



E u r o p e a n M a r i t i m e S a f e t y A g e n c y

CleanSeaNet – European Satellite Oil Spill Monitoring and Vessel Detection Service

Overview of GISViewer

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CleanSeaNet SAFEMED Info Day- Lisbon – November 2013




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QUALITY SHIPPING, SAFER SEAS, CLEANER OCEANS


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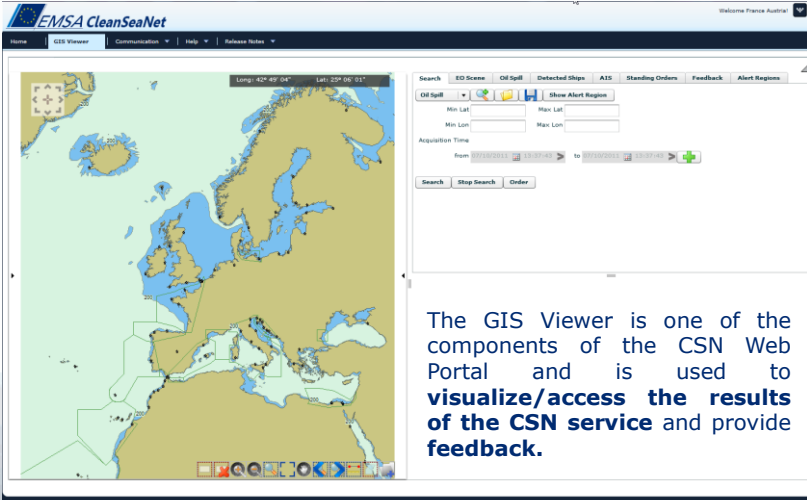


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Introduction to GIS Viewer



The GIS Viewer is one of the components of the CSN Web Portal and is used to **visualize/access the results of the CSN service** and provide **feedback**.

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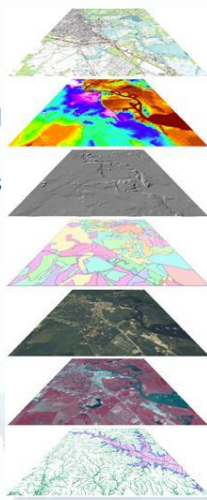





Introduction to GIS Viewer


The GIS Viewer offers the following **functionalities**:

- Displaying the **service results**, which are stored in the CleanSeaNet-Data Centre (CSN-DC)
- Retrieving and displaying EO data and GIS layers from external sources
- Feedback provision
- Download of CSN products
- Subscription of products
- Standard tools (e.g. zooming, panning, printing, back- and forward navigation,...)

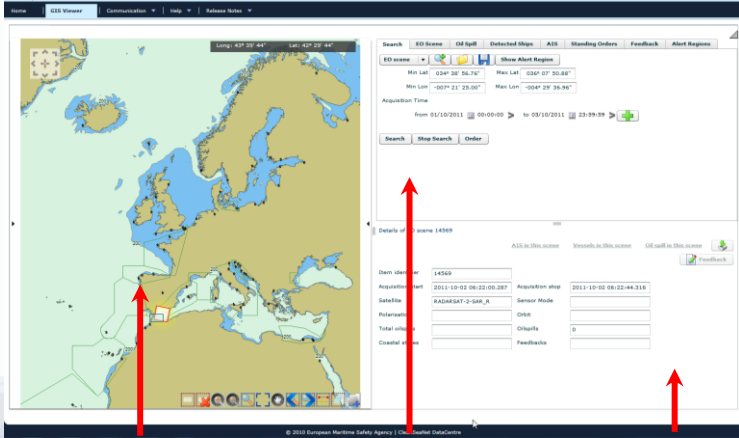


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Introduction to GIS Viewer





Map Viewer

Master Panel

Details Panel

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Introduction to GIS Viewer

Map Viewer

The **Map Viewer** is the window where the maps and service results are displayed, as image layers.

Master Panel

The **Master Panel** is the window used to search the service results and to display their metadata.

Details Panel

The **Details Panel** is the window used to access details of individual products and to download them.

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Introduction to GIS Viewer

The CSN-DC contains objects of the following 4 types:

EO scenes, oil spills, vessels and feedbacks. They are linked to each other:

- EO scenes can contain oil spills
- EO scenes can contain vessels
- From an oil spill it is possible to identify the EO scene in which it was identified
- From a vessel it is possible to identify the EO scene in which it was identified
- Feedbacks are associated to oil spills and/or to EO scenes

In the GISViewer you can see recent results or do searches for old acquisitions. You can search for all different types of objects listed above.

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Introduction to GIS Viewer

Service Results can be accessed by the users in two different ways:

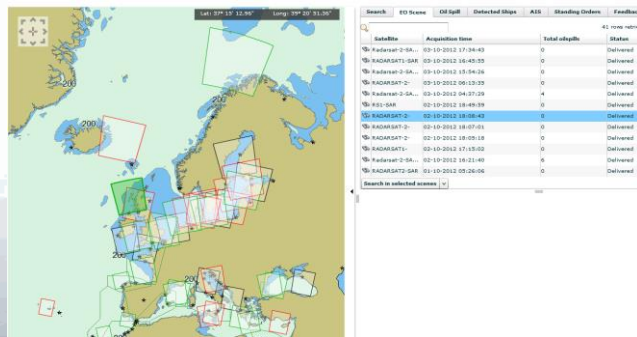
- **Automatically:** at login, a default set of recent results is presented to the user. This set is equal for all users.
- **After an active user specific search:** users perform a so-called *Query* to the CSN database, by setting a number of parameters in the Master Panel. By doing so, old results can be retrieved, complying to the specified constraints. These results are only presented to the user that runs the query

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Introduction to GIS Viewer

The **default query** at GIS viewer start-up has the following features:

- Data type: EO scene
- Geographical area: all Europe
- From time: current day - 3 days at 00:00:00
- To time: current day + 2 days at 23:59:59

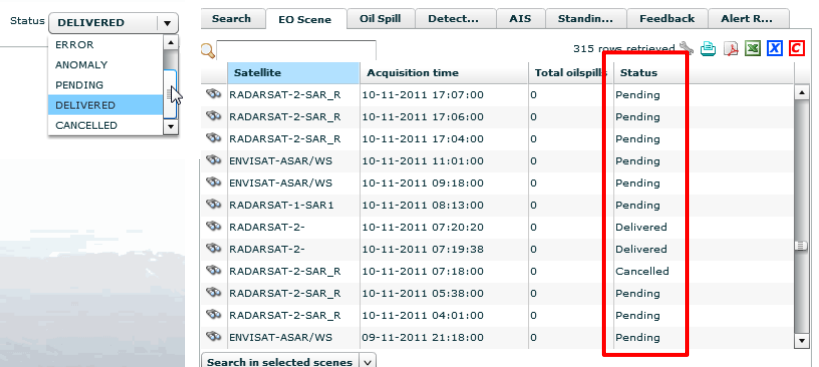


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Introduction to GIS Viewer

EO scene status

- The number of states covers all possible situations linked with service delivery
- The user is kept informed via the Status column on GIS viewer



Satellite	Acquisition time	Total oilspill	Status
RADARSAT-2-SAR_R	10-11-2011 17:07:00	0	Pending
RADARSAT-2-SAR_R	10-11-2011 17:06:00	0	Pending
RADARSAT-2-SAR_R	10-11-2011 17:04:00	0	Pending
ENVISAT-ASAR/WS	10-11-2011 11:01:00	0	Pending
ENVISAT-ASAR/WS	10-11-2011 09:18:00	0	Pending
RADARSAT-1-SAR1	10-11-2011 08:13:00	0	Pending
RADARSAT-2-	10-11-2011 07:20:20	0	Delivered
RADARSAT-2-	10-11-2011 07:19:38	0	Delivered
RADARSAT-2-SAR_R	10-11-2011 07:18:00	0	Cancelled
RADARSAT-2-SAR_R	10-11-2011 05:38:00	0	Pending
RADARSAT-2-SAR_R	10-11-2011 04:01:00	0	Pending
ENVISAT-ASAR/WS	09-11-2011 21:18:00	0	Pending

