

INTERNATIONAL CONFERENCE “MARINE RESEARCH HORIZON 2020”

17-20 SEPTEMBER 2013

MARRES2020

Hotel Admiral, Golden Sands Resort, BULGARIA



INSTITUTE OF OCEANOLOGY - BULGARIAN ACADEMY OF SCIENCES

WEB publishing of Argo float data from Black Sea

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About BulARGO project

Funded by:

Bulgarian National Science Fund to the Ministry of Education, Youth and Science, which aims to establish a national research infrastructure in the frame of Euro-Argo activities.

The partners:

- ✓Bulgarian Institute of Oceanology – BAS
- ✓Sofia University "St. Kliment Ohridski"
- ✓National Institute of Meteorology and Hydrology - BAS.

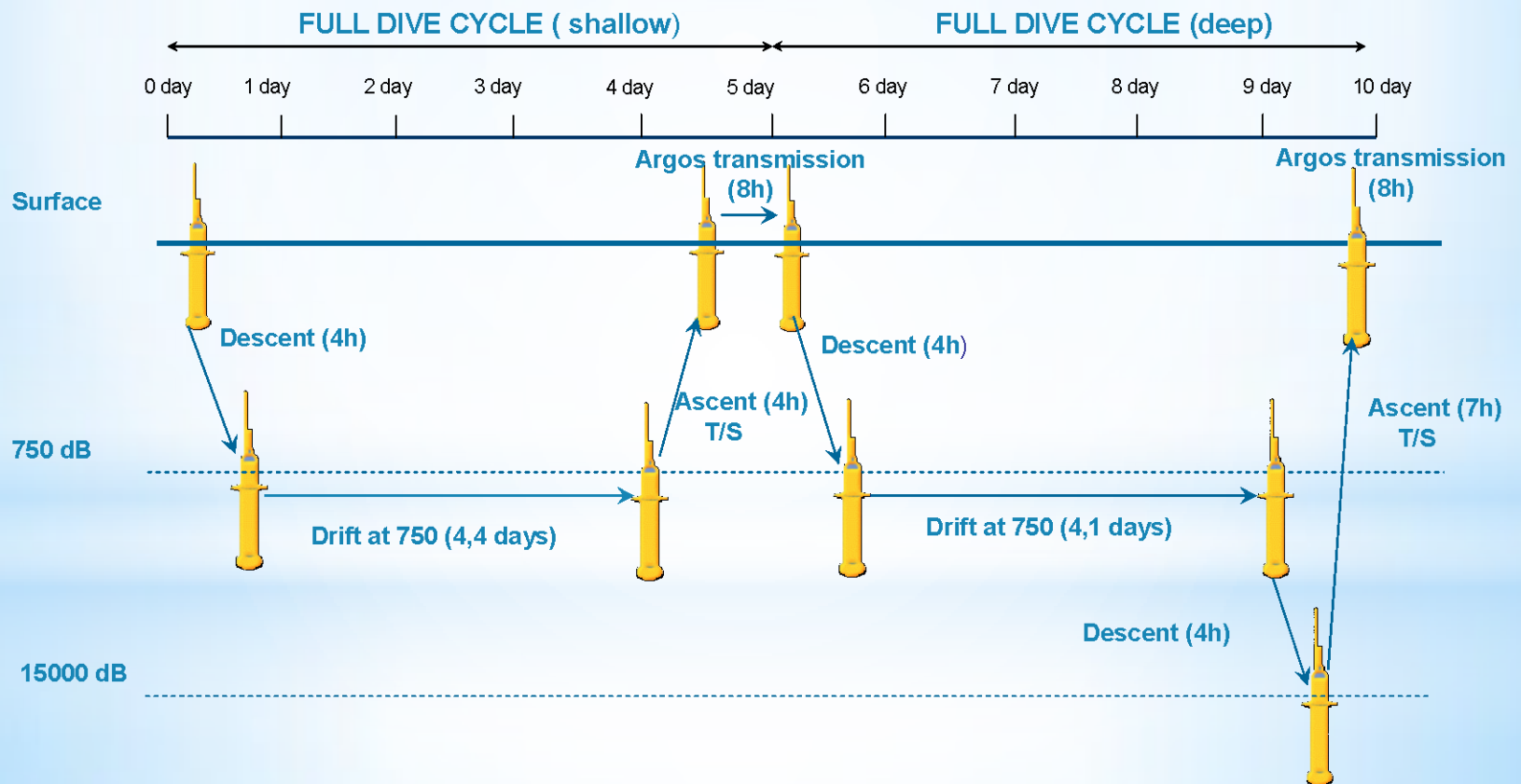


BulArgo Floats Specifications

Local ID	WMO	Telecom	Model	Cycle	Park depth	Profiling depth	CTD	Other sensors
Shabla	6900803	ARGOS	APEX	5 days	750 m	1500 m	Seabird 41	-
Emona	6900804	ARGOS	APEX	5 days	750 m	1500 m	Seabird 41	Anderaa 3830
Galata	6900805	ARGOS	APEX	5 days	750 m	1500 m	Seabird 41	-



BuARGO Sampling Cycle Characteristic:



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Why do we need local DMS for BULArgo Program ?

