

Coastal-TEP

Exploration for Everyone

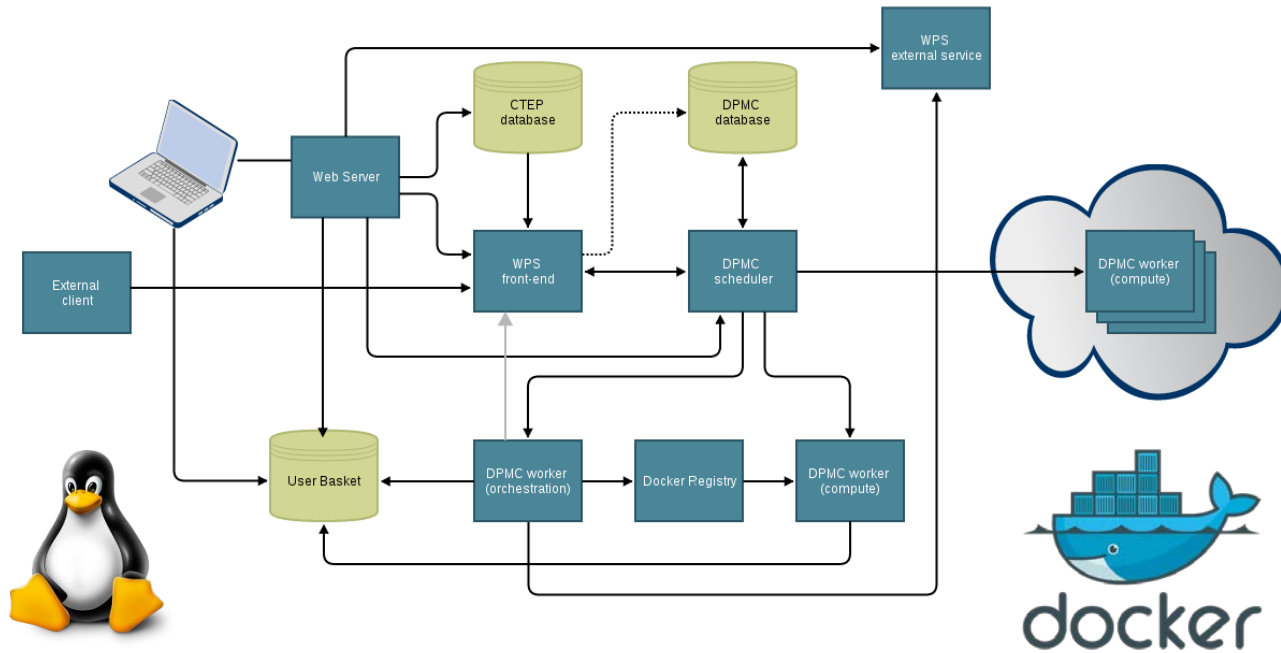


It is an amazing time for doing science!

- Ever growing datasets
- Better quality
- More diversity

- Lots of compute power
- Lots of storage
- Lots of bandwidth

- If the data won't come to the processor, then the processor shall go to the data.
- Why aren't we doing it already?



- EO Scientists
- Service/Product Providers
- End-Users

- (Mostly) not software engineers
- Have pre-existing arsenal of tools written in their language of choice (C/C++, Python, IDL, Matlab, ...)
- Develop new algorithms and need test them on broad datasets for validation.