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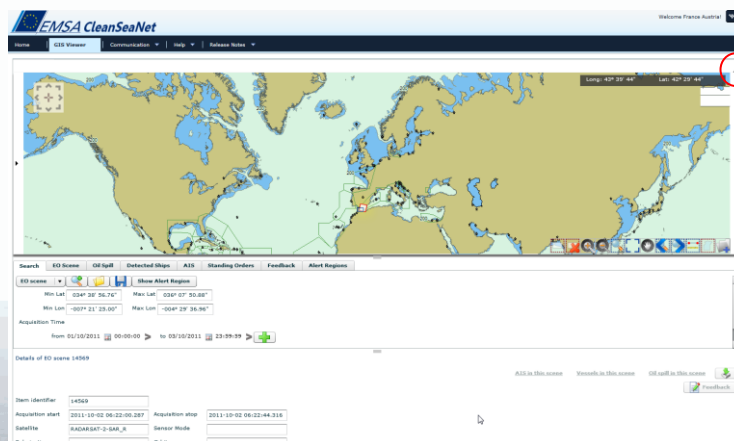
The following status are handled by the GIS Viewer:

- **Anomaly:** there was a problem during the satellite image (EO scene) acquisition or processing due to Satellite Owner or the Service Provider. No results are available in the GIS Viewer and no alerts are sent by email.
- **Cancelled:** the EO scene acquisition was cancelled. The service will not be performed.
- **Catalogued:** the scene was successfully delivered by the Service Provider and is being post-processed. It is not yet visible
- **Delivered:** the scene was delivered. Metadata and raster data are visible in the GIS Viewer.
- **Error:** the EO scene was delivered to EMSA, but there was a processing error. Metadata and/or raster data are NOT visible in the GIS Viewer.
- **Pending:** the EO scene was tasked and is pending delivery to EMSA.
- **Tasked:** the EO scene was tasked but the scene acquisition time is not due yet.

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GIS Viewer Layout

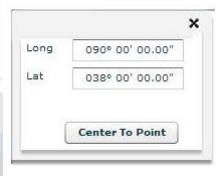
The Layout of the GIS Viewer is configurable by the user. It is possible to switch from a **default layout**, horizontal, to the vertical layout, by clicking on the triangle at the upper right corner



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GIS Viewer Layout

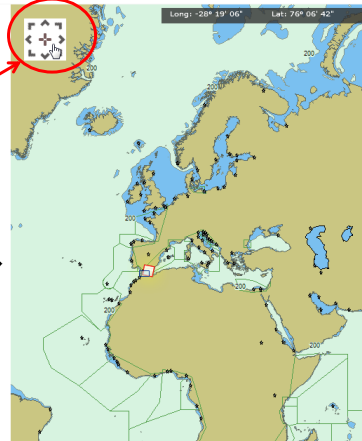
It is possible to configure the centre of the map on a coordinate point defined by the user by clicking on the "Centre to Point" button, on the top left corner of the Map window. A pop-up window appears for setting the coordinates of the centre.



Long: 090° 00' 00.00"

Lat: 038° 00' 00.00"

Center To Point



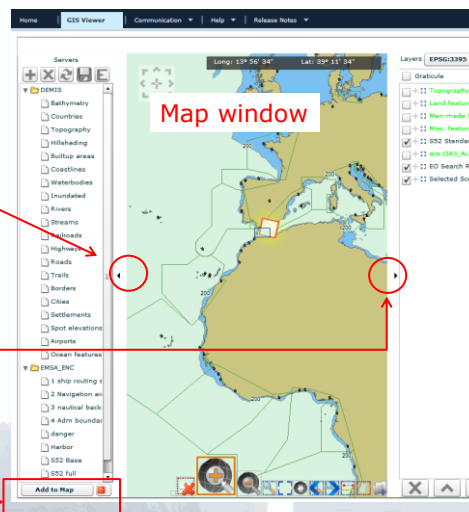
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GIS Viewer Layout

The **Map Viewer** is also expandable in 3 sub sections by clicking in the arrows:

- The OGC Server Management window opens to the left
- The Layer Management window opens to the right
- The Map window display the currently selected layers from the Layer Management

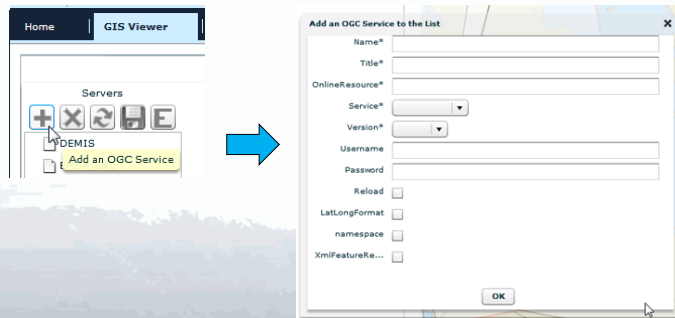
Available layers on the left side can be dynamically added to the Layer Management list by the user by clicking



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GIS Viewer Layout

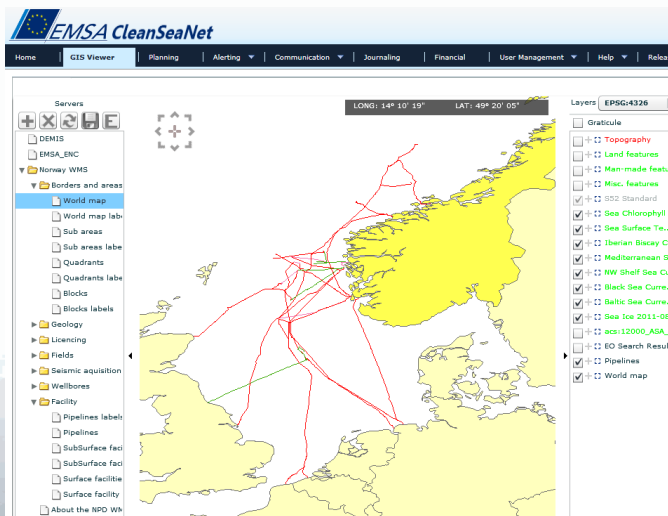
New servers, if compliant to OGC standards, can be added by any user to be visualized in the GISViewer. However, this requires previous configuration at EMSA side.



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GIS Viewer Layout

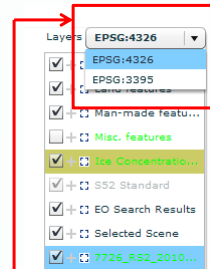
Example: Norway datasets with oil and gas installations.



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GIS Viewer Layout: Layer Display

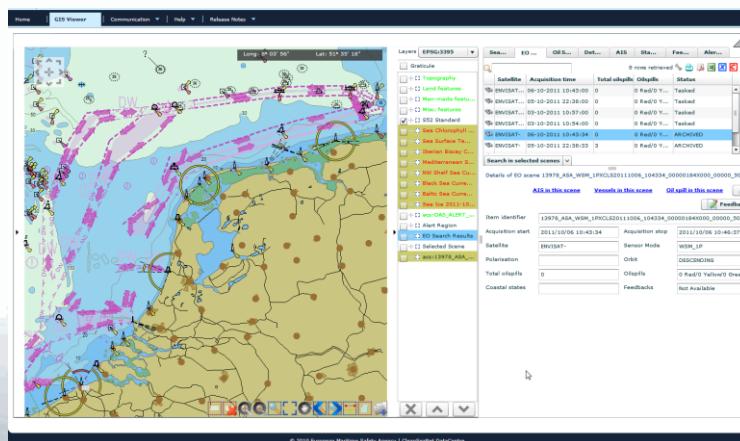
- The **OGC Management** offers static background layers.
- These can be loaded in two different Geographic Reference Systems (GRS):
 - EPSG:4326 (WGS 84)
 - EPSG:3395 (Mercator)
- The default GRS in GIS Viewer is EPSG:3395.
- It is possible to switch between GRS's by using the combo box at the top of the Layer Management:
- Two external layers are offered to the users:
 - DEMIS layers, in EPSG:4326
 - ENC-CMAP, in EPSG:3395



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GIS Viewer Layout: Layer Display

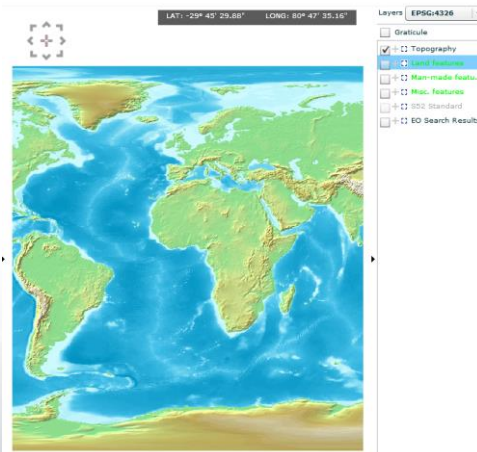
Example of external layer: ENC



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GIS Viewer Layout: Layer Display

Example of external layer: DEMIS



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GIS Viewer Layout: Layer Display

The **Layer Management** contains a list of layers:

- Static layers added by the user from the OGC Management; these provide information on
 - Land Features – ex: Streams, Rivers, etc.
 - Topology
 - Man Made Features
 - Miscellaneous Features

Also nautical charts are available.

