



2^d annual meeting – Lucca (Italy)– 26-27 September, 2013



SeaDataNet

*PAN-EUROPEAN INFRASTRUCTURE
FOR OCEAN & MARINE DATA
MANAGEMENT*

How to use MIKADO 3.2?

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Overview

- What's new in MIKADO 3.2?
 - Migration to NVS 2.0 BODC vocabulary
 - Change sea areas vocabulary list (C16 to C19)
 - Migration to INSPIRE compliance (ISO19139)
 - Improvements
- What to do for the 1st innovation cycle?
 - How to update and create XML files?



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What's new in MIKADO 3.2?

Migration to NVS 2.0 vocabulary (2/5)

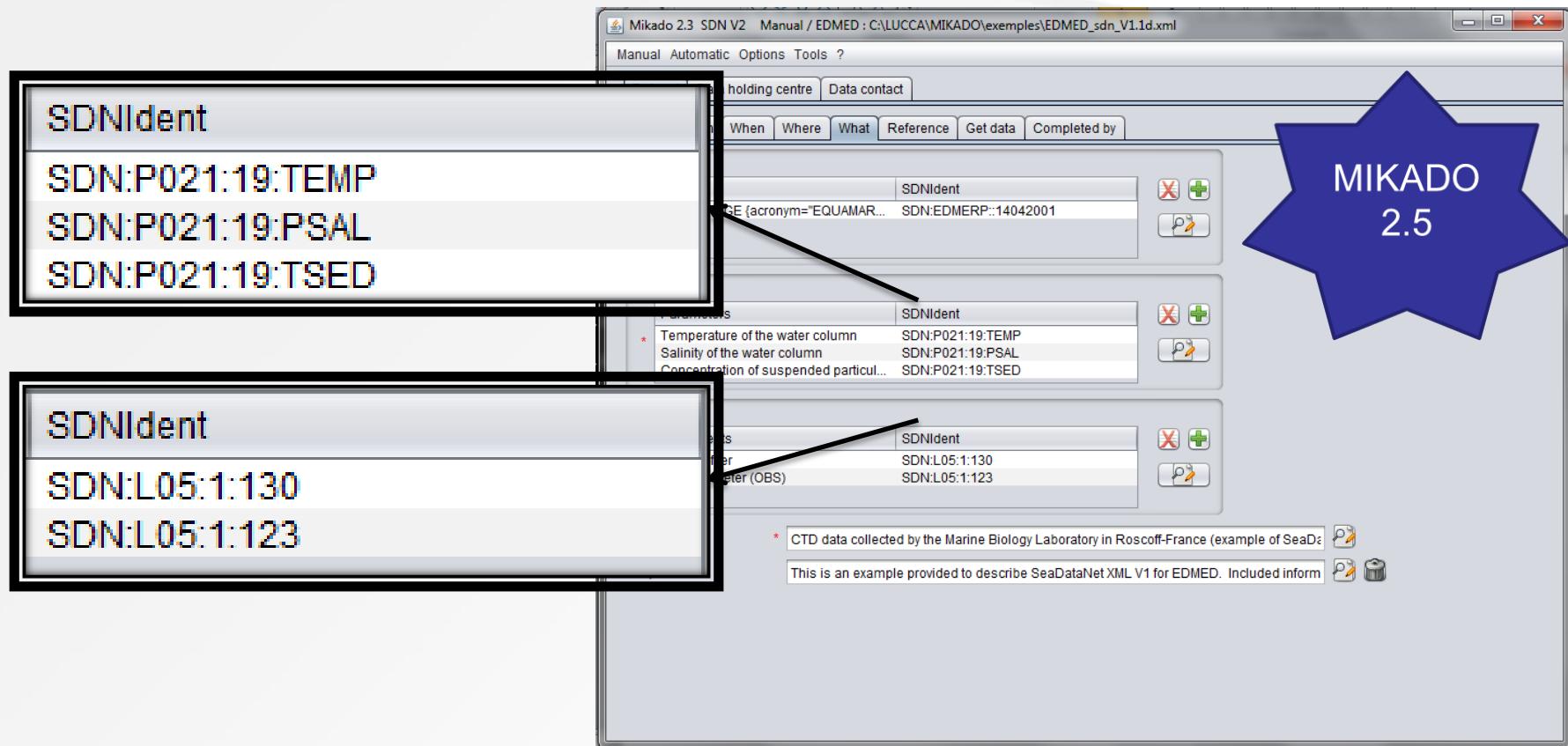
- MIKADO is still able to read (import) NVS1 XML files and save them as NVS2.0 XML files for data centres to update and upgrade their existing local XML files.