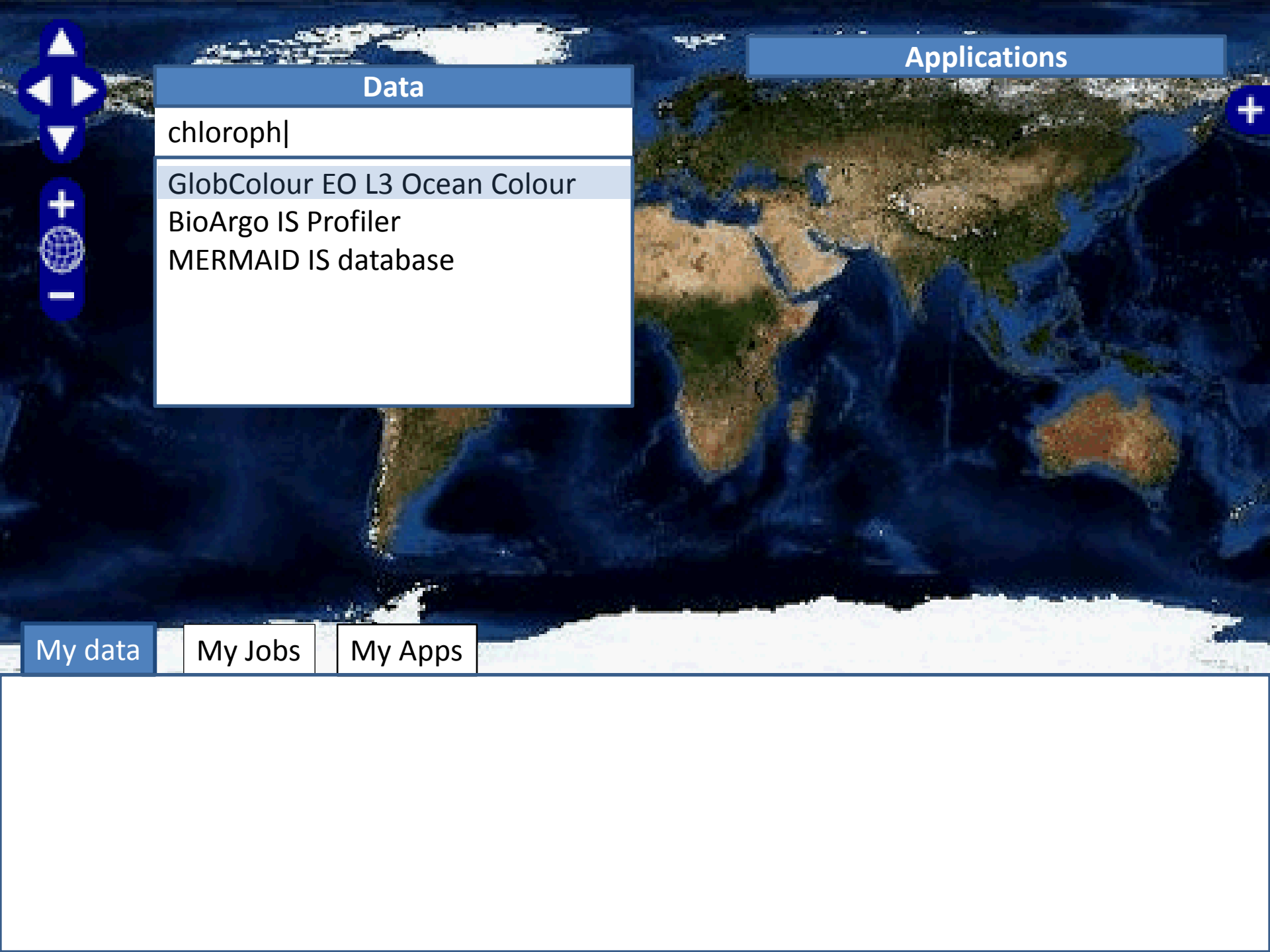
- Comprehensive, easily searchable catalogs
- Simple workflow for publishing
- and running their data processing units
- Easy access to results for analysis

- Easy tailored access to online data catalogs:
 - Envisat, Sentinels, ...
 - Globcolour, LEGOS, ...
 - In-situ (MERMAID, BIOARGO, ...)
 - Third party missions
- Where possible enriched with semantic feature metadata for more flexible search patterns.

- Built-in visualization and projections onto the geobrowser
- Integration of the Sentinel Toolbox (SNAP) for more advanced online manipulation
- Ability to download for offline manipulation of results

- We provide a base runtime layer (batteries included)
- Simple interface to describe and upload a processor:
 - Number of parameters and their types (filename, string, number)
 - Entrypoint (executable/script name)
 - An archive (zip, tar.gz, etc) containing the processor
 - Single hard requirement: place outputs in a specified directory (eg. \$CTEP_OUTPUT_DIR)
- We can also provide a VM tailored for development

Running a processing task.



