



EMODnet Thematic Lot n° 1- Bathymetry

9th Bi-monthly Report

Reporting Period: 01/05/2015 – 30/06/2015

Date: 6/07/2015

Contents

1. Highlights in this reporting period.....	4
2. Meetings held since last report	5
3. Work package updates	6
WP0 – Project Management:	6
WP1 – Data collection and metadata preparation for all marine basins:	6
WP2 – QC/QA and producing Digital Terrain Models for the basins:.....	6
WP3 – Integration and inclusion of the DTMs in the portal:	6
WP4 – Technical development and operation of portal:.....	6
WP5 – Analysis and evaluation:	7
4. Specific challenges or difficulties encountered during the reporting period.....	8
5. User Feedback	8
6. Outreach and communication activities.....	10
7. Updates on Progress Indicators.....	11
Indicator 1 - Volume of data made available through the portal	11
Indicator 2 - Organisations supplying each type of data based on (formal) sharing agreements and broken down into country and organisation type (e.g. government, industry, science).	12
Indicator 3 - Organisations that have been approached to supply with no result, including type of data sought and reason why it has not been supplied.	13
Indicator 4 - Volume of each type of data and of each data product downloaded from the portal....	13
Indicator 5 - Organisations that have downloaded each data type.....	14
Indicator 6 - Using user statistics to determine the main pages utilised and to identify preferred user navigations routes	15
Indicator 7 - List of what the downloaded data has been used for (divided into categories e.g. Government planning, pollution assessment and (commercial) environmental assessment, etc.)	17
Indicator 8 - List of organisations that have downloaded data from more than one portal in a given space of time e.g. 2 weeks (assumed to be for a single project).....	17
Indicator 9 - Interoperability of data of different types and from different portals	17



EMODnet Thematic Lot n° 1 - Bathymetry 9th Bi-monthly report

1. Highlights in this reporting period

Provide a short summary of the key achievements and/or events of interest to a wider audience within this reporting period you wish to highlight – this can be based on the indicators or any other of the reporting sections.

- Very good progress has been made with generating updated versions of the Regional DTMs of all the European sea regions, including new survey data sets as well as focusing on eliminating anomalies as identified in the current EMODnet DTM version. The Regional DTMs together with High Resolution DTMs for 3 pilot regions in Ireland, France and Germany have been forwarded to the EMODnet Integrators (GGSc and MARIS) for generating a new updated version of the EMODnet DTM. Its publishing is planned for August 2015.
- The EMODnet Bathymetry project and its products & services have been presented at a number of events: 28th May 2015, European Maritime Day 2015, Piraeus – Greece, oral presentation by SHOM and 26th June 2015, Hydrographic Society Benelux, World Hydrography Day, Hook of Holland – NL, oral presentations by MARIS and MOW.

2. Meetings held since last report

List here the meetings held since the last bi-monthly report, if relevant add short description

[Provide information in table - Maximum 1 page]

Date	Location	Topic	Short Description
			•
			•

3. Work package updates

Using the work package as a header list here the activities that occurred since the last bi-monthly report. If there was no activity to report leave the section blank.

[Provide information - Maximum 1/2 page per workpackage]

WP0 – Project Management:

The project coordinator has monitored, evaluated and controlled the overall progress of the project and its activities towards its objectives. Regular emails have been drafted and circulated to partners to remind them of actions and planning as well as to get information on progress and possible issues, that required solving. Bi-monthly progress report for March – April 2015 has been prepared.

WP1 – Data collection and metadata preparation for all marine basins:

Further progress has been made with expanding the data collections in the CDI and SEXTANT catalogue services. The operational CDI service for EMODnet Bathymetry now contains 13883 entries from 27 data centres from 15 countries. The number of composite DTMs in the Sextant directory has stabilised at **43** Sextant entries. MARIS and IFREMER have provided support to guide partners where needed and to handle new submissions.

WP2 – QC/QA and producing Digital Terrain Models for the basins:

Very good progress has been made with compiling and generating an updated version of the overall EMODnet DTM. The regional coordinators have finalised and delivered new updated Regional DTMs for their sea regions. Focus has been on adding new data sets and on improving anomalies as identified in the current DTM version. All partners have made use of the latest version (1.5.0) of the GLOBE software which has been released early March 2015. Also high resolution DTMs for 3 coastal areas have been finalised by partner GSI for part of coastal area of Ireland, partner SHOM for part of coastal area of France, and partner BSH for part of coastal area of Germany. The Regional DTMs and HRDTMs have been delivered to the overall EMODnet Integrators (GGSgc and MARIS) for the overall integration of the updated DTM, followed by publishing the updated DTM including the HRDTMs in the Bathymetry Viewing and Download service. Publishing is planned in August 2015.