- “Manual” menu
 - Open, Save

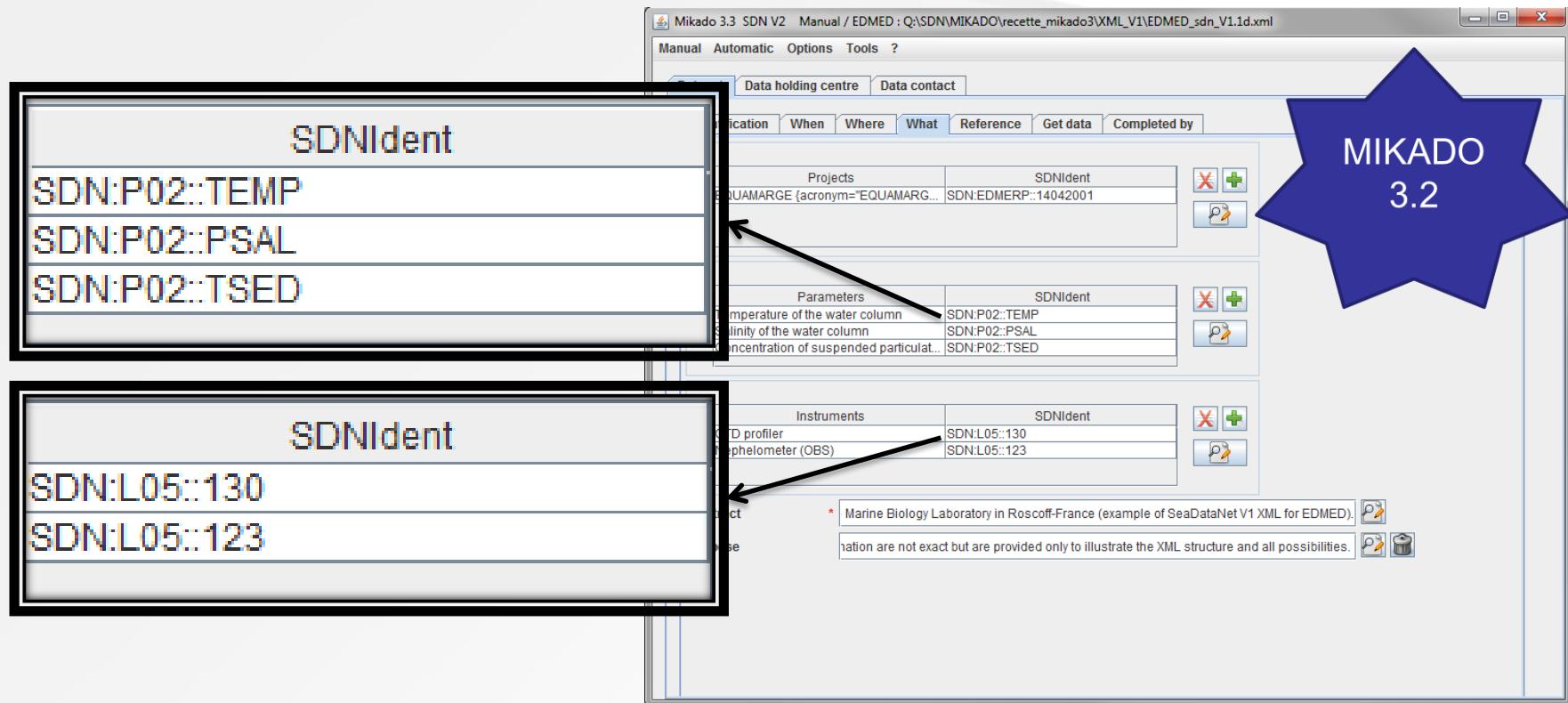
Migration to NVS 2.0 vocabulary (3/5)

NEW



Migration to NVS 2.0 vocabulary (4/5)

NEW



The screenshot shows the Mikado 3.3 SDN V2 interface. On the left, there are two windows titled "SDNIdent" containing lists of identifiers: "SDN:P02::TEMP", "SDN:P02::PSAL", and "SDN:P02::TSED" in the top one, and "SDN:L05::130" and "SDN:L05::123" in the bottom one. Arrows point from these identifiers to corresponding entries in the main "Mikado 3.3 SDN V2 Manual / EDMED" window. The main window displays XML structures for "Projects", "Parameters", and "Instruments". A large blue star on the right contains the text "MIKADO 3.2".

SDNIdent

SDN:P02::TEMP
SDN:P02::PSAL
SDN:P02::TSED

SDNIdent

SDN:L05::130
SDN:L05::123

Mikado 3.3 SDN V2 Manual / EDMED : Q:\SDN\MIKADO\recette_mikado3\XML_V1\EDMED_sdn_V1.1d.xml

Manual Automatic Options Tools ?

Data holding centre Data contact

Projects SDNIdent
EQUAMARGE {acronym="EQUAMARG... SDN:EDMERP::14042001

Parameters SDNIdent
temperature of the water column SDN:P02::TEMP
ility of the water column SDN:P02::PSAL
ncentration of suspended particulat... SDN:P02::TSED

Instruments SDNIdent
D profiler SDN:L05::130
ephelometer (OBS) SDN:L05::123

* Marine Biology Laboratory in Roscoff-France (example of SeaDataNet V1 XML for EDMED).
ation are not exact but are provided only to illustrate the XML structure and all possibilities.

MIKADO 3.2



Migration to NVS 2.0 vocabulary (5/5)

NEW

EDMED XML file - NVS 1

```
<descKeys>
  <keyword SDNIdent="SDN:P021:19:TEMP">Temperature of the water column</keyword>
  <keyword SDNIdent="SDN:P021:19:PSAL">Salinity of the water column</keyword>
  <keyword SDNIdent="SDN:P021:19:TSED">Concentration of suspended particulate material in the water
- <keyTyp>
  <KeyTypCd value="parameter" />
</keyTyp>
..
```

EDMED V2 XML file – NVS 2.0

```
<descKeys>
  <keyword SDNIdent="SDN:P02::TEMP">Temperature of the water column</keyword>
  <keyword SDNIdent="SDN:P02::PSAL">Salinity of the water column</keyword>
  <keyword SDNIdent="SDN:P02::TSED">Concentration of suspended particulate material in the water
- <keyTyp>
  <KeyTypCd value="parameter" />
</keyTyp>
..
```



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Change sea areas vocabulary list (1/3)

- MIKADO has been upgraded to make use of C19 vocabulary list (SeaVox Water bodies with spatial coverage) instead of C16 for sea regions.
- MIKADO is able to convert C16 codes into C19 ones (automatic mapping)
- Conversion done at the same time than conversion from NVS1 to NVS 2.0.