Applications

Data

- chloroph|
- GlobColour EO L3 Ocean Colour
- BioArgo IS Profiler
- MERMAID IS database

My data

My Jobs

My Apps



GlobColour Catalogue

Binning period

daily 8-days monthly

Sensor type

merged meris modis seawifs viirs

Select product parameters

Check/Uncheck All

Biochemical

CHL1 CHL2 TSM PIC POC NFLH

Atmospheric Optical

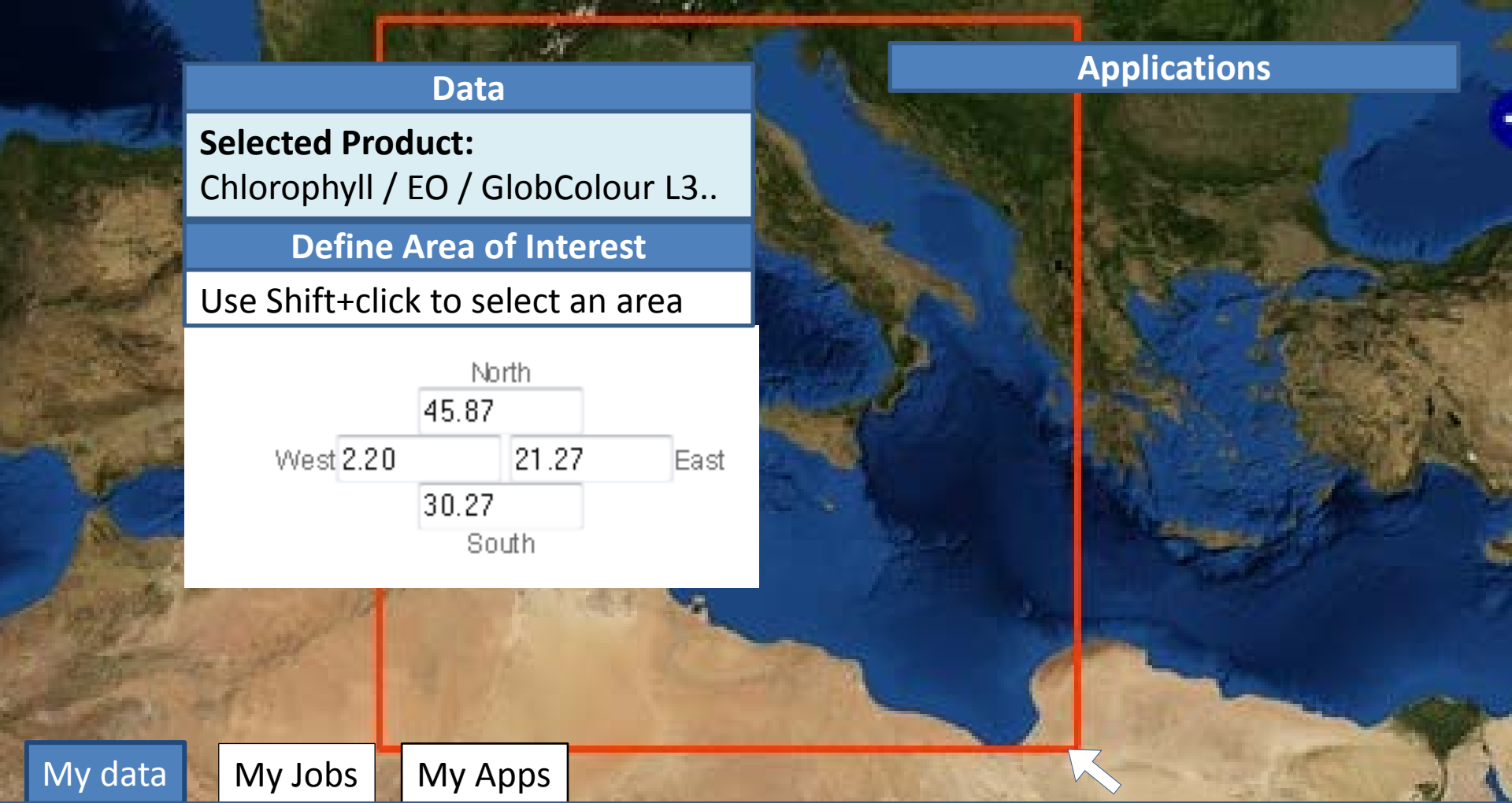
WVCS T865 A865 T443 A443 T550
 A550 CF ABSD