- Layers containing the results of queries to the CSN-DC: vessels, oil spills, EO scenes, AIS data.
- Dynamic layers of ancillary data from MyOcean. These are automatically loaded when available for the same day of the SAR image acquisition.



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GIS Viewer Layout: Layer Display

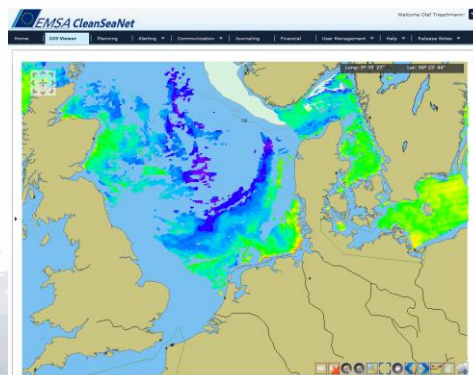
- The user can turn the display of and on of a layer by clicking the item in the list.
- Layers information can be listed opening the specific layer menu. All items composing the single layer are then shown to the user.
- Layers appear in **green** to indicate they are available for display. **Red** layers indicate that a retrieving attempt has been done by the system, but the layer could not be fetched. This may happen for example for MyOcean layers.
- Layers which are **outlined** are visible. The others, even if clicked for display, are currently hidden. Blue **outline** means the layer is currently selected.
- Layers can also be removed and their order of display be changed.



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GIS Viewer Layout: Layer Display

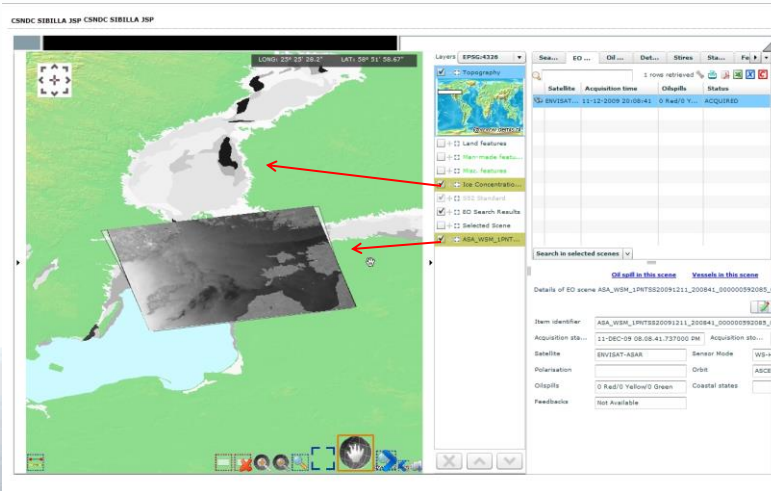
- Integration of Meteo Oceanographic data from the MyOcean data provider:
 - Chlorophyll, SST, Sea ice, Currents



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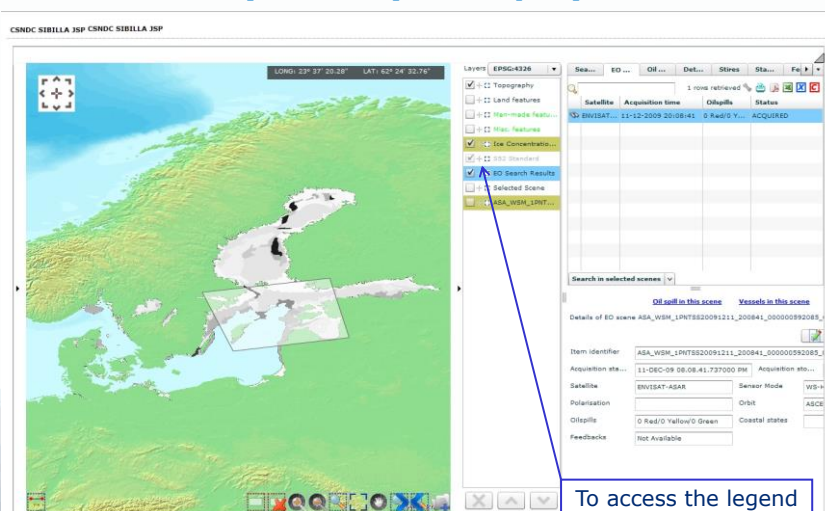
GIS Viewer Layout: Layer Display

Example of available layers after a query to a SAR image in the CSN-DC – Ice Map



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GIS Viewer Layout: Layer Display

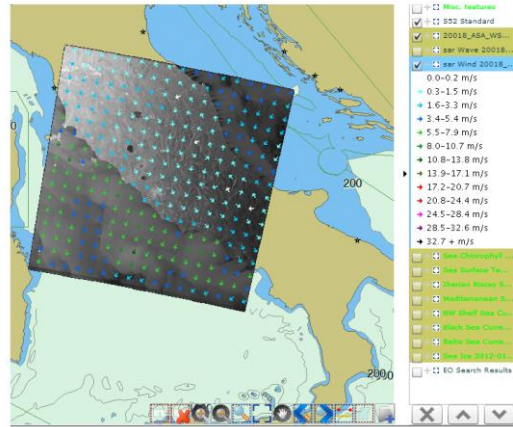


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To access the legend
click on

GIS Viewer Layout: Layer Display

after a query to a SAR image in the CSN-DC, also SAR derived info is available (wind and swell)



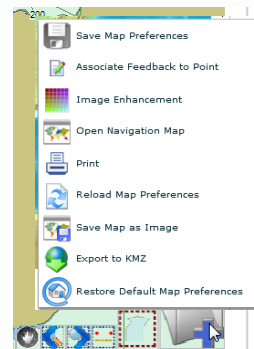
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GIS Viewer Layout


At the bottom of the Map window, we find the toolbar buttons:



By clicking on a further group of operations becomes visible to the user in a pop-up menu.



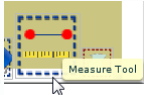
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GIS Viewer Layout

A measurement tool is also available : user has to define two points in the map.






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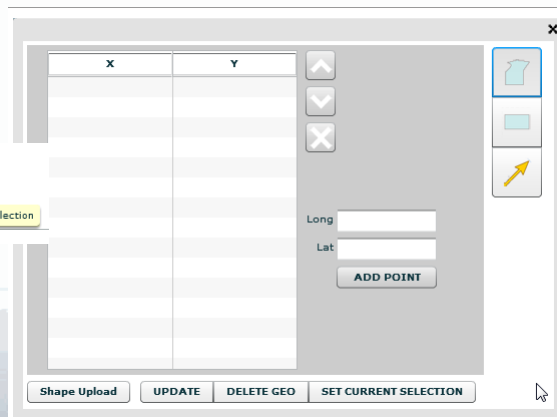


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GIS Viewer Layout

An Advanced Selection tool allows the user to define an Area Of Interest and use it as geographical criteria






X	Y

Long:
 Lat:
 ADD POINT

Shape Upload UPDATE DELETE GEO SET CURRENT SELECTION

Draw Polygon
 Draw Rectangle
 Select Geometry

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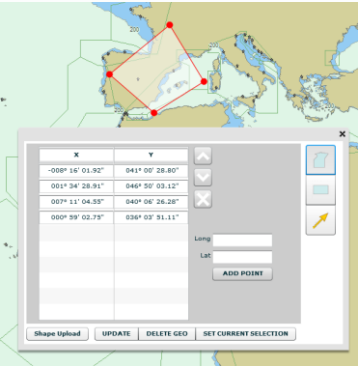
EMSA