Change sea areas vocabulary list (2/3)

NEW

Mikado 2.3 SDN V2 Manual / EDMED : C:\LUCCA\MIKADO\exemples\EDMED_sdn_V1.1d.xml

Manual Automatic Options Tools ?

Dataset Data holding centre Data contact

Identification When Where What Reference Get data Completed by

Geographic coverage (bounding box)

West longitude *	East longitude *	South latitude *	North latitude *
-5	-4	48	49
-3.5	-3.2	48.2	48.4

Geographic-coverage (textual description)

See text describing the geographic coverage

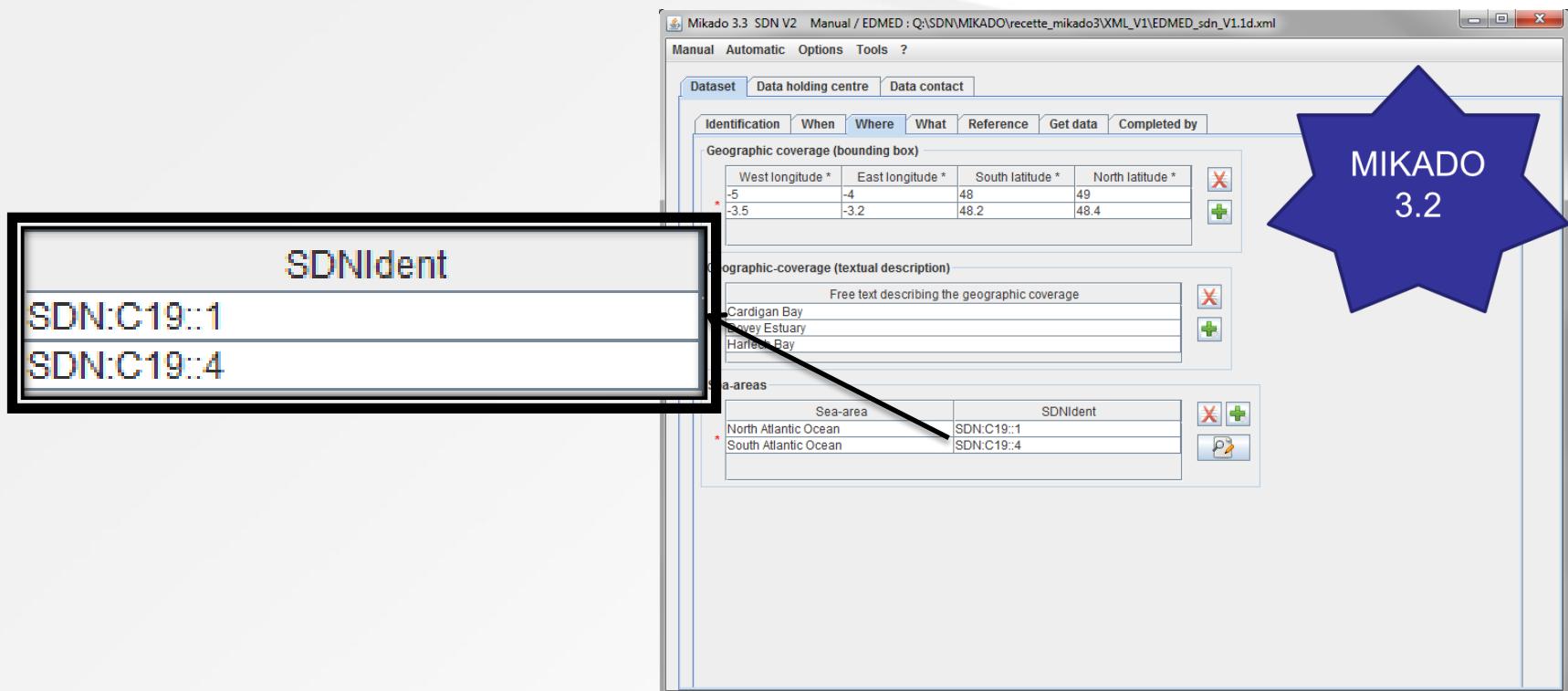
Cardigan Bay
Dovey Estuary
Harlech Bay

Sea-areas

Sea-area	SDNIdent
* North Atlantic Ocean	SDN:C16:0:23
South Atlantic Ocean	SDN:C16:0:32

Change sea areas vocabulary list (2/3)

NEW



Mikado 3.3 SDN V2 Manual / EDMED : Q:\SDN\MIKADO\recette_mikado3\XML_V1\EDMED_sdn_V1.1d.xml

Manual Automatic Options Tools ?