WP3 – Integration and inclusion of the DTMs in the portal:

No activity in the reporting period, awaiting finalisation of the new updated DTM, including 3 HRDTMs.

WP4 – Technical development and operation of portal:

No activity in the reporting period.



WP5 – Analysis and evaluation:

Nothing to report.

4. Specific challenges or difficulties encountered during the reporting period

Please list specific problems you have encountered during this period, including related to technical and data provision issues

Nothing to report in this period.

5. User Feedback

List any useful feedback you received on your portal, your activities or those of other EMODnet projects/activities. Also provide any suggestions you have received for EMODnet case studies and/or future products/activities/events.

[Provide information in table - attach the documentation/full user feedback to the report]

Date	Name	Organization	Type of user feedback (e.g. technical, case study etc)	Response time to address user request
1 May 2015	Lian Wang	NPL, United Kingdom	Problem with local firewall when downloading tiles	Same day
1 May 2015	Daniel Praeg	OGS, Italy	Problems with file formats	Thread of messages with ok message at 3 May 2015
1 May 2015	Hagit Wiener	EWRE (?)	Requested more info on Israel DTM data	Same day
8 May 2015	Leigh Howart	Bangor University, United Kingdom	Problems with file formats	Thread of messages with ok message at 8 May 2015
1 May 2015	Fiona Miller	ABPMER, United Kingdom	Question about vertical levels	13 May 2015
31 March 2015	Jerome Ollier	NAUSICAA, France	Asked if he could include link and reference in www.nausicaa.co.uk	13 May 2015
2 June 2015	Amelia Astley	NOC, United Kingdom	Question about wrecks layer	2 June 2015

29 June 2015	Jana Echave	EHI, Spain	Question about spanish coastal data	Forwarded to IEO for direct reply. 29 June 2015
--------------------	-------------	------------	--	---

Annex 1 gives more details.

6. Outreach and communication activities

Please list all the relevant communications activities or products you have developed/executed during this period (including presentations, lectures, trainings, demonstrations and development of communication materials such as brochures, videos, etc.). Relevant scientific and/or popular articles you know have been published using/referring to EMODnet should be reported under indicator 11 in Section 7.

[Provide information in table - Maximum 1 page]

Date	Media	Title	Short description and/or link to the activity
28 May 2015	Oral presentation at European Maritime Day 2015, Piraeus – Greece,	EMODnet Bathymetry	Oral presentation by SHOM
26 June 2015	Oral presentations at Hydrographic Society Benelux meeting, World Hydrography Day, Hook of Holland – NL	EMODnet Bathymetry	Oral presentations by MARIS and MOW

7. Updates on Progress Indicators

Using the indicator as a header list the metrics collated and the time interval. If there was no activity to report leave the section under the indicator header blank.

