

EOLI-SA 9.3.1 - User Guide

Interacting with Earth Observation Data

EOLI-SA 9.3.1 - User Guide: Interacting with Earth Observation Data

Publication date 15/02/2013

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Chapter 1. How to read this User Guide?

This document is the User Guide of the EOLI-SA interactive tool. It is split into several sections:

1. **Chapter 2, *What is EOLI-SA?*** is a general introduction on EOLI-SA;
2. **Chapter 3, *Getting started*** provides some directives to install EOLI-SA and to submit a first query to ESA's Earth Observation catalog;
3. **Chapter 4, *Basic principle*** presents the basic principles to use EOLI-SA;
4. **Chapter 5, *EOLI-SA/Server Interactions*** describes the interactions between EOLI-SA and servers;
5. **Chapter 6, *The Catalogue workspace - Searching for products*** to **Chapter 12, *The Downloads Workspace - Monitoring downloads*** present in detail all EOLI-SA functions and advanced criteria available in the different workspaces;
6. **Chapter 13, *Setting Preferences*** details how to configure the user's preferences;
7. **Chapter 14, *Troubleshooting*** presents the most common problems in using EOLI-SA;
8. **Appendix A, *User help*** provides information on how to access to the user help from EOLISA
9. **Appendix B, *ESA data policy*** provides information on the ESA data policy;
10. **Glossary** lists the most common Earth Observation definitions;



You can also find in this document tips that will help you in the use of EOLI-SA. The description of the tips is formatted like this paragraph.

Mouse actions are described as follows:

1. **Click-drag** = Hold the left button of the mouse and drag the selected item;
2. **Right-click** = click with the right mouse button (`Ctrl+click` on a Mac with a one button mouse);
3. **Double-click** = click quickly twice on the left mouse button;

When otherwise stated, Click signifies to click the left button of the mouse.

Chapter 2. What is EOLI-SA?

EOLI-SA is a free multi-platform interactive tool that allows users to access the catalogues of ESA's Earth Observation data products, to order them, and ultimately to track their status. It also provides an online retrieval capabilities of datasets and product meta-data for GSP users, SCI operators and SPR operators .

In addition, EOLI-SA provides a number of specialized features such as the SAR interferometric query and the possibility to access map layers from various OpenGIS compliant map servers.

Products are organized in collections, whose content can be easily queried and viewed.

The ESA's Earth Observation Catalogue collections cover a wide range of products issued from various satellites and sensors

1. **ENVISAT** (ASAR, MERIS, AATSR, MIPAS, SCIAMACHY, Radar Altimeter/MicroWave Radiometer)
2. **ERS** (SAR Scenes, SAR Wave Mode: FDC, Wind Scatterometer: FDC, Microwave Sounder, Altimeter, Gome, Orbit Data)
3. **PROBA** (PROBA Chris)
4. **LANDSAT** (TM: RAW, SCAS; MSS: RAW, SCAS; RBV)
5. **Terra/Aqua** (L1B)
6. **JERS** (SAR: PR1, GEC; VNIR: Level1, 2)
7. **NOAA** (AVHRR: SHARP 1B, 2A, 2B)
8. **IRS** (MOS: L1B)
9. **SeaStar** (SEAWIFS: L1A, L1B, L2A, L2B, L2C)
10. **Nimbus** (CZCS: L1, L2)
- 11....

EOLI-SA operates either in:

1. On-line mode: EOLI-SA is connected to the ESA/ESRIN server, allowing to access product details information and quick look images;
2. Off-line mode: you can interrogate a local copy of the catalogue without connecting to the internet.

Chapter 3. Getting started

In this section, you will learn how to install EOLI-SA, to specify and submit your first query to ESA's Earth Observation catalogue.

3.1. Download and install EOLI-SA

3.1.1. Overview

EOLI-SA is a java application which is supported on all major platforms:

1. **Windows x86 32 bits (XP/Windows Vista)**
2. **MacOS X**
3. **Linux x86 32 and 64 bits**
4. **Unix**

REQUIREMENTS

- **Java 1.5** is required to run EOLI-SA. If you don't already have a proper version of Java installed on your system, you need to install the EOLI-SA package that includes the Java Virtual Machine.
- To launch the application **512 MB** of free memory is required so you need **at least 1 GB of RAM** on you PC.
- A **3D-capable video graphic** adapter (**NVidia, ATI/AMD or Intel**) with **128MB of video RAM** , in order to use the 3D globe technology
- **At least 100MB** of available disk space
- A **good Internet connection bandwidth** , as the globe imagery is downloaded form Internet (and cached locally)

EOLI-SA can be downloaded at the following address: <http://earth.esa.int/EOLi>

You can manually download the installation package corresponding to your operating system and follow the instructions below:

3.1.2. Windows Instructions

You do not need to install a Java Virtual Machine before installing EOLI-SA. The **Java 1.5_17** is included in the installer package.

Firstly, double-click on **eoli-9.3.1-windows.msi** file and the installer will guide you.

On Windows XP or Windows Vista, you may need administrator privileges to install EOLI-SA and the associated Java Virtual Machine.

Windows Vista and its virtualization

- On Vista the system makes the virtualization of applications without an artifact. Therefore, it could happen that when Eolisa 5.3.1 is updated through the updated manager to get the 6.0.1 jar, this latter is kept by the system under the user home\AppData\Local\VirtualStore\ and the path where Eolisa has been installed. Example: C:\Users\emokaddem\AppData\Local\VirtualStore\Program Files\Eolisa if the eolisa has been installed under Program Files\Eolisa. So on Vista if you install 6.2 having already the 6.0.1 version, and that the 6.0.1 version is launched instead, please go to the Eolisa folder stored under user home\AppData\Local\VirtualStore\ and then the folder where Eolisa 5.3.1 has been installed (usually Program Files\Eolisa) and remove the Eolisa directory manually.
- On XP the virtualization does not exist, however, a similar problem has been found in some cases. This has been reported to Advanced Installer provider Caphyon.
- For administrators on Vista, it is recommended to turn On the UAC User Account Control to avoid installing and removing programs without user approval. With UAC turned on the JNI exception on launching the application has never been seen.

3.1.3. MacOS X Instructions

Here are the basic requirements in order to use the EOLI-SA application in good conditions

- The **Java 1.5** Virtual Machine is already part of the system
- Uninstall EOLISA version prior to 6.*

Double-click on **eoli-9.3.1-macosx.dmg** file, and drag the EOLI-SA Icon from the dmg to the disk (i.e. in the Application folder).

3.1.4. Linux/Solaris Instructions

Here are the basic requirements in order to use the EOLI-SA application in good conditions:

- A LINUX or SOLARIS operating system
- Java Virtual Machine: you need as a basic requirement, to install the Java 1.5 Virtual Machine (available in your distribution package manager, or downloadable from SUN website at <http://www.sun.com/java/>) Whatever the Linux/Unix platforms, the EOLI application requires a Java Virtual Machine (the package embeds both 32bits and 64bits OpenGL libraries)

EOLI-SA is available for Debian & Redhat based linux distributions. This covers major linux distributions (deb: Debian, Ubuntu; rpm: Redhat, Mandriva, Suse) EOLI is available as a multi-architecture generic package. Please choose and download the package corresponding to your Linux distribution. Once installed, an icon will be available on the menu.

In order to install a Linux package such as RPM (for Redhat-based systems) or DEB (for Debian-based systems) you MUST use the ROOT privileges. Only ROOT can modify the main filesystem or the Linux distribution packages database: that's why an error message can occur while trying to install EOLI-SA with simple user rights. There are several way to use the ROOT privileges, depending on your Linux distributions (login as ROOT on Debian is not allowed) and more likely depending on your configuration: the user must be in the "sudoers" group, which means that he can use temporarily the ROOT privilege for executing a command: install, remove, ... Using the root account is a really bad idea. Its purpose is only for installing/configuring software, and should only be used when necessary. The "sudo" command allows the user to run any command with the super-user privileges without having to switch to root account, the only requirement introduced by this command is to be member of the "sudoers" group (user who can execute commands as ROOT via "sudo") In a terminal, you have to use the "sudo" command, followed by the command requiring the super-user privileges (The following installation commands use sudo, which is safer than using the root account)

1. First installation method: on most linux distributions like Redhad, Suse, Ubuntu,... you can directly double-click on the downloaded package. The distribution package manager (for example Synaptic on Ubuntu systems) will propose you to install it or upgrade it (in case a previous version is already installed) Like written above, installing a package (with/without the integrated package manager) requires ROOT privileges; that's why you may be prompted for entering the user password (user must be of course in the sudoers group for doing so)
2. Second installation method: using a terminal. After downloading, open a terminal console and cd to the directory where you downloaded the installer and type one of the following command in the prompt depending of your Linux distribution. Using the "sudo" command for installation of course implies that the user will be asked for his password, in order to check that he has the ROOT privileges (member of sudoers group)

COMMAND LINE INSTALLATION:

- Debian-based distribution: `" sudo dpkg -i eoli-9.3.1-linux.deb "`
- Redhat-based distribution: `" sudo rpm -ivh eoli-9.3.1-linux.rpm "`

COMMAND LINE UPGRADE:

- Debian-based distribution: same as installation procedure
- Redhat-based distribution: `" sudo rpm -Uvh eoli-9.3.1-linux.rpm "`

3. Third installation method: use the generic package. Users who cannot use the ROOT privileges would not able to install EOLI-SA with the provided RPM/DEB packages. As EOLI-SA does not rely on any system dependencies (except for Java), a user can use the generic package under his home folder: eoli-9.3.1-unix-generic.tar.gz This package is zipped TAR archive (also called tarball: .tar.gz) which contains every files of the EOLI-SA application. Anyone can unzip this archive and execute the appropriate launch script. Some useful commands:

COMMAND LINE LAUNCH (WITH UNIX GENERIC PACKAGE)

- Go to the folder where the archive has been downloaded: `cd PATH_WHERE_THE_ARCHIVE_IS_LOCATED`
- Unpack the archive: `tar xzf eoli-9.3.1-unix-generic.tar.gz`
- Enter the EOLI-SA unpacked folder: `cd eolisa`

Then use the appropriate launch script (do not forget the "./")

- Linux-based distribution (32bits): `./run_linux-i386.sh`
- Linux-based distribution (64bits): `./run_linux-amd64.sh`
- Solaris-based system (x86 platform, 32bits): `./run_solaris-i386.sh`
- Solaris-based system (x86 platform, 64bits): `./run_solaris-amd64.sh`
- Solaris-based distribution (sparc): `./run_solaris-sparc.sh`
- Solaris-based distribution (sparcv9): `./run_solaris-sparcv9.sh`

Packages Related TroubleShooting

In case of problems using your package manager, or with the linux terminal commands: **GIYF**

3.1.5. Java Web Start Instructions

You need at least a jre version 1.5 installed in your machine in order to install EOLi via java web start

Then click on the "Launch EOLi" link, and the installation will start

3.1.6. 3D Troubleshooting

GENERAL 3D TROUBLESHOOTING (WINDOWS, MAC OSX, LINUX, UNIXES)

As **Worldwind** is using **JOGL (a Java based OpenGL implementation)** , it requires 3D capabilities:

A 3D video card with updated drivers is necessary. World Wind has been tested on Nvidia, ATI/AMD, and Intel platforms using Windows XP/Vista, MacOS 10.4, Ubuntu 7.04 to 9.04 and Redhat 9. Most on the problems are often linked to outdated drivers, especially on Windows/Linux/Unix platforms.

Maybe user may need to update the video card drivers:

- ATI/AMD <http://ati.amd.com/support/driver.html>
- NVidia <http://www.nvidia.com/content/drivers/drivers.asp>
- Intel <http://www.intel.com/support/graphics/index.htm>

LINUX SPECIFIC 3D TROUBLESHOOTING

For NVidia users: Please note that there are 2 drivers for NVidia based video cards: "nv" (opensource) and "nvidia" (proprietary) "nvidia" driver supports "Direct Rendering", "nv" don't (please check your /etc/X11/xorg.conf if you're using a NVidia chip and update it if necessary)

In order to check if 3D rendering is enabled on the linux platform please use the "glxinfo" command. Simply run glxinfo from a terminal (gnome-terminal, xterm...) Example with a NVidia video card :

```
~$ glxinfo
name of display: :0.0
display: :0 screen: 0
direct
rendering: Yes
server glx vendor string: NVIDIA Corporation
server
glx version string: 1.4
[...]
```

If you read "direct rendering: No", there may be something wrong: unsupported chip, old driver or disabled DRI (direct rendering) Check if the modules GLcore, glx and dri are loaded in the Module section of the file /etc/X11/xorg.conf

```
Section "Module"
Load "record"
Load "GLcore"
Load "dbe"
Load
"glx"
Load "xtrap"
Load "dri"
Load "extmod"
Load "freetype"
EndSection
```

If the following instruction doesn't help, you can also try to add the following lines at the end of your /etc/X11/xorg.conf and restart you X server (ctrl+alt+backspace)

```
Section "DRI"
Mode 0666
EndSection
```

3.2. First time using EOLI-SA?

Launch EOLI-SA ,

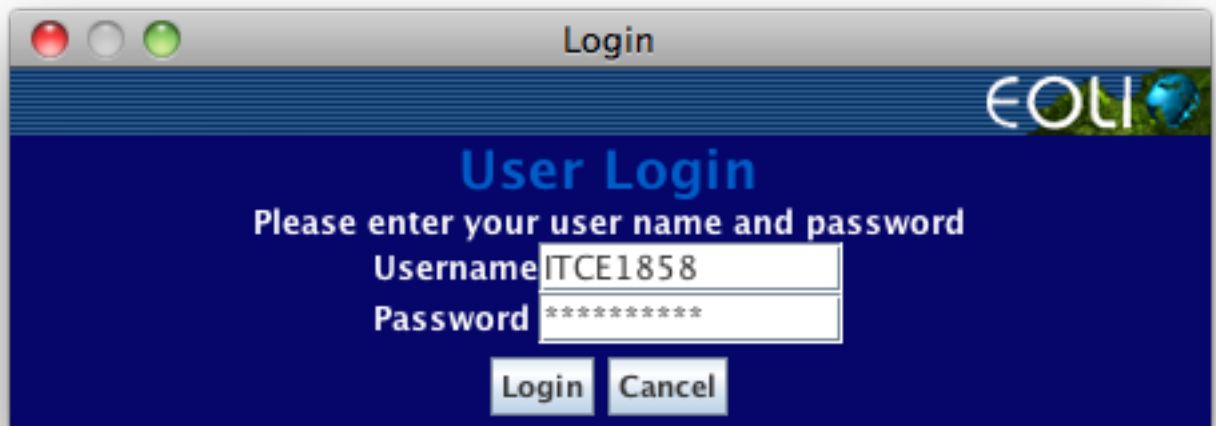
- Go to the EOLI-SA application on your system environment. The EOLI-SA interface appears.

- When starting, the application automatically tries to connect to a server. Upon successful connection, you now have access to the on-line catalogue and ordering services.

Very first time using Eoli-sa

- If you launch Eoli-sa for the very first time, and if you are behind a proxy server, you will not be able to connect to the server because Eoli-sa needs to be configured. You have to go to the proxy server preference window (i.e. Section 13.4, “The Proxy Server Preferences”) and fill the proxy preference. Close Eoli-sa and relaunch it. It will connect automatically to the server and retrieve all configuration files it needs.
- Some of the services may be protected and granted to registered users only. This is typically the case for ordering services. When trying to access a protected service, a user login dialog pops up. Enter your credentials and submit them by clicking on the Login button (Figure 3.1, “How to login as a registered user”).

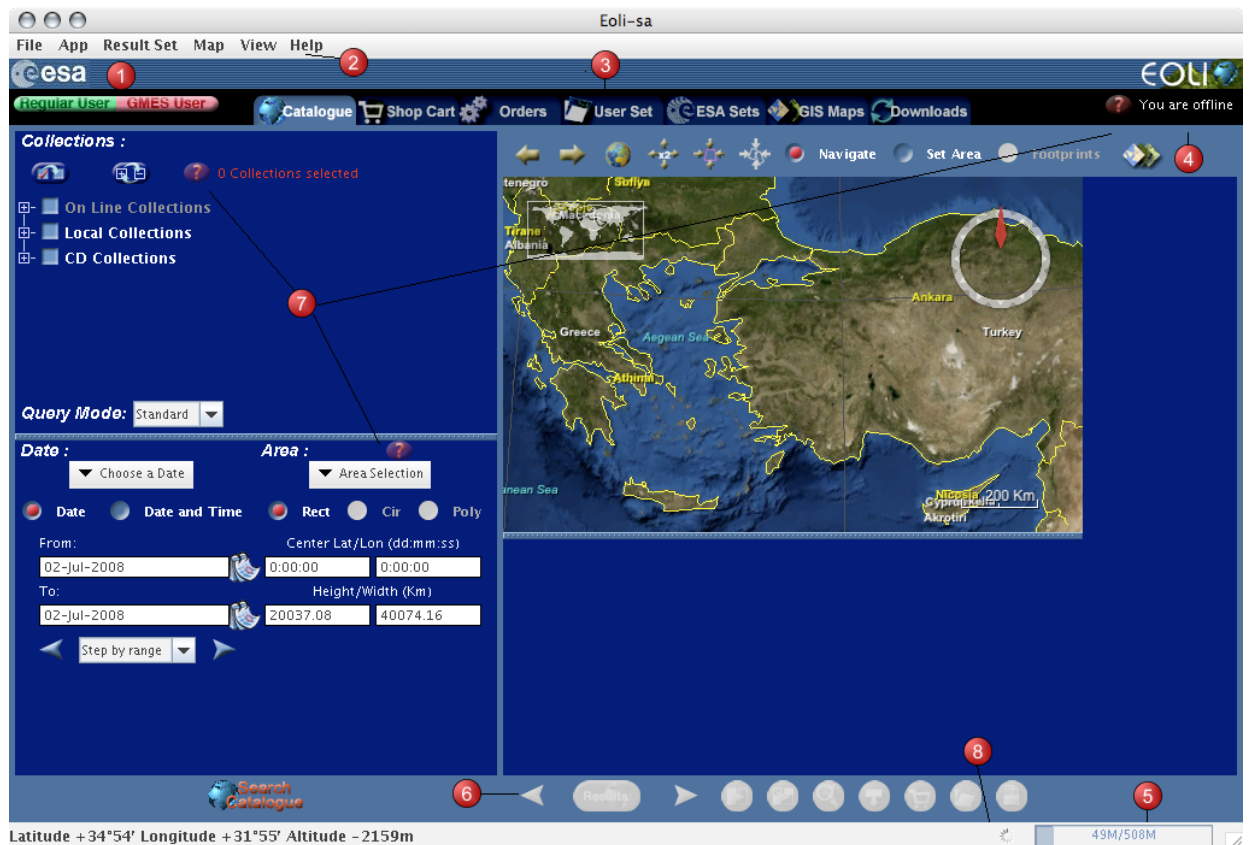
Figure 3.1. How to login as a registered user



3.3. The EOLI-SA Interface

3.3.1. Overview

Upon connection (On-line behavior), you access the EOLI-SA interface.

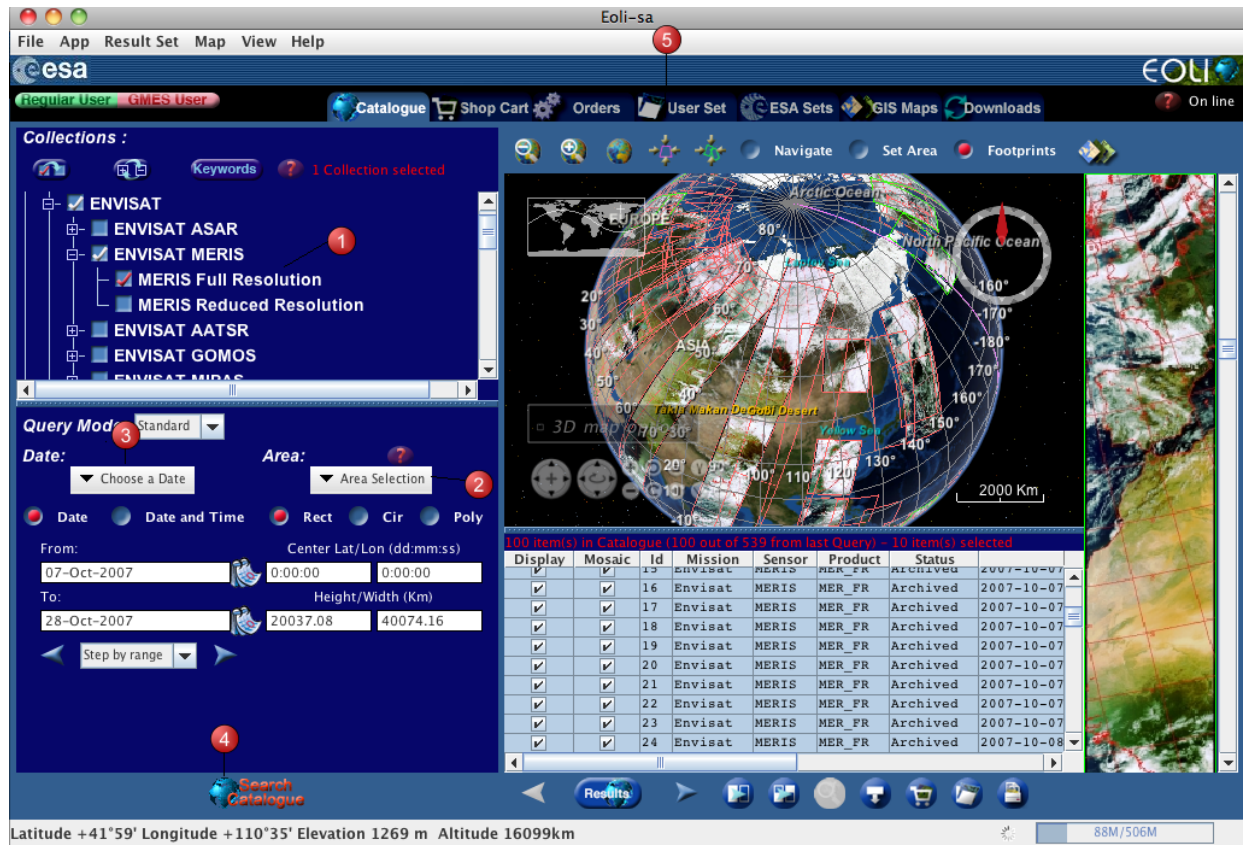
Figure 3.2. The EOLI-SA Interface

The EOLI-SA interface (Figure 3.2, “The EOLI-SA Interface”) is organized into:

1. The ESA logo;
2. A Menubar that allows to access to some EOLI-SA functions;
3. All workspaces tabs (by default, Catalogue workspace);
4. User Login information;
5. A gauge presenting the instantaneous memory used by the application.
6. A Toolbar to activate shortcut functions of the current workspace;
7. A help context button
8. A button to indicate the state of downloads:
 - Static if no download in the download manager.
 - Animated if at least one download (downloading) in the download manager

3.3.2. Performing a simple catalogue query

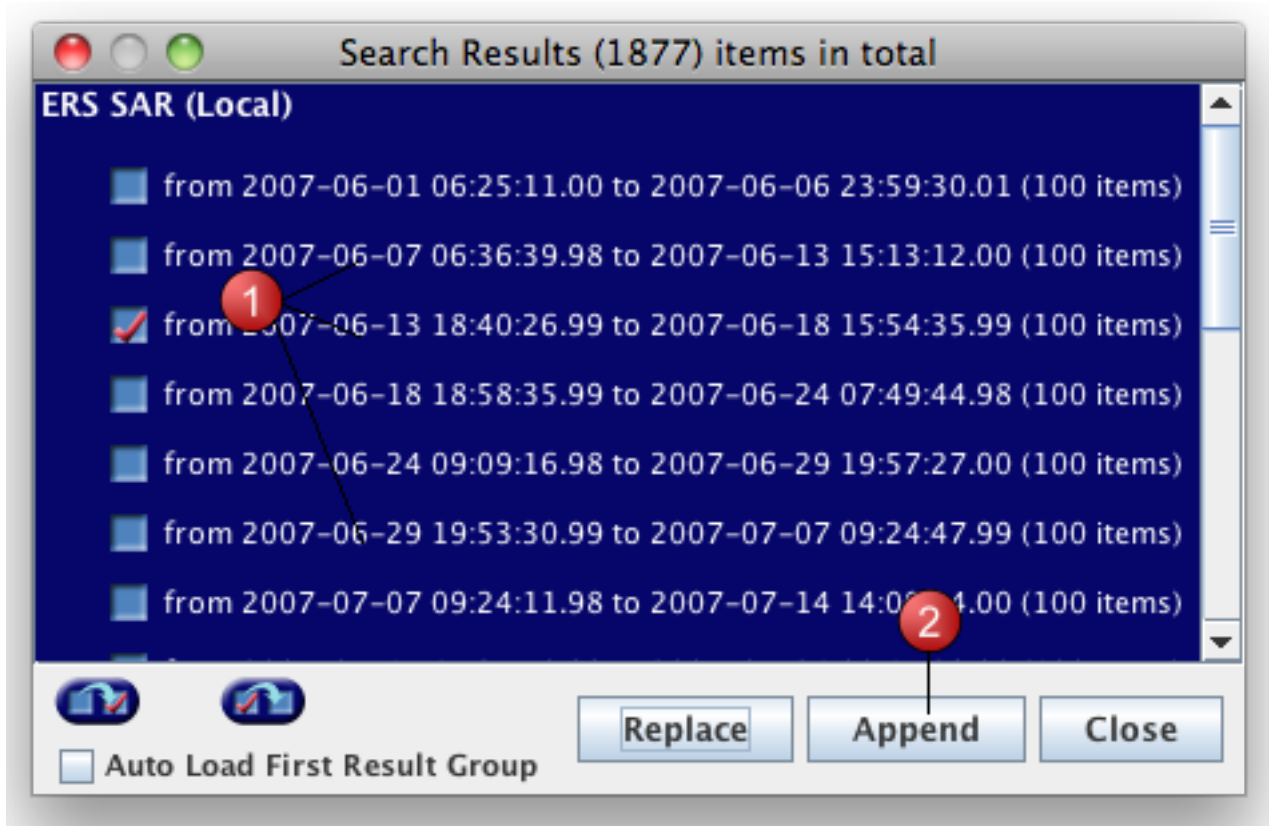
Here, you will learn how to search for products in the catalogue using the Standard Query Mode. Please, refer to workspaces sections for more detailed descriptions of the advanced functionalities of EOLI-SA.

Figure 3.3. How to select a collection, define an area and date range

1. select a collection in the Collections panel (Figure 3.3, “How to select a collection, define an area and date range ”);
2. define an area of interest;
3. define a date range of interest;
4. click on Search Catalogue button to launch your query;
5. zoom the map to the current area

Congratulations!

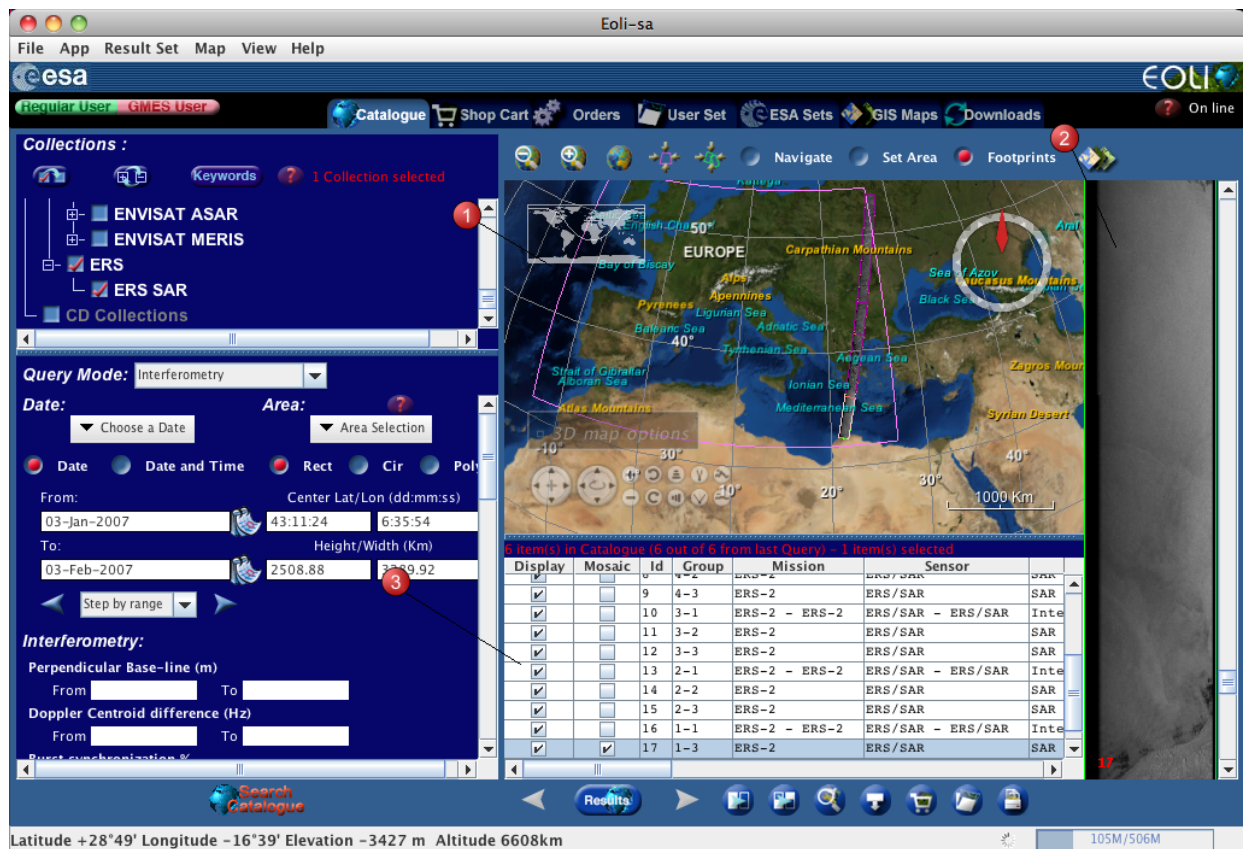
You should now be able to view some products loaded into EOLI-SA.

Figure 3.4. How to select a group of results

1. select a group of results.
2. click on Append button to retrieve the results.




Products are presented in three different ways (Figure 3.5, “How to select a product”): in the Table of Results, on the Map, and in the Thumbnail list (if available).

Figure 3.5. How to select a product



From this point, you can select product items (Figure 3.5, “How to select a product”) by:

1. either clicking on the product footprint on the map.
2. either clicking on the thumbnail image.
3. either clicking on a row of the table
4. After selecting an item, you can perform an action on that selection using the buttons of the table toolbar by:

- clicking on the  button to view the detailed information and see the full size browse image of the selected product.
- clicking on the **"Add to Shop Cart"**  or the **"Add to User Set"**  buttons to add the selected item(s) to the Shop Cart or to the User Set workspaces.

If you want to re-load the Search Results window and load a different group of results, click on the Results

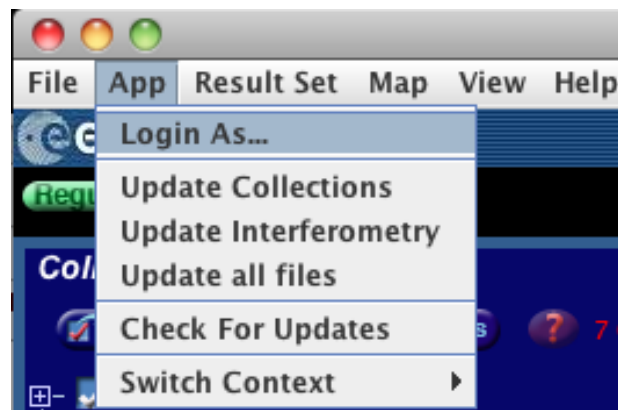


button.

If you want to perform another query, simply change some of the search criteria and submit a new query.

Figure 4.2. User login failed dialog

The Login As functionality can also be accessed via the menu item App/Login As...

Figure 4.3. Login as menu item

In the GMES context several functions present in the context ESA are hidden :

1. All the ordering capabilities with the exception of online download;
2. Local collections;
3. CD Collections;
4. ESA sets tab;
5. Orders tab;
6. Interferometry;

It is possible to access to all the quality reports Section 4.3.2, “Item detailed information” . The results are displayed in your default web browser.

