



## **Status of CDI buffer service**

**By**

**Dick M.A. Schaap – Technical Coordinator**

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# Discovery and harvesting of data sets for regional product groups

- EMODNet Chemistry 2 project is generating chemistry products per MSFD sea region
- SeaDataNet II project is generating T&S products per sea region
- This requires discovery and harvesting of data sets for specific criteria
- Earlier this was done on a manual basis using the CDI Discovery and Shopping mechanism
- Recently in EMODNet Chemistry 2 and in near future for SeaDataNet II use is made of a CDI buffer service:
  - using a Robot harvester via the shopping mechanism to discover and retrieve specific data sets from distributed data centres
  - to compile and maintain specific aggregate data sets as internal central data buffers that can be transferred to regional groups for further processing and products generation.

# Discovery and harvesting of data sets for regional product groups – in automatic mode

- An online Buffer Content Management System (Buffer CMS) has been developed and tested for configuring specific data buffer profiles in agreement with data providers AND for specific data user communities (such as EMODNet Chemistry regional product groups, MyOcean, SeaDataNet regional dataproduct groups, ...)
- Configuration settings concern discovery filter, buffer group, motivation, users (by means of SeaDataNet AAA services)
- Robot harvester can be activated to perform retrieval for each buffer profile and also to maintain the central metadata and data buffers automatically for new entries and updates of existing entries
- Progress of the robot harvesters is administered in the existing online Request Status Manager (RSM) system which is part of the CDI Shopping mechanism for tracking and tracing requests by users, data providers and overall



# Buffer Content Management System (Buffer CMS)



## CDI-buffer - Content Management System

Welcome to the CDI Buffer Content Management System. This CMS allows to configure buffers. The content will be retrieved and maintained automatically in specific buffers.

CDI-buffer Profile

Free search  
Users

SeaDataNet

Key	Name
4	Test application
3	EMODNet Chemistry 2 nutrients
2	SeaDataNet 2 Regional products
1	SDN-MyOcean joint T&S product

CDI-buffer Profile

Home Help Logout

Free search  
Users

SeaDataNet

Operated in cooperation with

Search Reset Add new  
Save Clear

Results Found 4 Show 2

General Users Filter Summary

Name: EMODNet Chemistry 2 nutrients  
Name code: buffer3

Data format L24

CF  CFPOINT  
 INAPP  MEDATLAS  
 ODV  PNG  
 SEGY  SHP  
 TIFF  UKOAP190  
 XTF

Restricted order user: mb312d6  
 Restricted order password: ec735OHT  
 Restricted order motivation: These data sets will be used only internally the regional groups of EMODNet Chemistry 2 as input for the compilation of regional interpolated maps using ODV and DIVA and also a number of time series in graphics for monitoring stations. Please indicate via the SeaDataNet RSM service that you agree with access for the SeaDataNet robot, operated by MARIS.

Key: 3  
 Created: 7/3/2014 11:50:45  
 Last update: 16/6/2014 16:49:47  
 Here are system error messages displayed.

Description: As part of EMODNet Chemistry 2 project the regional groups will produce regional interpolated maps using ODV and DIVA and also...

logon

Overview of buffers

Configuring profile of specific buffer

# Central User Interface with logon (AAA service) following authorisation in buffer CMS profiles



logon

**CDI Buffer Discovery and Access service**

Welcome to the CDI Buffer Discovery and Access service. This gives registered users the option to choose to undertake further discovery and downloading of data sets collections.

- [EMODNet Chemistry 2 nutrients](#)
- [SDN-MyOcean joint T&S product](#)
- [SeaDataNet 2 Regional products](#)
- [Test application](#)

**SEADATANET COMMON DATA INDEX (SEADATANET-BUFFER) V3**

Tools: Search, Home, Position, Index, Enlarge, Help, Datasets (0), Basket, Reset, Add to basket

Layer control:
 

- CDI entry Points
- CDI entry Tracks
- CDI entry Areas
- Grid Lines
- Regional sea
- Regional sea labels
- Main sea
- Main sea labels

Listing results:
 