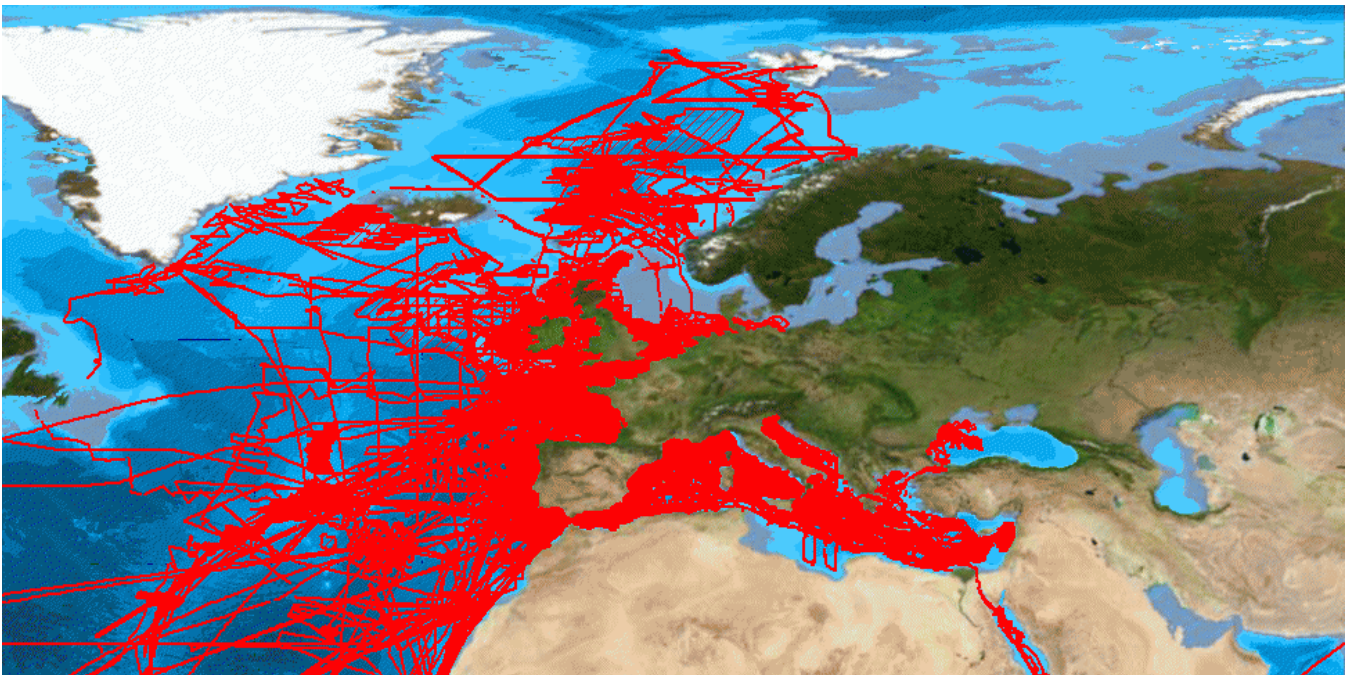
Indicator 1 - Volume of data made available through the portal

The total number of CDIs for bathymetric survey data sets has increased from: **13309 to 13883**

The total in production covers the whole globe. Specifically relevant for European waters has increased from: **10194 to 10611**

Lat Long box: **N80, W-30 ; N20, E45**

Of these **799** are unrestricted, while all other require negotiation.



The EMODnet DTM covers all European sea regions.

Indicator 2 - Organisations supplying each type of data based on (formal) sharing agreements and broken down into country and organisation type (e.g. government, industry, science).

Data Centre	Country	No of CDIs	No restrictions	Restrictions
SHOM (SERVICE HYDROGRAPHIQUE ET OcéANOGRAPHIQUE DE LA MARINE)	France	4602	0	4602
OceanWise Limited	United Kingdom	2009	0	2009
Rijkswaterstaat Centrale Informatievoorziening	Netherlands	1684	0	1684
IFREMER / IDM / SISMER - Scientific Information Systems for the SEA	France	712	279	433
IHPT, Hydrographic Institute	Portugal	274	0	274
Royal Netherlands Navy, Hydrographic Service	Netherlands	266	0	266
Geological Survey of Ireland	Ireland	197	197	0
German Oceanographic Datacentre (NODC)	Germany	176	176	0
Flemish Ministry of Mobility and Public Works; Agency for Maritime and Coastal Services; Coastal Division	Belgium	131	0	131
Management Unit of North Sea and Scheldt Estuary Mathematical Models, Belgian Marine Data Centre	Belgium	93	93	0
British Oceanographic Data Centre	United Kingdom	84	54	30
Hellenic Centre for Marine Research, Hellenic National Oceanographic Data Centre (HCMR/HNODC)	Greece	76	0	76
Institute of Marine Science (ISMAR) - Bologna	Italy	66	0	66
IEO/Spanish Oceanographic Institute	Spain	66	0	66
Hydrographic Institute of the Navy	Spain	58	0	58
NIOZ Royal Netherlands Institute for Sea Research	Netherlands	30	0	30
OGS (Istituto Nazionale di Oceanografia e di Geofisica Sperimentale), Infrastructures Division	Italy	23	0	23
Bulgarian National Oceanographic Data Centre (BGODC), Institute of Oceanology	Bulgaria	16	0	16
OGS (Istituto Nazionale di Oceanografia e di Geofisica Sperimentale), Division of Oceanography	Italy	10	0	10

UNEP/GRID-Arendal	Norway	9	0	9
Portuguese Institute of Ocean and Atmosphere	Portugal	6	0	6
Marine Technology Unit. Mediterranean Marine and Environmental Research Centre	Spain	6	0	6
Jardfeingi, the Faroe Islands Earth and Energy Directorate	Faroe Islands	5	0	5
International Ocean Institute - Malta Operational Centre (University Of Malta) / Physical Oceanography Unit	Malta	4	0	4
Institute of Marine Sciences. Mediterranean Marine and Environmental Research Centre (CMIMA-ICM-CSIC). Department of Marine Geology	Spain	4	0	4
SC Marine Research SRL	Romania	2	0	2
National Institute of Marine Geology and Geocology	Romania	2	0	2

These centres are government and research institutes. No industry (yet).