4.2. The Workspaces

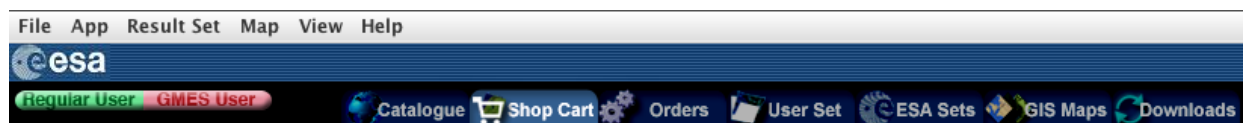
4.2.1. Overview

The EOLI-SA interface is organized into workspaces named:

1. Chapter 6, *The Catalogue workspace - Searching for products*
2. Chapter 7, *The Shop Cart workspace - Ordering products*
3. Chapter 8, *The Orders workspace - Tracking orders*
4. Chapter 9, *The User Set workspace - Storing items for later re-use*
5. Chapter 10, *The ESA Set workspace - Loading ESA sets*
6. Chapter 11, *The GIS Maps workspace - Using Map layers*
7. Chapter 12, *The Downloads Workspace - Monitoring downloads*

You can access to a workspace clicking on its corresponding tab (Figure 4.4, “The workspace tabs”).

Figure 4.4. The workspace tabs



Each workspace contains its own set of items and provides specific functions to manipulate these items (detailed in Chapter 6, *The Catalogue workspace - Searching for products* to Chapter 12, *The Downloads Workspace - Monitoring downloads*).

Items can be added from the Catalogue to the User Set or Shop Cart workspaces and from the User Set to the Shop Cart workspace.

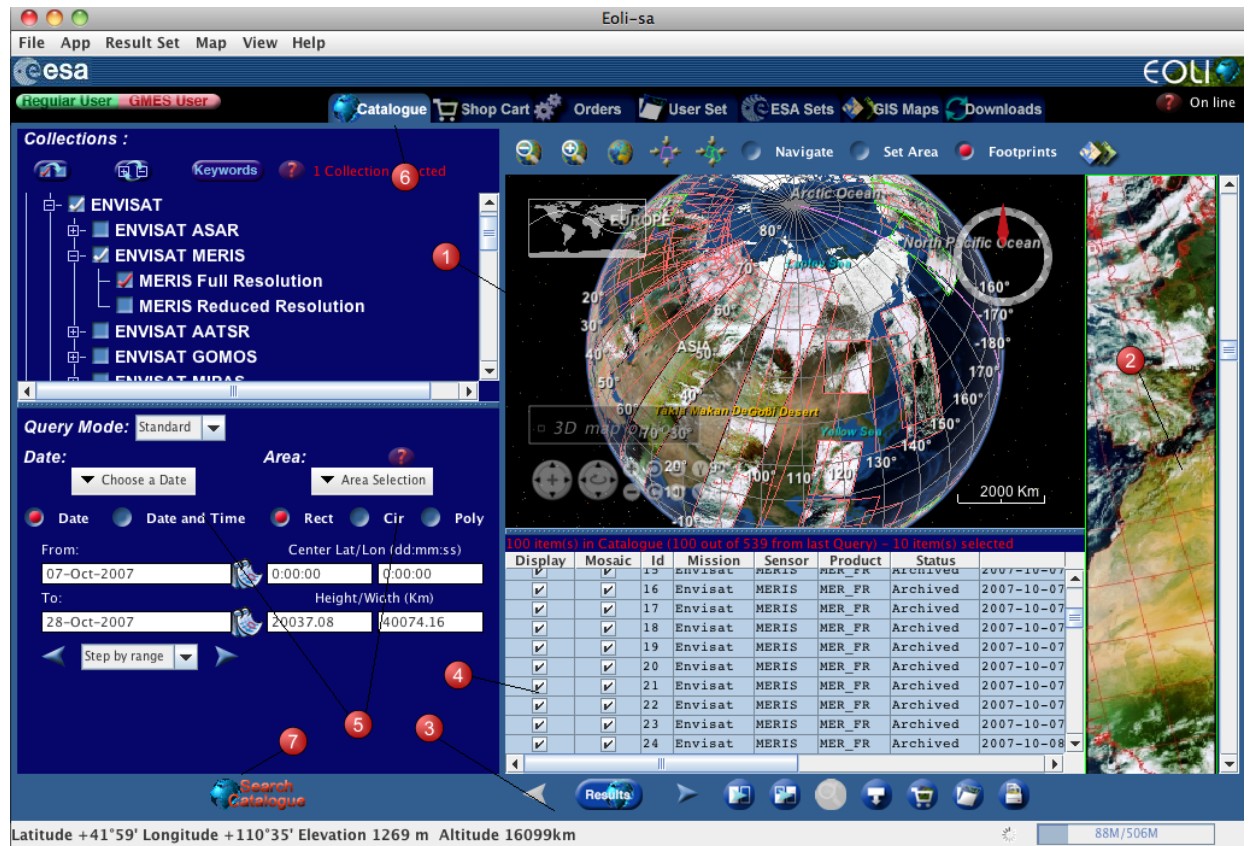
You can switch from one workspace to another one at any time, without losing any items within these workspaces. Simply click on a workspace tab (Figure 4.4, “The workspace tabs”) to switch to that workspace.

The content of the User Set, Shop Cart and Orders workspaces are maintained from one session to the other (i.e. when you start EOLI-SA, you’ll find these 3 workspaces in the same state as when you last used EOLI-SA).

4.2.2. The Catalogue workspace



The Catalogue workspace allows the user to search for products.

This is the workspace selected by default when you start EOLI-SA.

Figure 4.5. The Catalogue workspace

1. The Map.
2. Thumbnail list.
3. The Toolbar:
 - Product details
 - Export data
 - Shop Cart
4. Table of Results
5. Date/Area panels
 - Set date interval
 - Set region of interest
6. The Catalogue tab
7. The Collection Tree panel
 - Browse and select data
8. Search Catalogue

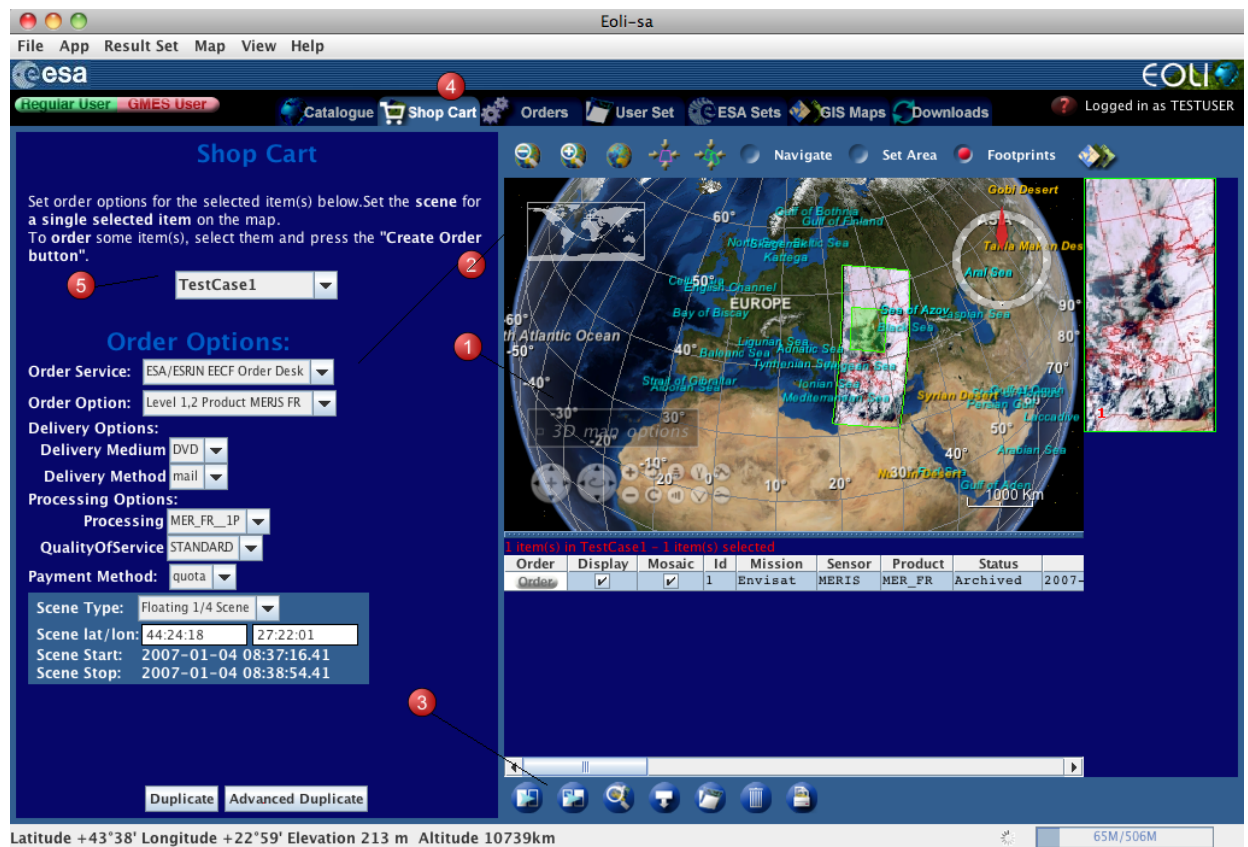
Using the Catalogue workspace, you can (Figure 4.5, “The Catalogue workspace”):

- select one or several collections from the Collection Tree panel;
- define a region of interest either using the Map or defining it in the "Area" panel;
- define a date and/or time interval of Interest in the "Date" panel;
- define data properties for Advanced search options. By default, the Query Mode is set to Standard;
- submit a query via the Search Catalogue button;
- view the result items of your query
 - as metadata in the Table of Results
 - as images in the Thumbnail list and,
 - as Footprints on the map
- view products details for one selected item at a time;
- select one or several items clicking in the Table of Results using Shift and/or Ctrl key;
- - add selected items to the Shop Cart (by clicking on  icon) or to the User Set workspaces (by clicking on  icon) ;
- export the selected items in various formats;
- print the selected items (footprints on a map, thumbnails and metadata)

The Catalogue workspace functions are described in details in Chapter 6, *The Catalogue workspace - Searching for products* .

4.2.3. The Shop Cart workspace

The Shop Cart workspace is used to prepare and to submit an order.

Figure 4.6. The Shop Cart workspace

1. The map
2. The Order Options panel
3. The Toolbar
 - Product details
 - Order item
 - Export data
 - User Set
4. The Shop Cart Tab
5. List of available Shopcards

Using the Shop Cart workspace, you can (Figure 4.6, “The Shop Cart workspace”):

- select one or several items;
- set the order options for the selected items in the Order Options panel;
- define a sub-scene manually or on the map for one selected item at a time;
- view products details for 1 selected item at a time;
- order items by clicking one of "order button" for selected items or simply by clicking "order button" for item you want to order

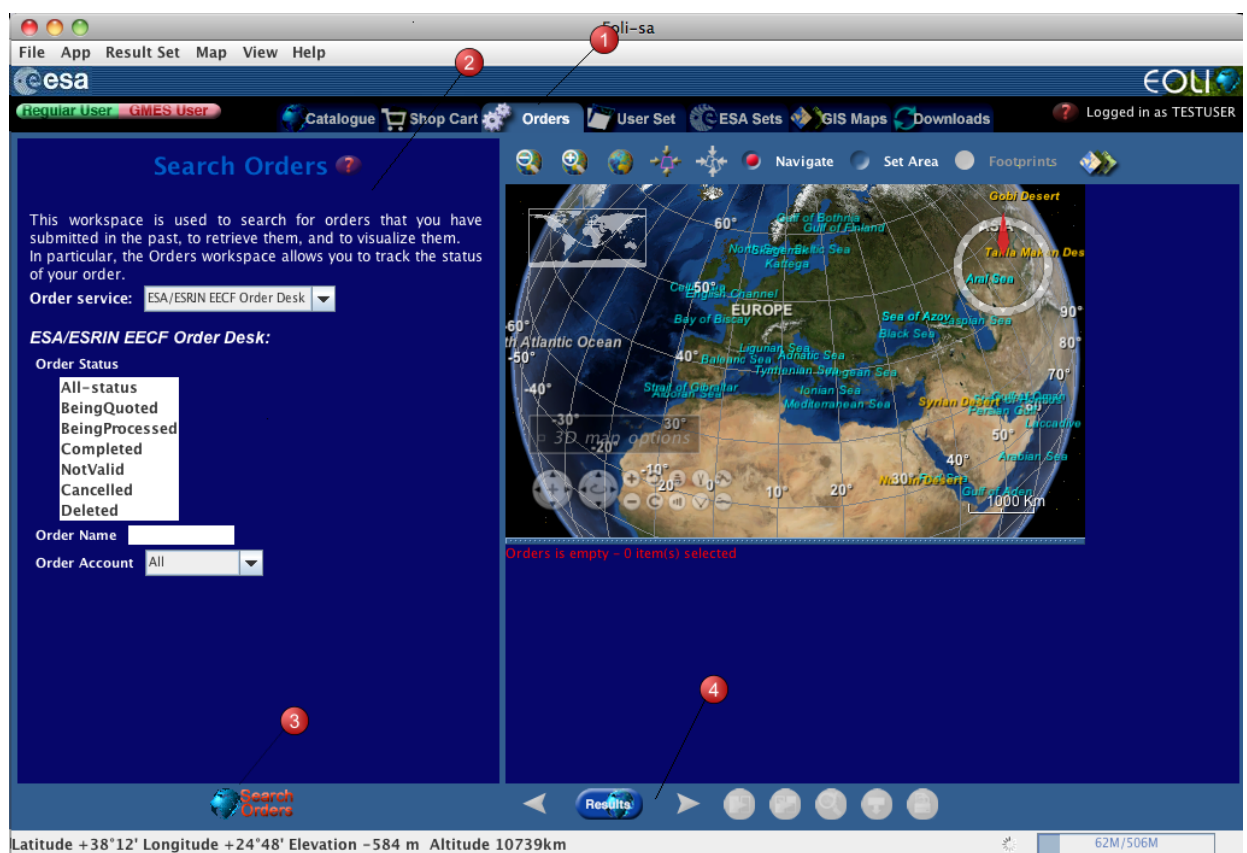
- export the selected items in various formats;
- add selected items to the User Set workspace;
- delete selected items from the Table of Results;
- print the selected items (footprints on a map, thumbnails and metadata);

The Shop Cart workspace functions are described in details in Chapter 7, *The Shop Cart workspace - Ordering products*.

4.2.4. The Orders workspace

The Orders workspace is used to query orders and monitor their statuses.

Figure 4.7. The Orders workspace



1. The Orders tab
2. The Search Orders panel
3. The Search Orders button
4. The Toolbar
 - Product details
 - Export data
 - Print data

Using the Orders workspace, you can (Figure 4.7, “The Orders workspace”):

- set the order search criteria in the Search Orders panel;
- submit a query via the Search Orders button;
- view the result items (orders and order items) of your query
 - as metadata in the Table of Results;
 - as images in the thumbnail list;
 - as footprints on the map;
- view order details for one selected item at a time;
- export the selected items to another format;
- print the selected items;

The Orders workspace functions are described in details in Chapter 8, *The Orders workspace - Tracking orders*.

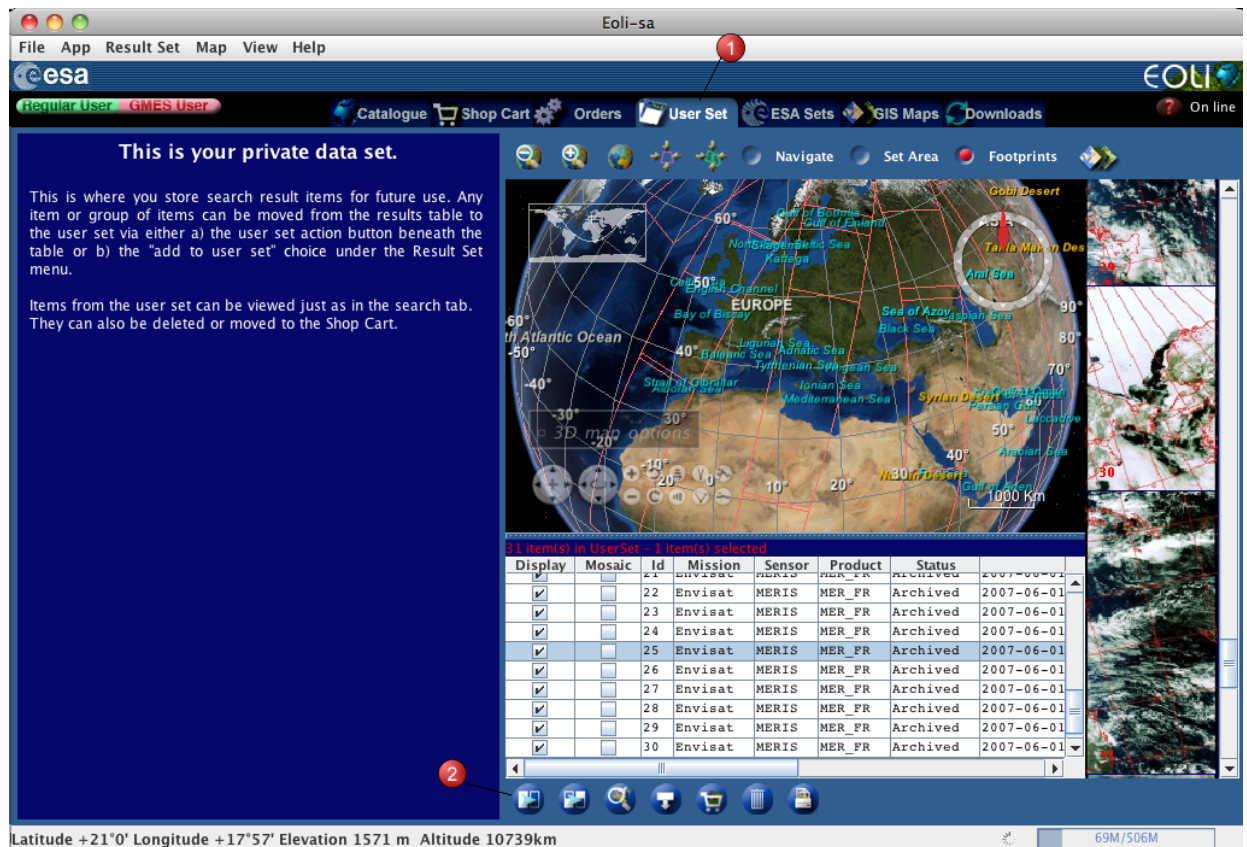
4.2.5. The User Set workspace

The User Set workspace is used to store search result items from other sessions. It corresponds to the user private data set.

Any item or group of items can be moved from the Table of Results to the User Set workspace either clicking

1. the User Set button of the Toolbar or;
2. the Result Set >> Add to UserSet menu of the Menu Bar.

Figure 4.8. The User Set workspace



1. The User Set tab

2. The Toolbar

- Product details
- Export data
- copy to Shop Cart

Using the User Set workspace, you can (See Figure 4.8, “The User Set workspace”):

- view the User Set items
 - as metadata in the Table of Results;
 - as images in the Thumbnail list;
 - as Footprints on the map;
- select one or several items in the table;
- view products details for one selected item at a time;
- export the selected items in various formats;
- add items to the Shop Cart workspace;
- delete selected items;
- print the selected items (footprints on a map, thumbnails and metadata).

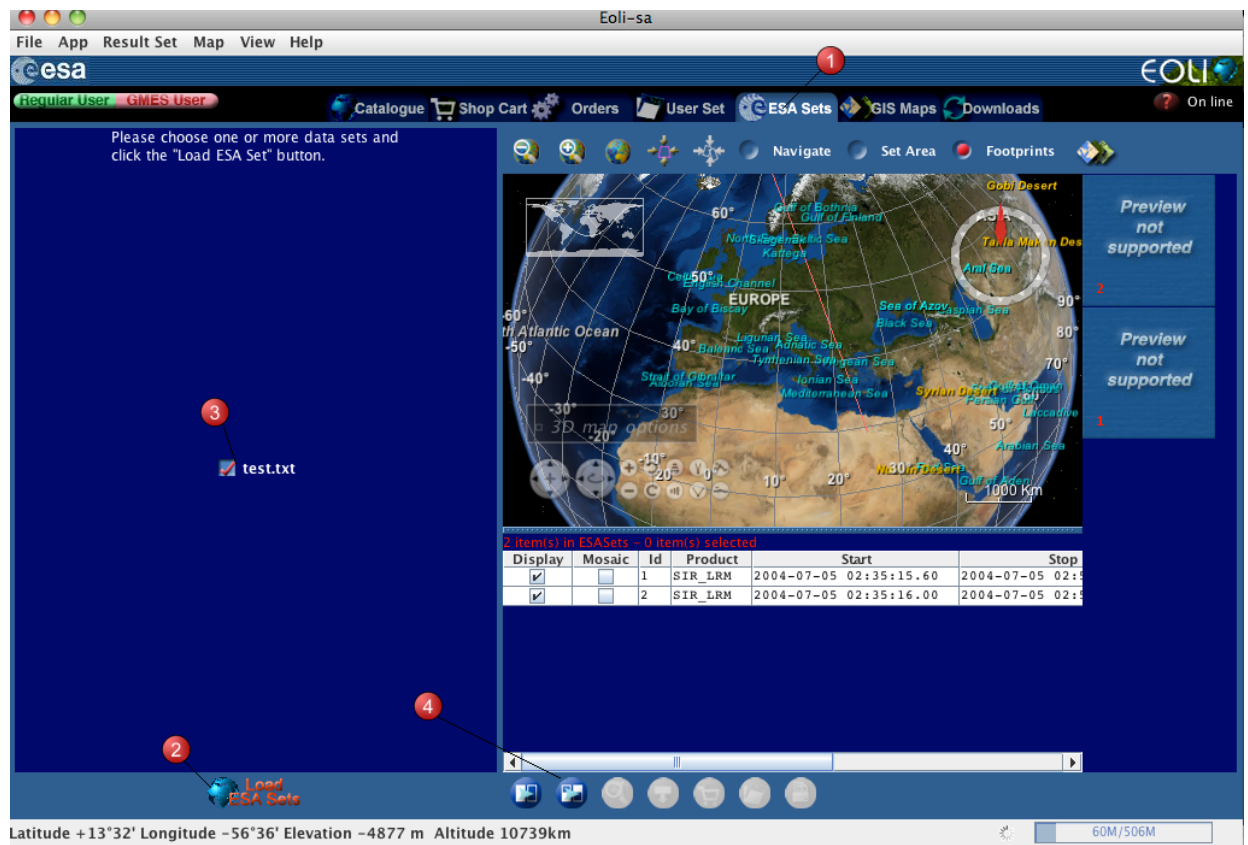
The User Set workspace functions are described in details in Chapter 9, *The User Set workspace - Storing items for later re-use* .

4.2.6. The ESA Sets workspace

The ESA Sets workspace is used to load ESA sets. ESA Sets are prepared by ESA and are public for all the users.

Examples of ESA sets may be:

1. a set of products used for a particular calibration/validation campaign;
2. a set of products for a given user community;
3. a collection of products of thematic interest (volcano eruptions, floodings, hurricanes, etc.);

Figure 4.9. The ESA Sets workspace

1. The ESA Sets tab
2. Load ESA Sets button
3. ESA Sets panel
4. The Toolbar
 - Product details
 - Export data
 - copy to Shop Cart
 - copy to User Set
 - Print

Using the ESA Sets workspace, you can (Figure 4.9, “The ESA Sets workspace”):

- select one or several ESA sets;
- load one or more ESA sets using the Load ESA Sets button;
- view the ESA Sets items
 - as metadata in the Table of Results;
 - as images in the Thumbnail list;

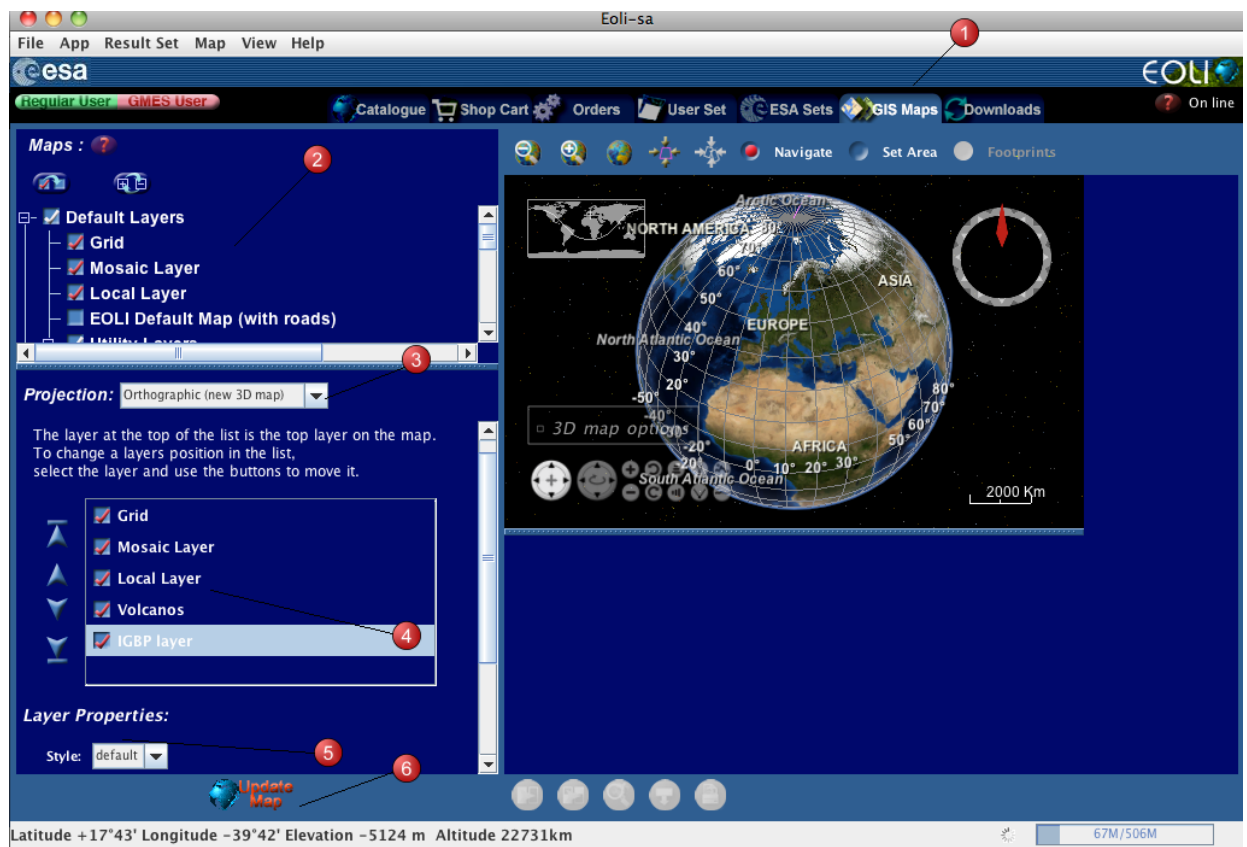
- as Footprints on the map;
- select one or several items in the table;
- view products details for one selected item at a time;
- export the selected items in various formats;
- add selected items to the Shop Cart or to the User Set workspaces;
- print the selected items (footprints on a map, thumbnails and metadata).

The ESA Sets workspace functions are described in details in Chapter 10, *The ESA Set workspace - Loading ESA sets*.

4.2.7. The GIS Maps workspace

The GIS Maps workspace is used to define options for the visualization of the Map layers.

Figure 4.10. The GIS Maps workspace



1. The GIS Maps tab
2. The Map Tree panel
Browse and select maps
3. Projection selection
4. The Order Map Layers

Use arrows to order maps

5. Layer properties definition

6. The Update Map button

Using the GIS Maps workspace, you can (Figure 4.10, “The GIS Maps workspace”):

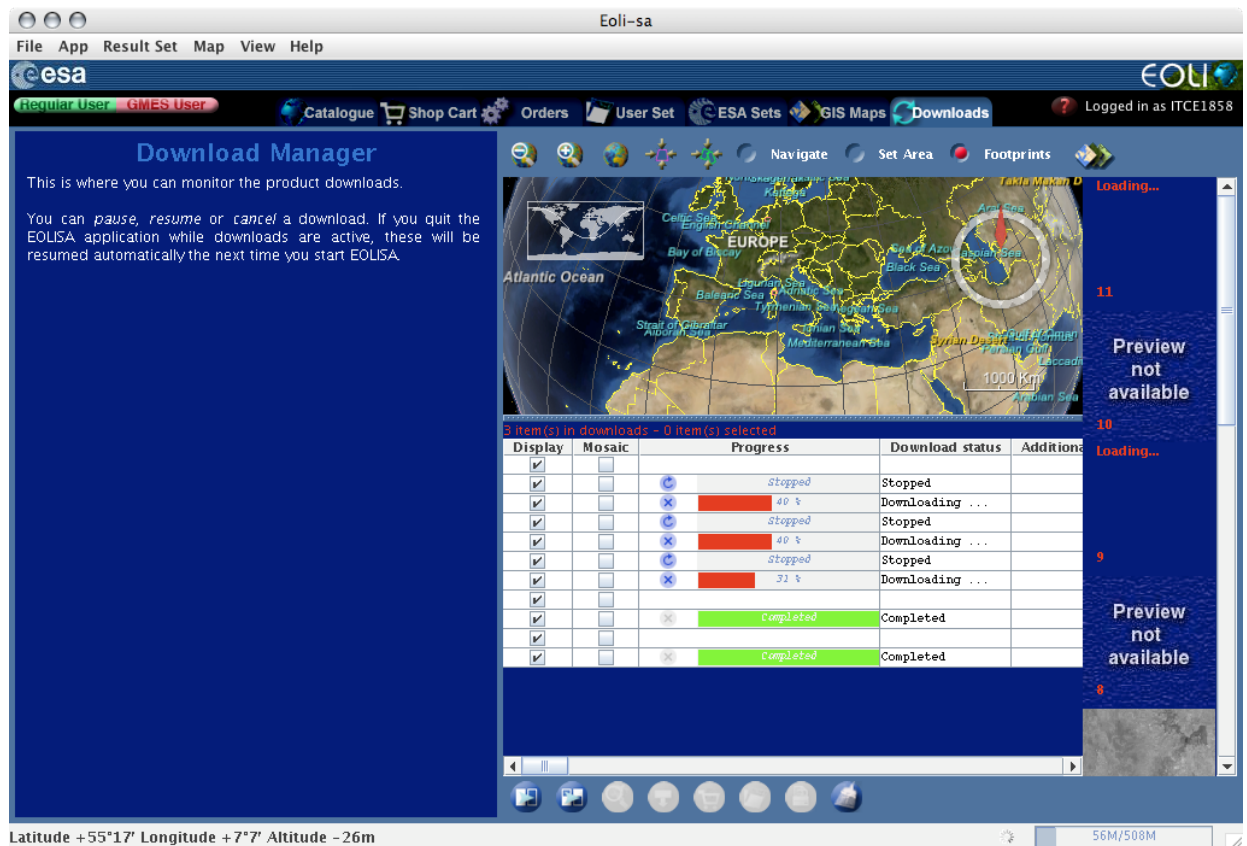
- select one or several layer maps from the Map Tree panel;
- select the map projection;
- set the ordering of the map layers;
- define the layer properties;
- define a Region Of Interest using the Map;
- update the Map via the Update Map button;

The GIS Maps workspace functions are described in details in Chapter 11, *The GIS Maps workspace - Using Map layers*.

4.2.8. The Downloads workspace

The downloads workspace is used to monitor the products downloads

Figure 4.11. The Downloads workspace



The Downloads workspace functions are described in details in Chapter 12, *The Downloads Workspace - Monitoring downloads*

4.3. Browsing, selecting and exporting items

This section describes the various features that EOLI-SA provides for browsing and selecting items within a workspace.

In the Catalogue, Shop Cart, Orders, User Set and ESA Sets workspaces, items are displayed as:

1. Metadata in the Table of Results;
2. Thumbnails in the Thumbnail list;
3. Footprints on the Map

In the Table of Results, non-selected (resp. selected) metadata are displayed with a white (resp. pale blue) background colour.

On the Map, the non-selected (resp. selected) footprints are drawn in red (resp. green) colour.

You can use any of these three representations to select items.

4.3.1. Selecting items

4.3.1.1. Selecting items using the Map

You can select items using the Map:

- in Footprint mode, activated by clicking on the "footprint" radio button (see Figure 4.12, "Selecting items with the Map in Footprint mode")

Click on any point inside the footprints. All items which overlap the point you have clicked, are selected.