- validate the 'delayed-mode' data from BULARGO float in collaboration with Sofia University "St. Kliment Ohridski"
- ensure timely delivery of 'delayed-mode' data to the BgODC databases.
- exchange and dissemination of the 'delayed-mode' data between the partners



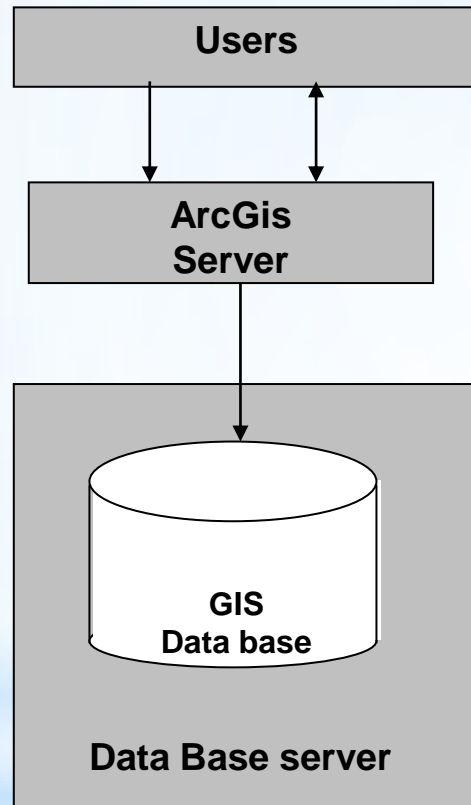
Standard Software

Win2008 (IIS7)

Esri Arc Info, ArcGis server 9.2

MSSql2008 with Reporting Services :

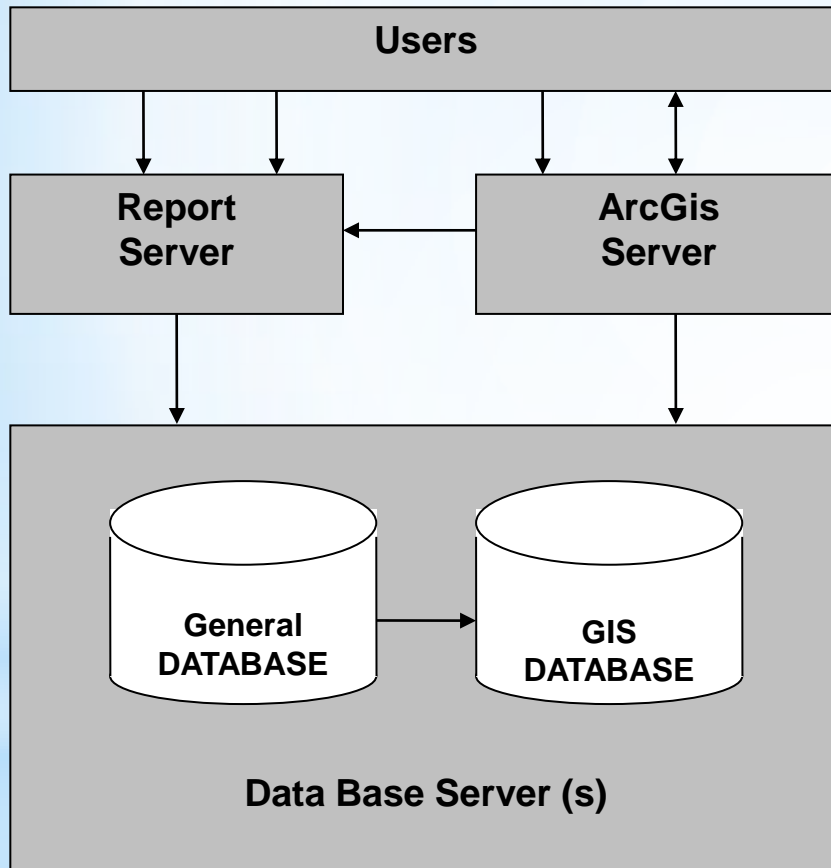
- Uses network-based model of web services.
- Serve data in real time (24/7)
- Allow access, download and manage usage data with a convenient ID and password.
- Reports may be "broadcast" to a subscribers during off-hours;
- Display graphic representations of the data
- View data at various levels of detail, such as in summary tabular form or in graphics views;
- Download data in a variety of formats, including HTML, or export to a spreadsheet application;
- Meet SEADATANET ODV standard for reporting oceanographic data.