Dataset Data holding centre Data contact

Identification When Where What Reference Get data Completed by

Geographic coverage (bounding box)

West longitude *	East longitude *	South latitude *	North latitude *
-5	-4	48	49
-3.5	-3.2	48.2	48.4

Geographic-coverage (textual description)

Free text describing the geographic coverage

- Cardigan Bay
- Severn Estuary
- Hafod Bay

Sea-areas

Sea-area	SDNIdent
North Atlantic Ocean	SDN:C19::1
South Atlantic Ocean	SDN:C19::4

MIKADO 3.2

Change sea areas vocabulary list (3/3)

NEW

EDMED XML file - NVS 1

```
<descKeys>
  <keyword SDNIdent="SDN:C16:0:23">North Atlantic Ocean</keyword>
  <keyword SDNIdent="SDN:C16:0:32">South Atlantic Ocean</keyword>
- <keyTyp>
  <KeyTypCd value="place" />
</keyTyp>
```

EDMED V2 XML file – NVS 2.0

```
<descKeys>
  <keyword SDNIdent="SDN:C19::1">North Atlantic Ocean</keyword>
  <keyword SDNIdent="SDN:C19::4">South Atlantic Ocean</keyword>
- <keyTyp>
  <KeyTypCd value="place" />
</keyTyp>
```



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Migration to CDI ISO-19139

see CDI description at:

http://www.seadatanet.org/content/download/18742/121562/file/cdi_sdn_v2.0_iso19139.xls

and all other documentation:

<http://www.seadatanet.org/Standards-Software/Metadata-formats/CDI>

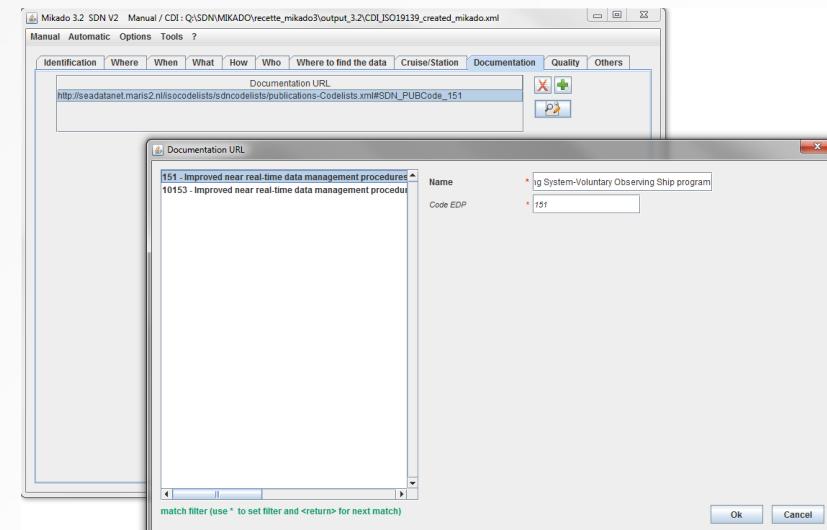


Migration to CDI ISO 19139 (1/7)

- MIKADO is now able to generate (manually or automatically) ISO 19139 CDI descriptions instead of ISO 19115 ones.
- Main changes in MIKADO
 - Addition of new optional fields
 - Documentation
 - Data quality information
 - EDMED reference
 - CSR reference
 - Change in date format (revision date and station date)
 - Change in Sampling interval

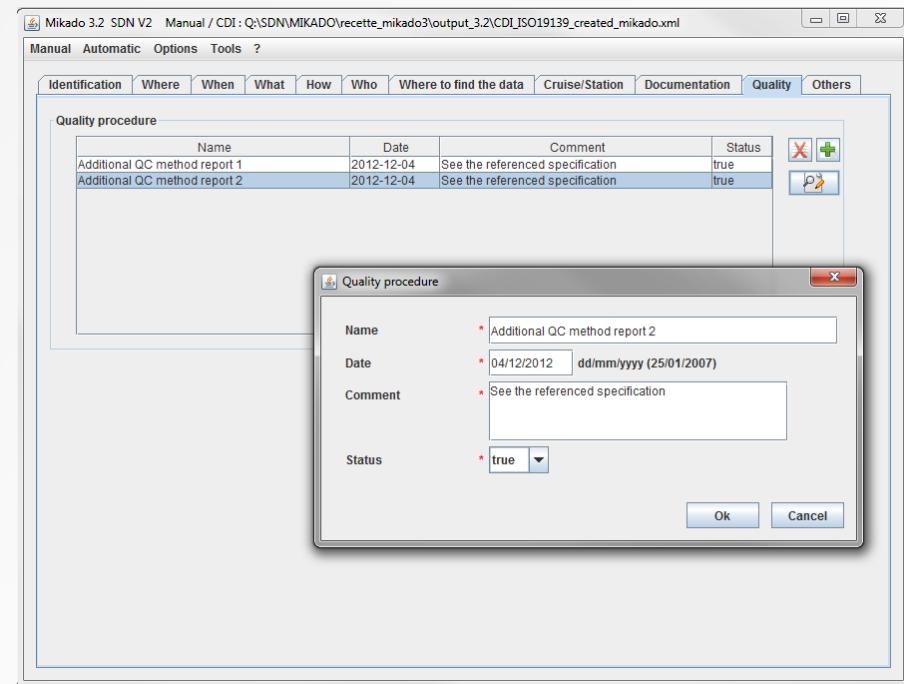
Migration to CDI ISO 19139 (2/7)

- Additional documentation
- References to publications and documentations have been added in CDI ISO 19139 profile. Every CDI record can reference any number of publications.
- Optional field in MIKADO
 - Documentation tab (manual mode)
 - Dropdown list
 - Upload using webservices
 - Var 90 (automatic mode)
- Use of permanent URLs:
 - Catalogue of publications (MARIS)