Indicator 3 - Organisations that have been approached to supply with no result, including type of data sought and reason why it has not been supplied.

The Danish Geodata Agency was a subcontractor in the EMODnet Bathymetry bid, but so far DGA has not signed the subcontract. Therefore there is no permission (yet) to use the composite DTM data sets for the Danish waters as earlier used for the present EMODnet DTM. Negotiations have not resulted in any change of DGA's standpoint.

Indicator 4 - Volume of each type of data and of each data product downloaded from the portal

Time period 1 May 2015 – 30 June 2015:

CDIs:

No of CDI basket transactions: **21**

No of CDIs requested: **78**

Different users: **13**

Different data centres: **9**

Data products – DTMs:

Tile	Downloads
B3	640
C3	381
B4	351
C4	288
D4	278
C2	223
B2	214
D3	213
A4	100
A3	75
A2	50
D2	50
C1	35
B1	34
D1	31
A1	29

2992

Formats

Format	Downloads
ESRI ASCII	909
XYZ	616
NetCDF (without GEBCO data)	69
GeoTiff	794
NetCDF	313
EMO (without GEBCO data)	42
EMO	122
SD	127

2992

Indicator 5 - Organisations that have downloaded each data type

Dr Gabriel Gutierrez - ggpozo@us.es	US, Spain
Dr Kim Trapani - ktrapani@mirarco.org	MIRARCO, Italy
Mr Agueda Cabrero - agueda.cabrero@vi.ieo.es	IEO, Spain

Mr Albert Steiner - asteiner@gmx.ch	GMX, Switzerland
Mr Ernesto Tapanes - thedeep@comcast.net	COMCAST, USA
Mr Jaime Soto - jcsoto1@uc.cl	UC, Chili
	LYNXINFO, United Kingdom
Mr JOSE SANCHEZ - jose@lynxinfo.co.uk	
Mr Kyle Goodrich - kyle@tcarta.com	TCARTA, USA
Mr Nicholas Kellerman - nick.kellerman@shell.com	SHELL, Netherlands
	ANTEAGROUP, Netherlands
Mr Robin PREST - robin.prest@anteagroup.com	
Mrs Yasmine Verzelen - yasmine.verzelen@ugent.be	UNIVERSITY OF GENT, Belgium
Ms Amparo Palop - amparopalopcuencia@gmail.com	?
Ms Sara Santamaria - santamaria@geographie.uni-kiel.de	UNIVERSITY OF KIEL, Germany

Indicator 6 - Using user statistics to determine the main pages utilised and to identify preferred user navigations routes

Time period 1 March 2015 – 30 April 2015:

Bathymetry main portal:

Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
May-15	1,754	2,685	25,470	90,543	2.57 GB
June-15	1,578	2,736	23,388	82,184	2.87 GB

Visitors in June 2015:

Hosts (Top 10) - Full list - Last visit - Unresolved IP Address					
Hosts : 1,257 Known, 548 Unknown (unresolved ip) 1,578 Unique visitors		Pages	Hits	Bandwidth	Last visit
84.41.108.220		1,946	1,997	26.62 MB	30 Jun 2015 - 14:24
d24-150-133-146.home.cgocable.net		1,254	1,645	17.23 MB	28 Jun 2015 - 15:59
194.140.95.106		613	942	9.86 MB	10 Jun 2015 - 10:42
ihpc22.ihcantabria.unican.es		538	705	14.99 MB	30 Jun 2015 - 14:15
sarspam03.dcenr.gov.ie		398	1,134	43.11 MB	29 Jun 2015 - 11:52
static.kpn.net		359	518	8.97 MB	23 Jun 2015 - 21:17
ip-193-33-2-114.mde.es		358	658	15.13 MB	08 Jun 2015 - 12:37
a83-163-127-252.adsl.xs4all.nl		300	536	31.02 MB	29 Jun 2015 - 14:18
unknown.shom.fr		272	894	48.33 MB	30 Jun 2015 - 15:21
195.166.52.108		253	663	10.83 MB	24 Jun 2015 - 09:03
Others		17,097	72,492	2.65 GB	

Bathymetry DTM viewer service:

Month	Unique visitors	Pages	Hits	Bandwidth
May 2015	3,688	5,746	8,051	134.35 GB
June 2015	2,624	4,522	7.604	163.25 GB

Hosts

Top Hosts

	Host	Country	Hits	Visitors	Bandwidth (KB)
1	static-89-94-157-62.axione.abo.bbox.fr	France	136	99	1,270,884
2	199.19.249.196	United States	75	59	293,760
3	proxy.bsh.de	Germany	94	51	1,465,712
4	245.183.117.91.dynamic.mundo-r.com	Spain	72	29	1,270,180
5	al121.albit.fastwebserver.de	Germany	46	27	684,022
6	google-proxy-66-249-81-189.google.com	United States	30	26	390,911
7	72.Red-83-59-53.dynamicIP.rima-tde.net	Spain	54	23	977,046
8	baiduspider-123-125-71-30.crawl.baidu.com	China	24	23	97,909
9	baiduspider-220-181-108-77.crawl.baidu.com	China	22	22	242
10	baiduspider-220-181-108-85.crawl.baidu.com	China	25	22	293,210
11	baiduspider-220-181-108-105.crawl.baidu.com	China	22	22	242
12	baiduspider-220-181-108-89.crawl.baidu.com	China	30	22	586,201
13	baiduspider-220-181-108-116.crawl.baidu.com	China	32	21	1,074,449
14	baiduspider-220-181-108-149.crawl.baidu.com	China	21	21	231
15	google-proxy-66-249-81-187.google.com	United States	29	20	879,126
16	baiduspider-220-181-108-96.crawl.baidu.com	China	19	19	209
17	86-45-78-118-dynamic.aggr1.roc.bbh-prp.eircom.net	Ireland	65	19	1,953,620
18	baiduspider-220-181-108-106.crawl.baidu.com	China	22	18	390,823
19	baiduspider-220-181-108-112.crawl.baidu.com	China	21	18	195,521
20	baiduspider-220-181-108-101.crawl.baidu.com	China	18	18	198
21	baiduspider-220-181-108-83.crawl.baidu.com	China	18	18	198
22	baiduspider-220-181-108-92.crawl.baidu.com	China	18	18	198
23	baiduspider-220-181-108-180.crawl.baidu.com	China	18	18	198
24	google-proxy-66-249-81-192.google.com	United States	41	18	2,246,291
25	baiduspider-220-181-108-100.crawl.baidu.com	China	20	18	195,510
26	baiduspider-220-181-108-181.crawl.baidu.com	China	18	17	97,843
27	baiduspider-220-181-108-182.crawl.baidu.com	China	18	17	198
28	baiduspider-220-181-108-81.crawl.baidu.com	China	19	17	97,854
29	baiduspider-220-181-108-122.crawl.baidu.com	China	21	17	390,812
30	baiduspider-220-181-108-169.crawl.baidu.com	China	18	16	195,488
31	baiduspider-123-125-71-55.crawl.baidu.com	China	18	16	195,488
32	baiduspider-220-181-108-175.crawl.baidu.com	China	16	16	176

Indicator 7 - List of what the downloaded data has been used for (divided into categories e.g. Government planning, pollution assessment and (commercial) environmental assessment, etc.)

Nothing to report.

Indicator 8 - List of organisations that have downloaded data from more than one portal in a given space of time e.g. 2 weeks (assumed to be for a single project).

Nothing to report.

Indicator 9 - Interoperability of data of different types and from different portals

Nothing to report.

Annex 1: Feedback from and to users

=====

Subject: Re: Emodnet-Hydrography Feedback
Date: Fri, 01 May 2015 17:11:06 +0
From: Dick M.A. Schaap <dick@maris.nl>
To: Lian Wang <lian.wang@npl.co.uk>

Dear Lian,
Then please try at another computer in another network. Most probably your firewall does not allow for .zip files to download.
Good luck!

Regards
Dick

On 5/1/2015 17:05, Lian Wang wrote:

Dear Dick,
Thank you very much for your reply. I have tried again with no luck.
It might be firewall thing, I'll try again later with a different computer.
Regards,
Lian

From: Dick M.A. Schaap [<mailto:dick@maris.nl>]
Sent: 01 May 2015 15:32
To: Lian Wang
Subject: Re: Emodnet-Hydrography Feedback

Dear Lian,
I tested it with various browsers and have no problems. You click on the button 'Download products', then click on one of the 16 tiles and chose from the formats menu. Thereafter you have to be somewhat patient depending on your internet connection. In my case it takes 10 seconds to open a pop-up window to save the selected tile in its selected format.
Please try again and let me know if it is ok

Regards
EMODnet Bathymetry coordinator

Name: Lian Wang
Emailaddress: lian.wang@npl.co.uk

Feedback: I am not able to download bathymetry data after few attempts. There is no response when I click any files listed in the pop-up window with a selection of download file types.