Main steps

- Creating ArcGIS project
- Creating of service based on the project and corresponding web application on ARGIS server
- Updating periodically the ARGO delay mode data in the GIS project

WEB publishing – standard approach



Main steps

- Creating ArcGis project with XY event layer
- Creating of service based on the project and corresponding web application on ARGIS server
- All ARGO data are stored in standard data base with links to report server

WEB publishing – combined approach



The advantages of such an approach are:

- The development time is significantly shortening;
- No need to update the argo data in the GIS project;
- User can simultaneously visualize the data with GIS layer and access the data reports from the general RDBMS;
- Publishing GIS data to the Web should not change existing data workflow - how the data is created, maintained, and used by desktop applications
- ARC GIS server can be easy replaced with other services



The screenshot displays a web browser window with two tabs. The active tab is titled "Web Argo Publishing Application - Windows Internet Explorer" and shows the URL http://www.gisserver.io-bas.bg/Web_argo/. The page content includes a "BULARGO GIS Server" header and a "BGODC ReportServer" map. The map shows the Black Sea region with countries labeled: Moldova, Romania, Bulgaria, Ukraine, Russia, and Georgia. A red dotted line indicates a survey track in the sea. A "Connect to bgodc.io-bas.bg" dialog box is open, showing the user name "bgodc.io-bas.bg\argo" and a password field. A "Results" panel on the left lists "MapResourceItem0 (34.2293, 42.2959)". On the right, a table displays vertical profile data.

ATTITUDE	LONGITUDE	PRES	TEMP
42.27	34.25	5.9	20.17
42.27	34.25	11	17.452
42.27	34.25	15.3	15.847
42.27	34.25	20.8	13.732
42.27	34.25	25.4	12.117
42.27	34.25	30.3	11.127
42.27	34.25	35.7	9.158
42.27	34.25	40.7	8.21

Screenshots - WEB publishing – combined approach

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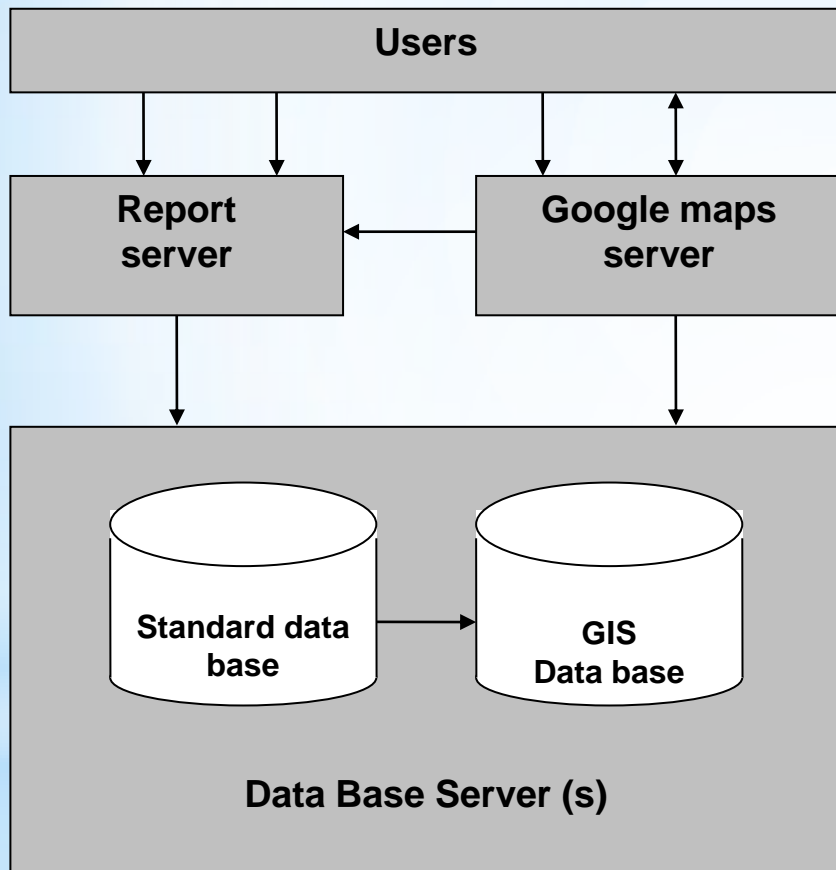
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Next step





Main steps

- Creating ArcGIS project with XY event layers
- Creating of service based on the project and corresponding web application on ARGIS server
- All the data are stored in standard data base with links to report server
- Convert an ARCGIS map into KML file and upload the file to the maps.google.com