- in Navigate mode, activated by clicking on the "navigate" radio button (see Figure 4.13, "Selecting items with the Map in Navigation mode") :

Click on a triangle, which represents the center of an item, to select an item.



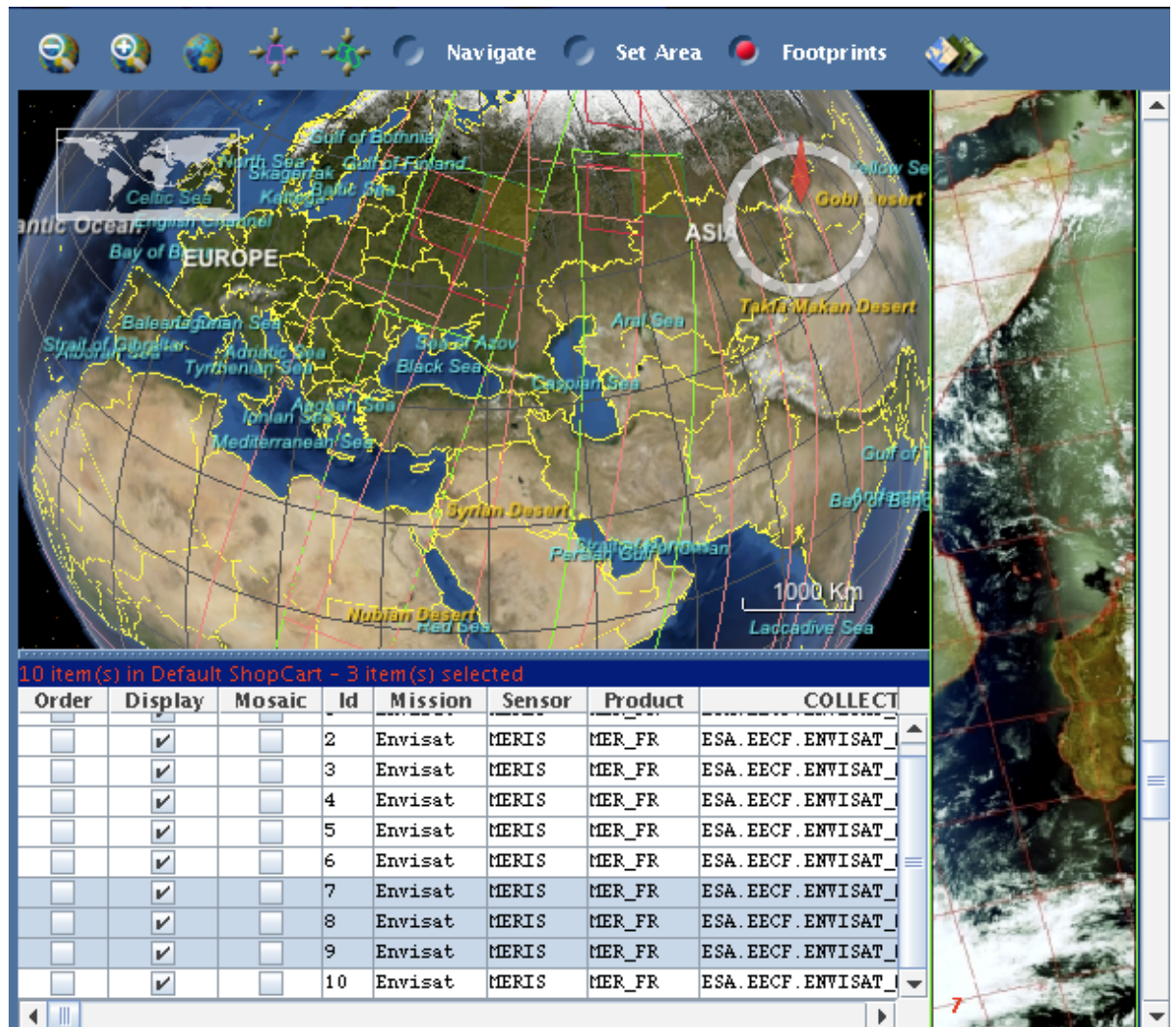
Use Shift / Ctrl + click to add items to your selection.

Use Shift / Ctrl + click on a selected item to remove it from the selection.

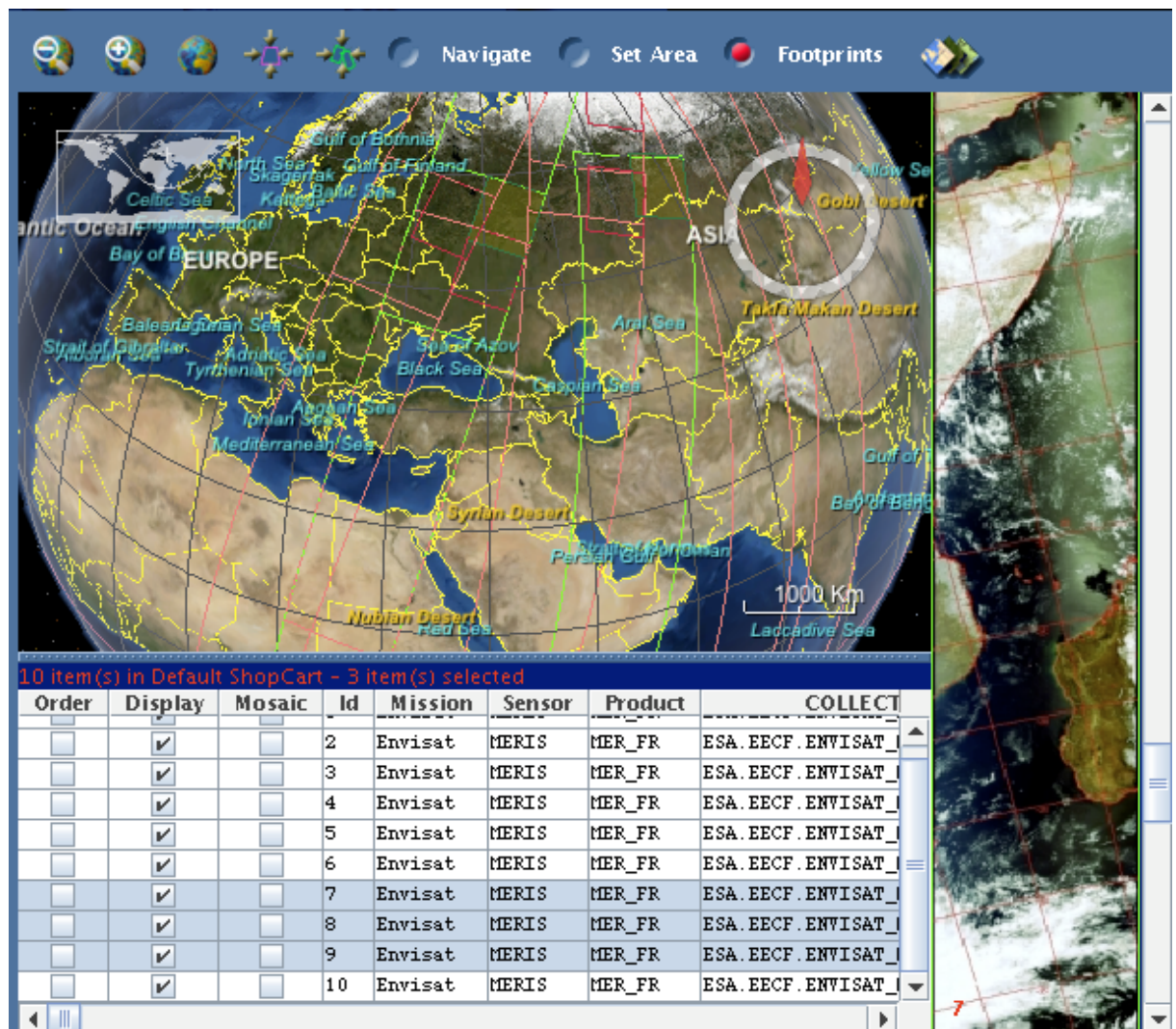
When several items are selected by clicking a point on the map, you can click again at the same point to start browsing through this selection, highlighting one item at a time.

Selecting items on the map

- Figure 4.12. Selecting items with the Map in Footprint mode





• **Figure 4.13. Selecting items with the Map in Navigation mode**



4.3.1.2. Selecting items using the Table of Results

You can select items or a set of items using the Table of Results:

1. clicking an unselected item to select it. This cancels the previous selection;
2. Ctrl+clicking an unselected item to add it to the selection;
3. Ctrl+clicking a selected item to remove it from the selection;
4. Shift+clicking one item to select all items between this item and the last one selected;
5. clicking an unselected item and drag up or down to select several contiguous items;
6. right-clicking a value in any of the columns to select all items with the same value;
7.  clicking the Select all button to select all items;
8.  clicking the Invert selection button to invert the current selection.

4.3.1.3. Selecting items using the Thumbnail list

You can select items or a set of items using the Thumbnail list:

1. clicking a thumbnail image to select an item. This cancels the previous selection;
2. Shift / Ctrl + clicking an unselected thumbnail image to add an item to the previous selection;

You may choose to remove footprints on the map by selecting an item in the Table of Results and by un-checking the Display tick-box found at the far right of the Table of Results.

4.3.2. Item detailed information

4.3.2.1. Accessing the detailed information on an item

The Table of Results only shows a summary of all information available for an item. You can access the full detailed information and display a quick look image of one item (Figure 4.14, “The Product Details window”) either by:


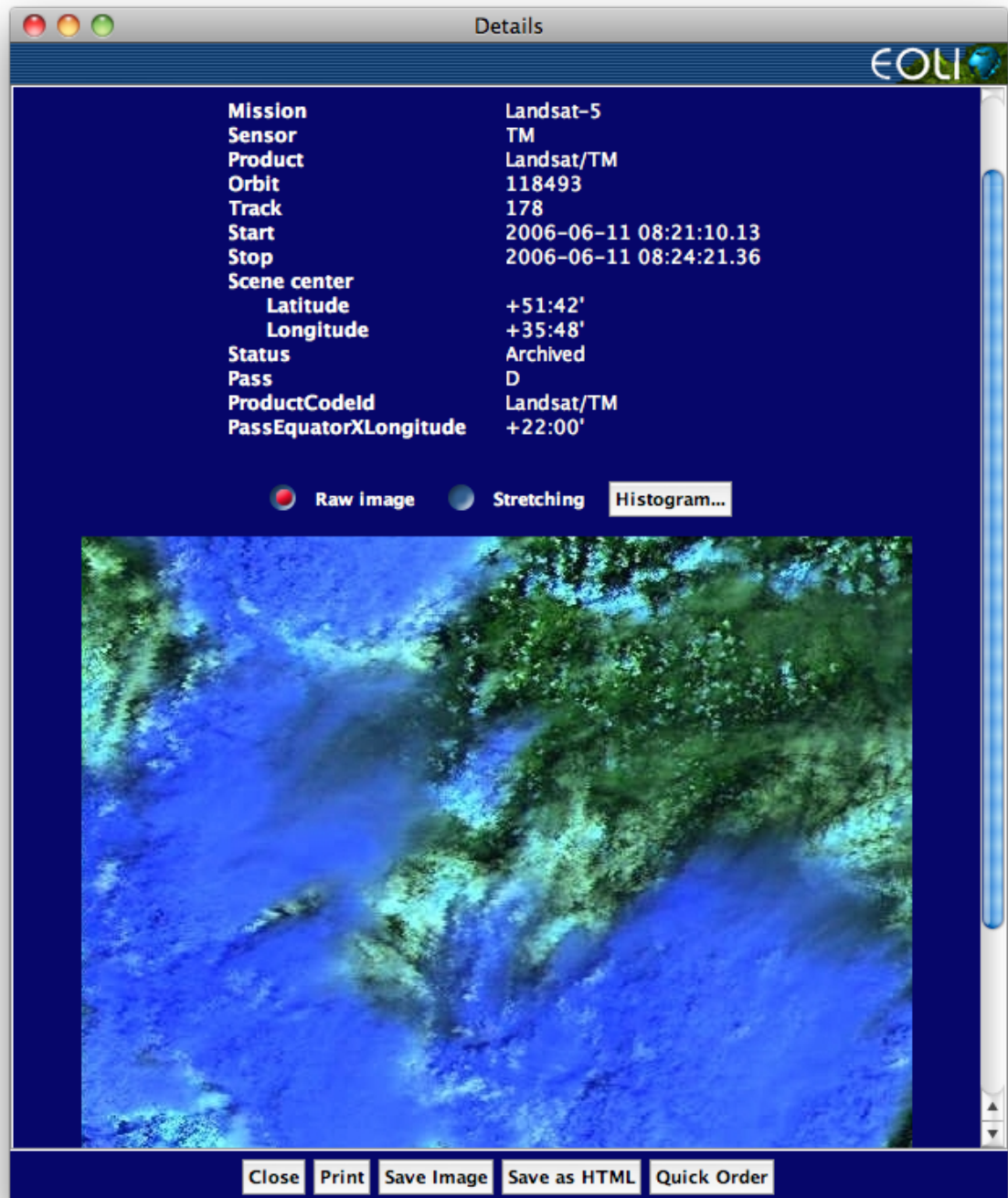
1. selecting one item and clicking on the Detailed Info  button;
2. double-clicking on an item in the Table of Results or in the Thumbnail list.

Figure 4.14. The Product Details window

4.3.2.2. Content of the Item detailed information

The Product Details Window (Figure 4.14, “The Product Details window”) contains (from the top to the bottom):

1. product information details (on several lines if available); the information fields depend on the mission/sensor for which the product is derived.
2. three options to modify the colour table for the visualization of the quick look image including:

- a Raw Image radio button (activated by default) to visualize the quick look image as it saves;
 - a Stretching radio button to visualize the quick look image with an automatic histogram stretching;
 - a Histogram button to visualize the quick look image with specific stretching properties (see Section 4.3.2.3, “Modifying the histograms of the quick look image”);
3. the product quick look image (when available). If the browse image is too big, only a part of it is displayed in the window. So to see other parts of the image, you have to pan it using the click + drag mouse action.
 4. a button bar including:
 - a Close button to close the current window;
 - a Print button to print the details of the product;
 - a Save Image button to save the quick look in JPEG format;
 - a Save as HTML button to save the product details in HTML format;
 - a Quick Order button to add the product in the Shop Cart workspace.
 - a "download product" button is shown if the product can be downloaded directly. Clicking on the button will download the product as-it-is. See Section 4.5, “Download of on-line available products”
 - a "quality report "button is shown if the Url report is available. Clicking on the button will display the quality report in a default web browser. See Section 4.1, “The Multi Context”

4.3.2.3. Modifying the histograms of the quick look image

When you click on the Histogram button, a Histograms window appears and displays three histograms corresponding to the RGB colours of the current quick look image.

Each histogram is split into several automatic X-domains separated with grey vertical lines. A numerated check box is associated to each domain. By default, all the check boxes are ticked.

A linear stretching of the current histogram, modelled by a dark line, is applied on the quick look image.

You can specify/modify the stretching properties:

1. selecting/unselecting the X-domains to be taken into account in the calculation of the new stretching histogram. For that, check or un-check the boxes corresponding to the X-domains. The stepwise line is automatically updated.
2. modifying the contrast of the image. For that, check the Apply contrast box and tune the Contrast horizontal scrolling bar up to the value of your interest. Practically, this function modifies the X-boundaries of the X-domains.

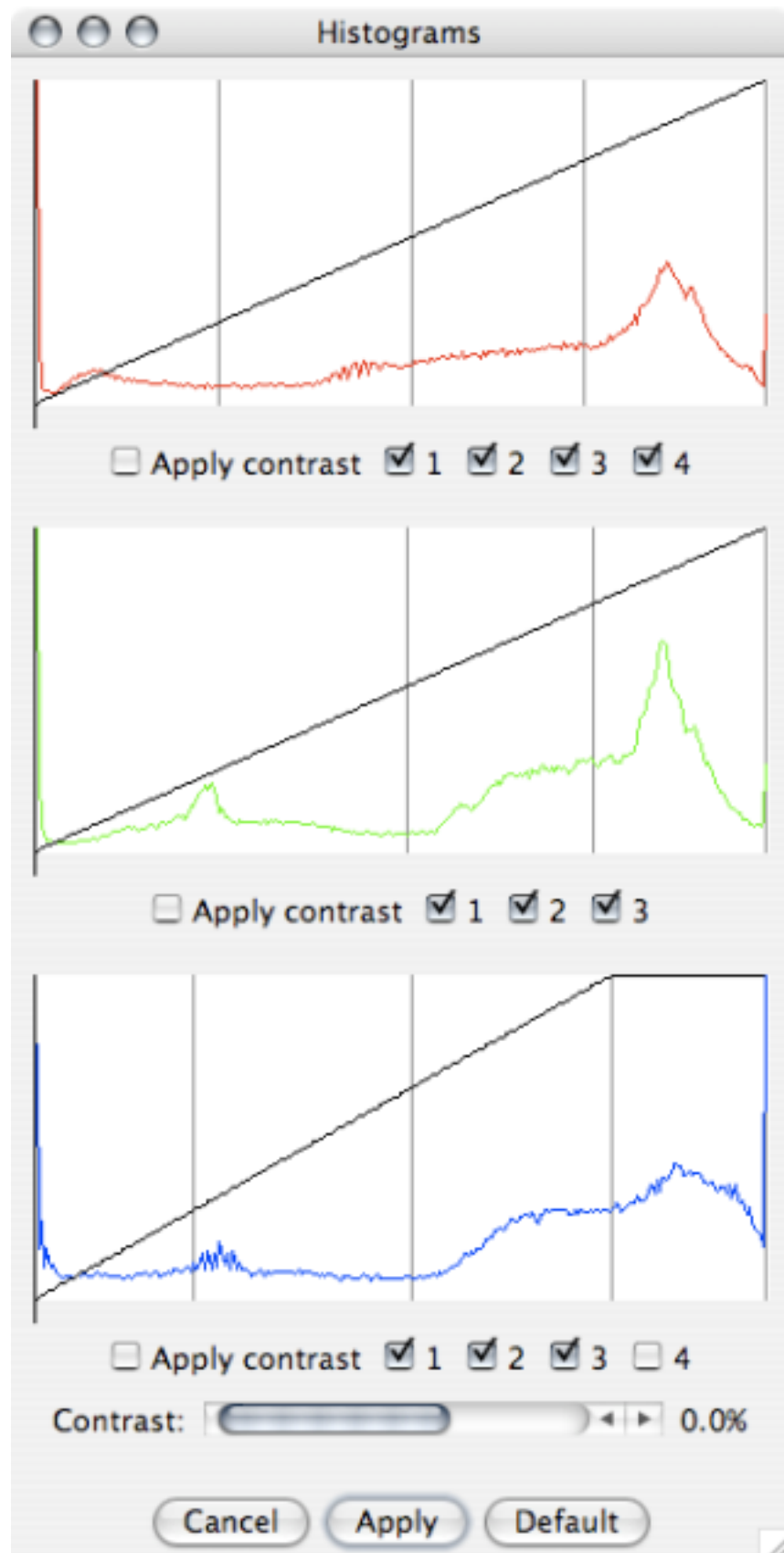
Then, click on the Apply button to update the visualization of the quick look image. To restore the default stretching configuration, click on the Default button.

RGB histograms

1. Figure 4.15. RGB histograms before modifications



2. Figure 4.16. RGB histograms after modifications



The data products you have selected and viewed can now be moved either to the Shop Cart or User Set workspaces. Alternately, you can print or export them to a file via the Result Set >> Print and the Result Set >> Export commands in the Menu Bar.

4.3.3. Exporting items

4.3.3.1. How to export an item


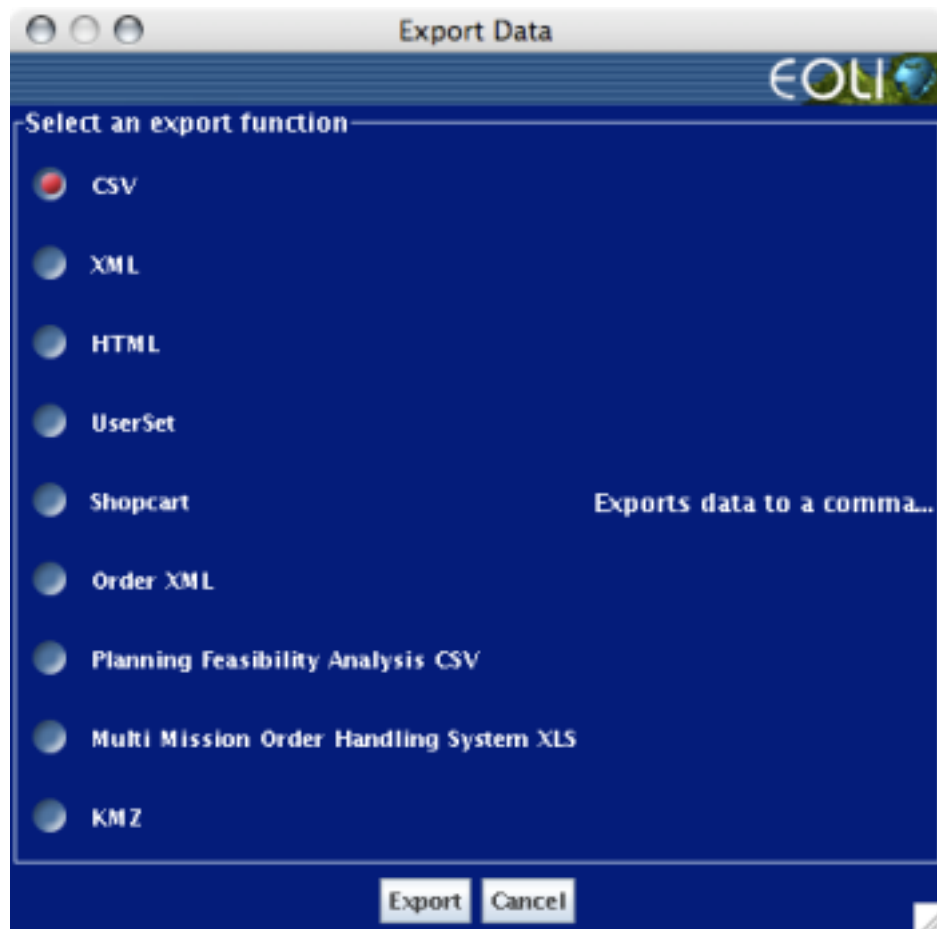
You can access the export dialog by selecting at least one item and clicking on the Exported Item  button (Figure 4.17, “The Export Items window”).

Figure 4.17. The Export Items window



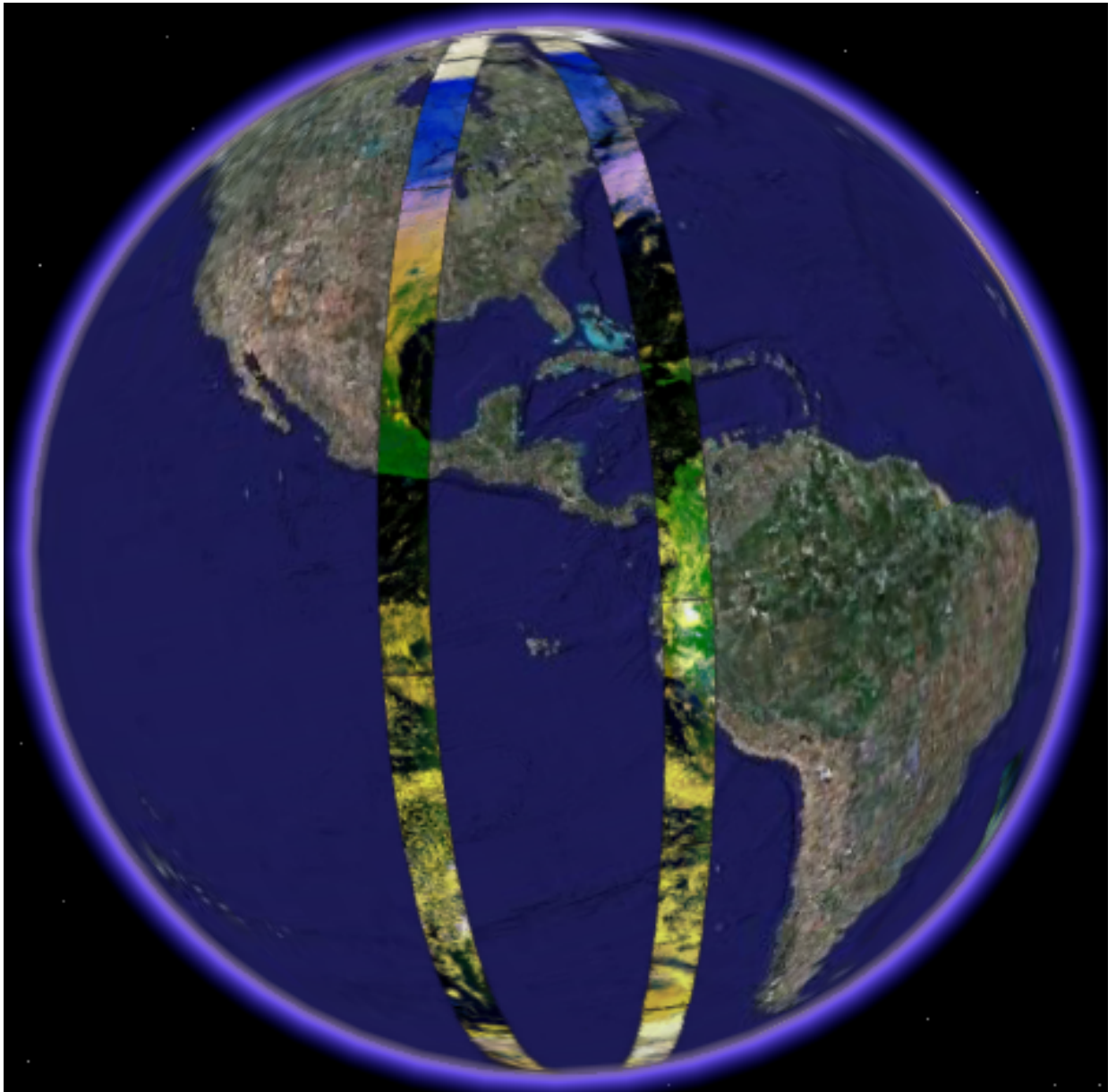
4.3.3.2. The Export Items window

The export items window provides you different formats for exporting items selected in the data set:

- **CSV** : Format which store items in tabular data.
- **XML** : Store items by using the XML language.
- **HTML** : Create HTML pages for storing the selected items with their images
- **UserSet** : Eoli format, for storing items in an user set format.

- **ShopCart** : Eoli format for storing items in a shopcart format.
- **Order XML** : Stores items in a XML order format.
- **Planning Feasibility Analysis CSV** .
- **Multi Mission Order Handling System XLS** .
- **KMZ** : Store items in a Google Earth format (Figure 4.18, “Example of items exported in KMZ format”).

Figure 4.18. Example of items exported in KMZ format



4.4. The Map panel

4.4.1. Overview

The Map panel (Figure 4.19, “The Map panel”) allows you to set and navigate to an area of interest in a very simple way.

You can navigate to an area on the Map and set your area of interest by checking the Navigate and Set Area radio buttons respectively (Figure 4.19, “The Map panel”).

Check the Footprints radio button and click on the map to select a data product.

Figure 4.19. The Map panel



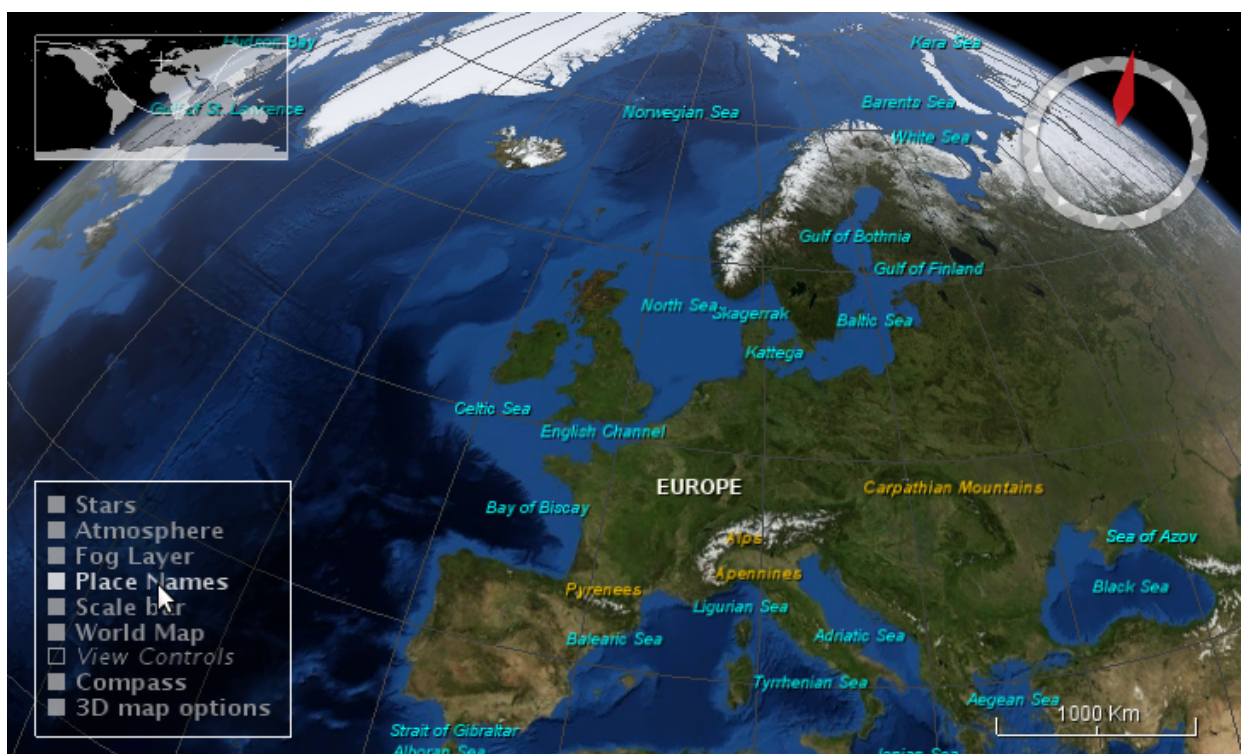
1. The Globe button
2. The Navigate button

Modifying the new 3D map display options

For some reasons, you may need to enable/disable some 3D map options (place names, etc...) In order to tune the effects and display configuration, a "3D map option" widget is available on the lower left corner of the 3D map.

Figure 4.20. 3D map options (disabled)

The "3D map options" widget, allowing to change the detail level of the 3D map.

Figure 4.21. 3D map options (enabled)

The "3D map options" widget, once activated. If you click another time on "3D map option", then the menu is closed.

4.4.2. Navigation mode: Zooming and panning

By default, the Map panel is in Navigate mode.

Click the mouse pointer on the area of interest (Figure 4.19, "The Map panel") to navigate to the area of interest. Click on the Globe button to return to the initial view.



In Navigate mode, you can draw an area using the right mouse button, without having to select the Area mode.

4.4.3. Area mode: Defining a search area

Check the Set Area radio button and define the area of interest with a click+drag on the "classic 2D map", and simple clicks without drag on the "new 3D module" (Figure 4.22, "Zooming to the area of interest").

Click on the **Zoom** button to zoom the map to the current area.

Figure 4.22. Zooming to the area of interest



1. Go to previous map view
2. Go to next map view
3. Zoom out the map
4. Zoom the map
5. The Set Area button
6. Map settings button

4.4.4. Footprint mode: Viewing and selecting footprints

In Footprint mode, you can zoom or re-centre the map using the right mouse button, without having to select the Navigate mode.

4.5. Download of on-line available products

The aim of this function is to support ESA's educational activities where some products are available for download.

This function is made available if and only if:

- A value is provided in the result table or in the details dialog.
- A configuration allows for a given collection to be able to order, via the “Enhanced Online Access” service.



In the case where this function is used to order, via the “Enhanced Online Access” service, the items will requested “as-it-is” (i.e. without any order options). Also the behaviour of the order for a “Enhanced Online Access” service remains unchanged (see Section 7.6.1, “Online access service”).


Note that some downloadable products are protected by username password (either the user own password or a shared one) while others will be available on anonymous FTP servers. It is the Order Desk that will communicate to the users the username/password to be used for each type of products/server.