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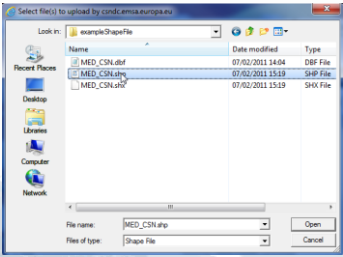
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GIS Viewer Layout

Draw Rectangle




Draw Polygon



Shape upload

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EMSA

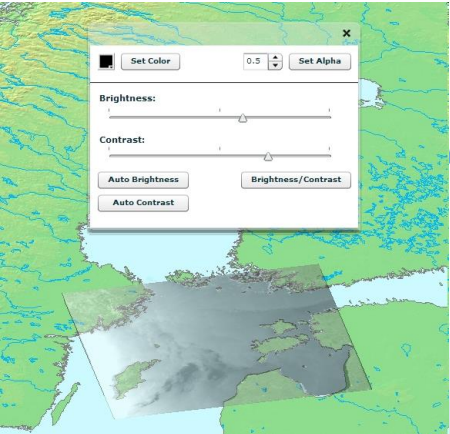
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GIS Viewer Layout

 The user can configure the layout: centre, level of zoom, projection, displayed layers. Then the user can save the denominated **context map** as default for the future sessions by clicking on "Save Map Preferences". Zoom Level and layers will be saved

 The user can also adjust display properties of contrast, brightness and transparency of the layers





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GIS Viewer Layout


Open Navigation Map



Reload Map Preferences


Save Map as Image


Export to KMZ



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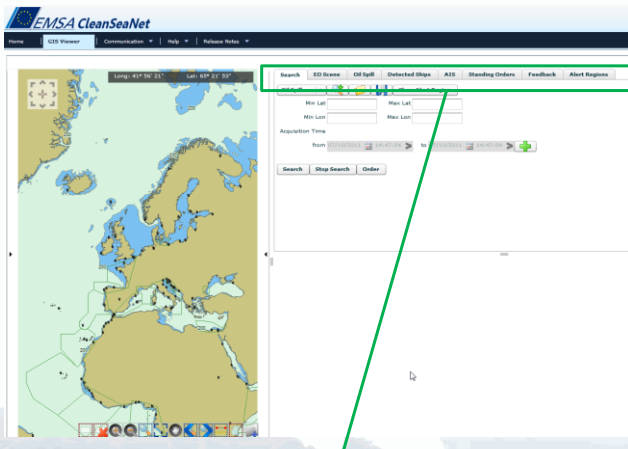


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GIS Viewer Layout


the Master Panel

Is divided in 8 tabs. The "Search" tab is for making queries to the database, the "Standing Order" tab, lists the ordered products, the rest of the tabs are for displaying the results of the queries.



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GIS Viewer Layout

Search	allows to set up a query on the CSN-DC data
EO Scene	displays the EO Scenes retrieved by a query
Oil Spill	displays the results of an Oil Spill query
Detected Ships	displays the results of a Vessel query
AIS	displays the results of the query on the AIS data
Standing Orders	displays the products orders requested by the user
Feedback	displays the feedback query
Alert Regions	displays the Alert Regions

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Querying the CSN-DC

It is possible to query the different types of CSN-DC stored data

Search
EO Scene
Oil Spill
Detected Ships
AIS
Standing Orders
Feedback
Alert Regions

EO scene

Min Lat

Max Lat

Min Lon

Max Lon

Acquisition Time
 from 01/10/2011 00:00:00 to 07/10/2011 23:59:59

Search
Stop Search
Order

Show Alert Region

+

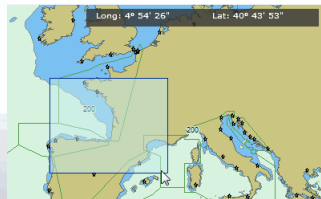
EO scene
 All
 Oil Spill
 EO scene
 Vessels
 Feedback







You can choose the data type to query from the list available at the combo box

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Querying the CSN-DC

- Queries can be **simple and advanced**. During the set up of a search the Master Panel is used to configure the query criteria and parameters.
- The search parameters for the **simple search mode** are common to all data types: Geographical area and Date/Time (multiple)
 - Area is selectable for example by using the “Rectangle Selection” button









Search	EO Scene	Oil Spill	Detected Ships	AIS	Standing Orders	Feedback
EO scene       Show Alert Region						
Min Lat		040° 30' 02.16"		Max Lat		048° 57' 50.76"
Min Lon		-010° 52' 58.00"		Max Lon		005° 42' 52.00"
Acquisition Time						
from 01/10/2011		00:00:00		to 07/10/2011		23:59:59
<input type="button" value="Search"/> <input type="button" value="Stop Search"/> <input type="button" value="Order"/>						

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Querying the CSN-DC


- Date/Time is set using

Acquisition Time	
from 12/10/2009 00:00:00.000	now 12/2009 00:00:00.000
<input type="button" value="Search"/> <input type="button" value="Stop Search"/> <input type="button" value="Order"/>	
<input type="button" value="disabled"/>	

Search	EO Scene	Oil Spill	Detected Ships	AIS	Standing Orders	Feedback
EO scene       Show Alert Region						
Min Lat		040° 30' 02.16"		Max Lat		048° 57' 50.76"
Min Lon		-010° 52' 58.00"		Max Lon		005° 42' 52.00"
Acquisition Time						
from 01/10/2011		00:00:00		to 07/10/2011		23:59:59
from 07/10/2011				11		15:18:22
from 07/10/2011				11		15:18:22
from 07/10/2011				11		15:18:22
<input type="button" value="Search"/> <input type="button" value="Stop Search"/> <input type="button" value="Order"/>						


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Querying the CSN-DC

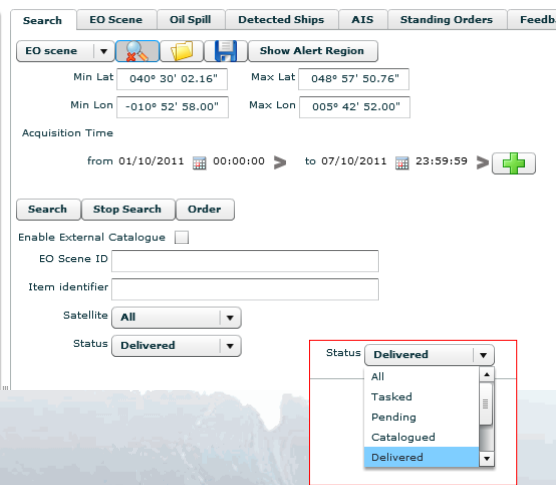
To switch to **advanced search mode**, the user has to click in the lens button




Then, depending on the data type, different extra parameter fields appear. By clicking in the




the user returns to simple search mode



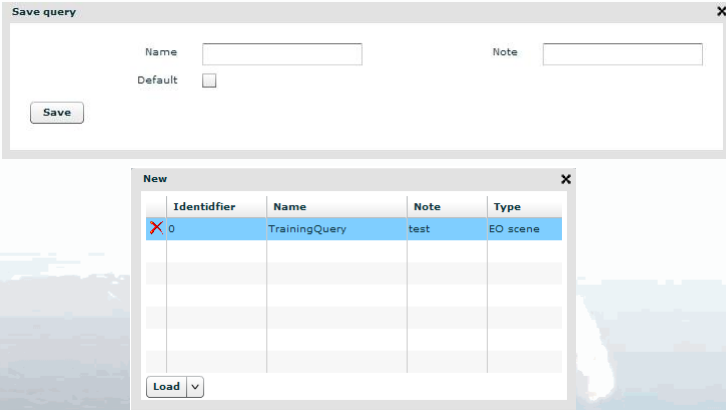
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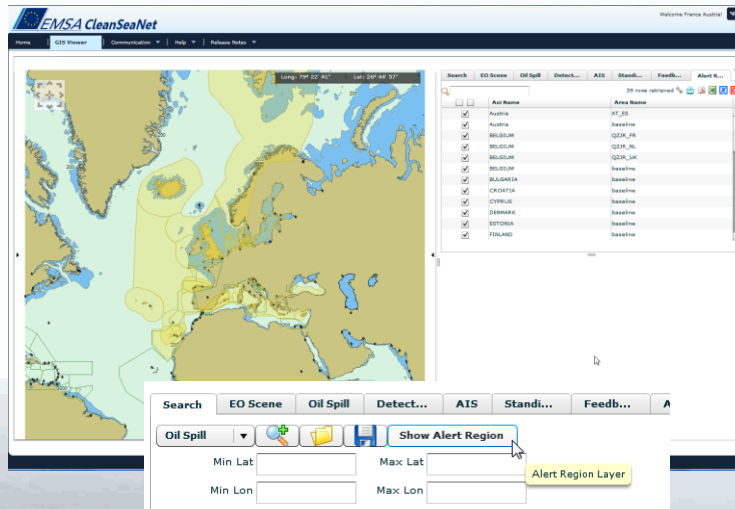
Querying the CSN-DC

The system offers the possibility of **saving queries** for later usage. Saved queries are only accessible to the user who created them, using the Load query option.