WEB publishing – combined approach with Google



Google Карти - Windows Internet Explorer

http://maps.google.com/

File Edit View Favorites Tools Help

Google 6900803

Google Карти

Мрежата Изображения Карти Преводач Наука Блогове Поща Още

Google

Изтеглете упътвания Монте места

Сътрудничество Редактиране

BULARGO
BulArgo float
Обществена · Видяна 0 пъти
Създадена на 25 окт · От a.stefanov ·
Актуализирана преди 23 часа
Оценете тази карта · Напишете коментар · KML

6900803
PLATFORM: 6900803 LATITUDE: 43.332 LONGITUDE: 30.675
View data

6900803
PLATFORM: 6900803 LATITUDE: 43.317 LONGITUDE: 30.531

6900803
PLATFORM: 6900803 LATITUDE: 43.285 LONGITUDE: 30.433

6900803
PLATFORM: 6900803 LATITUDE: 43.246 LONGITUDE: 30.377

6900803
PLATFORM: 6900803 LATITUDE: 43.221 LONGITUDE: 30.261

Report Viewer - Windows Internet Explorer

http://bgodc.io-bas.bg/ReportServer_SUPER02008/Pages/ReportViewer.aspx

File Edit View Favorites Tools Help

Report Viewer

Тази страница е на английски. Да се преведе ли с Google Toolbar? [Научете повече](#) Не е на английски? [Помогнете ни да се подобрим](#) **Преводач**

LATITUDE 42,2685 LONGITUDE 34,2483

1 of 2 ? 100% Find | Next Select a format

[Click here to view Vertical profile](#)

PLATFORM	ARGOS ID	DATE	LATITUDE	LONGITUDE	PRES
6900805	103242	9/30/2011 6:14:00 PM	42.27	34.25	5.9
6900805	103242	9/30/2011 6:14:00 PM	42.27	34.25	11
6900805	103242	9/30/2011 6:14:00 PM	42.27	34.25	15.3
6900805	103242	9/30/2011 6:14:00 PM	42.27	34.25	20.8
6900805	103242	9/30/2011 6:14:00 PM	42.27	34.25	25.4
6900805	103242	9/30/2011 6:14:00 PM	42.27	34.25	30.3
6900805	103242	9/30/2011 6:14:00 PM	42.27	34.25	35.7
6900805	103242	9/30/2011 6:14:00 PM	42.27	34.25	40.7
6900805	103242	9/30/2011 6:14:00 PM	42.27	34.25	45.9

Screenshots - WEB publishing with Google



Google Earth

Файл Редактиране Преглед Инструменти Добавяне Помощ

Търсене

Полеет до Търсене на фирми Упътвания

Полеет до напр. хотели близо до летище JFK

Места

- MYOCEAN-EUROPE-LATEST-MON
- Coriolis data centre
- 05/08/2011 05:51:18
- Временни места
- Layers
- Xydbo_2
- 6900803
- 6900803 43.332 30.675
- 6900803
- 6900803 43.317 30.531

Слоеве

- Основна база от данни
- Граници и етикети
- Места
- Снимки
- Птища
- Триизмерни сгради
- Океан
- Времето
- Галерия
- Информация по световни въпроси
- Още

Report Viewer - Windows Internet Explorer

http://bgodc.io-bas.bg/ReportServer_SUPERO2008/Pages/ReportViewer.aspx?%2fRep

File Edit View Favorites Tools Help

Google

Report Viewer

Тази страница е на английски. Да се преведе ли с Google Toolbar? [Научете повече](#) Не е на английски? [Помогнете ни да се подобрим](#) **Преводач**

Float No	Latitude	Longitude	Friday
6900805	42.27	34.25	

Sea temperature -degree Celsius

re - decibar

re - decibar

start Microsoft FrontPa... gisserver - Remot... asennew Google Earth Report Viewer - ... 11:49

Screenshots - WEB publishing with Google



CONCLUSIONS

- **WEB centric DMS ensure flexible and operative infrastructure for data and information exchange between data providers and end users;**
- **Combined approach allow the user to have simultaneous access to both data from a GIS server and data from the general RDBMS.**
- **Web-based GIS software products provide easy-to-use tools that create the map and data query functionality.**
- **Viewing data with Google tools provide additional flexibility.**

In the future we will rely on capabilities of the Regional Argo Center



HOW TO GET BULARGO DATA:

1. [CORIOLIS DATA CENTER](#)

<http://www.coriolis.eu.org/Data-Services-Products>
floats № 6900803, 6900804, 6900803

2. [BUL_ARGO B BGODC](#) - <http://gisserver.bgodc.io-bas.bg>

3. [BULARGO B Google](#) - <http://g.co/maps/9zh3z>

User: argo

Password:lo2013

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Thank you for your attention