From any workspace, If the user asks for the details of an item and if the item can be downloaded directly (i.e without using any "order service" see Section 7.6, “Submitting orders”) then the "Details window" (see Section 4.3.2.1, “Accessing the detailed information on an item”) will display a "Download product" button. Clicking on the button will download the product as-it-is. The product will be added into the **download workspace** (see Chapter 12, *The Downloads Workspace - Monitoring downloads*)

For items which can be downloaded directly,  button is displayed in the table dataset's "**Action**" column . The "**get**" button is active only if user is connected

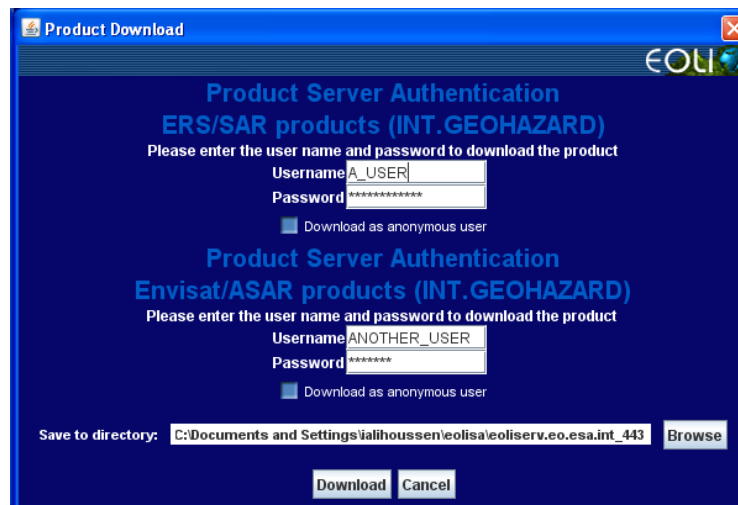
The mechanism is described below:

- To start a "**direct download**" for several products, the user should click on the "**get**" button of one of selected item(s).
- Clicking on a "**get**" button of a non selected item will initiate the download of that item only.

When user performs a download action (via  button or via "**Download product**" button of the details dialog), EOLISA prompts the user for a username/password (with possibility to use an anonymous username/password (see Figure 4.23, “Product Server Authentication dialog”)). Once the user clicks the "**Download**" button of the "**Product Download**" dialog, the download is initiated and the product(s) is (are) added into the download workspace (see Chapter 12, *The Downloads Workspace - Monitoring downloads*)



This function handles the case where a product can be downloaded directly via metadata provided in the result table and can also be ordered via “Enhanced Online Access”, then the downloading direct via metadata provided in the result table prevails.

Figure 4.23. Product Server Authentication dialog

4.6. Common Functionnalities

4.6.1. Overview

This section describes how to use common fonctionnalities in all over EOLI-SA application.

4.6.2. Copy/Paste

User can copy/paste on the clipboard some text from various components in the whole application.

It is possible to select from the EoliSA GUI, and copy to the operating system clipboard (Ctrl+C on Windows/ Unix and Command+C on the Mac), the following elements:

- Any text string from one of the visible item table cells (via right-click menu "Copy value").
- Any text string (or portion of) visible in a detail page, and more generally in any interface panel (labels or values).
- A thumbnail image in the preview list (via right-click menu "Copy image").
- A browse image in a detail page (via right-click menu "Copy image").
- The map image (with layers and footprint), as seen in the map area (via main menu "Map->Copy map image").
- Any value entered in an input text field.

4.6.3. Undo Function

User can Undo action (no history, only one step back) for the following actions:

- **Deletion** of items from the UserSet and ShopCart workspace.
- **Moving** items from one set to the other
- **Changing the order options** (including scene selection) of one or several ShopCart items



The undo function is available in the menu "File->Undo <action> where <action> is either "delete", "move" or "order option" depending on the last action. The undo menu is greyed out if there is nothing to undo.

4.6.4. Map handling

This section provides informations on basic use of EOLI-SA with WorldWind 3D map.

4.6.4.1. General Controls

This paragraph describes general control on EOLI-SA WorldWind Mouse Command

1. **Pan** : Left mouse button click and drag - all directions .
2. **Zoom** : Use the scroll wheel on the mouse or Left and Right mouse (both buttons) click and drag - up and down
3. **Tilt** : Right mouse button click and drag - up and down or use "Page Up" and "Page Down" on the keyboard.
4. **Rotate** : Right mouse button click and drag - left and right. Note: Crossing the top and bottom half of the screen while rotating will change direction.
5. **Stop** : Spacebar



Image download speeds will vary, depending on your internet connection. .

A blank screen is typically caused by out of date graphics drivers. Please update them from the graphics card manufacturer.

4.6.4.2. Pile selection

This section describes the "**pile selection**" fonctionnalités of objects displayed in the map.

To enable this kind of mouse mode, select the **footprint mouse mode** .

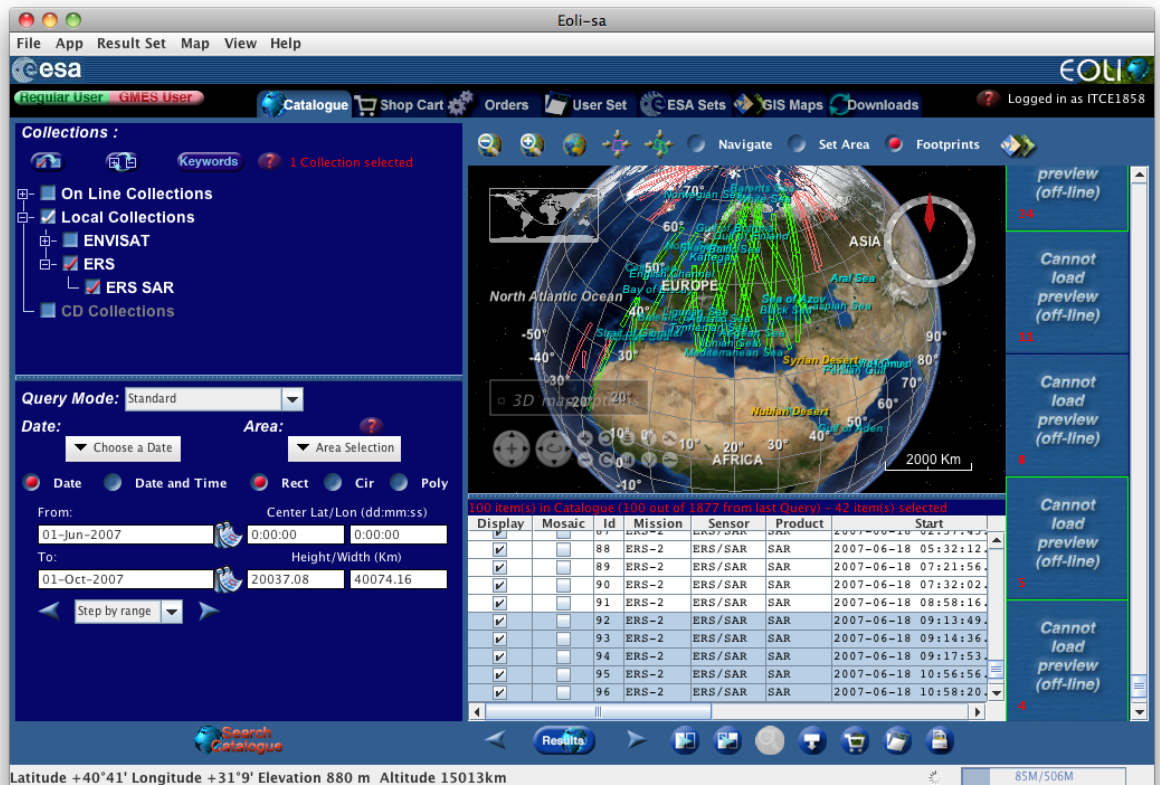
This mouse mode enables user to select displayed objects in the map. The selected object is contained in the point user has clicked on. If this condition is not satisfied, then no object is selected. In this case, all objects selected before goes to "unselect" mode. If more than one object satisfied the condition, then the first click selects all objects under the point clicked. If user clicks again at the same point (or near) then the first object in the pile is selected. If user clicks again under the same point, the second in the pile is selected, etc, until cycling in all piled objects.

The `control-click` and `drag` buttons will select all objects under the area of interest .

Note that user cannot cycle throw the selected objects if the control key remains pressed.

The `shift-click-drag-release` selects all objects under the bounding box (see Figure 4.24, "The multiple selection on the map using bounding box ") .

Figure 4.24. The multiple selection on the map using bounding box



4.7. Table Dataset

4.7.1. Overview

This section describes some words/keywords that are displayed in a table dataset

4.7.2. Product status description

Product Status

An item status is displayed in the column named **"Status"** of a dataset. Meanings of these statuses are described below :

- **"Potential"** means that it could be acquired, but until no request is received, it will not be planned (i.e. not acquired).
- **"Planned"** means that currently it is planned, but if priority users (currently commercial and emergency) come in, then the item might not be acquired.
- **"Archived"** means that the item is available at an ESA PAF/PAC but it doesn't mean that the item is available on-line. On-line available data are identified via specific "on-line collections".
- **"Provisional"** (only returned from Local Inventory searches) means that the item was in status planned when the local collection was generated but when the query is done, because its acquisition time is in the past, it should be acquired.

4.8. Detach a workspace as a separate window

4.8.1. Overview

This section describes how it is possible to “detach” a specific workspace as a separate window (except the GIS Maps workspace).

4.8.2. Detach a specific workspace

The action to detach a specific workspace applies to:

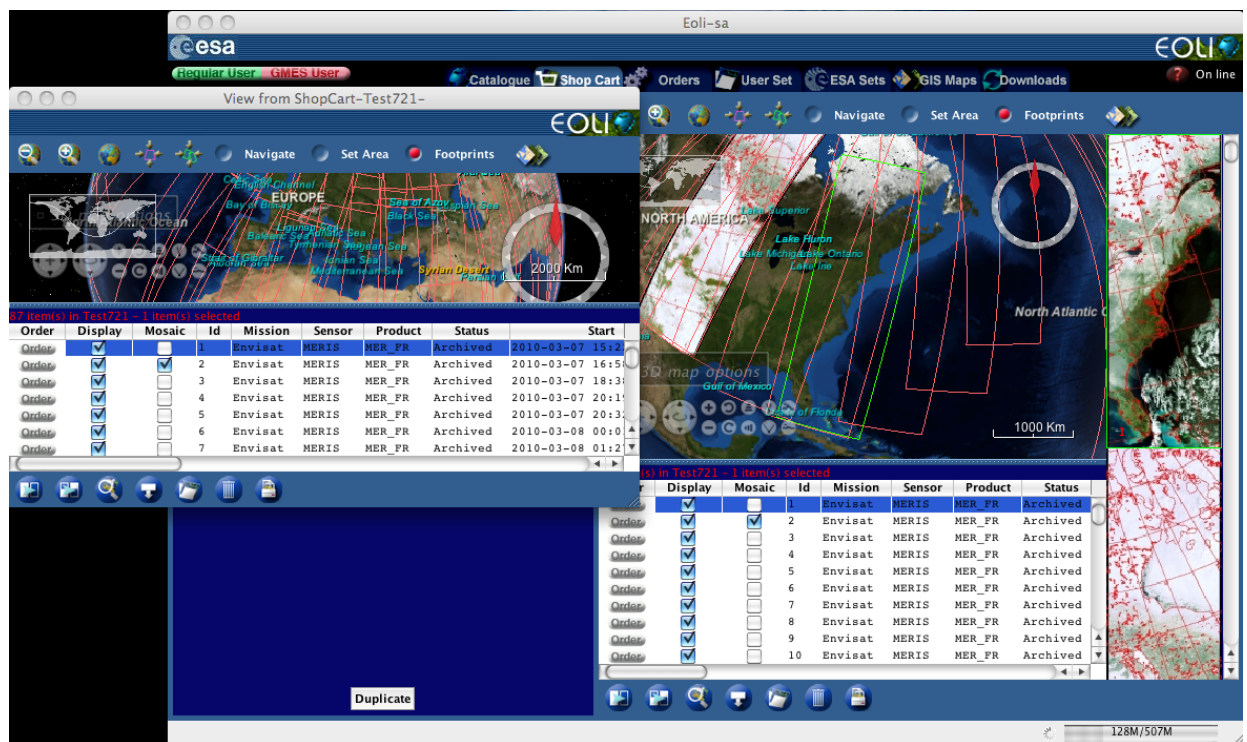
1. Download workspace;
2. Shop Cart workspace;
3. Orders workspace;
4. User Set workspace;
5. Esa Set workspace;
6. Download workspace

You can trigger this function from a pop-up menu by right-clicking on a workspace tab

Detach as window

or from the application menu "View->detach [catalogue|ShopCart|UserSet|Esa Set|Orders| Download] [detachAsWindow]".

Figure 4.25. A view of a workspace



Only one window is associated to a workspace.

The detached view is kept synchronized (i.e. selection of items, search area definition ...) with its associated workspace except for the map navigation and settings.

4.8.3. Map setting on a view

The layer selection done in the GIS Map workspace is common to all detached map views.

However, the map settings (i.e. all the functions accessed from the “Map settings” button of the map tool bar, i.e. layer activation and order, projection), are independent for each detached views.

Figure 4.26. The Map Settings of a view




Chapter 5. EOLI-SA/Server Interactions

5.1. On-line and off-line mode

EOLI-SA has two operational modes:

- On-line mode: EOLI-SA is connected to the ESA/ESRIN server and this allows you to use all the on-line **collections** . These comprise up-to-date catalogues which are updated daily, overnight in UTC time.

 Use local collection for better performance in the query. Browse and details will be accessed from the server.

- Off-line mode: EOLI-SA is not connected to the server and only local collections can be queried. See Section 6.6, “Adding a Local Collection” to learn how to add new local collections.

5.2. Connecting to the Server

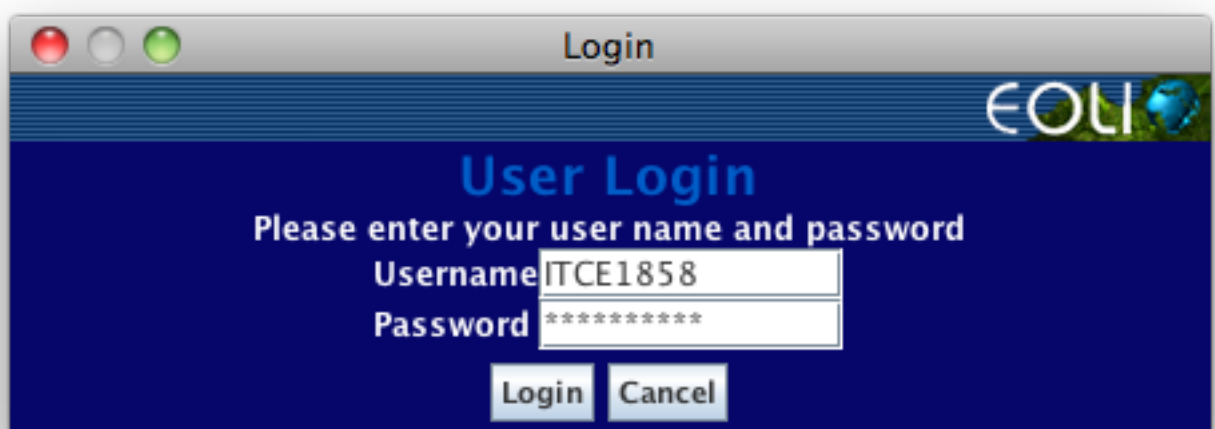
To connect to the Server, launch EOLI-SA (see Section 3.2, “First time using EOLI-SA?”). The application automatically tries to connect to a server at start up. If it succeeds, EOLI-SA switches to the on-line mode. In case an internet connection is not available, or the server can not be reached, EOLI-SA remains in off-line mode. The application will keep trying to connect to the server. When it finally succeeds to connect, it will switch to the on-line mode.

Some of the services may be protected and granted to registered users only. This is typically the case for ordering services. When trying to access a protected service, a user login dialog pops up so that you may enter your credentials.

To connect as a Registered user, type your Username and Password and click on Login (Figure 5.1, “How to connect as a Registered User”). See Appendix B, *ESA data policy* for information on how to obtain a login and password.

Alternately, you can select App >> Login As from the Menu Bar to bring up the login dialog.

Figure 5.1. How to connect as a Registered User



EOLI-SA is now connected to the server at ESA/ESRIN and the on-line collections are automatically loaded into the Collection Tree in Catalogue.



You can configure EOLI-SA to remember you username and password and to automatically authenticate at each startup. See Chapter 13, *Setting Preferences* .

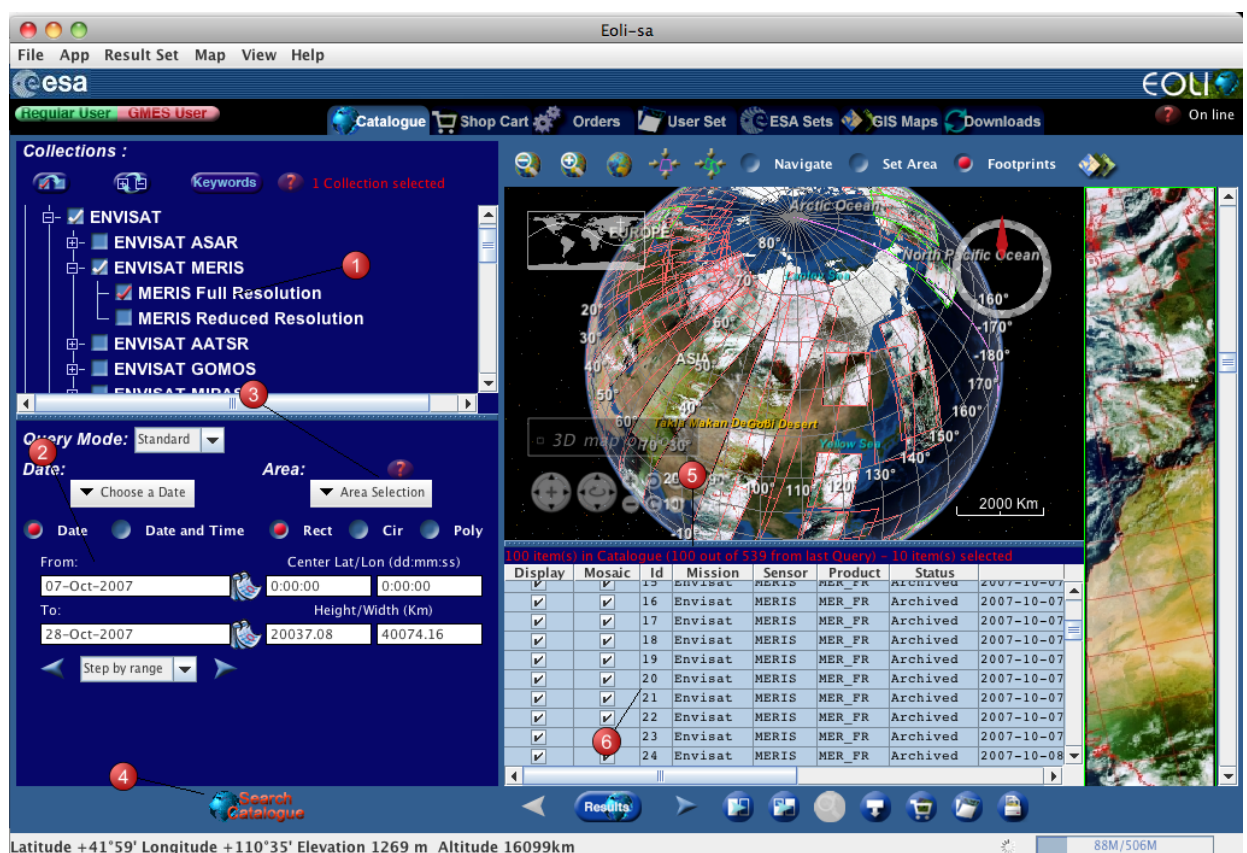
Chapter 6. The Catalogue workspace - Searching for products

6.1. Overview

The figure below displays the main functional areas in the Catalogue workspace.

From the Catalogue workspace, you can (Figure 6.1, “Overview of the Catalogue workspace”):

Figure 6.1. Overview of the Catalogue workspace



1. select one or several collections from the Collection Tree panel (for more information about collection definition, please see <http://earth.esa.int/dataproducts>)
2. set a date/time interval of your interest in the Date panel;
3. set an area of your interest in the Map or in the Area panel;
4. submit a query via the Search Catalogue button;
5. view the result items of your query as metadata in the Table of Results, as images in the Thumbnail list, and as Footprints on the Map;
6. select one or several items in the Table of Results.

Collection or product description

If a collection or a set of collections have an url description, then right-clicking on such a collection in the tree, displays a menu "View description <collection name>". Clicking on this menu opens the collection description in the default user browser.

For more information about Collection or product description, please look at <http://earth.esa.int/dataproducts> .

6.2. Filtering Collections

This section describes how to filter a set of collections, showing/using only the meaningful ones.

In the collection tree , there is a possibility to see all keywords grouped by category which are related to a specific or a set of collections. The aim of these keywords is to show only collections that match a set of keywords selected by


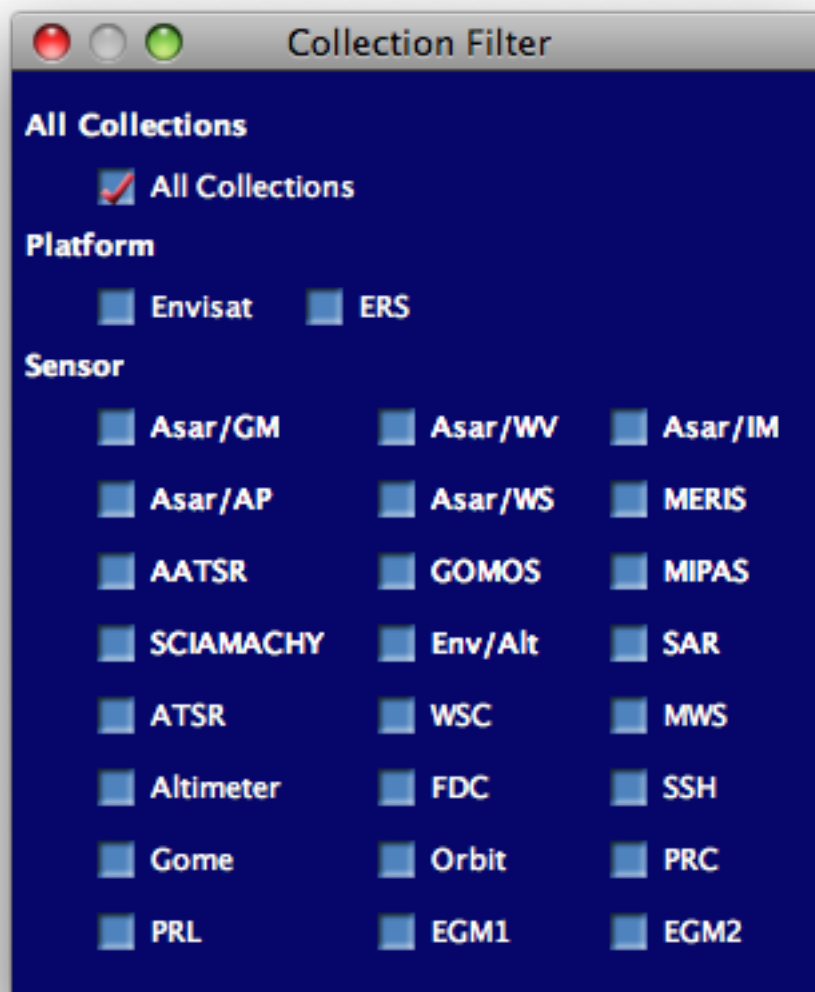
the user. To open the Collection Filter window, click on  that is located in the tree toolbar. A window will be displayed showing all available collection keywords grouped by category.



Figure 6.2. Collection Filter Window



- It is possible to select several keywords options.
- When the "All collections" option is checked, this has the effect to uncheck all keyword options.
- When a keyword option is checked, this has the effect to uncheck the "All collections" option.
- When all keyword options are "unchecked" (i.e. when unchecking the only "checked" keyword), this has the effect to check the "All collections" option.
- Whenever the list of checked options changes, the collection tree is updated.
- As an implicit effect, every collection not visible in the tree (i.e. filtered out) is not visible in the advanced criteria panel and ignored in the search request.
- Loading a search criteria unfilter all collections if one of the target collection of the saved search is filtered out.
- The tip text for the "On-line Collections" and "Local Collections" tree branches is a text composed with the list of selected keywords ("All collections" or "Collections matching keywords: <list of selected keywords>").

6.3. Setting the catalogue search criteria

6.3.1. Selecting a collection

In the Collection Tree, you can select several collections of interest by checking the boxes on the left of the collection names. Expand or collapse the whole Collection Tree using the  button; deselect all collections using the  button (Figure 6.3, “The Collection Tree”).

When selected, Collections which are the leaves of the tree, have a red tick in the check box. A branch of the tree will have a red tick if all collections within this branch are selected, and a white tick if only some of the collections are selected.

Note that the more collections you select, the slower the performance of your query will be.

Figure 6.3. The Collection Tree



You can resize the collection panel by moving (click and drag) the separator bar between the collection and Area/Date panels.

6.3.2. Defining an area of interest

EOLIS-SA offers several ways to define a search area:

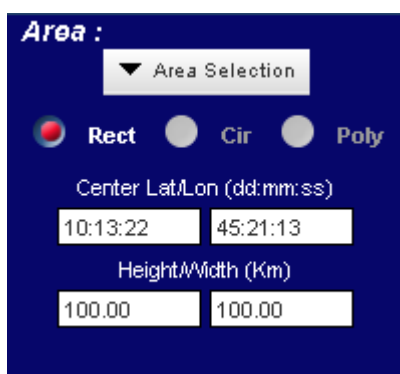
6.3.2.1. Graphically, on the Map panel

The simplest way to set an area of interest is within the Map panel, in Area mode. See Section 4.4.3, “Area mode: Defining a search area” for a detailed description.

6.3.2.2. By manual input

You can enter the latitude and longitude of the centre of the area and its width and height in the text fields provided in the area panel (Figure 6.4, “The Area panel”). Coordinates may be entered either as degrees, minutes, seconds (format dd:mm:ss) or as decimal degrees format (nnn.nn).

Figure 6.4. The Area panel



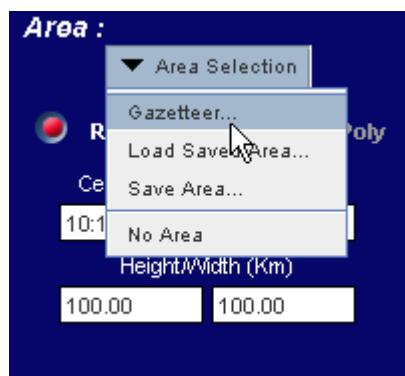
A value entered manually in one of the input field must be validated either by hitting the Tab key or clicking with the left mouse button on another input field or on the map.

6.3.2.3. Using the Gazetteer

You can access the area Gazetteer from the Area Selection popup menu and search for an area by entering its name in the Search String field provided. If you are connected to the server, you are likely to find any towns and villages in the world. If you are disconnected, you will find only areas from a built-in database containing the countries.

How to define an area of interest using the Gazetteer

1. Figure 6.5. Show gazetteer



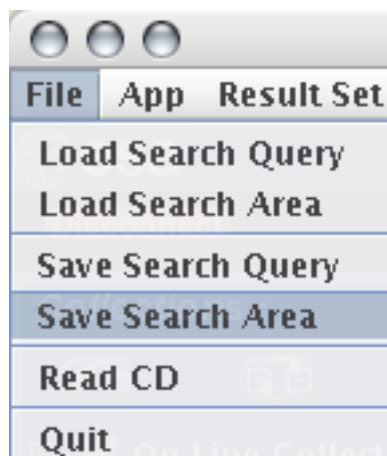
2. Figure 6.6. Selecting area of interest



6.3.2.4. Loading an area from a file

It is possible to save the area of interest for future searches by selecting File >> Save Search Area from the Menu Bar (Figure 6.7, “Load/Save an area of interest from the Menu Bar”). This area can subsequently be reloaded by selecting File >> Load Search Area from the Menu Bar.

Figure 6.7. Load/Save an area of interest from the Menu Bar



EOLI-SA support some standards which are KML/KMZ and ESRI shape files.

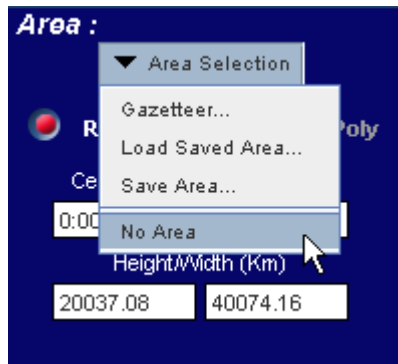
EOLI-SA able to load/save search areas into these standards but there is some limitation.

It will retrieve areas from this kind of file and transform them into areas that can be used by EOLI-SA in order to perform a search by “region of interest”.

6.3.2.5. Using no Area

One more possibility is to select "no Area" in the area selection popup menu.

Figure 6.8. The No Area criteria



Having no area defined is equivalent to having an area which covers the whole world (center latitude/longitude: 0:00:00/0:00:00 and extensions: 20004/40008).

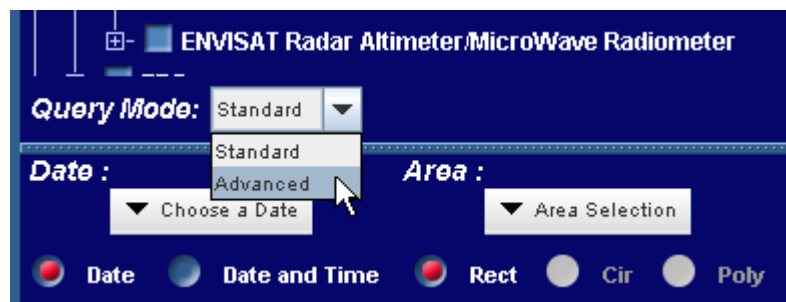
This is the default area when you launch EOLI-SA. This is useful when:

1. You are not interested in any particular area and would rather have a global view of the sensor activity (see for example the global coverage of all ASAR/IM acquisitions performed last week).
2. You are searching a collection of global products (products that have a global coverage). In this specific case, the area is ignored in the query.
3. You are searching for a particular orbit, track or frame (see Section 6.3.4, “Advanced criteria”) and you want to avoid that the area criteria interferes with these advanced criteria.

6.3.2.6. Using Circle and Polygon Area

When performing an advanced search (Figure 6.9, “The Advanced Query Mode”), you can define a circle, a rectangle or a polygon to set the area of interest (Figure 6.10, “Defining a circle area of interest”).

Figure 6.9. The Advanced Query Mode




Not all collections can be searched with a circle or a polygon area. The circle or polygon options are available only if all the selected collections support it.

Circle and polygon areas can be defined graphically or manually by using the input fields. To define a circle area on the map, click where you want its center to be. On the classic 2D map: drag the mouse to increase the radius and release the mouse button when finished. On the new 3D map, move the mouse to increase the radius and click when finished. To define a polygon on the map, click to add a vertex; double click to close the polygon.

Figure 6.10. Defining a circle area of interest

The screenshot shows a software interface for defining search areas. At the top, it says 'Query Mode: Advanced'. Below this, there are two main sections: 'Date' and 'Area'. The 'Date' section has a 'Choose a Date' dropdown, radio buttons for 'Date' (selected), 'Date and Time', and 'Rect', and two date input fields labeled 'From:' and 'To:' both containing '30-Mar-2007'. The 'Area' section has an 'Area Selection' dropdown, radio buttons for 'Rect', 'Cir' (selected), and 'Poly', and two input fields for 'Center Lat/Lon (dd:mm:ss)' both containing '0:00:00' and a 'Radius (Km)' field containing '5000'. At the bottom, there is a 'Step by range' dropdown.

 When defining a polygon or circle area to a collection which only supports the rectangular area, EOLI-SA automatically converts the circle or polygon area to a rectangular area. The circle and polygon areas are automatically reused when the selected collections allow it.

6.3.2.7. Selecting compound areas

It is possible to define several areas of interest which can be used simultaneously in a catalogue search. Compound areas must be defined graphically on the map as follows:

1. Define the first area graphically, on the map, as described in Section 4.4.3, “Area mode: Defining a search area” .
2. Repeat this process for all additional areas, pressing the Shift key while drawing the area by clicking (and dragging on the classic 2D map)

6.3.3. Setting a date range

You should further refine your search by defining a specific time interval for the acquisition of data.