Migration to CDI ISO 19139 (3/7)

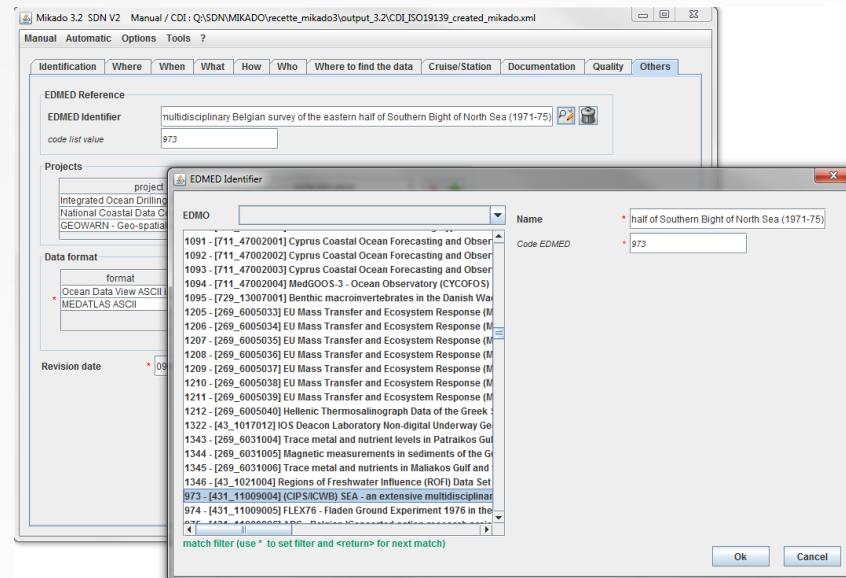
- Data Quality Information
 - Every CDI record can reference any number of data quality reports.
 - Optional fields in MIKADO:
 - Quality tab (manual)
 - Var95 to var98 (automatic)





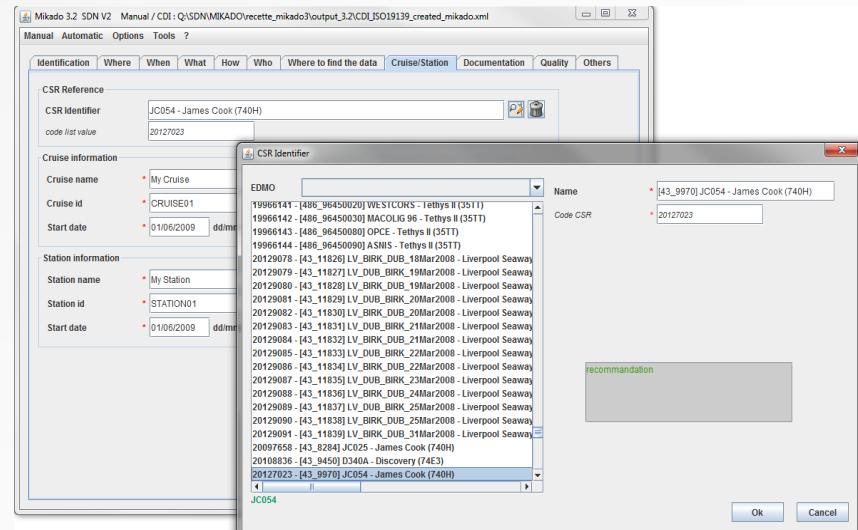
Migration to CDI ISO 19139 (4/7)

- EDMED Reference
- A reference to the EDMED directory has been added in CDI ISO 19139 profile.
- Optional field in MIKADO
 - EDMED reference (manual)
 - Dropdown list
 - Uploaded using webservices
 - Sorted by EDMO code
 - Var80 (automatic)
 - Mapping available
 - Central EDMEDId or EDMOCode_LocalEDMEDIId



Migration to CDI ISO 19139 (5/7)

- CSR Reference
- A reference to the CSR directory has been added in CDI ISO 19139 profile.
- Optional field in MIKADO
 - CSR reference (manual)
 - Dropdown list
 - Uploaded using webservices
 - Sorted by EDMO code
 - Var81 (automatic)
 - Mapping available
 - Central CSRID or EDMOCODE_LocalCSRID





Migration to CDI ISO 19139 (6/7)

- Changes in date format:

YYYY-MM-DDTHH:MM → YYYY-MM-DD

→ Revision date, Station date

- MIKADO manual : follow the instructions in the MIKADO interface

Station information

Station name	<input type="text"/>
Station id	<input type="text"/>
Start date	<input type="text"/> dd/mm/yyyy (25/01/2007)

- MIKADO automatic: use the right format to avoid « date type » error during generation (var06, var 20)

Migration to CDI ISO 19139 (7/7)

- Sampling interval
 - “Sampling interval” → “Time resolution”
 - “When” tab (manual)
 - Var21 and 22 (automatic)
 - Value + L031 “SDN Measurement Periodicity Categories »
→ Value + P06 “BODC data storage units”

Sampling interval

value	<input type="text" value="5"/>			
unit	week to sub-month			
SDNIdent (uomName)	<input type="text" value="SDN:L031:3:6"/>			

L031

Time resolution

Value	<input type="text" value="35"/>			
Unit	* net.org/urnu/SDN:P06::UTAA			

P06



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Migration to CSR ISO-19139

See all documentation:

<http://www.seadatanet.org/Standards-Software/Metadata-formats/CSR>



Migration to CSR ISO 19139 (1/6)

