; example TV\_SEYIST – Pourquoi Pas? (35PK)
- the **Code list value** is filled with: **CSR BSH code list value**; example 20155324

The CDI XML entries can also be made in **automatic** mode, preferably using MIKADO (see section 10 of the MIKADO manual), and then the codes should be retrieved by queries for **var 81**.

In that case there are two options:

- using the CSR BSH code list value, also known as 'SeaDataNet Central\_CSR\_ID'. If this is known in your local system, select it directly in MIKADO var81

or alternatively:

- using the Local\_CSR\_ID which is known in your system. This can only be used if the CSR already has been published in the SeaDataNet CSR Catalogue! To translate the Local\_CSR\_ID MIKADO uses a mapping file which can be updated using the "Options > Vocabulary update" menu to have the latest version. You just need to select the following information from your database : <EDMO-code>\_<local\_CSR\_ID>, where EDMO\_code = code of the CSR collating center.

Example : select 486\_14019100 as "var81" will give the following result in the CDI xml file :

```

</gmd:aggregateDataSetName>
- <gmd:aggregateDataSetIdentifier>
- <gmd:MD_Identifier>
- <gmd:code>
  <sdn:SDN_CSRCODE codeListValue="20155324" codeList="http://seadata.bsh.de/isoCodelists
  /sdnCodelists/csrCodeList.xml#SDN_CSRCODE" codeSpace="SeaDataNet">TV_SEYIST -
  Pourquoi pas? (35PK)</sdn:SDN_CSRCODE>
  </gmd:code>
</gmd:MD_Identifier>
</gmd:aggregateDataSetIdentifier>

```

Figure 2 - 'CSR Reference coding in CDI XML

Note: If the CSR for the given Local\_CSR\_ID is not yet in the SeaDataNet CSR catalogue then MIKADO will not generate the CDI xml and will send a mapping error; in that case you must first have the corresponding CSR populated in the SeaDataNet CSR catalogue.

The full CSR record can be retrieved by:

[http://seadata.bsh.de/Cgi-csr/retrieve\\_sdn2/viewReport.pl?csrref=20155324](http://seadata.bsh.de/Cgi-csr/retrieve_sdn2/viewReport.pl?csrref=20155324)