Figure 6.11. The Date panel

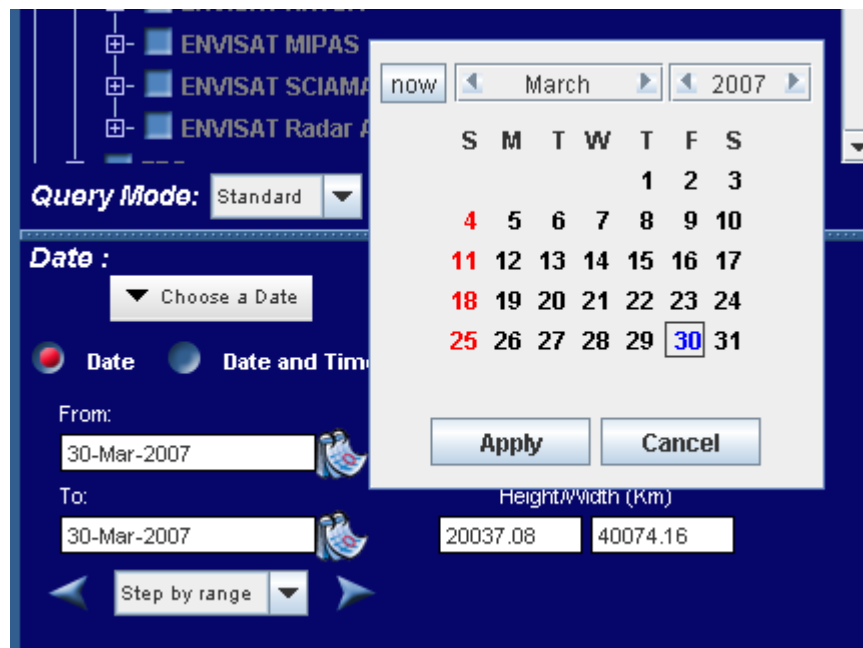
The screenshot shows a 'Date' panel. It has a 'Choose a Date' dropdown, radio buttons for 'Date' (selected) and 'Date and Time', and two date input fields labeled 'From:' and 'To:' both containing '30-Mar-2007'. At the bottom, there is a 'Step by range' dropdown.

This is done within the Date panel (Figure 6.11, “The Date panel”) in several different ways:

6.3.3.1. Using the calendar

You can select the dates from the calendar pop-up (Figure 6.12, “Using the calendar to select date”). Click on the calendar icon to open the calendar.

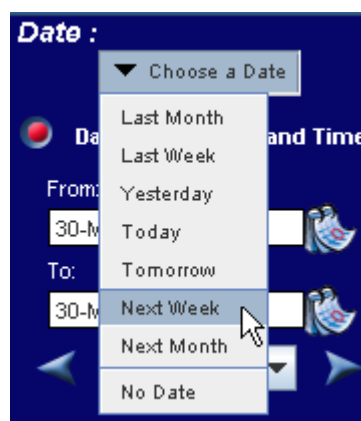
Figure 6.12. Using the calendar to select date



6.3.3.2. Using a pre-defined date range

You can select the date range from the Choose a Date drop-down menu (Figure 6.13, “Using the pre-defined date range to select a date”). In the example, the date range is moved to the following week by selecting Next Week.

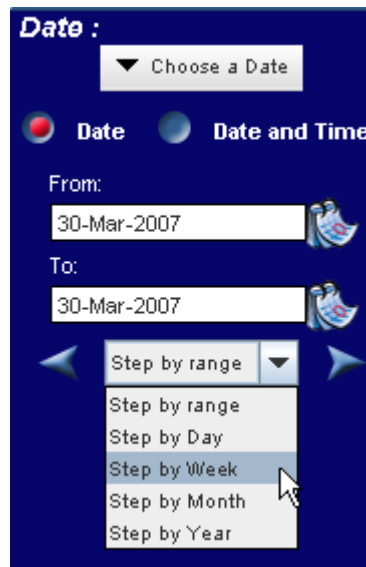
Figure 6.13. Using the pre-defined date range to select a date



6.3.3.3. Modifying the current time range:

You can use the date step chooser (Figure 6.14, “Modifying the current date range”) to select the period of time by which to shift the date range.

Figure 6.14. Modifying the current date range



1. Select the time shift value in the drop-down menu;
 - By range: to shift the time range by its duration (end to start or start to end);
 - By day/week/month/year: to shift the time range by 1 day, 1 week, 1 month or 1 year;
2. Click on the arrow button to shift the time range to the past (left button) or to the future (right button) by the amount of time defined in step 1;
3. Repeat the previous step until you reach the desired time range.

6.3.3.4. Using manual input

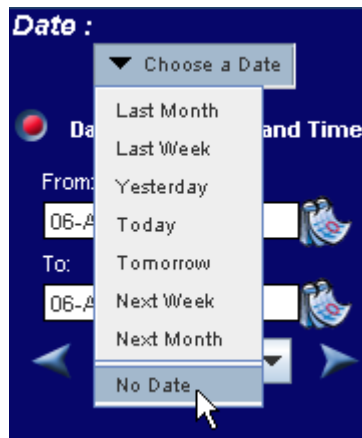
You can enter a date range in the text fields (Figure 6.11, “The Date panel”). Several formats are supported:

1. dd-mm-yyyy
2. dd/mm/yyyy
3. dd-mm-yy
4. dd/mm/yy

6.3.3.5. Using No Date

One more possibility is to select No Date in the Choose a Date popup menu (Figure 6.15, “The No Date criteria”).

Figure 6.15. The No Date criteria



This is useful when:

1. you want to search the complete mission on a reasonably small area;
2. you are searching for a particular orbit (see Section 6.3.4, “Advanced criteria”) and you want to avoid the date criteria to interfere with the orbit criteria (if the specified orbit is not within the specified date range, no results can be found).

6.3.4. Advanced criteria

You can access the Advanced criteria by selecting Advanced from the Query Mode drop-down menu (Figure 6.16, “The Advanced Query Mode”).

Figure 6.16. The Advanced Query Mode

ENVISAT Radar Altimeter/MicroWave Radiometer

Query Mode: Advanced

Date : Area :

Choose a Date Area Selection

Date Date and Time Rect Cir Poly

From: 30-Mar-2007 Center Lat/Lon (dd:mm:ss) 0:00:00 0:00:00

To: 30-Mar-2007 Height/Width (Km) 20037.08 40074.16

Step by range

MERIS Full Resolution :
Show results as standard frames

no frames show frames

Frame
From: To:

Orbit
From: To:

Track


Pass Type
Ascending Descending

Max Cloud Coverage

Search Catalogue

The Advanced criteria are shown below the Date and Area panels. Use the criteria panel vertical scroll bar to view them (if necessary).

By default, there is one advanced criteria panel for each selected collection.

 Using the Group Criteria check box, you may re-group the advanced criteria that are common to all selected collections. Common advanced criteria are shown below the Date/Area panel, in a panel named "Grouped criteria"

Advanced criteria allow you specifying collection-specific parameters.

The most common criteria are (depending on the selected collections):

1. No Frame/Show Frame options. If No Frame is selected, results of your search will appear as striplines (i.e. segment of acquisitions of various lengths). If Show Frame is selected, the results are cut into standard frames. In addition, you can also use a frame range criteria.

2. Orbit range. You can enter a range of orbits. If you search for one specific orbit only, you can leave the "to:" field empty.
3. Frame range. This criterion is visible only if you have selected the Show Frame option. If you search for one specific frame only, you can leave the "to:" field empty
4. Track.
5. Pass Type (Ascending or Descending).
6. Swath (where applicable).
7. Status. This is supported in local collections only. You can select one of several statuses. When none are selected, the status criteria are not used.

For a description of some parameters above, see Glossary .

Using the Advanced Query Mode

Using the Advanced Query Mode, it is possible to set conflicting criteria. As a result, no data are found when submitting the query. All criteria that you set (**Area, Date and the Advanced criteria**) must be satisfied by the result hits.

For example, if you search for a particular orbit, nothing will be found if that orbit is not within the specified date range or does not overlap the area of interest.

Consider using the "No Date" or "No Area" options to avoid conflicts with some advanced options.

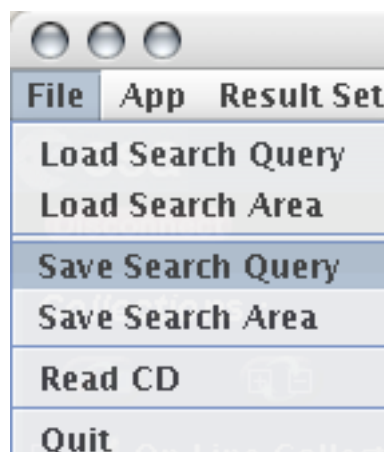
Possible conflicting criteria are:

- **Orbit** with date (no orbit in the date range selected)
- **Orbit** with area (orbit does not overlap the area of interest)
- **Orbit** with Track (orbit and Track do not fit)
- **Status** with date (no planned acquisitions in the past)
- **Frame** with area (the frame does not overlap the area)

6.4. Saving and Loading a Search Query

To save your Search definition for future use, select File >> Save Search Query from the Menu Bar.

Figure 6.17. The Load/Save Search Query

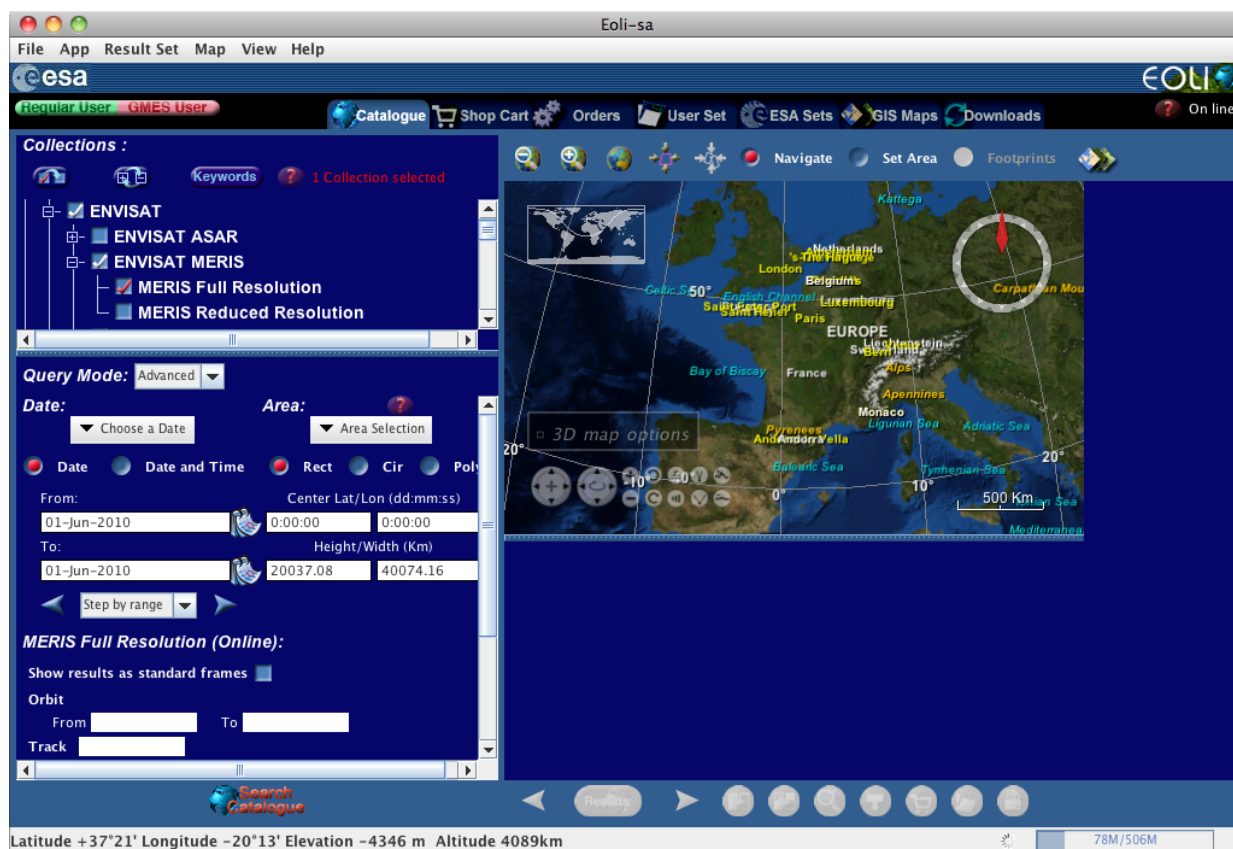


This can subsequently be reloaded by selecting File >> Load Search Query from the Menu Bar. Search Query files are saved as XML files (.xml extension).

6.5. Search Catalogue and retrieving results

After having selected the query criteria, the Catalogue functional area will look like in Figure 6.18, “The Catalogue workspace set for query”.


Figure 6.18. The Catalogue workspace set for query





To submit the query, click the  button on the Toolbar at the bottom of the screen.


EOLI-SA performs the query and returns all data products which satisfy the query parameters you set. Results are listed in the Search Results window (See Figure 3.4, “How to select a group of results”)

Check one or several boxes corresponding to the wanted group results and press the Append button to retrieve the results and append them to the previous results already loaded in the Table of Results.



You can select or unselect all the Result Groups clicking on the select/unselected all groups to be retrieved  /  buttons.

Press the Replace button (active only if results have already been loaded) to retrieve the results and replace the ones already loaded.

At any time, as long as your session does not time out, you can click the Results  button in the Tool bar to access the Search Result window and select other group(s) for retrieval.


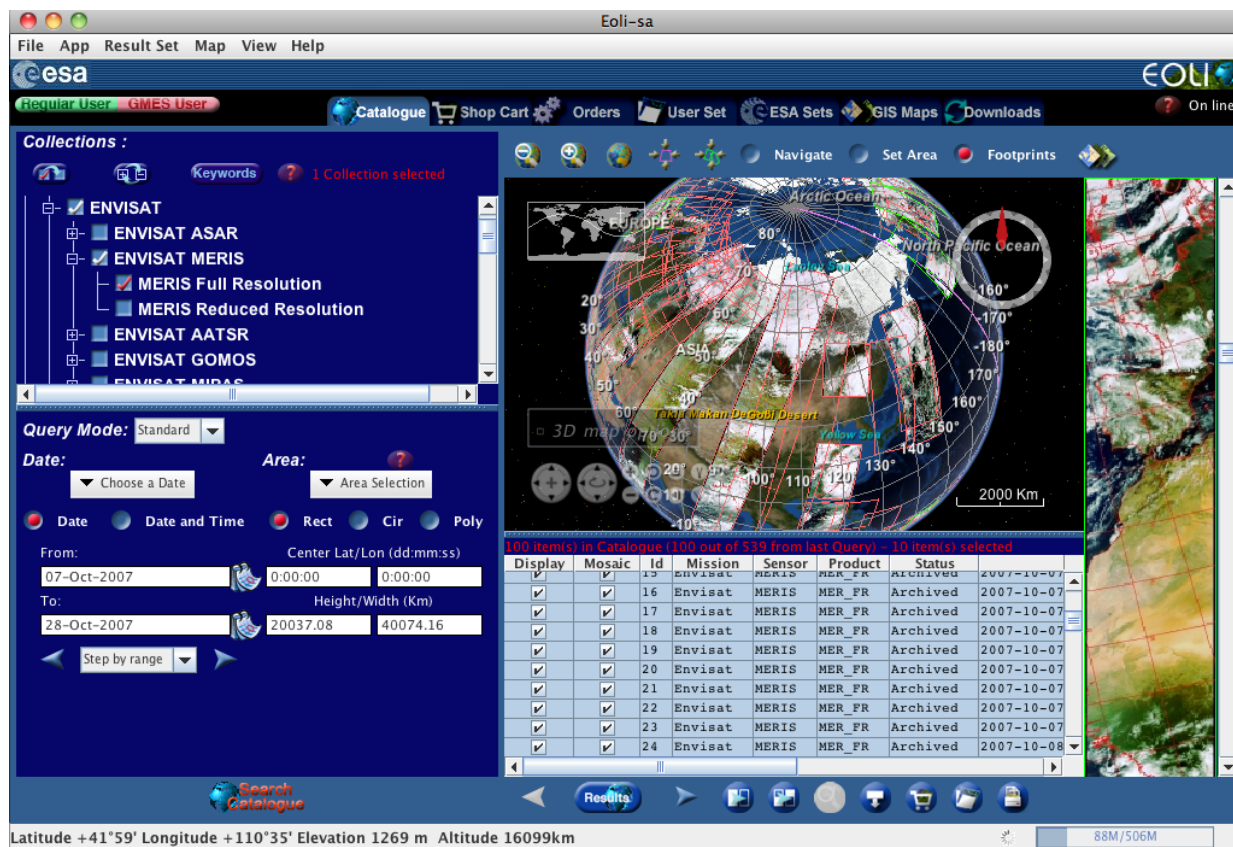
Using the next/previous group results button arrows , you may retrieve the previous and the following group of results. This will replace the current results shown in the Table of Results. The next/previous group buttons are inactive if there is no next or previous group of results to be retrieved.

Figure 6.19. Query results in the Table of Results, on the Map and as Thumbnails



Results

EOLI-SA can automatically retrieve the first group of results after a successful query. In the Search Results window, check the Auto Load First Result Group box, to automatically load the first result group. Note that when this function is activated, old result items will always be replaced by the new ones. Then, you can load and browse each group of results, one at the time, using the previous/next group results button arrows or selecting Result Set >> Load Previous/Next Group from the Menu Bar.

6.6. Adding a Local Collection

The Local Collections (or CD Collections) is a branch of the Collection Tree where you can manage your local collections (Figure 6.20, "The Collections Tree"). New local collections can be added from the server (or from a CD-ROM).

With Local Collections, you can:

1. work in off-line mode (Section 5.1, "On-line and off-line mode");
2. query the catalogue for interferometric searches (Section 6.7, "Interferometric searches").

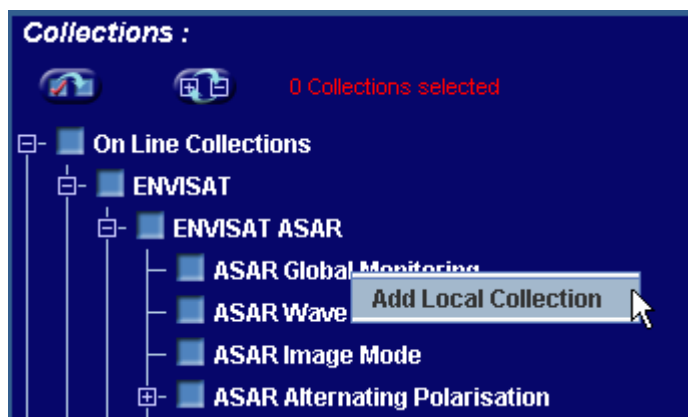
Figure 6.20. The Collections Tree



6.6.1. From the on line collection tree

1. To add a collection to your Local Collection Tree, right-click on the On Line Collections branch you want to add. A menu appears; select the Add Local Collection item

Figure 6.21. Adding a Local Collection from the on line collection tree



2. The collection is automatically added to your Local Collections Tree observing the architecture of the On-Line Collections.

Figure 6.22. How to add a Local Collection



Using the right-click on the Local Collections Tree

Using the right-click on the Local Collections Tree, you can

- add a new branch to receive new collections

Using the right-click on a Local Collections branch, you can

- rename a local collection
- remove a local collection branch
- update a local collection if you are connected

When submitting a catalogue search on several local collections, EOLI-SA first load all the selected collections in memory, and then perform the search.

If not all collections can be loaded in memory at once, EOLI-SA will perform the search in several steps, off loading a collection before proceeding to the next one. This obviously has an impact on the overall performance of the query.

If your PC has a limited RAM size (i.e. 64Mb), do not allow too many local collections to be loaded simultaneously. You risk a system crash, particularly on windows machines. On Mac or Linux machines, EOLI-SA will just freeze during the search (you then have to kill the process).

6.6.2. Indexing a remote or local repository

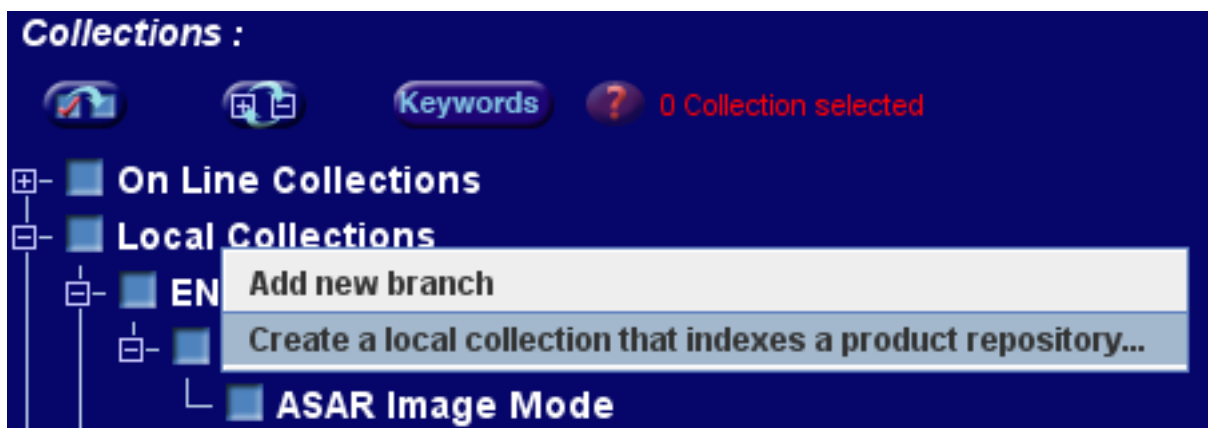
You can now create your own collections from a remote or a local repository. This option is only available when configured on Eoli Server by the operation team.

If the configuration templates are available, the content of this section will be valid. Otherwise the menu item options will not be present.

Note that to index a collection on your file system, you must be sure that the file names are in accordance with the normalized file name format of the reference collection.

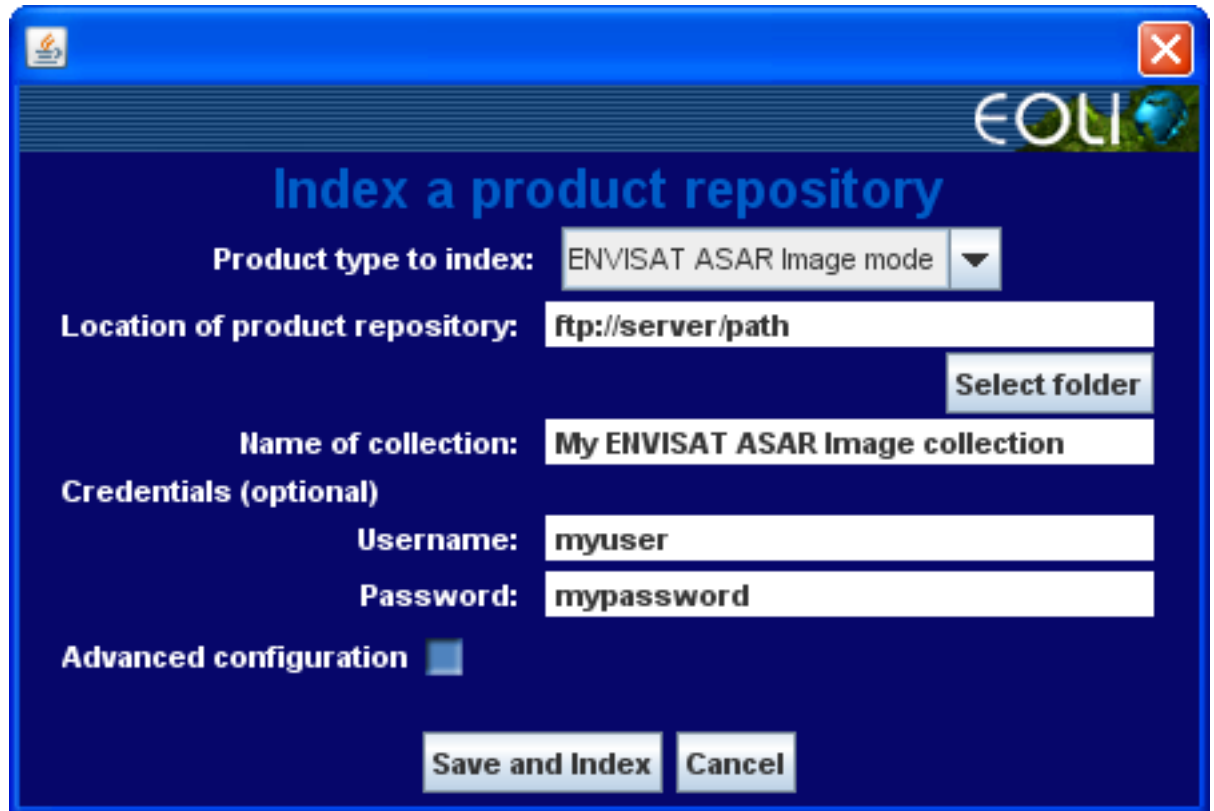
1. To create an indexed collection on your Local Collection tree, right-click on a branch or the root of the Local Collections branch where you want the collection to be. A menu appears; select the **"Create a local collection that indexes a product repository..."** item.

Figure 6.23. Creating a Local Collection from the local collection tree



2. You can then select a pre-configured product to index. When selected, you are able to change the parameters for the indexer. Change the collection name and the other parameters.

Figure 6.24. Selecting the product type and changing the parameters.



- The **"Location of product repository"** should be under the format `protocol://hostname[:port]/path`. The port can be omitted. The protocol can be ftp, http or https.

For a local collection (on your system), write the full file path in the field or click the button **"Select folder"**, like `/home/path/to/local/repository` or `C:\path\to\local\repository`

- The **"Name of collection"** is the name that will appear in your local collection tree.
 - The **"Credentials"** **"Username"** and **"Password"** are needed to connect to FTP servers, and sometimes to HTTP or HTTPS servers.
3. By clicking on **"Advanced configuration"** you can have access to other useful options and see the non-changeable parameters for the product.

Figure 6.25. Advanced configuration

Advanced configuration

Proxy:

Product filter:

Subdirectories (optional):

Exclude directories matching:

URL prefix (optional):

Include subdirectories **Incremental indexing**

Use of pregenerated index files

Collection code is: CUSTOM.INDEXABLE.COLLECTION.9
Reference collection: ESA.EECF.ENVISAT_ASA_IMx_xS
Type: START_DURATION
Attributes from LI:
Name=swathId, default=l2

- The **"Proxy"** option allows you to ask the indexer to go through a proxy (for remote repositories). It is filled with the default proxy setting of Eoli-SA, but note that your FTP proxy can be different from your HTTP proxy used by Eoli-SA. If you don't even need a proxy, empty this line.
- The **"Product filter"** section tells which product file names should be indexed. It should be a regular expression matching the full file names. For example, for ASAR Image mode products, use "ASA_IM.*" filter.
- The **"Subdirectories"** option can contain the list of subfolders that should be indexed in addition to the base directory. They are relative path from the starting path and separated by a pipe ("|"), like "folder1 | folder2/folder3 | another_folder". If the indexing is recursive (the option "Include subdirectories" is set), then the recursive indexing starts only from those and not from the base directory.
- The **"Exclude directories matching:"** option allows you to discard folders during a recursive indexing (option "Include subdirectories" is activated). It should be a regular expression matching the full folder names. But do not worry too much : to exclude "_tmp" folders, write "_tmp".
- The **"URL prefix"** option will be appended before each found entry (without the base directory but including subfolders) in order to make the "Get" button work on the dataset. If it is empty, then a default generated prefix will be used (for a remote repository this corresponds to the above parameter **"Location of product repository"**, and for a local repository a "file://" url will be generated). Note that in the self-generated prefix no information about username/password is kept. So when clicking the button (after a search), you will be able to enter the username and password (see Figure 4.23, "Product Server Authentication dialog"). If you add the user name and password in the URL prefix (like ftp://user:password@host/) then after pressing the button after a search, you just need to select the "Download as anonymous user" option.

Example: the file AN_ACQUISITION.ZIP has been found in the folder somewhere, from the repository ftp://an.address.com and base directory continent. If the URL prefix is http://another.address.org/images/ then the URL of the product will be: http://another.address.org/images/somewhere/AN_ACQUISITION.ZIP.

- The **"Include subdirectories"** option does not refer to the "Subdirectories" option but tells the indexer to scan the entire repository recursively, beginning with the starting directory. If some "Subdirectories" are configured, the recursive indexing will start only from those.

Note that in this case the indexer doesn't have a precise idea of how much folders it will index, so its progress bar (based on how much folders were indexed over the whole number of folders to index) can move backwards.

Be carefull about loops: if there is a loop, the indexer will stay stuck in it.

- The **"Incremental indexing"** option allows you to incrementally index the repository, leading to a quicker indexing. The indexer will first normally index the repository the first time; then next times it will check each folder to see if its content has changed, and if so it will index this folder and replace in the local collection the data covered by those products' period. Otherwise the collection will be unchanged. This option should be used only with repositories organized into "one period = one folder".
- The **"Use pregenerated index file"** option allows you to use pregenerated index files if they are present in the indexed folder. Those files should be named "Eoli_Index_File.txt", and should have the following format:
 - The first line is a header, a tab-separated list of strings giving the available information in the file. It should start with File.
 - Each line afterwards, except empty ones and the ones starting with #, represent a product file present in the folder, in a tab-separated list of strings, corresponding to the attribute names from the first line. A line must start by the file name, and have exactly the same number of information listed in the header.
 - You can check in the tooltip texts of the additional attributes below, and the URL prefix above, whether those attributes can come from the pre-generated index file, and at which column. The default column for each attribute is its own name, except for the product URL which column is "PRODUCT_URL", and the start, stop or duration dates or time whose default columns are respectively "StartDate", "StopDate" and "DurationTime".

The screenshot Figure 6.26, "Example of Eoli_Index_File.txt content" shows an example of such file. If the option is active and such a file is present in a folder, any subfolder (not listed as an explicit subdirectory to index) will not be indexed (even if the option "Include subdirectories" is active), as the folder will not be listed.

Figure 6.26. Example of Eoli_Index_File.txt content

```
1 File →Size →Good
2 ASA_WSM_1PNPDK20100925_162059_000001652093_00169_44812_3004.N1 →16315 →yes
3 ASA_WSM_1PNPDK20100925_173514_000005692093_00170_44813_2885.N1 →15678 →yes
4 ASA_WSM_1PNPDK20100926_134521_000001652093_00182_44825_3194.N1 →13549 →no
5 ASA_WSM_1PNPDK20100926_141148_000002082093_00182_44825_3226.N1 →12354 →no
6 ASA_WSM_1PNPDK20100926_153010_000004532093_00183_44826_3228.N1 →45631 →yes
7 ASA_WSM_1PNPDK20100927_131756_000000672093_00196_44839_3533.N1 →32568 →no
8 ASA_WSM_1PNPDK20100927_132009_000001842093_00196_44839_3534.N1 →98765 →yes
9 ASA_WSM_1PNPDK20100927_145528_000005752093_00197_44840_3577.N1 →63258 →no
10 ASA_WSM_1PNPDK20100928_070054_000001592093_00206_44849_3812.N1 →25643 →yes
11 #a comment
12 folder1/ASA_APM_1PNPDK20100922_135922_000000562093_00125_44768_1620.N1 →55466 →yes
13 folder1/ASA_APM_1PNPDK20100927_213311_000000432093_00201_44844_3716.N1 →56544 →no
14 folder1/ASA_APM_1PNPDK20100928_093900_000000432093_00208_44851_3857.N1 →53258 →no
15 folder1/ASA_APM_1PNPDK20100928_210118_000000452093_00215_44858_4112.N1 →59874 →yes
16 folder1/ASA_APM_1PNPDK20101001_210702_000000412093_00258_44901_5440.N1 →53654 →no
17 folder1/ASA_APM_1PNPDK20101003_085405_000000542093_00279_44922_6098.N1 →51314 →yes
```

- The other non-changeable information displayed is:
 - the name identifier of the collection generated if you need to modify the XML collection configuration file manually,

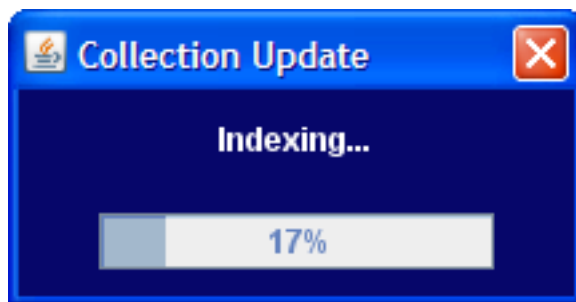
- the reference collection on which this collection is based, and which is needed for other data information than only acquisition times, and the additional attributes that will be added,
- how the indexer will extract the date attributes from the file names (the Type),
- the additional attributes to be taken from the local reference collection,
- the additional attributes to be taken from the file names and how,
- the simple additional attributes to be added.