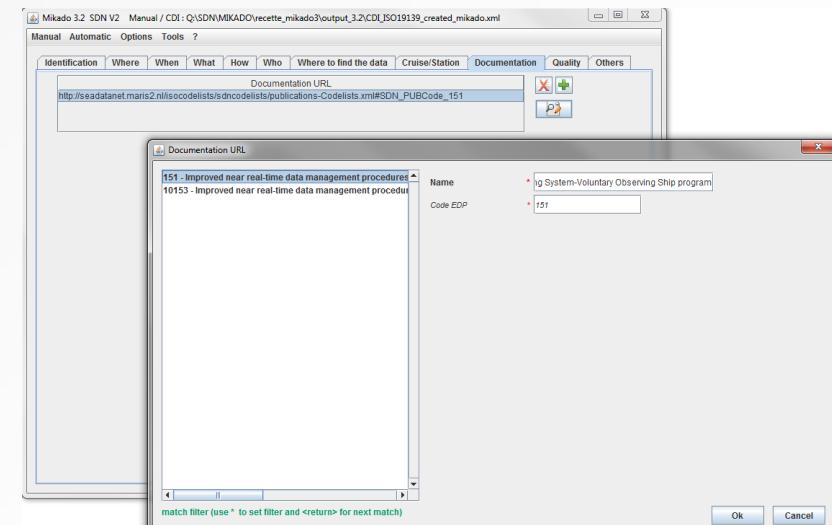


- MIKADO is now able to generate (manually or automatically) ISO 19139 CSR descriptions instead of ISO 19115 ones.
- No major changes in the MIKADO input screens
- Addition of new optional fields
 - Documentation
 - GML extension
- Change in date format (revision date)

Migration to CSR ISO 19139 (2/6)



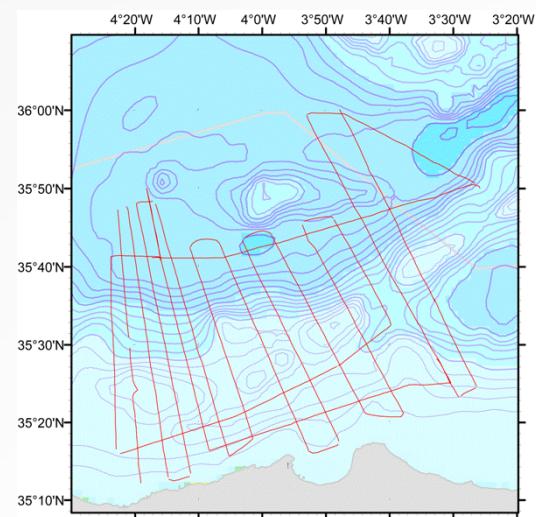
- Additional documentation
- References to publications and documentations have been added in CSR ISO 19139 profile. Every CSR record can reference any number of publications.
- Optional field in MIKADO
 - Documentation tab (manual mode)
 - Var50 (automatic mode)
- Use of permanent URLs:
 - Catalogue of publications (MARIS)



Migration to CSR ISO 19139 (3/6)



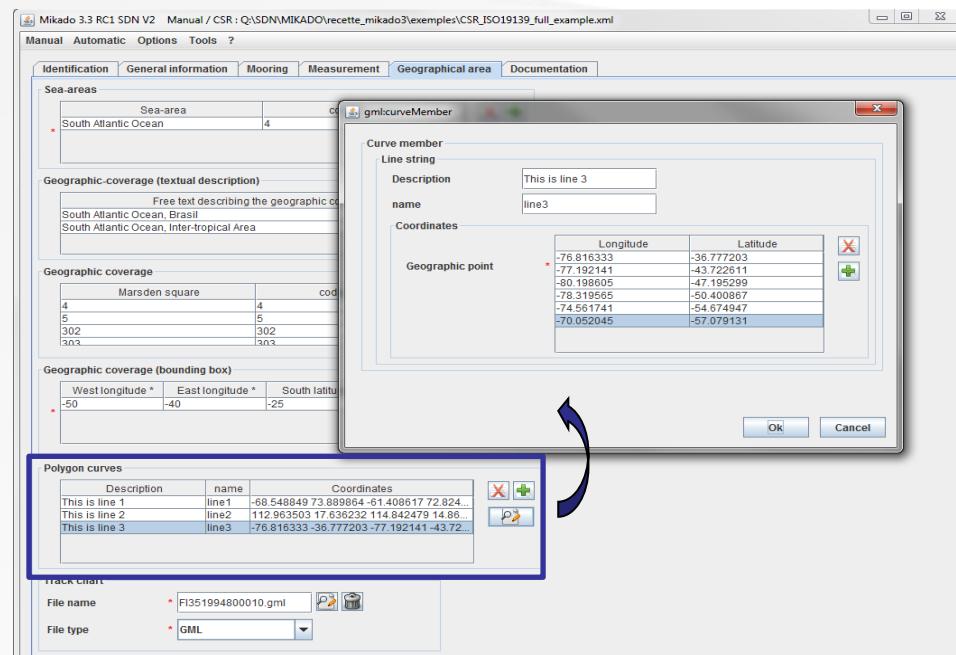
- GML extension
- A GML (Geography Markup Language) extension has been added in CSR ISO 19139 profile. It enables to detail the geographical features of tracks in conformity with the real geographical coverage.
- MIKADO has been updated to include this GML extension (GML curves).