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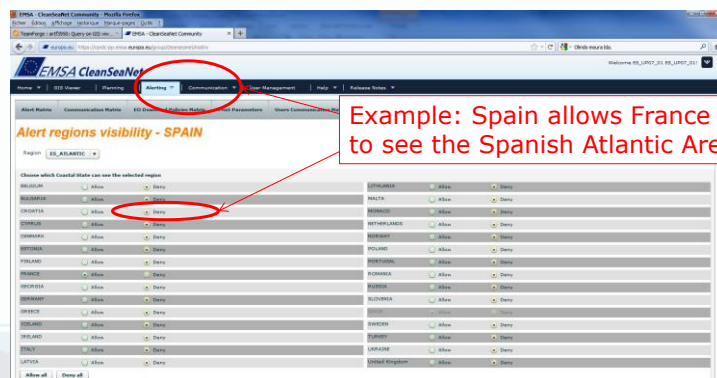
GIS Viewer Layout



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GIS Viewer Layout

Management of visibility of alert regions



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- Possibility for each coastal State to make its own alert region(s) visible or not to other coastal States
- By default, they are not visible.

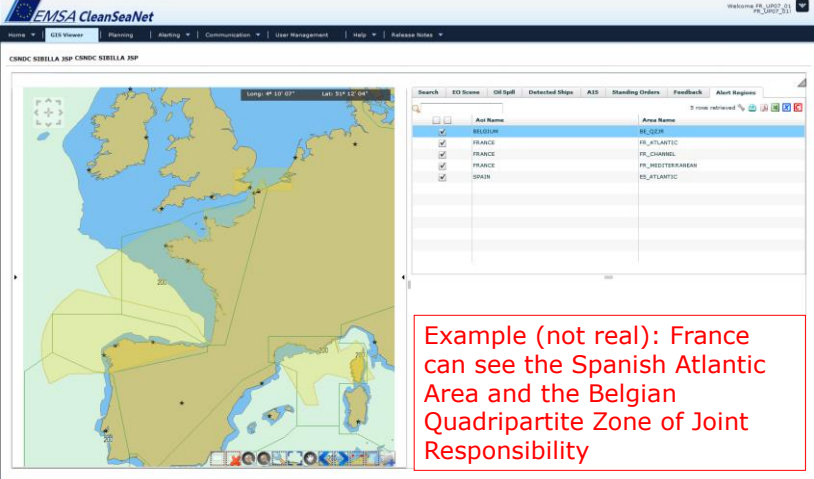


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GIS Viewer Layout

Management of visibility of alert regions



Example (not real): France can see the Spanish Atlantic Area and the Belgian Quadripartite Zone of Joint Responsibility

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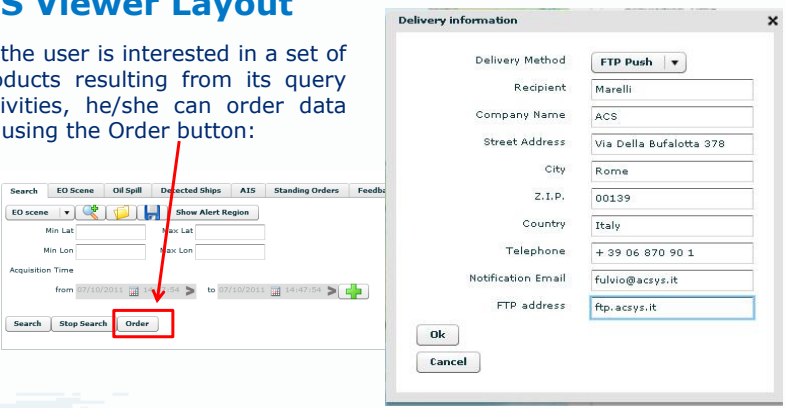


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GIS Viewer Layout

If the user is interested in a set of products resulting from its query activities, he/she can order data by using the Order button:



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Or	Acquisition Start Date	Acquisition Stop Date	Min Lat	Max Lat	Min Lon	Max Lon	Last Update
1	2008-01-01	2010-07-16	28.0331	69.2764	-3.694...	30.8786	2010-07-16...
2	2007-07-06	2010-07-17	32.0108	50.6016	-3.8773	28.5345	2010-07-17...



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GIS Viewer Layout: standing orders

Search EO Scene Oil Spill Detected Ships AIS Standing Orders Feedback Alert Regions


9 rows retrieved

	Description	Product Type	Acquisition start	Acquisition stop	Delivery	Status
	EO scene case 1	EOScene	2011-05-10 19:00:00	2012-05-10 20:00:00	ftp_push	Enabled
	Oil spill case 2	OilSpill	2011-05-10 19:00:00	2012-05-10 20:00:00	ftp_push	Enabled
	Oil spill case 1	OilSpill	2011-05-10 19:00:00	2012-05-10 20:00:00	email_link	Enabled
	test crea directory	OilSpill	2011-05-10 19:00:00	2011-05-10 20:00:00	ftp_push	Disabled
	EO scene case 2	EOScene	2011-05-10 19:00:00	2011-05-10 20:00:00	ftp_push	Enabled
	EO scene FTP push	EOScene	2011-05-10 00:00:00	2011-05-10 23:59:59	ftp_push	Enabled
	FTP push EO scene	EOScene	2011-05-10 00:00:00	2011-05-10 23:59:59	ftp_push	Enabled
	EO scene case 2 (em...	EOScene	2011-05-10 19:00:00	2011-05-10 20:00:00	email_link	Enabled
	EO scene case 2	EOScene	2011-05-10 19:00:00	2011-05-10 20:00:00	ftp_push	Disabled

Show All

- Show Enabled
- Show All
- Show Disabled


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Querying the CSN-DC

Example: EO scene search



Search EO Scene Oil Spill Detected Ships AIS Standing Orders Feedback

EO scene Show Alert Region

Min Lat: 032° 38' 21.12" Max Lat: 047° 37' 52.68"
 Min Lon: -016° 59' 29.00" Max Lon: 009° 54' 25.92"

Acquisition Time
 from 07/10/2011 00:00:00 to 07/10/2011 23:59:59

Search Stop Search Order

EO Scene ID:

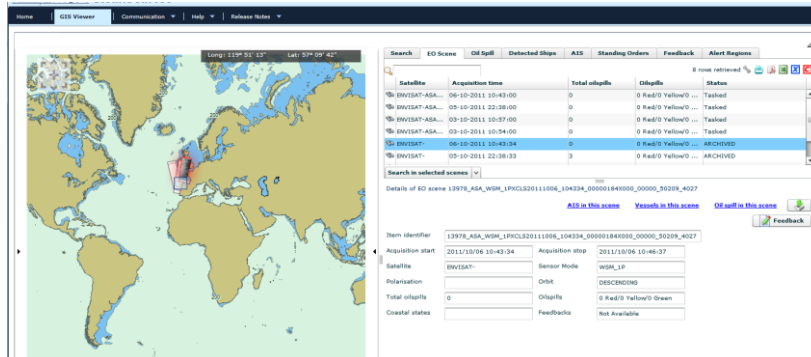
Item identifier:

Satellite: All

Status: Delivered

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Querying the CSN-DC



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Results of a query are listed in the Master panel, then the user can:

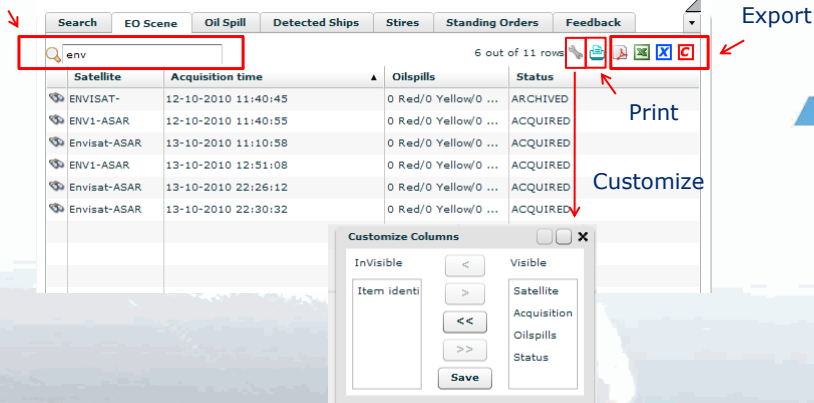
- Customize the result grid layout (e.g. adding, deleting columns)
- Zoom to and Analyse results
- Use Feedbacks functionalities
- Print the results and Export in PDF, Excel, XML and CVS format
- Filter the results

Querying the CSN-DC

Filtering/Browsing/Exporting Query Results

7 operative buttons are available:

Live Search



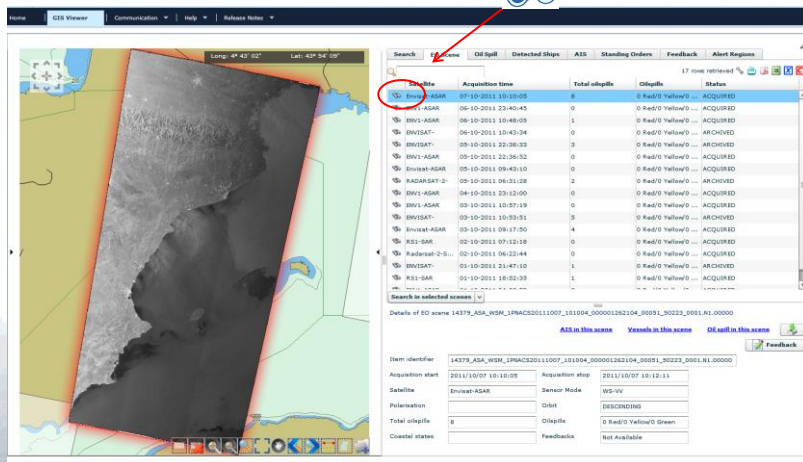
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Querying the CSN-DC

results can be analysed by seeing the details and zooming into the items.
 Example zoom:



Zoom to this item



Satellite	Acquisition time	Total oilspills	Oilspills	Status
ENVISAT-ASAR	06-10-2011 10:43:00	0	0 Red/0 Yellow/0 ...	ARCHIVED
ENVISAT-ASAR	06-10-2011 10:46:05	1	0 Red/0 Yellow/0 ...	ARCHIVED
ENVISAT-ASAR	06-10-2011 10:43:04	0	0 Red/0 Yellow/0 ...	ARCHIVED
ENVISAT-ASAR	09-10-2011 22:38:03	3	0 Red/0 Yellow/0 ...	ARCHIVED
ENVISAT-ASAR	09-10-2011 22:38:02	0	0 Red/0 Yellow/0 ...	ARCHIVED
ENVISAT-ASAR	05-10-2011 09:43:10	0	0 Red/0 Yellow/0 ...	ARCHIVED
RADARSAT-2	05-10-2011 06:31:06	2	0 Red/0 Yellow/0 ...	ARCHIVED
ENVISAT-ASAR	06-10-2011 23:15:00	0	0 Red/0 Yellow/0 ...	ARCHIVED
ENVISAT-ASAR	03-10-2011 10:57:19	0	0 Red/0 Yellow/0 ...	ARCHIVED
ENVISAT-ASAR	03-10-2011 10:53:01	5	0 Red/0 Yellow/0 ...	ARCHIVED
ENVISAT-ASAR	03-10-2011 09:17:00	4	0 Red/0 Yellow/0 ...	ARCHIVED
RS1-SAR	02-10-2011 07:12:18	0	0 Red/0 Yellow/0 ...	ARCHIVED
RadarSat-2-S	10-10-2011 06:02:44	0	0 Red/0 Yellow/0 ...	ARCHIVED
ENVISAT-ASAR	01-10-2011 21:47:10	1	0 Red/0 Yellow/0 ...	ARCHIVED
RS1-SAR	01-10-2011 18:52:33	1	0 Red/0 Yellow/0 ...	ARCHIVED

Search in selected scenes [v]

Details of EO scene 14379_ASA_WSM_IPRACS2011007_101004_000001262104_0001_20223_0001A1_000000

AIS in this scene Vessels in this scene Oil spill in this scene

Item identifier 14379_ASA_WSM_IPRACS2011007_101004_000001262104_0001_20223_0001A1_000000

Acquisition start 2011/10/07 10:10:05 Acquisition stop 2011/10/07 10:12:11

Satellite ENVISAT-ASAR Sensor Mode WS-VV

Polarisation Orbit DESCENDING

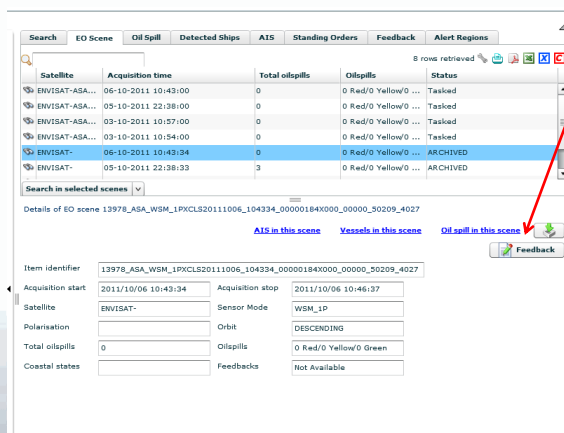
Total oilspills 8 Oilspills 0 Red/0 Yellow/0 Green

Coastal states Feedbacks Not Available

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Querying the CSN-DC

During the browsing of a query result, the **Details Panel** shows the details of the item selected in the Master Panel



Satellite	Acquisition time	Total oilspills	Oilspills	Status
ENVISAT-ASA...	06-10-2011 10:43:00	0	0 Red/0 Yellow/0 ...	Tasked
ENVISAT-ASA...	05-10-2011 10:43:00	0	0 Red/0 Yellow/0 ...	Tasked
ENVISAT-ASA...	03-10-2011 22:38:00	0	0 Red/0 Yellow/0 ...	Tasked
ENVISAT-ASA...	03-10-2011 10:57:00	0	0 Red/0 Yellow/0 ...	Tasked
ENVISAT-ASA...	03-10-2011 10:54:00	0	0 Red/0 Yellow/0 ...	Tasked
ENVISAT-ASA...	06-10-2011 10:43:34	0	0 Red/0 Yellow/0 ...	ARCHIVED
ENVISAT-ASA...	05-10-2011 22:38:33	3	0 Red/0 Yellow/0 ...	ARCHIVED

Search in selected scenes [v]

Details of EO scene 13978_ASA_WSM_IPXCLS20111006_104334_00000184X000_00000_30209_4027

AIS in this scene Vessels in this scene Oil spill in this scene

Item identifier 13978_ASA_WSM_IPXCLS20111006_104334_00000184X000_00000_30209_4027

Acquisition start 2011/10/06 10:43:34 Acquisition stop 2011/10/06 10:46:37

Satellite ENVISAT- Sensor Mode WSM_1P

Polarisation Orbit DESCENDING

Total oilspills 0 Oilspills 0 Red/0 Yellow/0 Green


Coastal states Feedbacks Not Available

Feedback

Feedback can be inserted by a coastal state user who, after having received information about an oil spill present in the area of its competence, performs a local survey on the area, or who reports a new spill associated with the scene