To manually change those settings (it is not recommended), note the name identifier of the generated collection, then look for such a file name in {your home folder}/eolisa/eoli.esa.int_443/data/collections

Note that there should be at least a "swathId" additional attribute. If the tag **<IsSpatialCollection>true</IsSpatialCollection>** is present, then there should be also a "FOOTPRINT" additional attribute, and a "Pass" additional attribute. To get an attribute from a pre-generated index file, use the xml attribute **fromIndexFile="true"** or **fromIndexFile="column-name"** on the definition tag.

4. When you are finished, click on **"Save and Index"**. The reference collection will first be added to your local collection tree, then the indexer will index the configured repository. Note that the progress bar can go backwards if the indexing is recursive and more folders are found.

Figure 6.27. Indexer indexing a repository



5. If no error dialog appears, you can then search this collection like any other collection. If you cannot find any item, then maybe the configuration is wrong (wrong swath additional attribute...) or the files on the repository don't match the product filter nor the parsing pattern. Look in the eolisa.log file for more details and re-configure and re-index the collection.

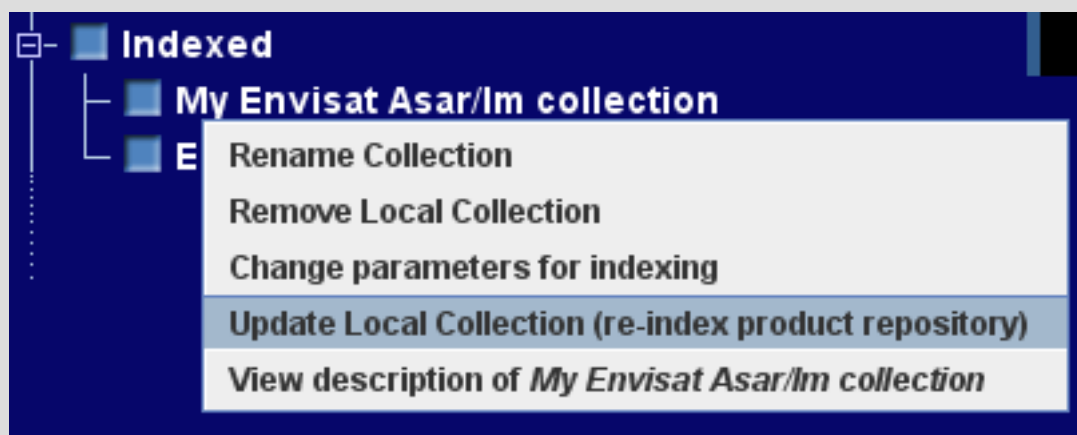
Using the right-click on the Local Collections to Index

Using the right-click on the Local Collections Tree or one of its branches, you can

- add a new branch to receive new collections
- remove or rename it (if it is a branch)
- directly create a collection from the index of a repository

Using the right-click on an indexed local collection, you can also

- change the parameters for indexing (it will then update the reference collection and index the collection)
- update the local collection by only indexing it (it does not update the reference collection)



6.7. Interferometric searches

6.7.1. Overview

The **interferometric** search is used to easily find pairs of products which can be used to derive interferograms.

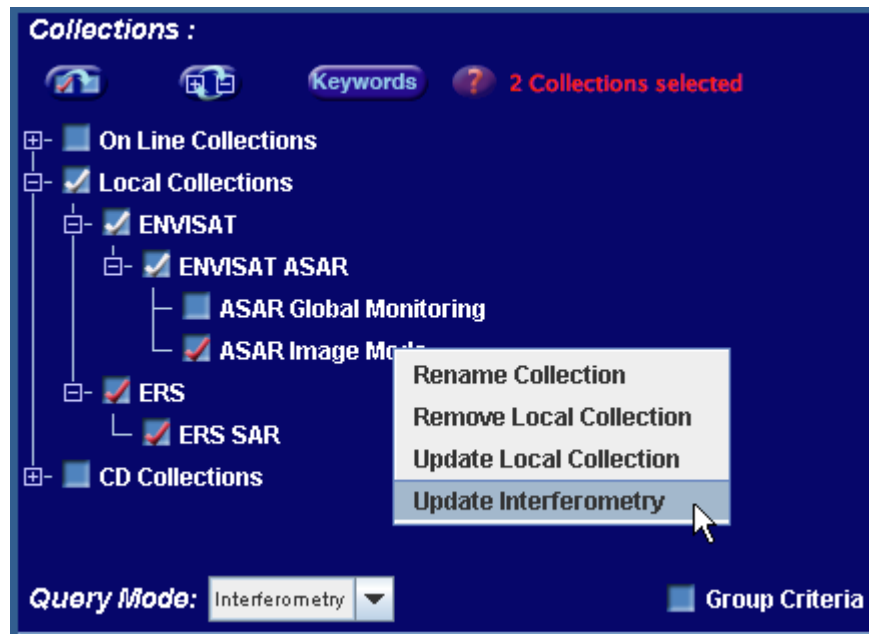
The **interferometric** search is based on a special Query Mode (Interferometry) where the resulting products are matched and presented into pairs, according to predefined rules and user specified criteria.

Pairs are composed of a reference (or master) acquisition (the first item of a pair), and a matching (or slave) acquisition (the second item of a pair).

For each resulting pairs, the baseline distance between the 2 acquisitions is computed (baseline of the matching acquisition with reference to the reference acquisition).

In the current version of EOLI-SA, the Interferometry Query Mode is supported by the local collections only. Consequently, you first need to add and update the local collections that support the interferometric search (see Section 6.6, “Adding a Local Collection” to add/update a local collection). Secondly, you need to download or update the interferometry data (baselines) right-clicking the local collection and selecting the Update Interferometry menu (Figure 6.28, “How to update Interferometry”).

Figure 6.28. How to update Interferometry



You can update automatically your configuration files for the local collections and interferometry search at each connection, setting the Update Local Collection preferences to Auto (see Section 13.2, “The User preferences”). However, don’t forget to update your Interferometry data files before doing interferometric searches.

Collections which supports interferometry Query Mode

The local collections which support the interferometry Query Mode are

- **ASAR Alternating Polarization**
- **ASAR Image Mode**
- **ASAR Wide Swath**
- **ERS SAR**

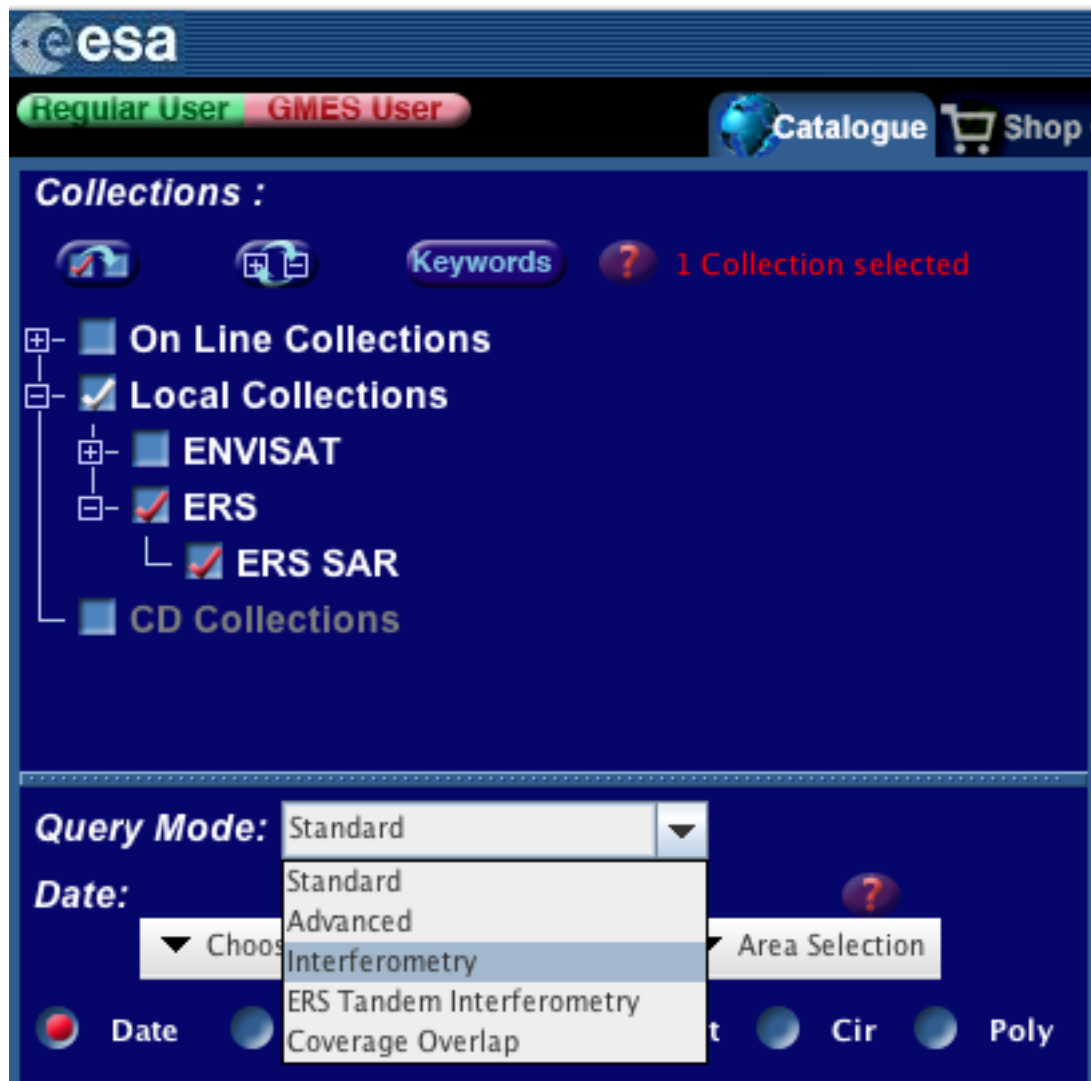
You can search for pairs that contain products of any of the following collections (either both from the same collection or any other combination)

6.7.2. Setting the interferometric search criteria

To set the interferometric search criteria, proceed as follow:

1. Collections selection: Select one (or two) of the collections that supports the Interferometric Query Mode (from the Local Collection Tree branch);
2. Selection of the Interferometry Query Mode (Figure 6.29, “Selection of the Interferometric Query Mode”);

Figure 6.29. Selection of the Interferometric Query Mode



The Interferometric Search Criteria parameters

1. Figure 6.30. Set interferometry advanced criteria

Date : **Area :**

☒ **Date** ☐ **Date and Time** ☒ **Rect** ☐ **Cir** ☐ **Poly**

From:  Center Lat/Lon (dd:mm:ss)

To:  Height/Width (Km)

Interferometry :

Perpendicular Base-line (m)
From: To:

Absolute Doppler Centroid difference (Hz)

Date Offset (days)
From: To:


Percentage Coverage Overlap

Second Date :

☒ **Date** ☐ **Date and Time**

From: 

To: 

Local:- ERS SAR :

Show results as standard frames

☒ **no frames** ☐ **show frames**

2. Figure 6.31. Set acquisition advanced criteria

Satellite
☐ ERS-1 ☐ ERS-2

Orbit
From: To:

Track

Pass Type
☐ Ascending ☐ Descending

Status
☐ Archived ☐ Planned ☐ Provisional
☐ Potential

Local:- Duplicate - ERS SAR :
Show results as standard frames
☒ no frames ☐ show frames

Satellite
☐ ERS-1 ☐ ERS-2

Orbit
From: To:

Track

Pass Type
☐ Ascending ☐ Descending

Status
☐ Archived ☐ Planned ☐ Provisional
☐ Potential

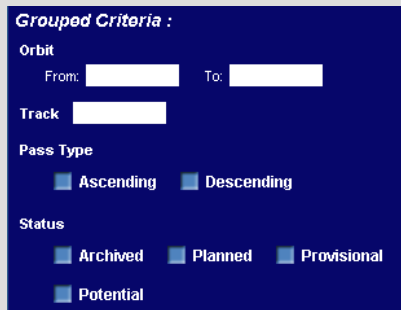
- Definition of the Master acquisition
 - set the date of the Master acquisition in the Date panel. This will be used to find the reference acquisition;
 - set the search area in the Area Panel. This area will be used for both acquisitions;
 - if you have selected at least 2 different collections (e.g. ERS and ASAR), set the one you want to use as Master acquisition (i.e. the one that will provide the first acquisition in each pair) by selecting it in the "Reference Collection" combo box.
 - set interferometry advanced criteria (See Figure 6.30, "Set interferometry advanced criteria") including:
 - the Perpendicular Base-line (in m): A range of base-line can be entered with a minimum and maximum value;

- the Absolute Doppler Centroid difference (in Hz): A maximum of absolute Doppler Centroid difference can be entered;
- the Date Offsets (in number of days): A range of date offsets can be entered;
- the Percentage Coverage Overlap: A minimum percentage coverage overlap can be entered;
- Definition of the Slave acquisition
 - set the date of the Slave acquisition in the Second Date panel. This will be used as the reference of a matching acquisition of the second item of a pair.
- Eventually, set other advanced criteria for each acquisition. The order of the acquisition depends on the order you have selected the local collections to search the interferometry pairs.
 - set advanced criteria for the first acquisition: satellite, orbit, track, pass direction, status, ... The panel to set the advanced criteria is named Local: - Name of the collection.
 - set advanced criteria for the second acquisition (idem criteria as the first acquisition). The panel to set the advanced criteria is named Local: (- Duplicate) - Name of the collection (- Duplicate if the pairs are searched in the same collection).

Grouping criteria

You can define some criteria and apply them for all panels checking the Group Criteria box next to the Query Mode drop-down menu. Then, some criteria are grouped and can be set by the user.

Figure 6.32. The Grouped Criteria panel for Interferometric search



Grouped Criteria :

Orbit
From: To:

Track

Pass Type
☐ Ascending ☐ Descending

Status
☐ Archived ☐ Planned ☐ Provisional
☐ Potential

6.7.3. Retrieving Interferometric results


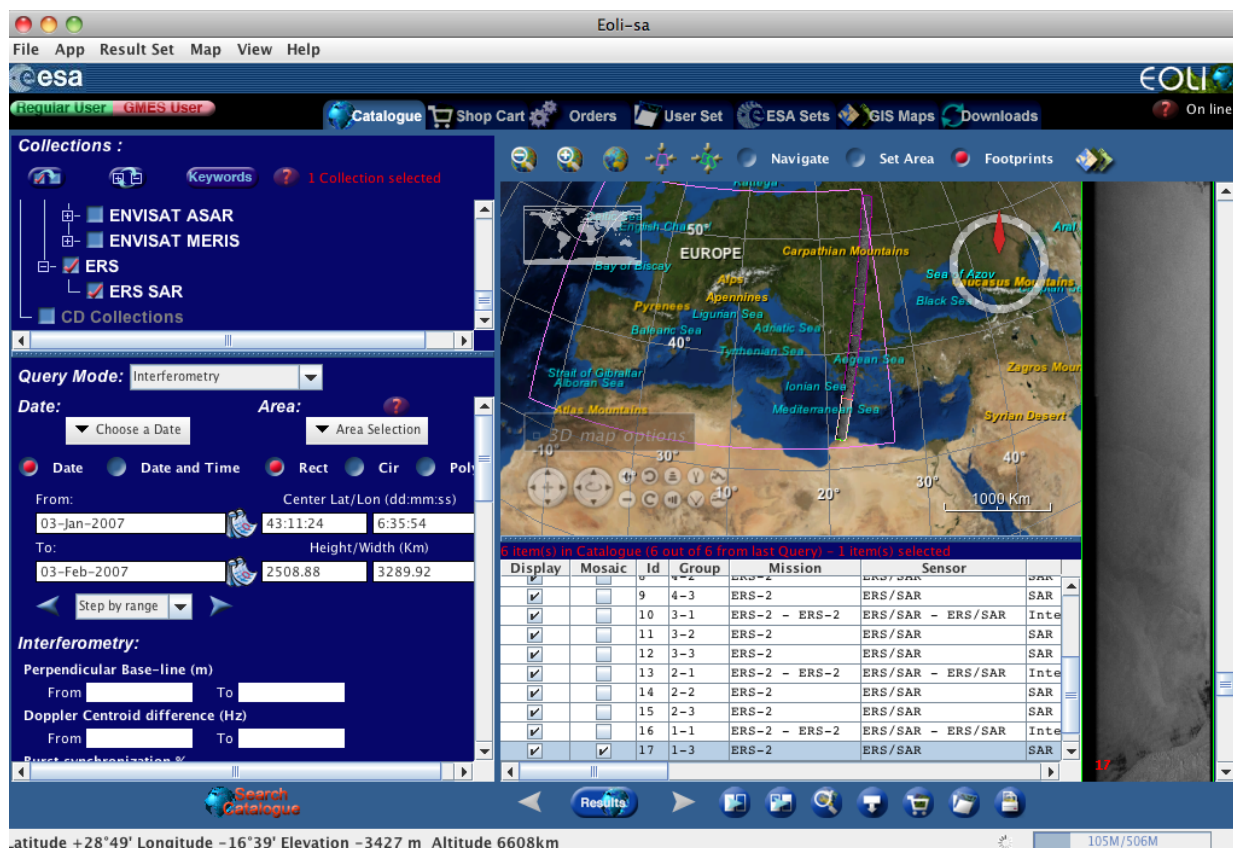
To submit the query, click on the Search Catalogue  button.

Figure 6.33. Interferometric search results



Results are grouped into pairs. In the Table of Results (Figure 6.33, “Interferometric search results”), each pair is represented by 3 lines. The lines are grouped together via the group column:

1. the first line characterizes the interferometric product: It gives indication on the pair itself. The group identifier for this line is referenced as N-1 (N being the reference number of the pair);
2. the second line characterizes the reference (Master) acquisition. The group identifier is referenced as N-2;
3. the third line characterizes the matching (slave) acquisition. The group identifier is referenced as N-3.

Interferometric search result items can be browsed and selected as described in Section 4.3, “Browsing, selecting and exporting items” , with the following additional possibilities:

1. you can select all items composing a pair by clicking on the corresponding first line (this selects the 3 lines).
2. One selected, you can add the whole pair to your User Set workspace, preserving the first line and the information it contains.

Detailed information related to the Master/Slaving acquisitions or to the interferometric product can be displayed as described in Section 4.3.2, “Item detailed information” .

The Interferometric Product Details window contains :

1. general information on the current interferometric product;
2. two radio buttons

- Interferometric Land Use (ILU) ;
 - Interferometric Browse Phase (IBP) ;
3. three options to modify the colour table for the visualization of the quick look image (see Section 4.3.2, “Item detailed information”);
 4. the quick look image in ILU (by default) or IBP mode;

Figure 6.34. Interferometric Land Use (ILU)

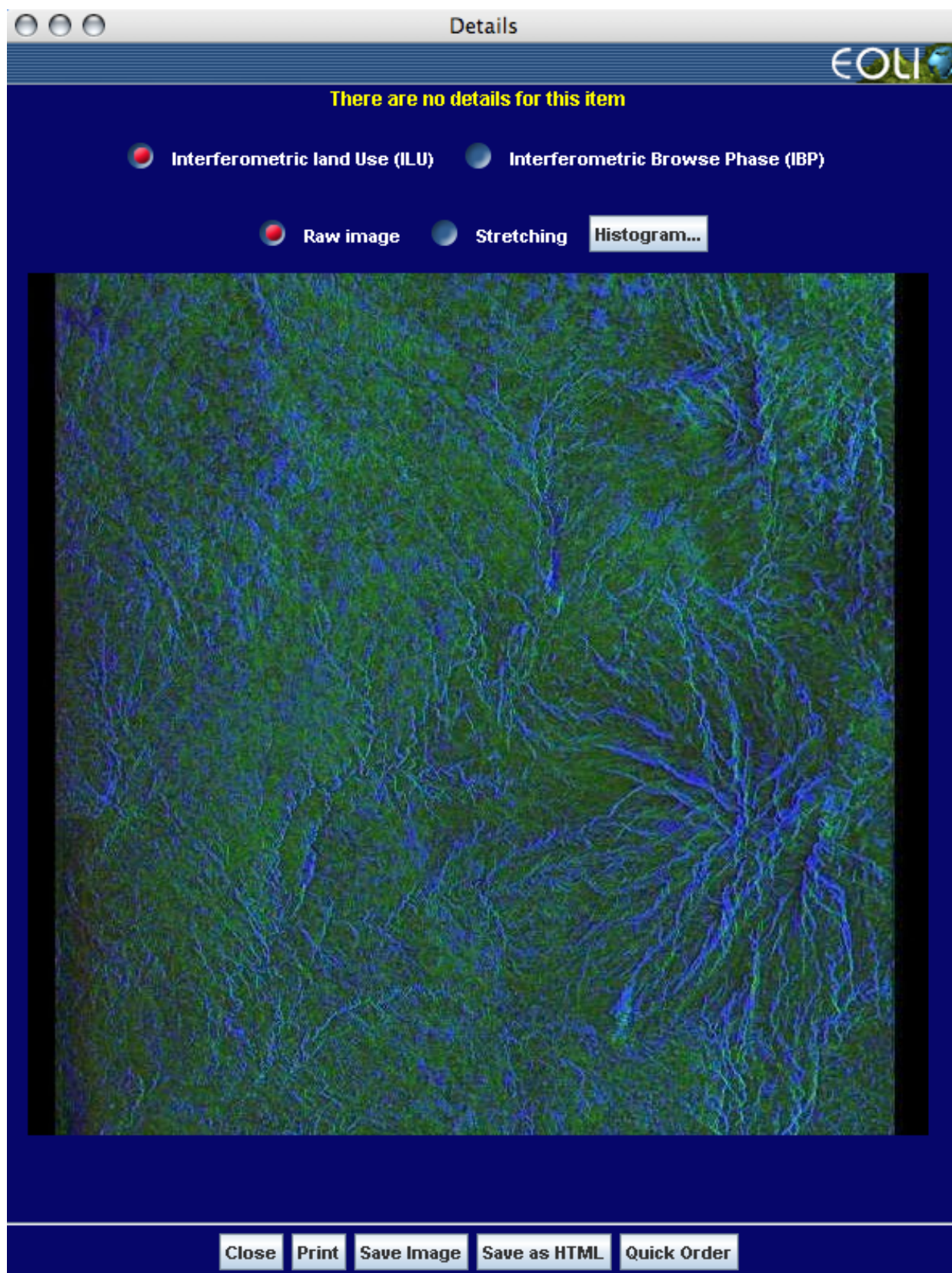
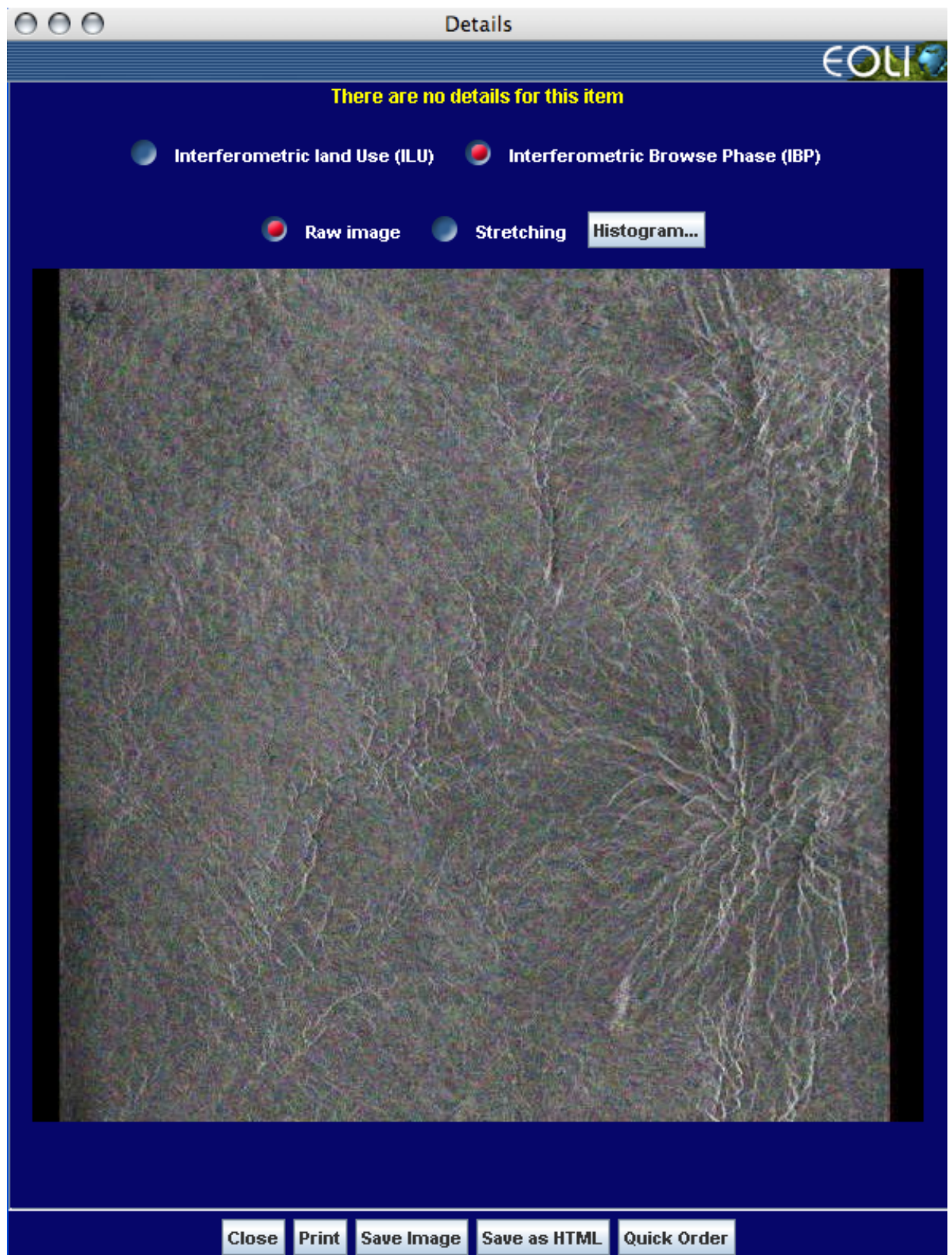


Figure 6.35. Interferometric Browse Phase (IBP)



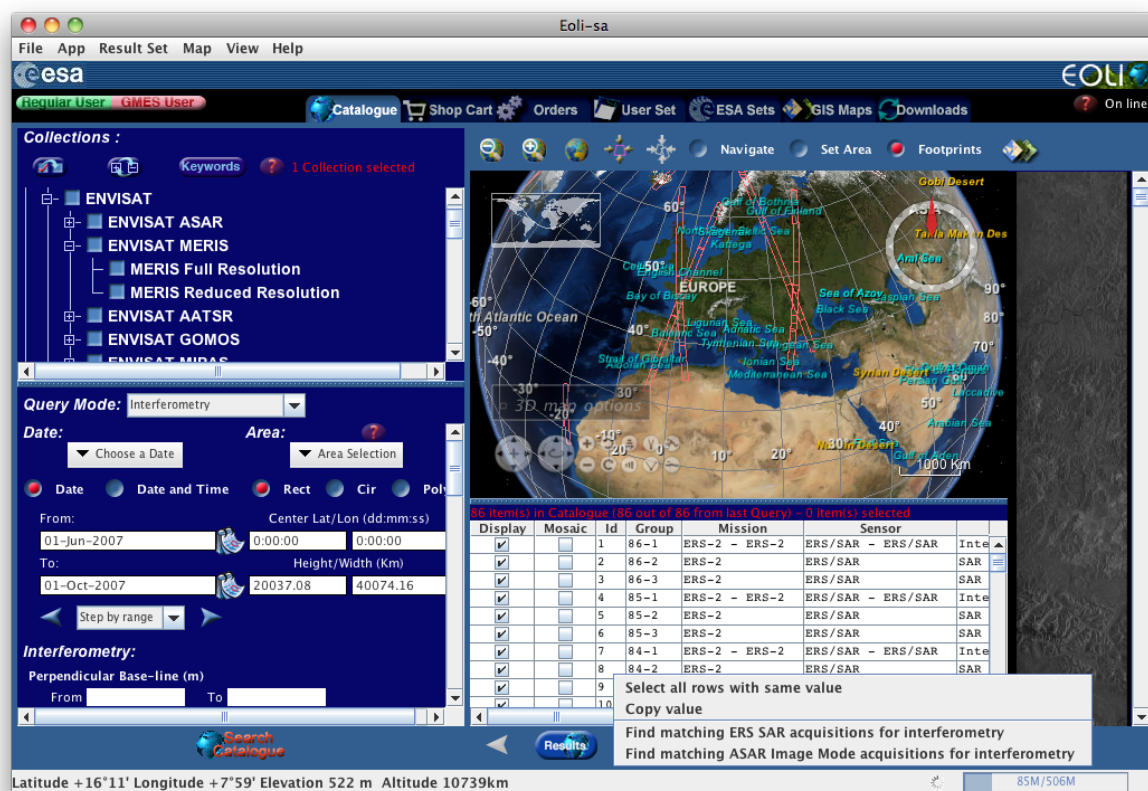
6.7.4. DESWC Interferometric Search

In addition to the interferometric search described above, there is another way to perform interferometric searches on local collections called **DESCW** interferometric search. This type of search enables to quickly find acquisitions matching a given catalogue, shopCart or UserSet item.

Right-click on an item in the catalogue, shopcart, or userSet table:

- A pop-up menu gives options to choose from for each supported interferometric combinations (giving the full name of the collection, for example, "find matching ERS SAR acquisitions for interferometry", Find matching ASAR image Mode acquisitions, ...).
- options are visible only if the interferometric search combinations are available.
- Whereas, if the local collection needed to support the search is not present, the options are greyed out.

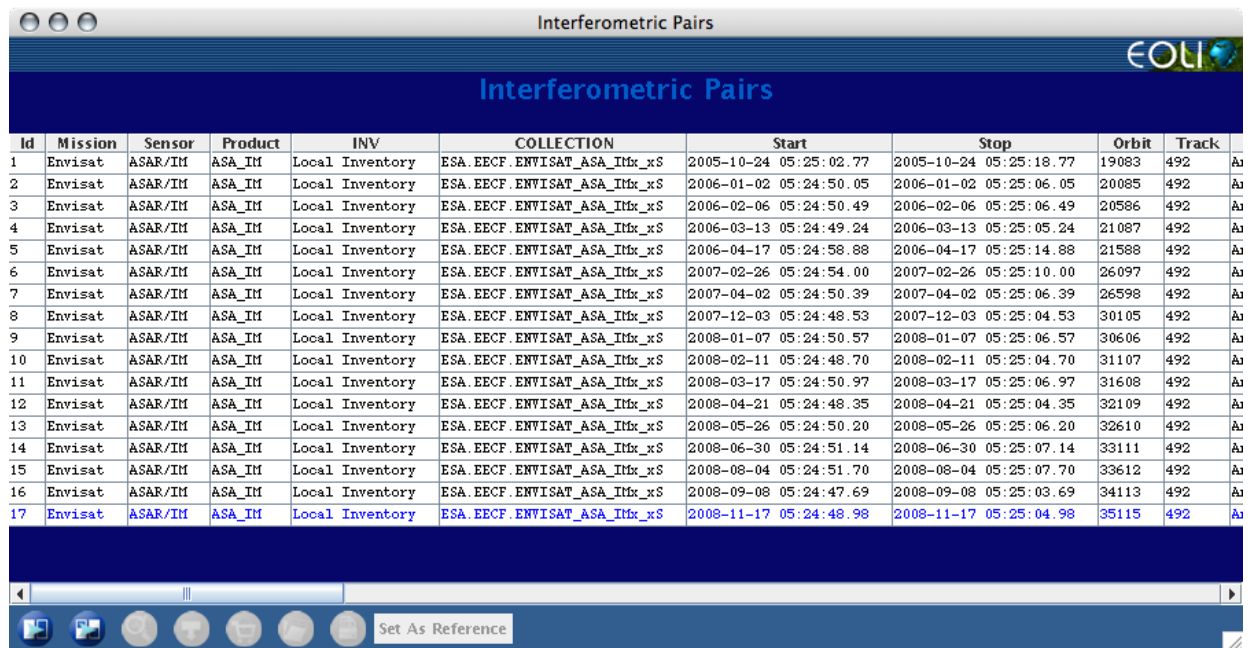
Figure 6.36. DESCW Interferometric Search Menu



The inventory search uses the same acquisition matching criteria used for a standard interferometric search (i.e. same track, different orbit, overlapping), but ignoring the date criteria (i.e. the all mission is “scanned”), baseline, Doppler and burst synch criteria.

the selected reference acquisition and its matching acquisitions (i.e. the result of the quick interferometric search) are displayed in a pop-up result table window with the usual table toolbar buttons. Each item in this table indicates its Baseline, Doppler, Burst synch (when applicable) and coverage percentage with respect to the reference acquisition.