Migration to CSR ISO 19139 (4/6)



- GML extension
- Optional fields in MIKADO
 - GML table (manual)
 - Description,
 - Name,
 - Positions list (Lat, Lon)
 - Var60, 62, 63 (automatic)





Migration to CSR ISO 19139 (5/6)



- GML extension
- We strongly recommend you not to use your navigation files as position lists, but to subset them and to use only a reduced (but representative) part of them.
 - more practical to be managed or visualized using standard GIS software or services (WMS, WFS, ...)
 - Reduce significantly the number of geographical locations to preserve response time
- In MIKADO, GML for CDI and CSR must be <10000 points
- Use EndsAndBends software to reduce your position list

<http://www.seadatanet.org/Standards-Software/Software/EndsAndBends>



Migration to CSR ISO 19139 (6/6)

- Change in date format:
 - Revision date

YYYY-MM-DDTHH:MM → YYYY-MM-DD

- MIKADO manual
 - Follow the instructions of the MIKADO interface

Revision date

*

dd/mm/yyyy (25/01/2007)

- MIKADO automatic
 - Use the right format to avoid « datatype » error during generation

Conversion ISO 19115 to ISO 19139 (1/2) NEW

- MIKADO is still able to read (import) CDI/CSR ISO 19115 files and save them as ISO 19139 XML files for data centres to update their existing local XML files.



- “Manual” menu
 - Open, Save

Conversion ISO 19115 to ISO 19139 (2/2)

CDI XML file – ISO19115

```
<descKeys>
  <keyword SDNIdent="SDN:P021:41:ATVS">Atmospheric visibility and transparency</keyword>
  <keyword SDNIdent="SDN:P021:70:AMON">Ammonium concentration parameters in the water column</keyword>
  <keyword SDNIdent="SDN:P021:70:CHUM">Atmospheric humidity</keyword>
- <keyTyp>
  <KeyTypCd value="parameter" />
</keyTyp>
```

CDI XML file – ISO19139

```
<gmd:descriptiveKeywords>
- <gmd:MD_Keywords>
  - <gmd:keyword>
    <sdn:SDN_ParameterDiscoveryCode codeSpace="SeaDataNet" codeListValue="ATVS"
      codeList="http://vocab.nerc.ac.uk/isoCodelists/sdnCodelists/cdicsrCodeList.xml#SDN_ParameterDiscoveryCode">Atmo:
    </gmd:keyword>
  - <gmd:keyword>
    <sdn:SDN_ParameterDiscoveryCode codeSpace="SeaDataNet" codeListValue="AMON"
      codeList="http://vocab.nerc.ac.uk/isoCodelists/sdnCodelists/cdicsrCodeList.xml#SDN_ParameterDiscoveryCode">Ammo:
    </gmd:keyword>
  - <gmd:keyword>
    <sdn:SDN_ParameterDiscoveryCode codeSpace="SeaDataNet" codeListValue="CHUM"
      codeList="http://vocab.nerc.ac.uk/isoCodelists/sdnCodelists/cdicsrCodeList.xml#SDN_ParameterDiscoveryCode">Atmo:
```

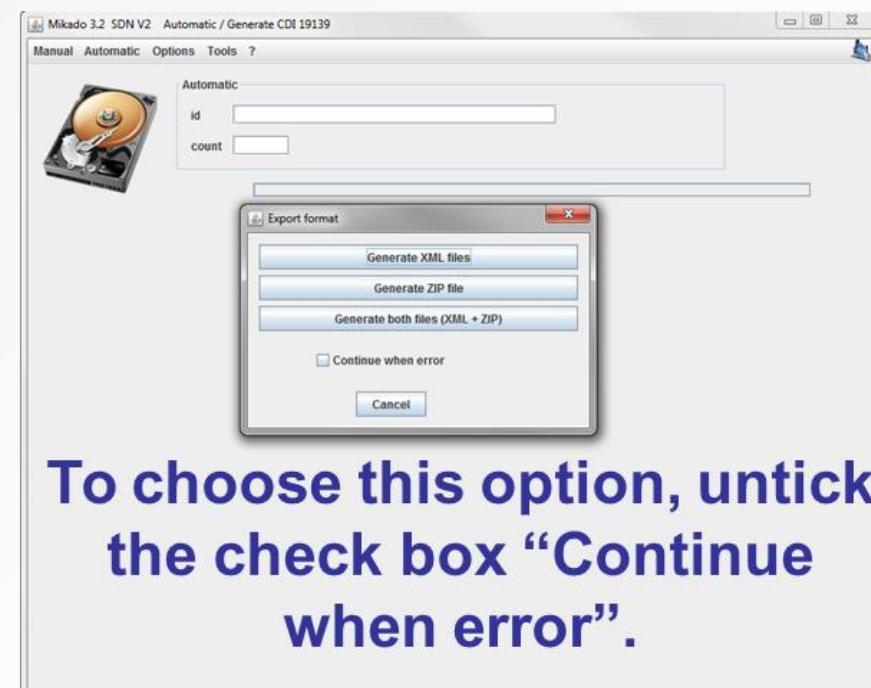
New functionnality (1/2)



IMPROVEMENT

- Continue when error mode
 - 2 options for automatic generation

Option 1: if MIKADO finds one record with mapping missing, or one record with error, it stops and writes a severe error in the logfile. In the output directory, the files generated before the detection of the error are available.