Products can be **downloaded** by clicking here


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Querying the CSN-DC

Example: Parameters for oil spill advanced mode search



Search EO Scene Oil Spill Detected Ships AIS Standing Orders Feedback Alert Regions

Oil Spill Show Alert Region

Min Lat: 030° 41' 48.12" Max Lat: 037° 32' 16.08"

Min Lon: -018° 16' 00.00" Max Lon: 029° 54' 02.88"

Acquisition Time: from 01/01/2012 00:00:00 to 13/01/2012 17:38:01

Search Stop Search Order

Oil Spill ID: EO Scene ID:

Classification: A Min. area: m2 Max. area: m2


Min coast dist.: m Max coast dist.: m

Classification: A

Min. area: All m2

Min coast dist.: A m

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Querying the CSN-DC

Result

Search EO Scene Oil Spill Detected Ships AIS Standing Orders Feedback Alert Regions

7 rows retrieved

	Feedbacks	Class	Pos (lon/lat)	Acquisition Time	Alert level	Coastal states
<input checked="" type="checkbox"/>		Not Available	A	-09° 13' 02.48" / 045° ...	05-10-2011 22:40:21	Ireland,United Kingdom,Au...
<input checked="" type="checkbox"/>		Not Available	A	-09° 59' 41.36" / 043° ...	05-10-2011 22:40:21	N/A
<input checked="" type="checkbox"/>		Available	A	-09° 02' 55.89" / 044° ...	05-10-2011 22:40:21	Ireland,United Kingdom,Au...
<input checked="" type="checkbox"/>		Not Available	A	-09° 09' 23.18" / 048° ...	05-10-2011 06:31:51	N/A
<input checked="" type="checkbox"/>		Available	A	007° 24' 27.88" / 054° ...	03-10-2011 17:14:12	N/A
<input checked="" type="checkbox"/>		Not Available	A	-07° 51' 28.80" / 045° ...	03-10-2011 10:55:47	Ireland,United Kingdom,Au...
<input checked="" type="checkbox"/>		Not Available	A	000° 51' 46.21" / 053° ...	01-10-2011 21:48:58	N/A

[AIS related to oilspill](#) [EO scene detail](#)

Details of Oil spill OS_4083

Acquisition Time: 05-OCT-11 10:40:21.000000 PM

Length (m):

Distance From ...:

Area (m2): 3190327.9

Satellite Image: 13977_ASA_WSM_1PXCLS20111005_223833_0000C

Pos (lon/lat): -09° 02' 55.89" / 044° 43' 33.89"


Feedbacks: Available

Feedback

Other processes: for the future, not implemented in current release

To download shapefile of oil polygon

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Querying the CSN-DC


Visualizing the Details: by clicking [Full info...](#)

Details of oil spill

Item identifier	OS_2710	Distance From ...	
Type	OTHER	External id	12387_ASA_WSM_1PHACS20110819_100613_000001222102_00351_49519_0001.N1.00000_OS_3
Class	A	Pos (lon/lat)	002° 38' 30.12" / 041° 13' 56.64"
Area (m2)	3864375	Origin	DETECTED
Acquisition Time	19-AUG-11 10:06:13.000000 AM	Wind Intensity...	4.7595
Wind Direction...	62	Prediction Model	
Poss. source		Service provider	
Alert level	Yellow	Coastal states	Austria, France, Spain,
Satellite	Envisat-ASAR	Frame id	
Slicks in the oil...			

Item Identifier	Area (m2)	Length (m)	Width (m)
1	3425625	4840.2607	707.7357
2	438750	1806.2391	242.908

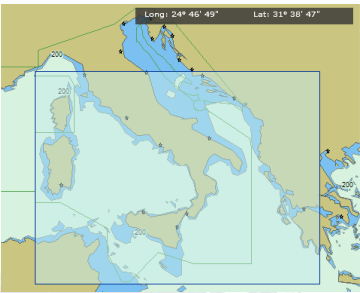
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Querying the CSN-DC

Searching Feedbacks



Search EO Scene Oil Spill Detected Ships AIS Standing Orders Feedback

Feedback     Show Alert Region

Min Lat: 025° 08' 45.00" Max Lat: 043° 43' 57.22"


Min Lon: 007° 42' 45.36" Max Lon: 022° 40' 17.00"


Acquisition Time

from 01/08/2011 00:00:00 to 31/08/2011 23:59:59

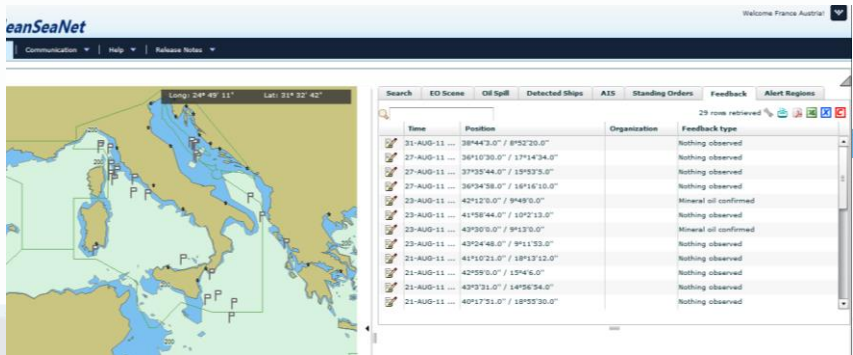
Search Stop Search Order

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Querying the CSN-DC Example: Result of feedback query




The screenshot shows the CleanSeaNet web interface. On the left is a map of the Mediterranean Sea with a red box indicating a search area. On the right is a table titled '29 rows retrieved' showing the results of a feedback query. The table has columns for Time, Position, Organization, and Feedback type.

Time	Position	Organization	Feedback type
21-AUG-11 ...	38°44'3.0" / 8°32'20.0"		Nothing observed
27-AUG-11 ...	38°10'30.0" / 1°14'34.0"		Nothing observed
27-AUG-11 ...	37°53'44.0" / 1°53'3.0"		Nothing observed
27-AUG-11 ...	36°54'38.0" / 1°16'10.0"		Nothing observed
23-AUG-11 ...	42°12'0.0" / 9°49'0.0"		Mineral oil confirmed
23-AUG-11 ...	41°58'44.0" / 10°12'13.0"		Nothing observed
23-AUG-11 ...	43°30'0.0" / 9°13'0.0"		Mineral oil confirmed
23-AUG-11 ...	43°24'48.0" / 9°11'33.0"		Nothing observed
21-AUG-11 ...	41°10'21.0" / 18°13'12.0"		Nothing observed
21-AUG-11 ...	42°59'0.0" / 1°54'6.0"		Nothing observed
21-AUG-11 ...	43°33'0.0" / 14°56'34.0"		Nothing observed
21-AUG-11 ...	40°17'51.0" / 18°55'36.0"		Nothing observed

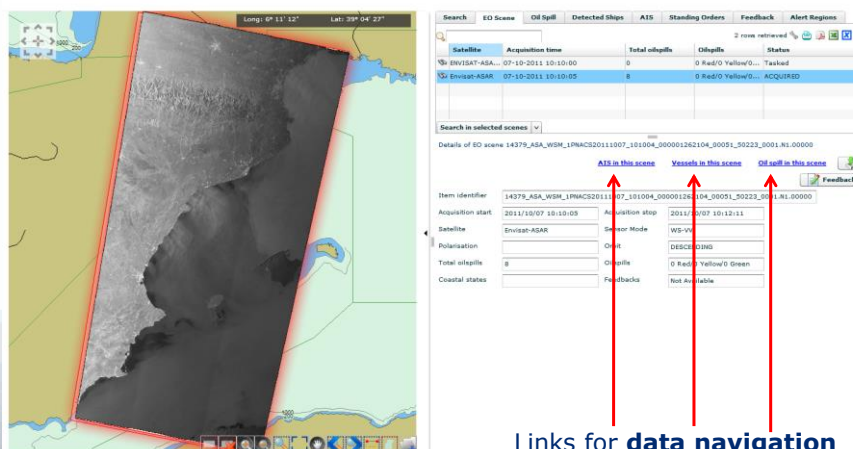
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Data Navigation


Moreover, because all elements available through the GIS Viewer are inherently linked to each other, we can use the result of a query to navigate through correlated data. 3 links are available in the Details panel.