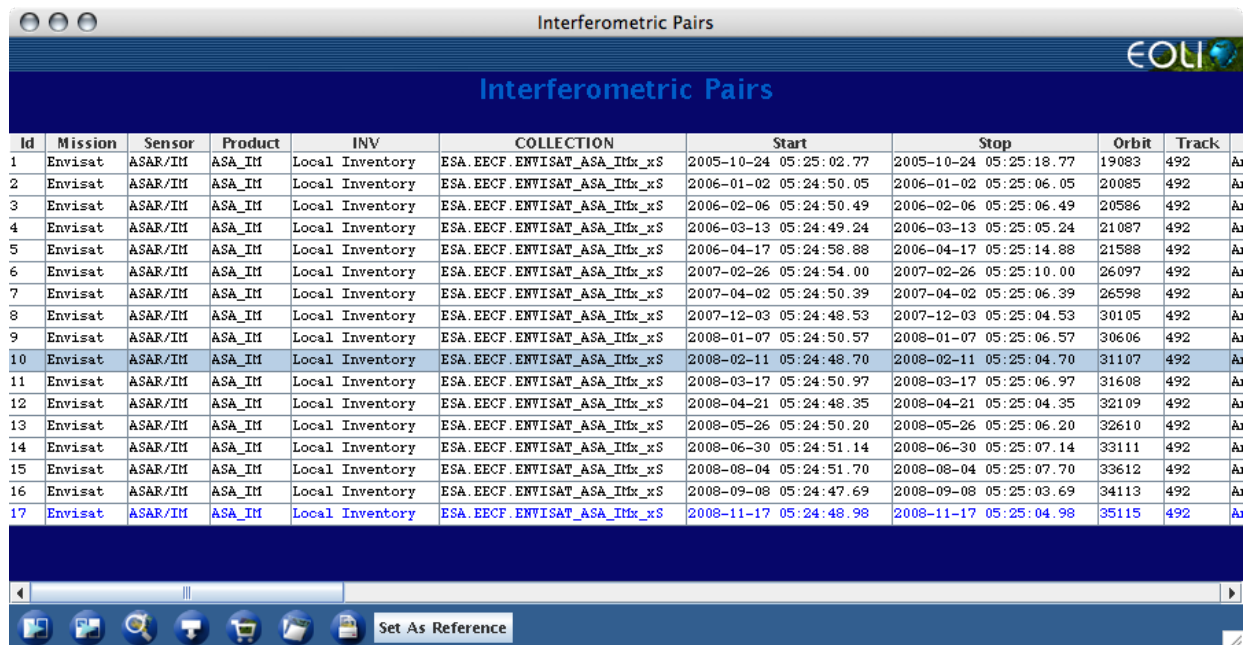
Figure 6.37. DESCW Interferometric Search Menu



Id	Mission	Sensor	Product	INV	COLLECTION	Start	Stop	Orbit	Track	
1	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2005-10-24 05:25:02.77	2005-10-24 05:25:18.77	19083	492	Au
2	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2006-01-02 05:24:50.05	2006-01-02 05:25:06.05	20085	492	Au
3	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2006-02-06 05:24:50.49	2006-02-06 05:25:06.49	20586	492	Au
4	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2006-03-13 05:24:49.24	2006-03-13 05:25:05.24	21087	492	Au
5	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2006-04-17 05:24:58.88	2006-04-17 05:25:14.88	21588	492	Au
6	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2007-02-26 05:24:54.00	2007-02-26 05:25:10.00	26097	492	Au
7	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2007-04-02 05:24:50.39	2007-04-02 05:25:06.39	26598	492	Au
8	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2007-12-03 05:24:48.53	2007-12-03 05:25:04.53	30105	492	Au
9	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2008-01-07 05:24:50.57	2008-01-07 05:25:06.57	30606	492	Au
10	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2008-02-11 05:24:48.70	2008-02-11 05:25:04.70	31107	492	Au
11	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2008-03-17 05:24:50.97	2008-03-17 05:25:06.97	31608	492	Au
12	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2008-04-21 05:24:48.35	2008-04-21 05:25:04.35	32109	492	Au
13	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2008-05-26 05:24:50.20	2008-05-26 05:25:06.20	32610	492	Au
14	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2008-06-30 05:24:51.14	2008-06-30 05:25:07.14	33111	492	Au
15	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2008-08-04 05:24:51.70	2008-08-04 05:25:07.70	33612	492	Au
16	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2008-09-08 05:24:47.69	2008-09-08 05:25:03.69	34113	492	Au
17	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2008-11-17 05:24:48.98	2008-11-17 05:25:04.98	35115	492	Au

The reference acquisition is highlighted in blue. It is possible to change it by clicking on an other item of the table. The Set As Reference button becomes then enabled in order to validate the new reference choice as shown in Figure 6.38, “DESCW Interferometric Pairs Dialog Reference Change”.

Figure 6.38. DESCW Interferometric Pairs Dialog Reference Change



Id	Mission	Sensor	Product	INV	COLLECTION	Start	Stop	Orbit	Track	
1	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2005-10-24 05:25:02.77	2005-10-24 05:25:18.77	19083	492	Au
2	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2006-01-02 05:24:50.05	2006-01-02 05:25:06.05	20085	492	Au
3	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2006-02-06 05:24:50.49	2006-02-06 05:25:06.49	20586	492	Au
4	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2006-03-13 05:24:49.24	2006-03-13 05:25:05.24	21087	492	Au
5	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2006-04-17 05:24:58.88	2006-04-17 05:25:14.88	21588	492	Au
6	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2007-02-26 05:24:54.00	2007-02-26 05:25:10.00	26097	492	Au
7	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2007-04-02 05:24:50.39	2007-04-02 05:25:06.39	26598	492	Au
8	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2007-12-03 05:24:48.53	2007-12-03 05:25:04.53	30105	492	Au
9	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2008-01-07 05:24:50.57	2008-01-07 05:25:06.57	30606	492	Au
10	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2008-02-11 05:24:48.70	2008-02-11 05:25:04.70	31107	492	Au
11	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2008-03-17 05:24:50.97	2008-03-17 05:25:06.97	31608	492	Au
12	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2008-04-21 05:24:48.35	2008-04-21 05:25:04.35	32109	492	Au
13	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2008-05-26 05:24:50.20	2008-05-26 05:25:06.20	32610	492	Au
14	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2008-06-30 05:24:51.14	2008-06-30 05:25:07.14	33111	492	Au
15	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2008-08-04 05:24:51.70	2008-08-04 05:25:07.70	33612	492	Au
16	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2008-09-08 05:24:47.69	2008-09-08 05:25:03.69	34113	492	Au
17	Envisat	ASAR/IM	ASA_IM	Local Inventory	ESA.EECF.ENVISAT_ASA_Itbr_xS	2008-11-17 05:24:48.98	2008-11-17 05:25:04.98	35115	492	Au

In that case the baseline, Doppler and coverage percentage of all items are re-calculated against the newly selected reference.

Chapter 7. The Shop Cart workspace - Ordering products

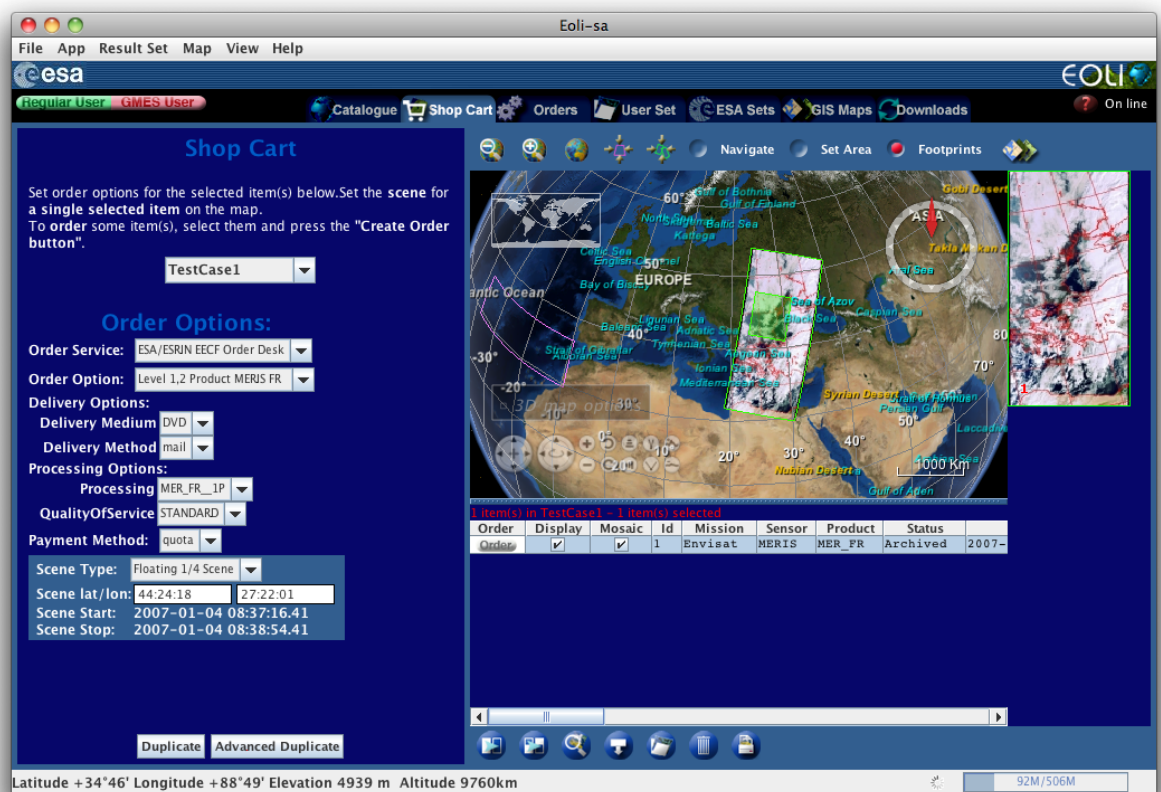
This chapter explains how to use the Shop Cart workspace to generate and submit a product order

7.1. Overview

The Shop Cart workspace (Figure 7.1, “The Shop Cart workspace”) is used to prepare product orders. An order is a container for one or several order items. Items in the Shop Cart workspace are order items in preparation.

The Shop Cart workspace lets you specify the order options for each order items. Once this is done, you can submit an order.

Figure 7.1. The Shop Cart workspace



If you need to simply put aside a product you have found in the catalogue (e.g. a nice image you want to look at later on), but you do not want to order it, then you should rather make use of the User Set workspace (see Chapter 9, *The User Set workspace - Storing items for later re-use*).

The Shop Cart is automatically stored as a file on your local disk (file shopcart.txt).

Every time the Shop Cart content is modified, the Shop Cart file is updated. The Shop Cart file is updated when:

1. One or several items are added from another workspace;
2. One or several items are deleted;

3. The order options for an item are modified;
4. One or several items are ordered (successfully ordered items are automatically removed from the Shop Cart workspace);
5. A new Shop Cart is loaded from a file.

User can duplicate item he wishes by clicking on the button "duplicate". This operation duplicates selected items and add them automatically to the end of the dataset.

User can duplicate item he wishes by clicking on the button "Advanced duplicate". This function is only applicable for one selected item and automatically duplicates the selected shop cart item, as many times as required in order to cover the entire segment(s) with sub-scenes. This operation will duplicate selected items and add them automatically to the end of the dataset.

7.2. Adding items to the Shop Cart workspace

From the Catalogue, the User Set or the Download workspace, you can copy selected data products to the Shop Cart


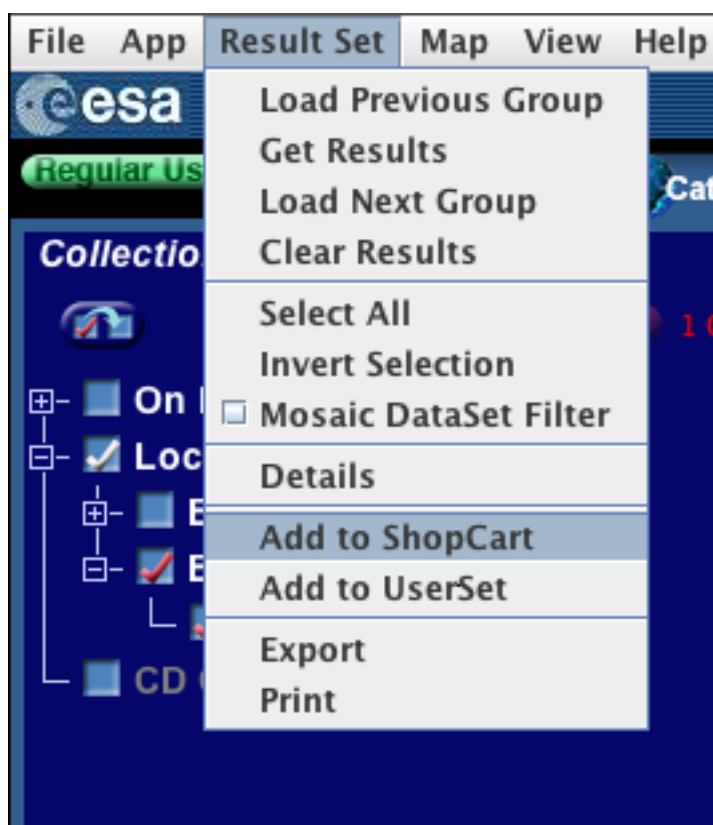
workspace via the Shop Cart  button of the Tool bar. Alternately, select Result Set >> Add to ShopCart from the Menu Bar (Figure 7.2, "The Add to ShopCart menu").


Figure 7.2. The Add to ShopCart menu



When an item is added to the Shop Cart workspace, all its order options including the sub-scene selection are set to default values (see Section 7.5, "Setting order options").

New items are always added at the end of the current Shop Cart items (they appear at the bottom of the table if the items are sorted by their Id number (default sorting).

7.3. Removing items from the Shop Cart workspace

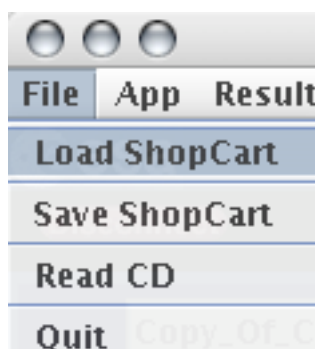
To remove items from the Shop Cart workspace, select them and click on the Bin  button of the Tool bar.

7.4. Saving and loading a Shop Cart

You can load or save a shopcart using the Save/Load ShopCart function from the menu File (Figure 7.3, “The Load/Save ShopCart menu”).Shop Cart files are saved with a .txt extension.

To use several Shop Carts and swap from one to the other, see Section 7.9, “Multiple Shopcarts Management” .

Figure 7.3. The Load/Save ShopCart menu



You can use several Shop Carts when working on different projects, the same way as for User Set.

Shopcart files

ShopCart files may be saved using one EOLI-SA client and loaded on another one. The Save/Load ShopCart feature may be used to exchange data products references and related order options among your colleagues by simply saving the ShopCart as a file and sending it to other users.

7.5. Setting order options

7.5.1. Processing and delivery options

You should now check your order content by using the Order Options. These appear as definable fields on the left hand side of the Shop Cart window when an item is selected in the product list (Figure 7.4, “The Order Options panel”).

Figure 7.4. The Order Options panel



The screenshot shows a web interface titled "Order Options:" in blue text. Below the title, there are several dropdown menus for configuring an order. The "Order Service" dropdown is set to "ESA/ESRIN EECF Order Desk". The "OrderOption" dropdown is set to "level 1". Under "Delivery Options", the "Delivery Medium" dropdown is set to "DVD" and the "Delivery Method" dropdown is set to "mail". Under "Processing Options", the "Processing" dropdown is set to "MER_RR__1P" and the "QualityOfService" dropdown is set to "STANDARD". The "Payment Method" dropdown is set to "quota". At the bottom, the "SceneType" dropdown is set to "Floating Pass".

The Order Options panel (Figure 7.4, “The Order Options panel”) allows you to set several options:

1. Order Service: Your order is sent to the ESA Earth Observation Missions Order Desk Team.
2. Order Option: You can select the level of processing related to the data products you want to order. For more information on the different levels of processing and categories of data, see Appendix A.
3. Delivery Options:
 - Delivery Medium: You can define the type of media you want to receive. The Delivery Medium can be either CD-Rom or DVD depending on the size of the data.
 - Delivery Method: Data are delivered by Courier.
4. Processing Options:
 - Processing: The processing options are strictly related to the type of data product you order. For further information, go to Appendix A.
 - QualityOfService: By default, this criterion is set to Standard.
5. Payment Method: This option is set to quota. For further information on your personal quota, contact the ESA Earth Observation Missions Order Desk Team (<eohelp@esa.int>).

Special character on order options

You can set an option for several items at a time, providing that the selected items are all of the same type (same Mission, same Sensor and same Product).

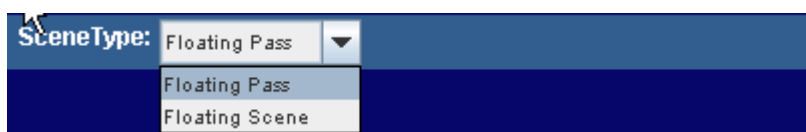
When several items of the same type are selected, the order option values which are not identical for all items are displayed as * (star character).

Any change of an order option value is applied to the whole selection.

7.5.2. Scene Type selection

The **Scene Type** option (Figure 7.5, “The Scene Type selection”) allows you to define a sub-scene for each data product you select. The selection is accessible via a drop-down menu.

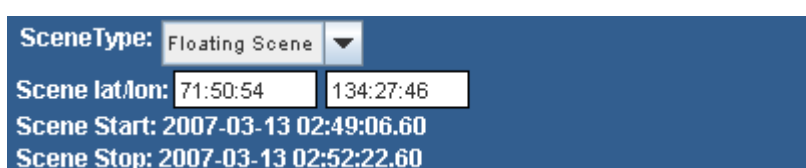
Figure 7.5. The Scene Type selection



Depending on the product type and the order options that you have set (in particular the processing level), several types of sub-scene may be offered:

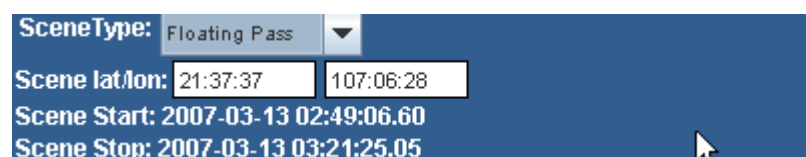
- **Floating Scene** (Figure 7.6, “Definition of a Floating Scene”): a sub-scene of standard fixed length, that can be placed anywhere along the selected item (along Track). Floating scenes correspond to the frames, as they were formerly used in the ERS mission.

Figure 7.6. Definition of a Floating Scene



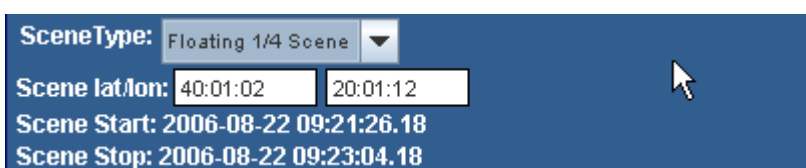
- **Floating Pass** (Figure 7.7, “Definition of a Floating Pass”): a sub-scene which you can resize at your convenience, and place anywhere along Track.

Figure 7.7. Definition of a Floating Pass



- **¼ Scene** (Figure 7.8, “Definition of a ¼ Scene”): a sub-scene of fixed size (1/2 of the floating scene length and width) that can be placed anywhere along and across Track.

Figure 7.8. Definition of a ¼ Scene



- **Mini Scene** : similar to the ¼ scene, but smaller.

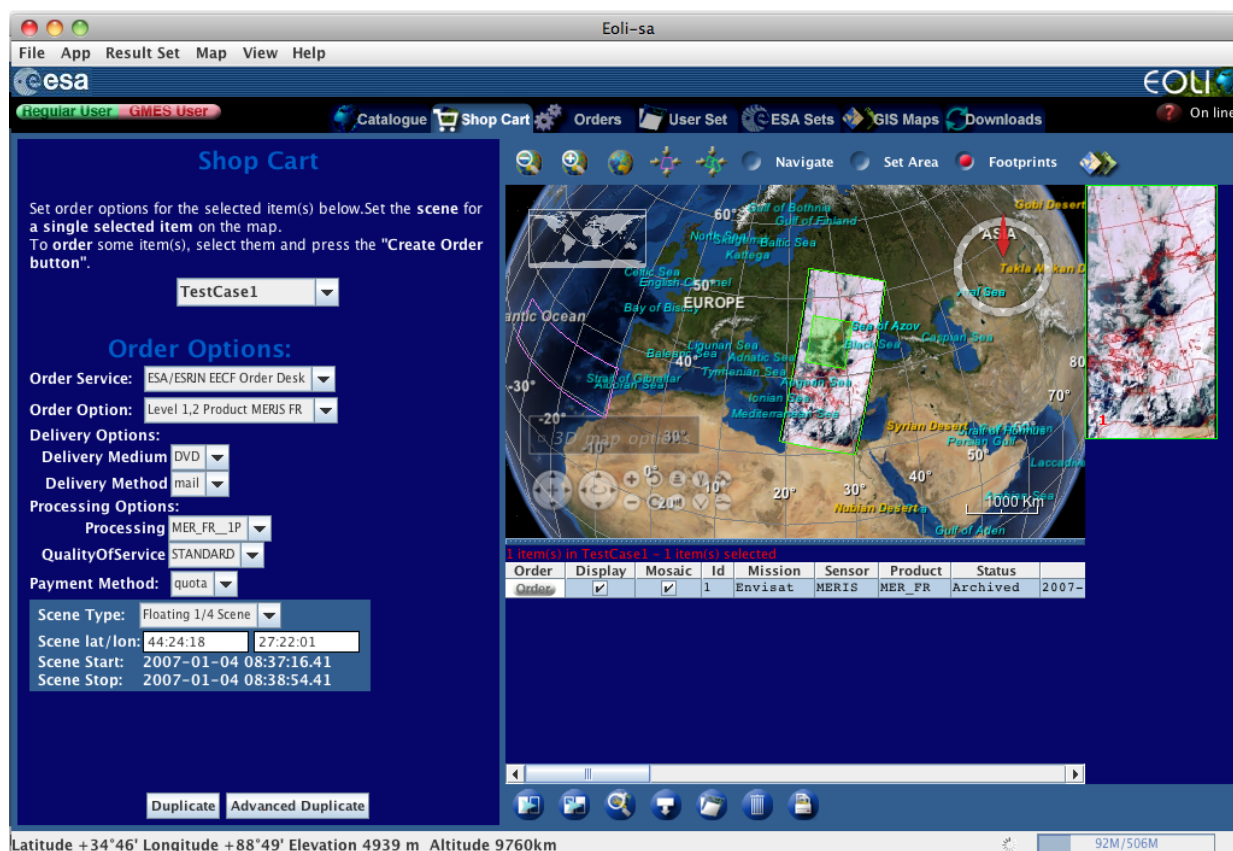
The sub-scene can be defined for one item at a time.

You can define a scene graphically on the Map (Figure 7.9, “Selecting sub-scenes in the Shop Cart workspace”). Set the map mode to Footprint and select the item on which to define the sub scene. The footprint of the selected product is displayed in light green while the sub-scene is drawn in dark green.

Floating, ¼ and mini scenes can only be moved within the selected product boundaries (the light green footprint). Click within the sub-scene and drag the mouse to position the sub-scene.

Floating pass can be moved in a similar way and resized by clicking one of the resizable edges (indicated by small triangles) and dragging the mouse up or down. There is a maximum and minimum size of the floating pass that cannot be exceeded. These limits may differ from one product to the other.

Figure 7.9. Selecting sub-scenes in the Shop Cart workspace

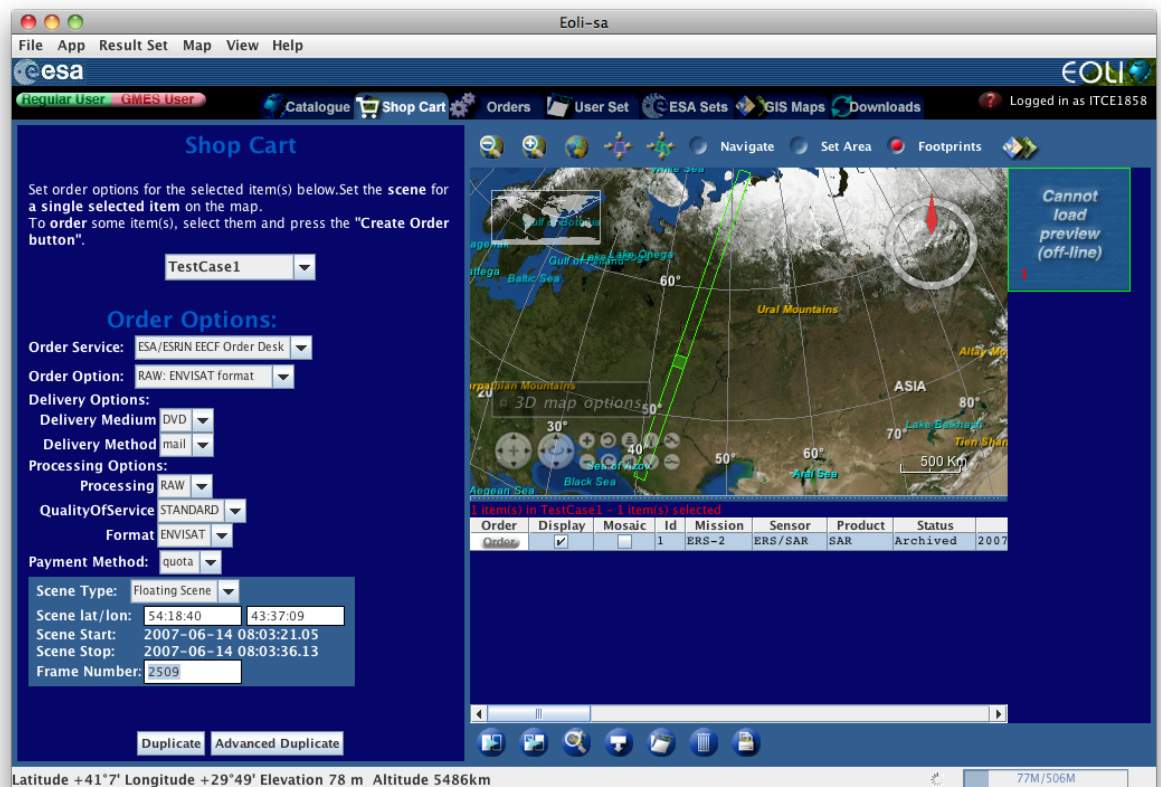



Another way of defining a sub-scene is using input values. Floating, $\frac{1}{4}$ and mini scenes can be positioned by inserting the sub-scene center latitude and longitude in the ad-hoc fields in the order option panel. Input values are automatically adjusted to the closest valid scene so that the sub-scene remains within the product boundaries. A Floating scene can also be positioned by inserting its frame number.

If the possibility of positioning the scene via frame(s) number is offered by the collection for the product, the user has a text field in which he can enter the frame number value. This number is first of all validated using the framing info defined in the collection configuration, if it is not valid, it is rounded to the nearest valid frame number. Then, if this moves the scene inside the footprint boundaries, the value is kept unless the frame number set is either the top edge or the bottom edge frame number allowed inside the footprint. The choice is done according to the initial value entered : if it is closer to the top edge allowed frame number value than the bottom edge allowed one, then the top edge value is set and inversely.

For limit cases, the average orbital period is used in the scene passtime calculation if order to make the scene fit in the footprint boundaries. Once a valid frame number is chosen, automatically Eolisa calculates the scene passtimes, the scene centre coordinates, the scene width and the other footprint coordinates in order to set the scene in the correct position.

Figure 7.10. Setting frame number in the Shop Cart workspace



 If you need to order different sub-scenes of the same product, use the duplicate button (Figure 61). For example, to order 2 ¼ scene out of one MERIS product, select the MERIS item, define the first ¼ scene , duplicate the item (the new created item is automatically selected) and define the second ¼ scene .

7.6. Submitting orders

You need to be logged in as a Registered user to submit orders. For more details on how to register, see Appendix B, *ESA data policy* .

To order several item(s), the user shall first select/highlight them in the shop cart workspace's dataset and then click on the **Order** button of one of the selected item. If the user click is on the order button of a product outside the selection, only this product will be ordered.

The **Order** button is disabled (greyed out) if:

- User is not connected as registered one.
- or selected items do not belong to the same service.
- or the maximum number of item that can be ordered for the selected service is reached.

Depending on these item's order service, Eolisa will show the correct window that will guide user to order the selected products

EOLISA supports two types of order service:

- Online Access Service
- Standard Product Ordering

7.6.1. Online access service

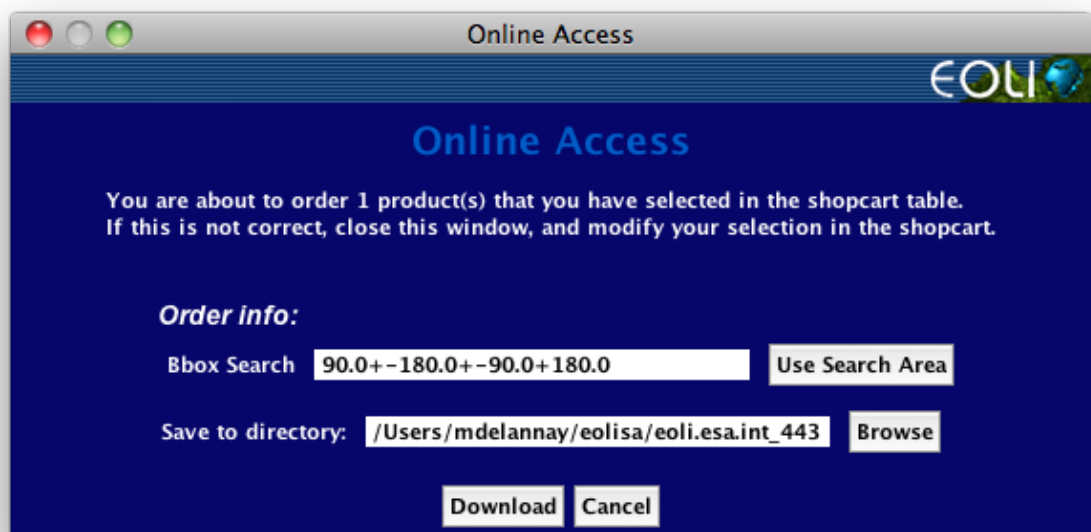
This service (when exists for a given collection) is used to download directly the final product form server.

Whenever one or several ShopCart items belonging to the same “Online access” order service are “ordered” (i.e. downloaded), these ordered items are removed from the shopcart and are added in the Downloads workspace (see Chapter 12, *The Downloads Workspace - Monitoring downloads*).

If the online access service requires a specific login, then the user is prompted first (and only once) with a login window. The username and password entered by the user is then reused for each item to be downloaded. In principle, most of the download access servers will accept the user own username/password. For each other product servers that requires a specific authentication (with a shared username/password), a specific online access service (with prompt) will be configured in EoliSA.

In addition to that (when configures for this service), EoliSA support a built in order option (called “bbox”) widget that you allows to “grab” the currently defined search area and use it as an order option.

Figure 7.11. The Online Access window



7.6.2. Standard Product Ordering

The Product Ordering window includes the delivery address, a telephone number and a notification email address. You can change these fields at any time. However, if the items have at least one item for which the delivery method is mail, the delivery address fields shall be filled in.

If the items you are going to order have at least one item that has a delivery method set to "ftp-pull" or "ftp-pickup" you need to enter a notification email.

In addition to that, you need to add an order name to submit the order. This name can be any string of your choice. We recommend you use unique names as this will facilitate order identification in the future.

Figure 7.12. The Create Order window

Product Ordering

Please check your order carefully before submitting it.

You are about to submit 1 item(s). Please verify carefully that all order options are set to your needs before submitting the order. To do so, simply click the items you want to verify in the shopcart table.