Subject:Re: Emodnet-Hydrography Feedback

Date:Sun, 3 May 2015 20:01:45 +0200

From:Daniel Praeg <dpraag@ogs.trieste.it>

To:Dick M.A. Schaap <dick@maris.nl>

Dear Dick,

just to say that I managed to load the B3 data into Global Mapper as an ESRI ascii file. So my problem is solved.

For information regarding other formats offered on the portal:

- I downloaded the .xyz file, but was not able to grid it - it was too big for Global Mapper (running via Parallels on my dear old Mac), so I tried GMT, which refused as the data columns are separated by semi-colons (as for the .emo file); I don't know if there is a way to flag those to GMT.
- thinking to convert it, I tried to scan the .mnt file using GMT, using simple routines (minmax, grdinfo), but it was not readable.
- I was not able to view the SD file using iView3D or iView4D, it was said not to be a valid file.
- somewhere along the way I tried a GeoTiff, but that link does not result in a download.

That is my (slightly frustrating) experience, as a not particularly digitally literate user.

Best wishes,
Daniel

On 1 May 2015, at 22:56, Dick M.A. Schaap wrote:

Dear Daniel,
Unfortunately NetCDF has many 'dialects'. I will forward your question to one of our technicians who might help you, but that will be next week.
We will stay in touch.

Kind regards
Dick M.A. Schaap

On 5/1/2015 22:43, Daniel Praeg wrote:

Hello, many thanks for your reply.

I do not wish to view (visualise) the data, I wish to use it within an existing GlobalMapper project containing other data files.

The .mnt file does not appear to be a netCDF file, at least to GlobalMapper, which gives the following error on attempting to load it as such:

```
Error loading Y:\Desktop\Active\Glacial\GLAMARous\Global Mapper  
data\data\EMODnet\B3_no_gebco.mnt
```

```
Unable to determine data position information
```

```
NetCDFOverlay.cpp - 1385
```

```
Version: v13.00
```

The same file does load if indicated to be a CDF file, but at the end of a long processing GlobalMapper told me it contained no data.

If this is a netCDF file, I would be grateful to know how I might use it as such; if not, how I might convert it to something that can be used in GM.

Many thanks,
Daniel

On 1 May 2015, at 21:36, Dick M.A. Schaap wrote:

Dear Daniel,

The .mnt files are NetCDF files which are compatible for the Geo-Seas 3D viewer, which is also advertised at the website. Go to:

http://www.emodnet-bathymetry.eu/content/content.asp?menu=0040000_000000

where you can download the free Geo-Seas 3D viewer, based upon NASA World Wind

The same page also provides a link to the free Fledermaus 3D viewer (iView4D) which works with the SD files.

Hopes this helps.

Kind regards,
EMODnet Bathymetry coordinator

1/2015 21:07, noreply@maris.nl wrote:

Name: Daniel Praeg
Emailaddress: dpraeg@ogs.trieste.it

Feedback: I am trying to download products (from B3), for import into Global Mapper. When I ask to download a netCDF file, instead I receive a .mnt file that I cannot open (and is not explained in the help pages). Out of interest, when I download a Fledermaus .SD file, I am told it is not valid.



EMODnet Thematic Lot n° 1 - Bathymetry 9th Bi-monthly report

Could you please tell me how I can download a file in netCDF format, as is indicated to be possible? Many thanks.

Subject:Re: Emodnet-Hydrography Feedback

Date:Fri, 01 May 2015 16:47:10 +0200

From:Dick M.A. Schaap <dick@maris.nl>

To:hwiener@ewre.com

Dear Hagit,

You can identify which data sources were used for the DTM by switching on the Source references layer in the Layer menu, also activating the radio button. That will give a button: Retrieve metadata in the top bar. Switch this function on and then click on each polygon in the area of your interest. That will retrieve the metadata of individual data that underpin the DTM.

Regards

EMODnet Bathymetry coordinator

On 4/30/2015 13:15, noreply@maris.nl wrote:

Name: hagit

Emailaddress: hwiener@ewre.com

Feedback: Hi Great work! I'm using the DTM data from D4 for an EIA near Israel.
When was the data (X, Y, Z) collected?