Ocean Surface Optical

NRRS412 NRRS443 NRRS469 NRRS490 NRRS510 NRRS531
 NRRS547 NRRS551 NRRS555 NRRS560 NRRS620 NRRS645
 NRRS670 NRRS678 RRS681 RRS709 EL555 PAR

Subsurface Optical

BBP KD490 KD490-LEE KD PAR ZHL ZE U
 ZSD ZSD-DORON CDM



Data

Selected Product:
Chlorophyll / EO / GlobColour L3..

Define Area of Interest

Use Shift+click to select an area

	North		
	45.87		
West	2.20	21.27	East
	30.27		
	South		

Applications

My data

My Jobs

My Apps



Data

Selected Product:

Chlorophyll / EO / GlobColour L3..

Selected Area:

LON 4.70 N / 37.8 N

LAT2.20 W / 21.27 W

Define time period

Latest product (subscription)

Applications

01/01/1998

01/01/20|

My data

My Jobs

My Apps

Data

Selected Product:

Chlorophyll / EO / GlobColour L3..

Selected Area:

LON 4.70 N / 37.8 N

LAT2.20 W / 21.27 W

Selected Period:

01/01/1998 – 01/01/2015

424 Products Found

L3m_19970901-19970930__GLOB_4_AV-SWF_CHL1_MO_00.nc
L3m_19970901-19970930__GLOB_4_GSM-SWF_CHL1_MO_00.nc
L3m_19971001-19971031__GLOB_4_AV-SWF_CHL1_MO_00.nc
L3m_19971001-19971031__GLOB_4_GSM-SWF_CHL1_MO_00.nc
L3m_19971101-19971130__GLOB_4_AV-SWF_CHL1_MO_00.nc
L3m_19971101-19971130__GLOB_4_GSM-SWF_CHL1_MO_00.nc
L3m_19971201-19971231__GLOB_4_AV-SWF_CHL1_MO_00.nc
L3m_19971201-19971231__GLOB_4_GSM-SWF_CHL1_MO_00.nc
L3m_19980101-19980131__GLOB_4_AV-SWF_CHL1_MO_00.nc
L3m_19980101-19980131__GLOB_4_GSM-SWF_CHL1_MO_00.nc
L3m_19980201-19980228__GLOB_4_AV-SWF_CHL1_MO_00.nc
L3m_19980201-19980228__GLOB_4_GSM-SWF_CHL1_MO_00.nc
L3m_19980301-19980331__GLOB_4_AV-SWF_CHL1_MO_00.nc
L3m_19980301-19980331__GLOB_4_GSM-SWF_CHL1_MO_00.nc
L3m_19980401-19980430__GLOB_4_AV-SWF_CHL1_MO_00.nc
L3m_19980401-19980430__GLOB_4_GSM-SWF_CHL1_MO_00.nc
L3m_19980501-19980531__GLOB_4_AV-SWF_CHL1_MO_00.nc

My data

Get products

Save query

Applications



Data


Applications



My data

My Jobs


My Apps

 query_xxyzz.xml

10/06/2015 10:07

Data


Applications

GlobClour : Temporal Analysis 
GlobColour : Generate Image
GlobColour : Extract Values

My data

My Jobs

My Apps

 query_xxyzz.xml

10/06/2015 10:07

Data

GlobColour : Temporal Analysis

Abstract:

This tool computes average values of a parameter as a function of time, as well as the standard deviation and number of valid bins.

Input:

GlobColour query

Ouptut:

CSV file with time, average value, standard deviation and number of bins.