The screenshot shows the CleanSeaNet web interface. On the left is a map of the Mediterranean Sea with a red box indicating a search area. On the right is a table titled '2 rows retrieved' showing the results of a query. The table has columns for Satellite, Acquisition time, Total oilspills, Oilspills, and Status. Below the table is a 'Details of EO scene' panel with three links: 'AIS in this scene', 'Vessels in this scene', and 'Oil spill in this scene'. Red arrows point from these links to the bottom of the slide.

Links for data navigation

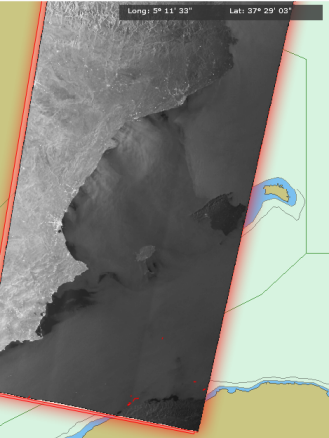
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Data Navigation

Example: for the Envisat scene over Spain, by clicking [Oil spills in this scene](#), we get the following result:



Longi: 5° 11' 33" Lat: 37° 29' 03"

Search	EO Scene	Oil Spill	Detected Ships	AIS	Standing Orders	Feedback	Alert Regions
2 rows retrieved							
ENVISAT-ASA...	07-10-2011 10:10:00	0	0 Red/0 Yellow/0...	Tasked			
Envisat-ASAR	07-10-2011 10:10:05	8	0 Red/0 Yellow/0...	ACQUIRED			


Search in selected scenes


[<< go to EO scene detail panel](#)

Type	Class	Predicted	Pos (lon/lat)	Distance From Coast	Origin
OT-ER	B	NO	000° 58' 55.92" / 036° 3...		DETECTED
OT-ER	B	NO	001° 04' 18.84" / 036° 3...		DETECTED
OT-ER	B	NO	001° 43' 09.72" / 037° 3...		DETECTED
OT-ER	B	NO	001° 14' 33.36" / 036° 3...		DETECTED
OT-ER	B	NO	001° 06' 42.48" / 036° 4...		DETECTED
OT-ER	B	NO	002° 36' 43.20" / 036° 4...		DETECTED
OT-ER	B	NO	001° 04' 26.04" / 036° 3...		DETECTED
OT-ER	B	NO	002° 23' 14.88" / 036° 5...		DETECTED

It is also possible to return back from the result of the linked navigation.

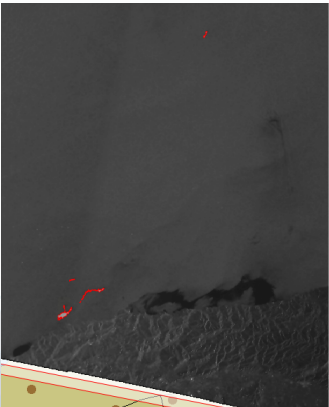
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Data Navigation

Zooming in:



Graticule

- ☐ Topography
- ☐ Land features
- ☐ Man-made features
- ☐ Misc. features
- ☒ 832 Standard
- ☒ Sea Chlorophyll...
- ☒ Sea Surface Tem...
- ☒ Iberian Biscay Cu...
- ☒ Mediterranean B...
- ☒ NW Shelf Sea Cu...
- ☒ Black Sea Cu...
- ☒ Baltic Sea Cu...
- ☒ Sea Ice 2011-10...
- ☐ acs:OAS_ALERT...
- ☐ EO Search Results
- ☐ Selected Scene
- ☒ acs:14379_ASA...
- ☐ OS in scene

Satellite	Acquisition time	Tot
ENVISAT...	07-10-2011 10:10:00	0
Envisat...	07-10-2011 10:10:05	8


Search in selected scenes


[<< go to EO scene detail panel](#)

ected in scene 14379_ASA_WSM_1PRAC

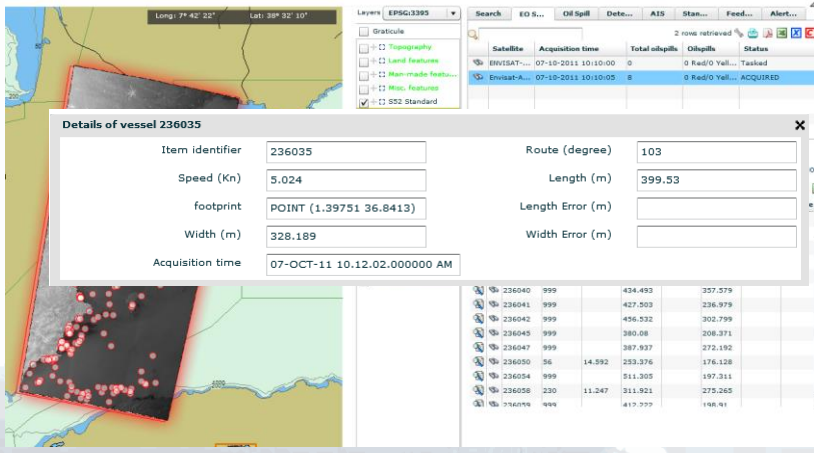
Type	Class	Predic
OT-ER	B	NO
OT-ER	B	NO
OT-ER	B	NO
OT-ER	B	NO
OT-ER	B	NO
OT-ER	B	NO
OT-ER	B	NO
OT-ER	B	NO

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Data Navigation



By clicking [Vessels in this scene](#) we get:

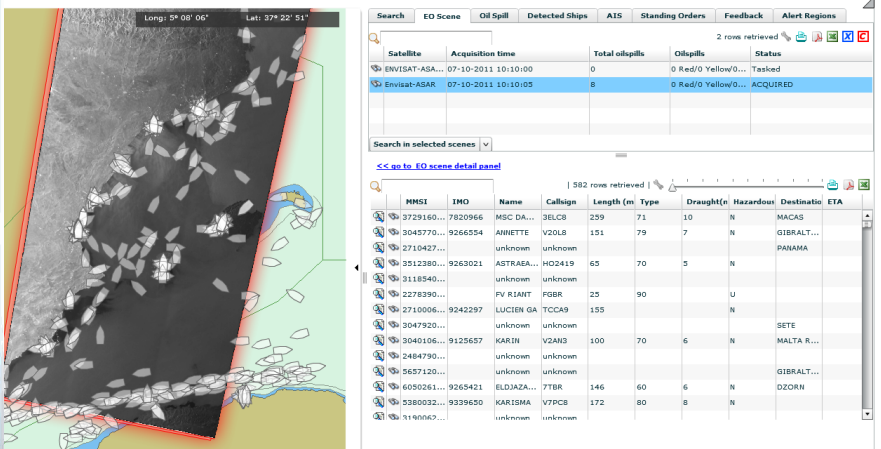
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Data Navigation

Result of request of AIS data for this specific scene



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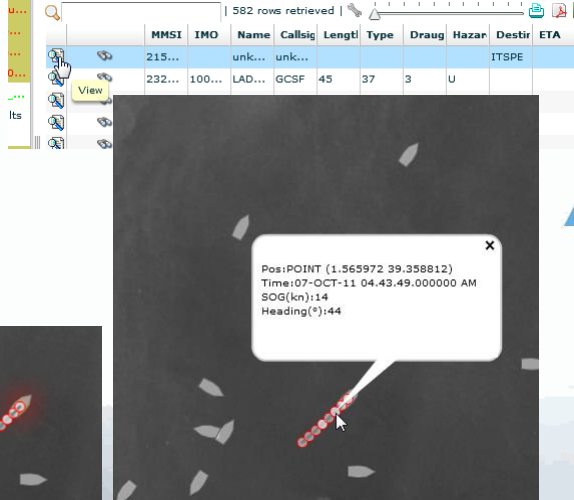
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Data Navigation

AIS information:

- MMSI
- IMO
- Name
- Callsign
- Length
- Vessel Type
- Draught
- Hazardous Cargo
- Destination
- Expected Time



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CleanSeaNet web portal:

<http://cleanseanet.emsa.europa.eu>




satellite coordinators@emsa.europa.eu

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