- 20
- 100
- 1000 records

#	Data set name	Country	Start date	Disciplines - Parameter groups	Instrument / gear type	Show
<input type="checkbox"/>	PITAGEM water_nov2004	Italy	20041104	Administration and dimensions > Administration and dimensions Biological oceanography > Pigments Chemical oceanography > Carbon, nitrogen and phosphorus > Nutrients Marine geology > Suspended particulate material	discrete water samplers	<input type="checkbox"/>
<input type="checkbox"/>	PITAGEM water_nov2004	Italy	20041104	Administration and dimensions > Administration and dimensions Biological oceanography > Pigments Chemical oceanography > Carbon, nitrogen and phosphorus > Nutrients Marine geology > Suspended particulate material	discrete water samplers	<input type="checkbox"/>
<input type="checkbox"/>	PITAGEM water_nov2004	Italy	20041104	Administration and dimensions > Administration and dimensions Biological oceanography > Pigments Chemical oceanography	discrete water samplers	<input type="checkbox"/>

Overview of authorized buffers

Central buffer UI incl direct shopping

# Request Status Manager (RSM) service extended with administering of Central buffer interfaces

## RSM Request Status Manager



Registered Users can check the progress of the processing of their dataset requests and download datasets to which they have access. SeaDataNet Data Centres can check the overall user statistics, such as number of dataset requests, downloads and more.

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

Operated in cooperation with  
Geo-Sea Black Sea SCENE CSD Int. EMODnet

### Request Status Manager Menu Options

User	Data provider	Administration
Status of download requests	Standing download orders	Master report of all orders
Status of seismic viewing requests	Standing seismic viewing orders	Master report of robot testing
	History of all download orders	
	History of all viewing orders	
	Report of all orders	
	Report of robot testing	

### Central Buffer Options

User	Data provider	Administration
Status of download requests	Standing download orders	Master report of all orders
	History of all download orders	
	Report of all orders	

Logon as user/provider/master

New functions for central buffer shopping

# Discovery and harvesting of data sets for regional product groups

- The new Buffer CMS and Central buffer UI and API (under development for full machine-to-machine interaction) together with the new central shopping mechanism and upgraded RSM will greatly facilitate the maintenance of central buffers and regular delivery of data sets incl metadata to regional product groups
- The Central shopping mechanism works on the data Buffers and can deliver (in delayed mode) large data sets which are divided over downloadable zip files with maximum 10.000 data sets each; all shopping transactions are administered in new section of the RSM
- REMARK: The central buffers are exclusive for specific applications and acces is secured via AAA service only for authorised users. These buffers do not replace the distributed CDI infrastructure and its shopping process for regular users.

# Converting buffer data sets to validated aggregated data sets

- However the central buffers will contain and deliver 'raw' data sets for specific parameters and as harvested from the distributed data centres => further action is needed for making the collection more homogeneous and validated => aggregated data sets
- Aggregation and validation for generating homogeneous data collections can be done by using ODV V4.6.4 software and specific expertise per region and chemical substance
- Use will also be made of the new **P35 Vocabulary for aggregating P01 terms**. The P35 population is making progress:  
[http://seadatanet.maris2.nl/v\\_bodc\\_vocab\\_v2/welcome.asp](http://seadatanet.maris2.nl/v_bodc_vocab_v2/welcome.asp)
- The final buffers of aggregated and validated data sets will provide the input for **data products and advanced visualisation services**

# Using ODV V4.6.4 for Data Aggregation

## 1. Import > SDN Spreadsheet

(file aggregation:

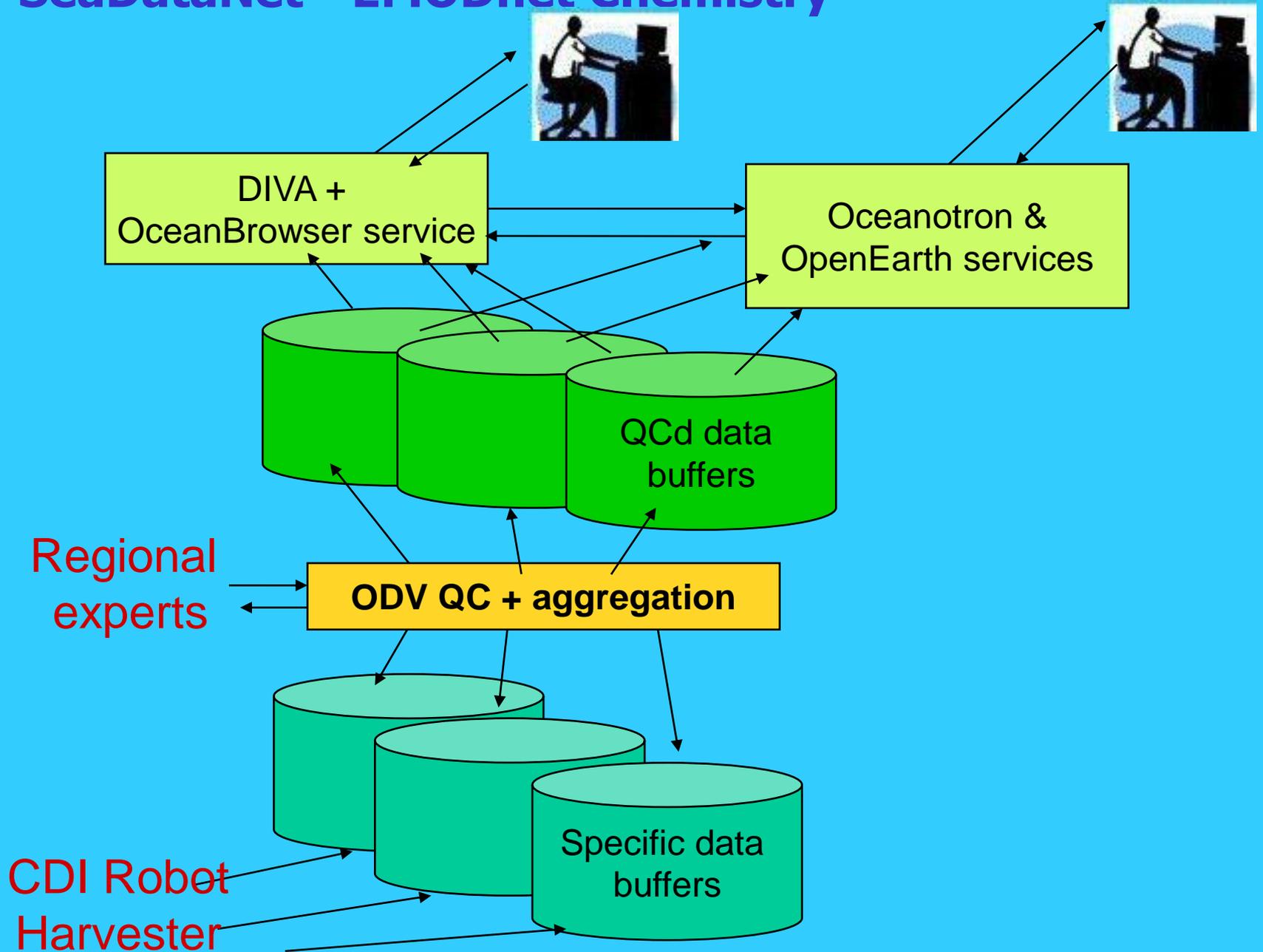
**SDN ODV files + csv files >> SDN ODV metadata enriched collection)**

## 2. Export > Station Data > SDN Aggregated ODV Collection

(P35 parameter aggregation:

**SDN ODV collection >> another SDN ODV metadata enriched collection)**

# SeaDataNet - EMODnet Chemistry



## Advanced services

- The validated and aggregated buffers of data sets will be input for the products and advanced services:
  - **Interpolated maps** as produced with DIVA software (Ulg)
  - **Time series** graphics for selected stations via WPS (Deltares)
  - **OceanBrowser** viewer (Ulg) as common service for viewing the DIVA maps and giving access to the time series graphics
  - **Oceanotron** server (IFREMER) in between ODV binary files via ODV-API and OceanBrowser for additional visualisation services of all data sets

1982-08-28 15:16:00 - 2002-04-20 11:20:00