Contributor:



My data

My Jobs

My Apps

 query_xxyzz.xml

10/06/2015

Data

GlobColour : Temporal Analysis

Abstract:

This tool computes average values of a parameter as a function of time, as well as the standard deviation and number of valid bins.



...r query

Output:

CSV file with time, average value, standard deviation and number of bins.

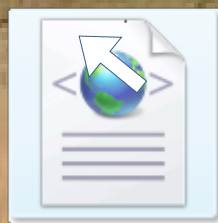
Contributor:



My data



My Apps



query_xxyzz.xml

10/06/2015

Data

GlobColour : Temporal Analysis

Abstract:

This tool computes average values of a parameter as a function of time, as well as the standard deviation and number of valid bins.

Input:

Query XXYYZZ

Ouptut:

CSV file with time, average value, standard deviation and number of bins.


Contributor:



My data

My Jobs

My Apps

 Query XXYYZZ

23/05/2015 17:20

Data

Applications

My data

My Jobs

My Apps

Job title

Job XXYY

Started

01/06/2015 17:17

Status

Running

Data

Applications

My data

My Jobs

My Apps

Job title

Job XXYY

Started

01/06/2015 17:17

Status

Finished 01/06/2015 17:18

Data

Applications

My data

My Jobs


My Apps

Name

Modified

 Query XXYZZ

23/05/2015 17:20

 Job XXYZZ out

23/05/2015 17:30



Data

Applications

My data

My Jobs


My Apps

Job XYZZ out

Name

Modified

 TimeSeries.xlsx

 job_XXXX.log

- View
- Copy
- Delete
- Rename
- Upload
- Properties

04/06/2015 12:39

Creating and uploading a new processor.

Data

Applications



My data

My Jobs

My Apps

New application



Data

Applications

New Application

Title:

Total Water Envelope

Abstract:

This tool generates a product representing the water level as measured by an observer at the c|

Save

My data

My Jobs

My Apps

New application

New Application

Title:

Total Water Envelope

**Abstract:**

This tool generates a product representing the water level as measured by an observer at the coast.

Add inputs

Area of interest

Period of interest

Input product

Product query

Parameter

Option

Save

My data

My Jobs

My Apps

New application

New Application

Title:

Total Water Envelope

**Abstract:**

This tool generates a product representing the water level as measured by an observer at the coast.

Inputs

Area of interest

Add inputs

Area of interest

Period of interest

Input product

Product query

Parameter

Option

Save

My data

My

New applicatio

New Application

Title:

Total Water Envelope

**Abstract:**

This tool generates a product representing the water level as measured by an observer at the coast.

Inputs

Area of interest

Period of interest

Add inputs

Area of interest

Period of interest

Input product

Product query

Parameter

Option

Save

My data

My

New applicatio

New Application

Title:

Total Water Envelope

**Abstract:**

This tool generates a product representing the water level as measured by an observer at the coast.

Inputs

Area of interest

Period of interest

Add inputs

Area of interest

Period of interest

Input product

Product query

Parameter

Option**Name:**7 km
resolutio|

My data

My

New applicatio

Data

Applications

New Application

Title:

Total Water Envelope



Abstract:

This tool generates a product representing the water level as measured by an observer at the coast.

Inputs

Area of interest

Period of interest

Option 1

Add inputs

Area of interest

Period of interest

Input product

Product query

Parameter

Option

Save



My data

My

New applicatio

New Application

Title:

Total Water Envelope

**Abstract:**

This tool generates a product representing the water level as measured by an observer at the coast.

Inputs

Area of interest

Period of interest

Option 1

Executable**Command name:** `myscript.sh|`

Upload targz file

My data

My

New application

Data

Applications

New Application

Title:

Total Water Envelope



Abstract:

This tool generates a product representing the water level as measured by an observer at the coast.

Inputs

Area of interest

Period of interest

Option 1

Executable

Command name: myscript.sh

Upload targz file

My data

My

New application

Data

Applications

New Application

Title:

Total Water Envelope

Abstract:

This tool generates a product represent...
measured by an observer at the coa

Inputs

Area of interest

Period of int

Executable

Command name: `myscript.sh`

Upload targz file

My data

My

New application

A reminder of the syntax of
the tar command will be
available in the help...