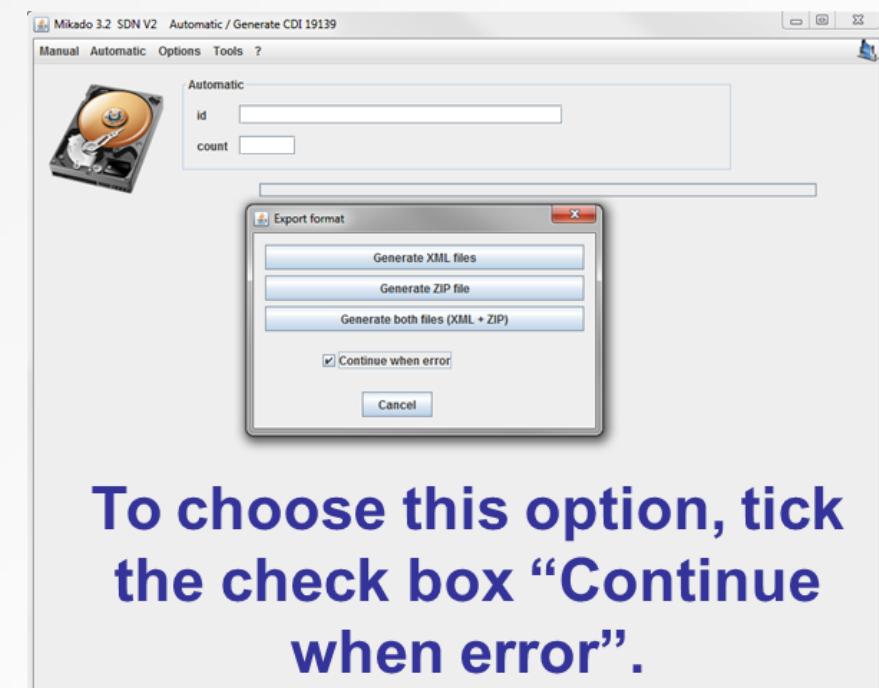


New functionnality (2/2)

IMPROVEMENT

- Continue when error mode

Option 2: if MIKADO finds one record with mapping missing, or one record with error, it writes a warning for this record in MIKADO screen, and continues to process next records. So, only the XML file of the records with warning will be missing in the output directory.





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What to do for the 1st innovation cycle?



How to do for the 1st innovation cycle?

- Upgrading from V1 to V2 vocabulary
 - All catalogues
 - For existing entries: done by the central catalogues
 - For new entries: MIKADO 3.X will generate all XML files with V2 vocabulary URNs
 - For CDIs
 - For Modus 2 in the coupling table (measurements selected in a database)
 - The mapping file (for the creation of ODV on the fly, in the *config* folder of your DM installation directory) has to be updated with *P011* → *P01* and *P06* → *P06*



How to do for the 1st innovation cycle?

- Upgrading from ISO19115 to ISO19139
 - CDI and CSR
 - For existing entries: done by the central catalogues (new fields will be empty)
 - New CDI and CSR records
 - To be generated by MIKADO 3.2 for CDI only and 3.3 for CDI and CSR
 - If information available, enter the new fields (CSR reference, EDMED reference, Publications, etc)
 - To be sent to central catalogues



EDMED, EDMERP, EDIOS (1/2)

- MIKADO manual (« Manual » menu)
 - Create new XML files
 - New
 - Fulfil the different tabs and fields
 - Save your XML file
 - Update existing XML files
 - Open your existing XML file
 - Update the information
 - Save your XML file



EDMED, EDMERP, EDIOS (2/2)

- MIKADO automatic (« Automatic » menu)
 - Create and update XML files
 - Update your MIKADO 2.5 configuration files
 - NEW Use C19 codes instead C16 ones (to avoid manual mapping)
 - Save your configuration files
 - Generate your XML files



CDI (1/2)

- MIKADO manual (« Manual » menu)
 - Create new XML files
 - New
 - Fulfil the different tabs and fields
 - Save your XML file
 - Update existing XML files
 - Open your existing XML file
 - Update the existing information
-  Fulfil new fields if possible (EDMED reference, CSR reference, Data Quality, Documentation)
- Save your XML file



CDI (2/2)

- MIKADO automatic (« Automatic » menu)
 - Create and update XML files
 - Update your MIKADO 2.5 configuration files
 - NEW Revision date (var06), Station date (var20): YYYY-MM-DD
 - NEW Sampling interval (var 21,22) : Use P06 instead of L031
 - NEW Fulfil the new fields if possible (EDMED reference var80, CSR reference var81, Data Quality, Documentation var90)
 - Save your configuration files
 - Generate your XML files



CSR (1/2) ***Do not use MIKADO 3.2 but 3.3!***

- MIKADO manual
 - Create new XML files
 - New
 - Fulfil the different tabs and fields
 - Save your XML file
 - Update existing XML files
 - Open your existing XML file
 - Update the existing information
 -  Fulfil new fields if possible (GML, Documentation)
 - Save your XML file



CSR (2/2) ***Do not use MIKADO 3.2 but 3.3!***

- MIKADO automatic
 - Create and update XML files
 - Update your MIKADO 2.5 configuration files
 -  Revision date (var04) : YYYY-MM-DD
 -  Use C19 codes instead C16 ones (var20)
 -  Fulfil the new fields if possible (GML extension var60-63, Documentation var 50)
 - Save your configuration files
 - Generate your XML files



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Thank you for your attention

Any problems...

Any questions or remarks...

[Sdn-userdesk@seadatanet.org](mailto:sdn-userdesk@seadatanet.org)