Subject:RE: Emodnet-Hydrography Feedback

Date:Fri, 8 May 2015 10:19:18 +0000

From:Leigh Howarth <l.m.howarth@bangor.ac.uk>

To:Dick M.A. Schaap <dick@maris.nl>

All sorted Dick!

Nothing a bit of "googling" can't solve.

Thanks again,

Leigh

Dr Leigh Michael Howarth

Research Officer

School of Ocean Sciences

Bangor University



Isle of Anglesey, LL59 5AB

From: Dick M.A. Schaap [mailto:dick@maris.nl]
Sent: 08 May 2015 10:58
To: Leigh Howarth
Subject: Re: Emodnet-Hydrography Feedback

Dear dr Howarth,
The NetCDF file (.mnt extension) has a special dialect and is fit for use in the 3D Viewer software which you can download from the portal. See:

http://www.emodnet-bathymetry.eu/content/content.asp?menu=0040000_000000

In the lower half under: 3D Viewer

Most probably it is better that you download the DTM tiles in ESRI ASCII file which should fit ArcGIS (ESRI).

Hope this helps.

Kind regards
Dick M.A. Schaap
EMODnet Bathymetry coordinator

On 5/8/2015 11:15, noreply@maris.nl wrote:

Name: Dr Leigh Howarth
Emailaddress: l.m.howarth@bangor.ac.uk
Feedback: Hi there, I downloaded your fantastic depth data as a netcdf. However, when I import it into ArcGIS and overlay my existing layers (using WGS84), they are hundreds of miles apart? Can you help me by any chance?

=====
=

Subject: Re: Emodnet-Hydrography Feedback
Date: Wed, 13 May 2015 13:16:28 +0200
From: Dick M.A. Schaap <dick@maris.nl>
To: fmiller@abpmer.co.uk

Dear Fiona,

To correctly analyze the effects of vertical reference levels when merging datasets, a thorough understanding of the underlying methodologies and processes used for the preparation of the source data sets is vital. GEBCO has described these processes in the GEBCO cookbook. The most common method used to compile GEBCO as a continuous and smooth model with a relatively coarse resolution of 30 arc seconds is called the "Remove Restore" algorithm (See GEBCO cookbook chapter 8.2.11).

Given the huge challenge the GEBCO community faces this is a very effective and clever algorithm that allows GEBCO to publish a global data set based on scarce and disparate datasets.

As a result of the "heavy processing" of GEBCO data, GEBCO has a rather broad definition of its vertical datum:

"GEBCO's global elevation models are generated by the assimilation of heterogeneous data types assuming all of them to be referred to mean sea level. However, in some shallow water areas, the grids include data from sources having a vertical datum other than mean sea level. We are working to understand how best to fully assimilate these data." (GEBCO website)

Trying to convert assumed GEBCO MSL data at a resolution of 1/2 min to LAT data at 1/8 min as used for EMODnet using known but theoretical (separation) models therefore does not lead to more accurate data. In fact more variables are added to the data that "hide" or dilute the actual accuracy. For that reason EMODnet has chosen to use GEBCO as is and to apply automatic local smoothing algorithms that make GEBCO better fit the measured data contributed by our EMODnet partners and for which all metadata is known through the use of the CDI metadata catalogue.

In previous releases the local smoothing between GEBCO and contributed EMODnet data was not applied which led to major discontinuities in the model and resulted in a "not fit for purpose" model for many scientific applications. As a result of many requests we have now applied localized smoothing. Using the source reference layer of the portal the exact location of the GEBCO data can be visualized and therefore the location of the localized smoothing remains known in the model.

Hope this helps you.

Kind regards
Dick M.A. Schaap
EMODnet Bathymetry coordinator

On 5/1/2015 12:09, noreply@maris.nl wrote:

Name: Fiona Miller
Emailaddress: fmiller@abpmer.co.uk
Feedback: Morning, would it be possible to discuss with someone the vertical datum of the composite DTM. I notice that it says its to LAT and that GEBCO data has been included in the data. GEBCO is to MSL and when I compare EMODnet and GEBCO there is very little difference where I would expect a difference due to the difference in vertical datum? Thanks

Subject: Re: Emodnet-Hydrography Feedback

Date: Wed, 13 May 2015 13:26:10 +0200

From: Dick M.A. Schaap <dick@maris.nl>

To: webmaster@nausicaa.fr

Dear Jérôme,

Sorry for the delay in answering. Please feel free to include a link to www.emodnet-bathymetry.eu and include the following description, if possible:

"This portal was initiated by the European Commission as part of developing the **European Marine Observation and Data Network** (EMODNet). The overall objective of EMODnet is to create pilots to migrate fragmented and inaccessible marine data into interoperable, continuous and publicly available data streams for complete maritime basins. The Bathymetry portal development started in June 2009 and now provides a range of options for freely browsing and downloading a harmonised Digital Terrain Model (DTM) for all European sea regions. The downloadable tiles are freely available in a number of formats. The EMODnet digital bathymetry has been produced from bathymetric survey data and aggregated bathymetry data sets collated from public and private organizations. These are processed and quality controlled. A further refinement and expansion is underway, by gathering additional survey data sets and where possible, upgrading the DTM grid resolution, and will result in new releases in time. The portal also includes a metadata discovery service that gives clear information about the background survey data used for the DTMs, their access restrictions, originators and distributors."

Kind regards
Dick M.A. Schaap
EMODnet Bathymetry Coordinator

On 3/31/2015 13:58, noreply@maris.nl wrote:

Name: Jérôme OLLIER
Emailaddress: webmaster@nausicaa.fr
Feedback: Madam, Sir, NAUSICAÄ - French National Sea Experience Center, in Boulogne-sur-Mer (Northern France), is a Science Center entirely dedicated to the relationship between Mankind and the Sea. Its goal is to incite the general public to discover the sea and to love it, while raising its awareness on the need for a better management of marine resources. Whithin the scope of this mission, NAUSICAÄ gives access, on its web site, to a dat abase containing links to web sites concerning the sea-related topics and marine activities (<http://www.nausicaa.co.uk/annuaire-sites-internet-marins.html>). This marine directory is currently listing over 6,000 websites. We would like to include a free link to your web <http://www.emodnet-bathymetry.eu/> in this database. Of course, this link will open in a new window. We are therefore asking for your official authorization to create that link. If you wish to provide your own description for your web site, we will, of course, use it for this database. Looking forward to your answer, Best Regards, Jérôme OLLIER
Webmaster NAUSICAÄ - Centre National de la Mer BP 189 Boulevard
SAINTE-BEUVE 62203 BOULOGNE-SUR-MER CEDEX FRANCE
<http://www.nausicaa.fr/>
<http://www.facebook.com/#!/profile.php?id=672039672>
<http://www.facebook.com/#!/pages/Boulogne-Sur-Mer-France/NAUSICAA-Centre-National-de-la-Mer/64991257416?ref=ts>
<http://twitter.com/PlaneteNAUSICAA>

Subject:Re: Emodnet-Hydrography Feedback



EMODnet Thematic Lot n° 1 - Bathymetry 9th Bi-monthly report

Date: Tue, 02 Jun 2015 12:47:08 +0200
From: Dick M.A. Schaap <dick@maris.nl>
To: a.astley@noc.soton.ac.uk

Dear Amelia,

I am sorry, but the wrecks layer is not available for download. It is provided to us via OceanWise. If you are interested, you might contact them: richard.farren@oceanwise.eu

Regards
Dick M.A. Schaap
Coordinator

On 6/2/2015 12:14, noreply@maris.nl wrote:

Name: Amelia Astley
Emailaddress: a.astley@noc.soton.ac.uk
Feedback: Is the wreck features shapefile available for download? Many thanks,
Amelia

Subject: Re: Emodnet-Hydrography Feedback
Date: Mon, 29 Jun 2015 10:04:46 +0200
From: Dick M.A. Schaap <dick@maris.nl>
To: jana.echave@alumnos.unican.es

Dear Jana,
I have forwarded your request to our Spanish partner (IEO) who will provide a response.

Kind regards
DMA Schaap
EMODnet Bathymetry coordinator

On 6/29/2015 9:13, noreply@maris.nl wrote:

Name: Jana Echave
Emailaddress: jana.echave@alumnos.unican.es
Feedback: Dear Sir/Madame: My name is Jana Echave and I work ant the environmental hydraulics Institute of the university of Cantabria (<http://www.ihcantabria.com/en/>). We are starting to work with emodnet bathymetry database and we have a couple of doubts. I am sure you will be able to help us. We are working at national scale (Spain) and we want to use all the bathymetry layers you have in your viewer for our country but we have some problems with the vertical reference. The bathymetry close to the coast is referred to LAT, and we need to have it referred to the mean sea level. We wonder if you have some tools already prepared



EMODnet Thematic Lot n° 1 - Bathymetry 9th Bi-monthly report

to change the data to the mean sea level. Thanks in advance for your help
Jana