An End-User subscription to an existing service.

Data

Applications

Harmful Algal Bloom bulletin

XXX

YYYY

My data

My Jobs

My Apps

Data

Harmful Algal Bloom Bulletin

Abstract:

This tool generates a HAB likelihood bulletin over an area of interest

Area of interest

Output:

Pdf file

References:

www.asimuth.eu

Contributor:

TBD

My data

My Jobs

My Apps



Data

Harmful Algal Bloom Bulletin

Abstract:

This tool generates a HAB likelihood bulletin over an area of interest

Area of interest

Output:

Pdf file

References:

www.asimuth.eu

Contributor:

TBD

My data

My Jobs

My Apps



Data



My data

My Jobs

My Apps

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Data



Harmful Algal Bloom Bulletin

Abstract:

This tool generates a HAB likelihood bulletin over an area of interest

Area of interest

Output:

Pdf file

References:

www.asimuth.eu

Contributor:

TBD

My data

My Jobs

My Apps



Data

Applications



My data

My Jobs

My Apps

Job title	Started	Status	Actions
Job XXYY	01/06/2015 17:17	Running	Info / Stop / Duplicate / S

Data

Applications



My data

My Jobs

My Apps

Job title	Started	Status	Actions
Job XXYY	01/06/2015 17:17	Finished 01/06/2015 17:18	Info / Stop / Duplicate / S

Data

Applications



My data

My Jobs

My Apps



Job_XXYZ out



23/05/2015 17:30

Data

Applications



My data

My Jobs

My Apps

Job XYZZ out

Name

HAB Bulletin 23-05-2105.pdf

job_XXXX.log

Modified

PDF-XChange Vie... 0 Ko

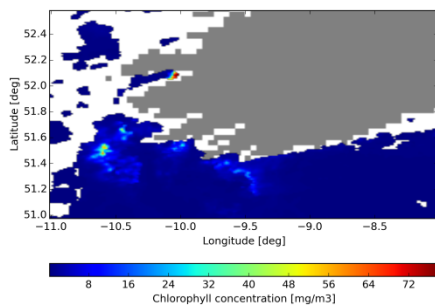
04/06/2015 12:39

- View
- Copy
- Delete
- Rename
- Download
- Properties

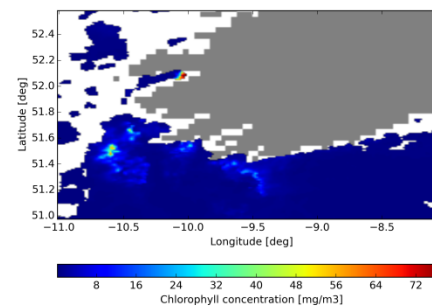
Data

Applications

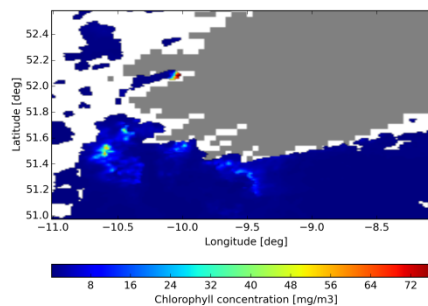
HAB Bulletin 23-05-2015



Chlorophyll



Surface Temperature



HAB index

My data

My Jobs

M

Job XYZZ out
Name

HAB Bulletin 23-05-2105.pdf

job_XXXX.log

Data

Applications



My data

My Jobs

My Apps

Job title	Started	Status	Actions
Job XXYY	01/06/2015 17:17	Finished 01/06/2015 17:18	Info / Stop / Duplicate / S

Data

Applications



My data

My Jobs

My Apps

Job title

Job XXYY

Started

01/06/2015 17:17

Info

Stop

Replay

Subscribe...

2015 17:18



Data

Applications



Subscription Service

Subscription period (days):

10

Save

My data

My Jobs

My Ap

Job title

Started

Job XXYY

01/06/2015 17:17

Finished 01/06/2015 17:18

Questions?