Delivery Address : **Default Delivery Address** ▼

Organization: recipient ident

Recipient Name: co

Street Address: streetAddress

Postal Code: postalCode

City: city

County/State/Province: state

Country: ▼

Telephone number of the recipient: telNumber

Notification Email:

Get Address from Server

You can modify the default delivery address in the EoliSA preferences

Order Info:

Order Name:

User Remark:

Order Account: DummyProject ▼

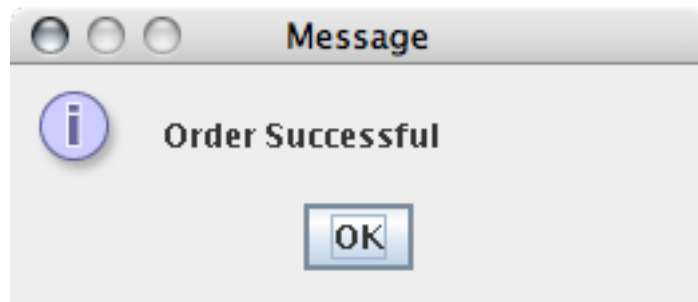
Submit **Cancel**

To complete the order, click on the Submit button.

A confirmation message will be raised depending on the state of the standard product ordering.

- If the order is not successful a message will appear explaining the reasons for the failure. In general, an order fails when you are not authorized to order some of the selected products (e.g. your project is based on ASAR/IM data and you want to order MERIS data). Another reason for failure is when you are trying to order too many items at a time (a safe limit is about 20 items per orders. This limit actually depends on the server workload).
- If the order has been successful, the message Figure 7.13, “The confirmation of a successful standard order” will appear and the order will be automatically sent to the ESA Earth Observation Missions Order Desk Team. Those items which are successfully ordered are automatically removed from the Shop Cart workspace.

Figure 7.13. The confirmation of a successful standard order



7.7. Candidate Acquisition file import/export to PIAT (Planning Feasability Analysis)

The **PIAT (Planning Feasability Analysis)** tool is used to evaluate new or candidate projects by assessing the impact of the project on the current mission planning.

To do this, the tool extrapolates the current and past acquisition requests into the future, merges this with a simulated planning of the candidate project and then checks for conflicts and against physical mission constraints.

The **PIAT** tool' s different service are:

- Submitting an Order Service for **PIAT** : when submitting such an order, EOLI-SA creates a new read-only Shopcart file which name follows a nomenclature. The file name will be <project>-<ordername>-<counter> . The counter field is increased when user creates more than one order with the same order name and the same project.

This order service manipulation is same as other order service (see Section 7.6, “Submitting orders”)

- **CSV/PIAT Import**: in the shopcart, user can import a **PIAT CSV** response by loading a local CSV file. Go to the menu and select "**load shopcart**" . This will open a filechooser that allows user to choose a **CSV/PIAT** response file to import.
- **Search**: when the search is performed, several items can be retrieved. EOLI-SA choose items that most matches the requested one.
- **CSV/PIAT Export**: exporting **CSV/PIAT** use the same tool like othe export formats. (see Section 4.3.3.1, “How to export an item”)

And in addition some **PIAT** parameters will be added in the exported file.

7.8. MMOHS order service

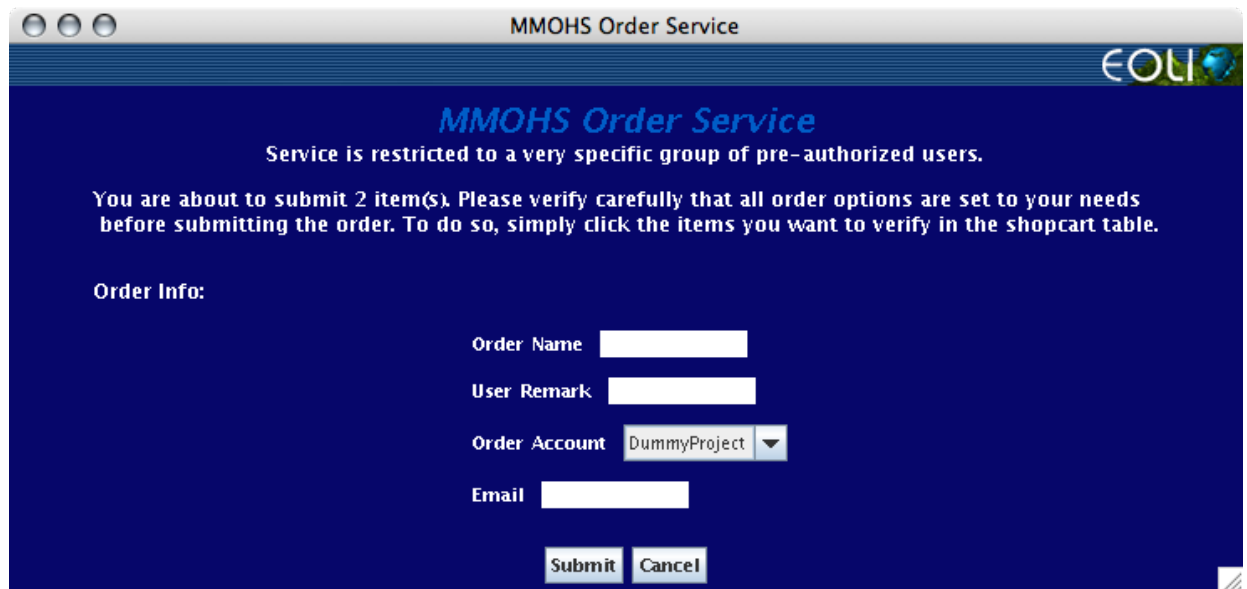
The objective of this service is to provide the same service currently available with **DESCW** .

The Product Ordering window includes the Order Account, the project related to the user identifier used to login, the user remark and a notification email address.

Items user wants to order must have the same satellite, product type, scene type and same selection comprise products, in the futur (potential) or in the past (archived) but not both.

In addition to that, you need to add an order name to submit it.

Figure 7.14. Creating MMOHS Order window

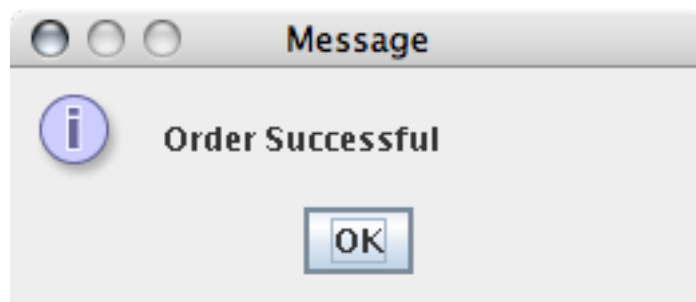


To complete the order, click on the Submit button.

A confirmation message will be raised depending on the state of the order.

- If the order is not successful a message will appear explaining the reasons for the failure.
- If the order has been successful, the message Figure 7.15, “The confirmation of a successful MMOHS order” will appear and the order will be automatically sent to the ESA Earth Observation Missions Order Desk Team. Those items which are successfully ordered are automatically removed from the Shop Cart workspace.

Figure 7.15. The confirmation of a successful MMOHS order



7.9. Multiple Shopcarts Management

Often, user have to deal with many data and wants to manage many shopcart as he wishes. That's why EOLI-SA was enhanced to support such fonctionnality. This section describes how to create, edit, rename and delete a shopcart. The shopcart's name is defined by the user except the default one that is always in the list because EOLI-SA must have at least one shopcart.

There is a list that is displayed to allow user to **select** , **edit** , **rename** , **create** or **delete** a shopcart.

The last used shopcart is loaded by EOLI-SA at the startup.

- The first one (see Figure 7.16, “Selecting creation of new shopcart”) creates a new shopcart that allows user to enter a name he wishes (see Figure 7.18, “Window box for creating new shopcart”) . If the new shopcart is validated by the user, then the new one is added to the displayed list menu and is automatically selected

- When user wants to edit a shopcart, he has to choose "Edit Shopcart" menu (see Figure 7.17, "Selecting edition of a shopcart") that allows him to copy, rename or delete a shopcart. User can then duplicate, rename or delete a shopcart by selecting one of them (see Figure 7.19, "Window box for editing a shopcart") and by confirming the operation he wants
- User can select shopcart he wishes to work with from the displayed list. The selected one will automatically display the data it contains in the dataset with its meta-data.

Figure 7.16. Selecting creation of new shopcart

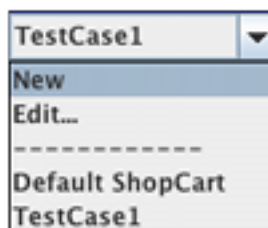


Figure 7.17. Selecting edition of a shopcart

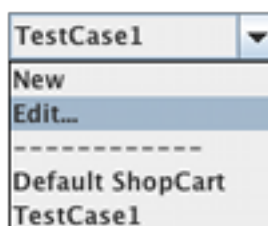


Figure 7.18. Window box for creating new shopcart

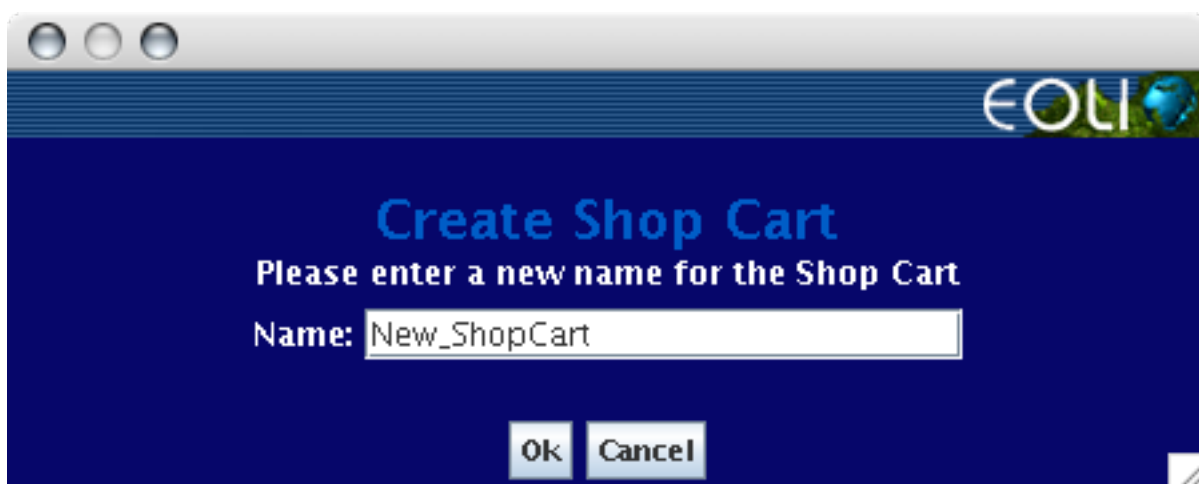
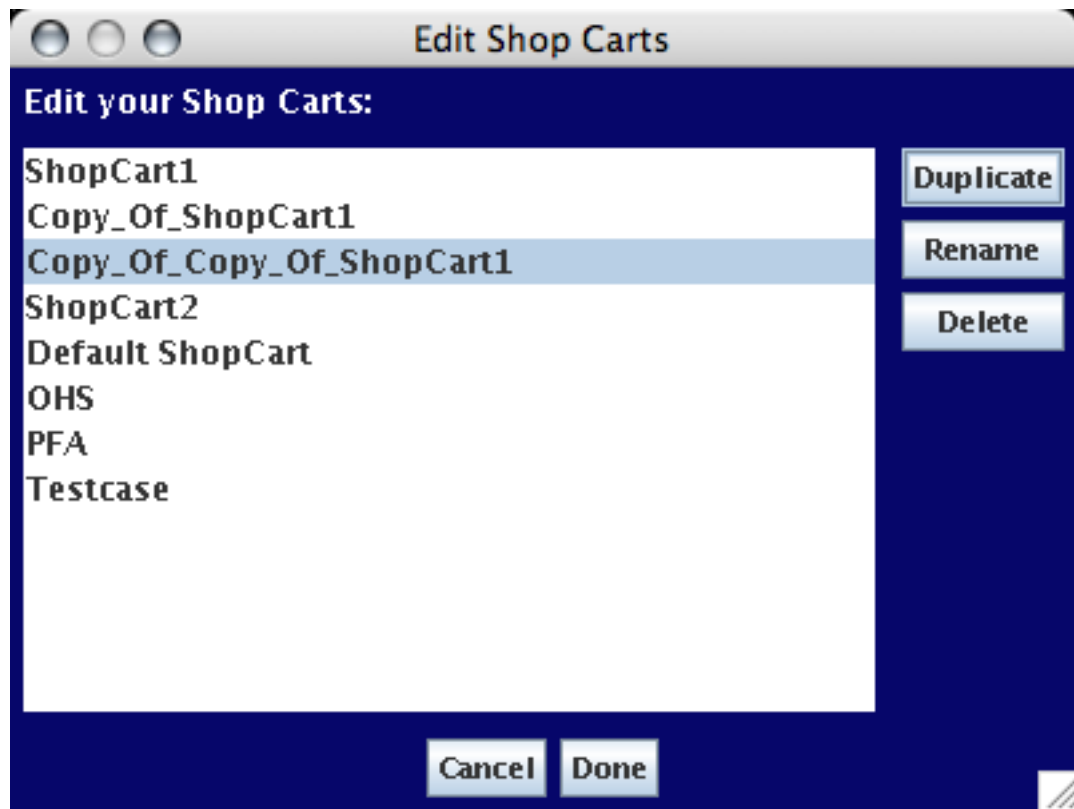


Figure 7.19. Window box for editing a shopcart

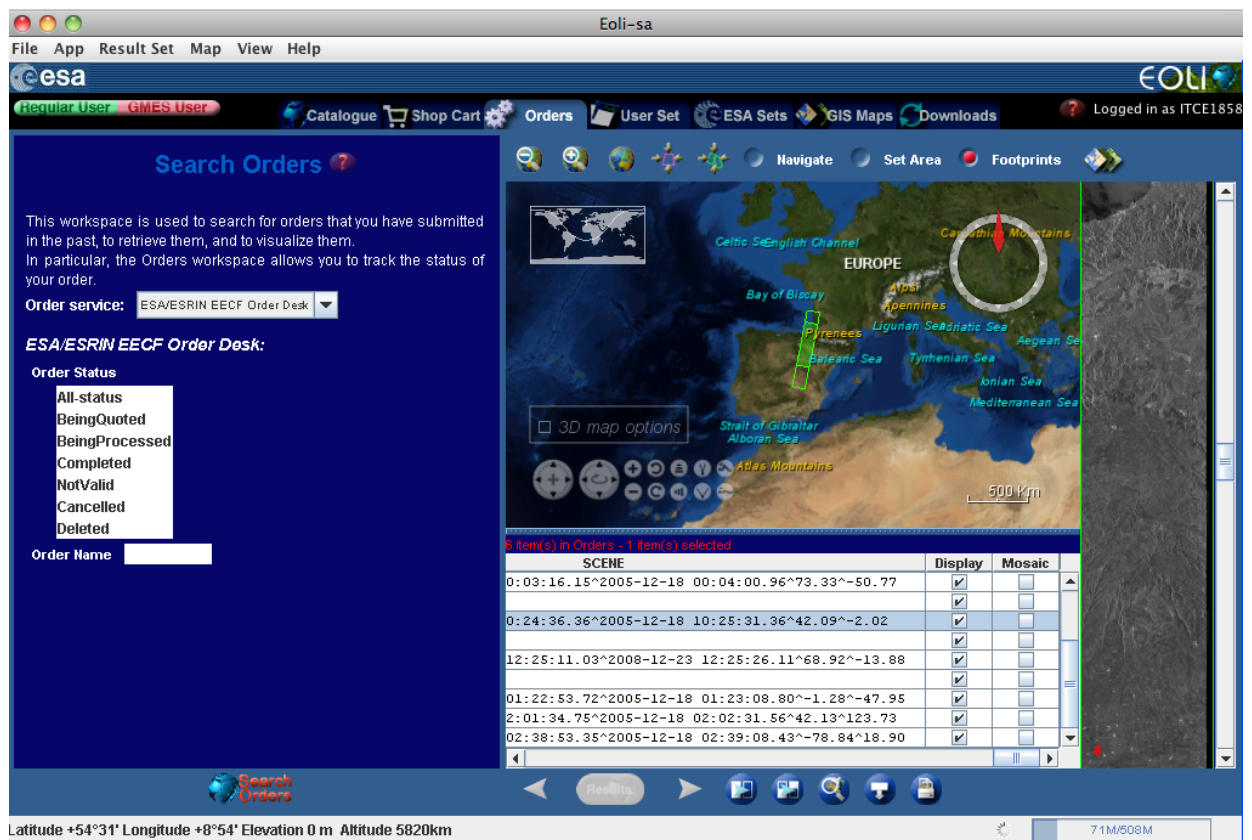


Chapter 8. The Orders workspace - Tracking orders

8.1. Overview

The Orders workspace is used to search for orders that you have submitted in the past, to retrieve them, and to visualize them. In particular, the Orders workspace allows you to track the status of your orders.

Figure 8.1. The Orders workspace



8.2. Setting Search Orders criteria

To search for orders, you need to set order search criteria available in the Search Orders panel (Figure 8.2, “The Search Orders panel”).

The Search Orders panel(Figure 8.2, “The Search Orders panel”) allows you to set several options:

Figure 8.2. The Search Orders panel

Search Orders ?

This workspace is used to search for orders that you have submitted in the past, to retrieve them, and to visualize them. In particular, the Orders workspace allows you to track the status of your order.

Order service: ESA/ESRIN EECF Order Desk ▼

ESA/ESRIN EECF Order Desk:


Order Status

- All-status
- BeingQuoted
- BeingProcessed
- Completed
- NotValid
- Cancelled
- Deleted

Order Name

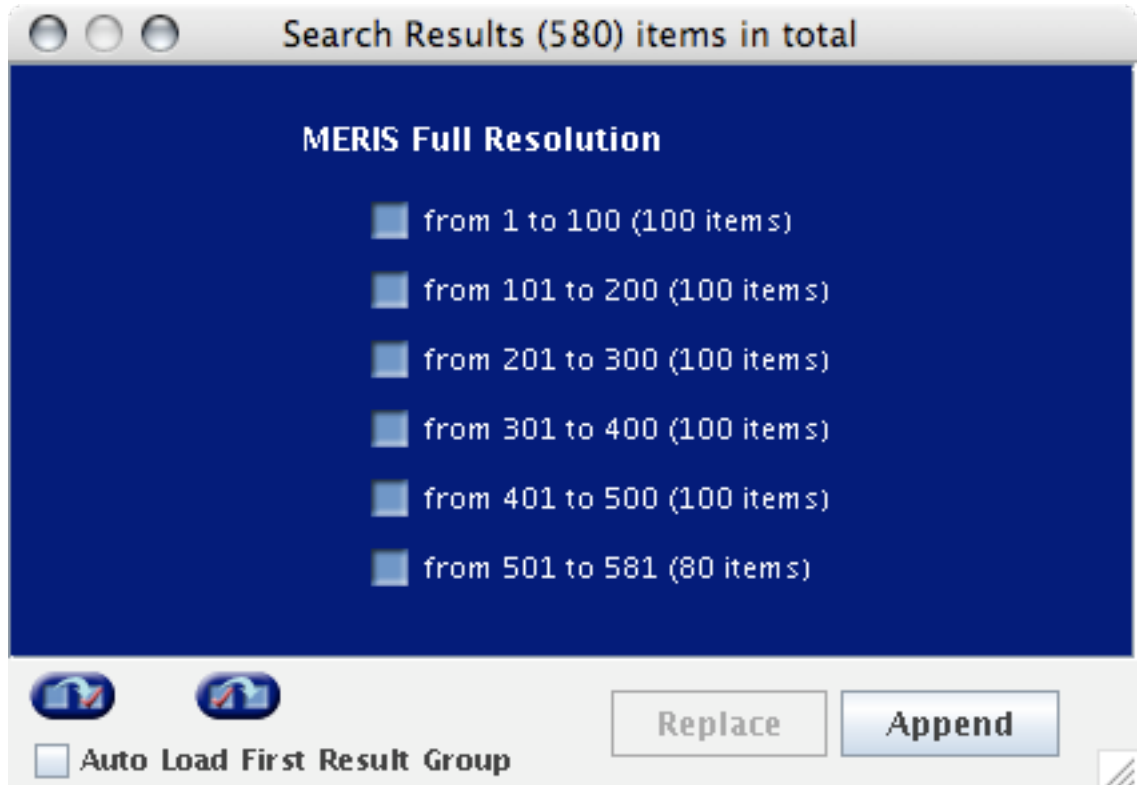
1. Order Service: Your order has been sent to the ESA Earth Observation Missions Order Desk Team.
2. Order Account: Your order account for which you wish to search. You can also select the All to search orders from all accounts (by default).
3. **Order Status** : several statuses are available. All-status to search orders with any status listed below (by default)
 - All-status
 - BeingQuoted
 - BeingProcessed
 - Completed
 - NotValid
 - Cancelled
 - Deleted

8.3. Searching orders

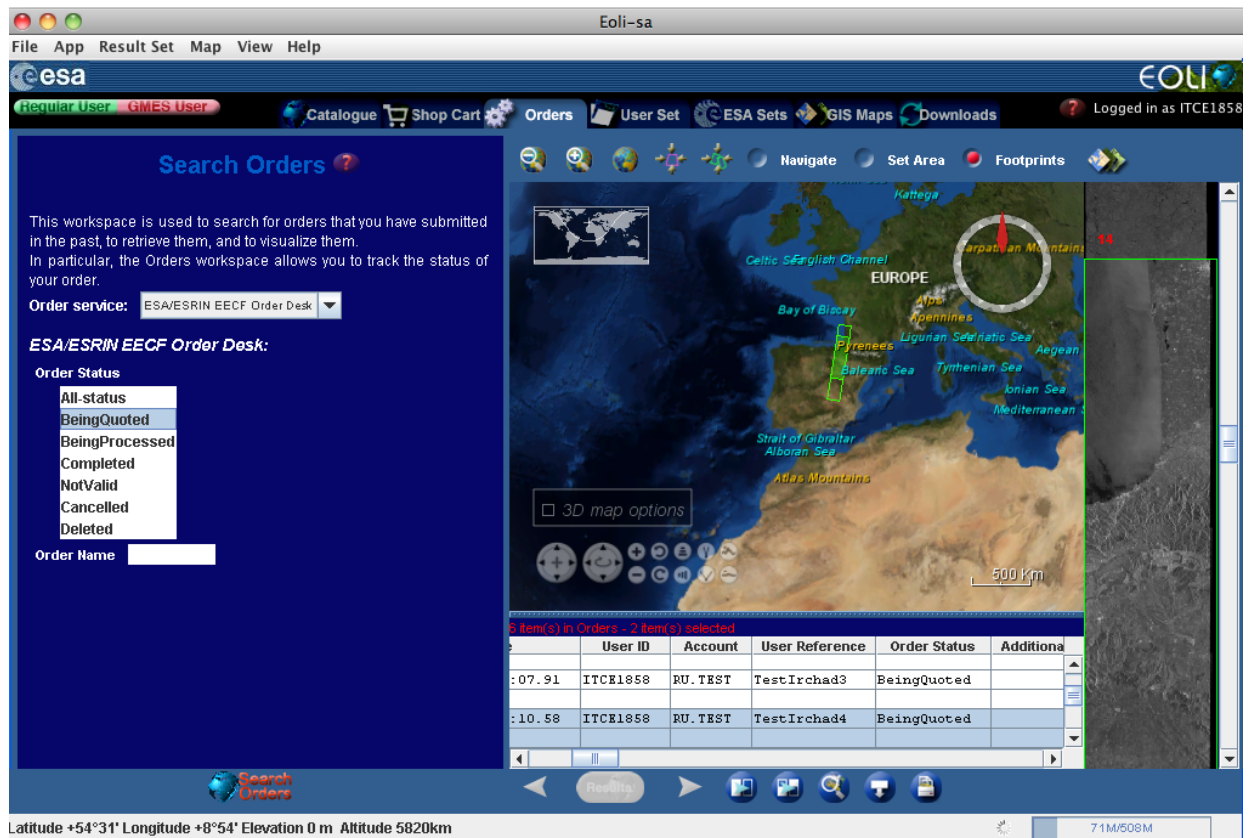
After the selection of the criteria, press the **Search Orders**  button to start the search.

When the search is complete, a list of orders is displayed in the Order Search Results window (Figure 8.3, “The Order Search Results window”). They are grouped by Order Accounts. Simply tick the orders you want to visualize and click the Replace or Append button (see Section 6.5, “Search Catalogue and retrieving results”).

Figure 8.3. The Order Search Results window





The Order Search Results window(Figure 8.4, “Viewing the status of the orders”).

Figure 8.4. Viewing the status of the orders

Orders are represented by 2 lines. The lines are grouped together via the Group column:

1. The first line characterizes the order: It gives information on the order itself (Order date, User identifier, Account, User reference, Order status). The Group identifier for this line is referenced as N-1 (N being the reference number of the order);
2. The second line characterizes the ordering product: It gives information on the ordering product (Mission, Sensor, Product type). The group identifier is referenced as N-2.

As in most of the workspace's dataset, the toolbar under the table dataset contains functionality that allows :

- user to get item details by clicking on button 
- user to export data in various format by clicking on button  .

For more details on export function, see Section 4.3.3, “Exporting items”

- user to print data by clicking on button 

Chapter 9. The User Set workspace - Storing items for later re-use

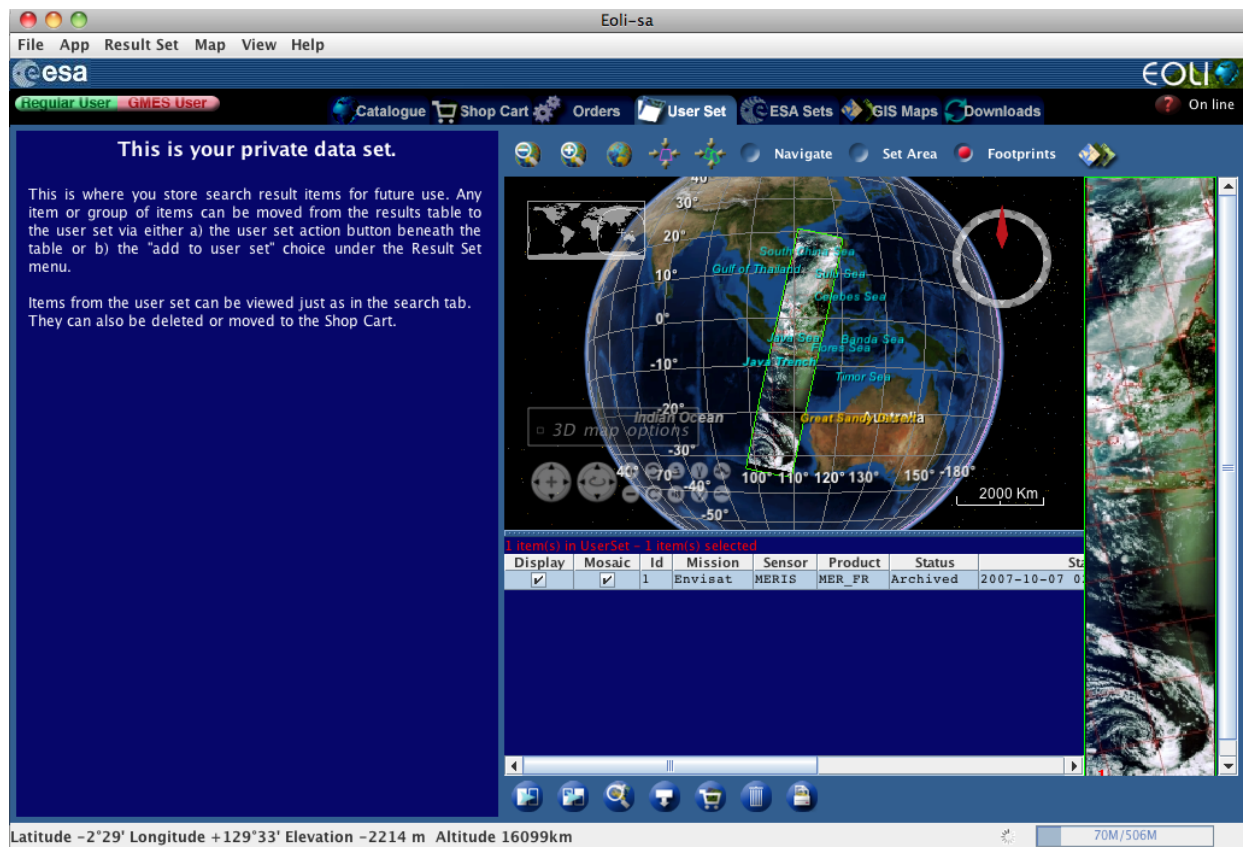
This chapter explains how you can make use of the User Set workspace to keep references of products you have found in various catalogue searches

9.1. Overview

The User Set workspace (Figure 9.1, “The User Set workspace”) is where data products are stored for future use. You can store up to a maximum number of 100 items.

Data products in the User Set workspace can either be removed or stored and subsequently moved in the Shop Cart workspace to be ordered.

Figure 9.1. The User Set workspace



The content of the User Set workspace is automatically stored as a file on your local disk (file userset.txt).

Whenever the User Set content is modified, the user set file is updated. The User Set file is updated when:

1. One or several items are added to the User Set workspace from another workspace;
2. One or several items are deleted from the User Set workspace;
3. The User Set is loaded from a file.

9.2. Adding items to the UserSet workspace

From the Catalogue or Downloads workspace, you can add selected data products to your private User Set workspace


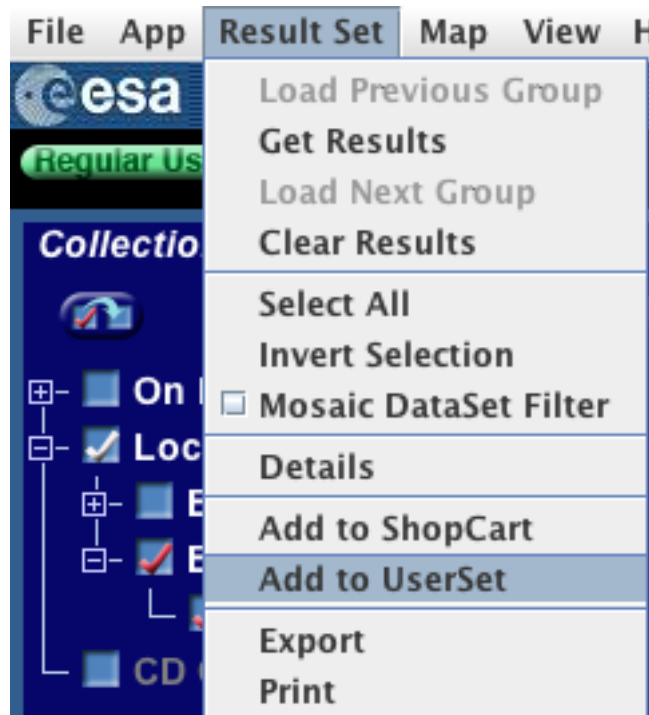

via the Add to your User Set  button of the Tools bar. Alternately, select Result Set >> Add to UserSet from the Menu Bar (Figure 9.2, “The Add to UserSet menu”).

Figure 9.2. The Add to UserSet menu



New items are always added at the end of the current User Set items (they appear at the bottom of the table if the items are sorted by their Id number (default sorting)

9.3. Removing items from the User Set workspace

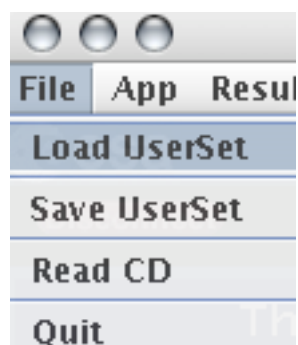
To remove items from the User Set workspace, select them and click on the Bin  button of the Toolbar.

9.4. Saving and loading a User Set

You can use several User Sets and swap from one to the other using the Save/Load UserSet function from the menu File (Figure 9.3, “The Load/Save UserSet menu”).

When you load a UserSet from a file, the current one is lost (you might want to save it first). UserSet files are saved with a .usr extension.

Figure 9.3. The Load/Save UserSet menu



For example, assume you work on two projects and you would like to maintain two distinct User Sets, one for each project. When working on project 1, you would load the UserSet from a file named myproject1.usr. You may now want to add and/or remove some items. When done, save the User Set back to file myproject1.usr. Then, you can carry on working on your second project by loading the UserSet file myproject2.usr.



UserSet files may be saved using one EOLI-SA client and loaded on another one. The Save/Load feature may be used to exchange data products references among your colleagues. Simply save the UserSet as a file and send it to other users.

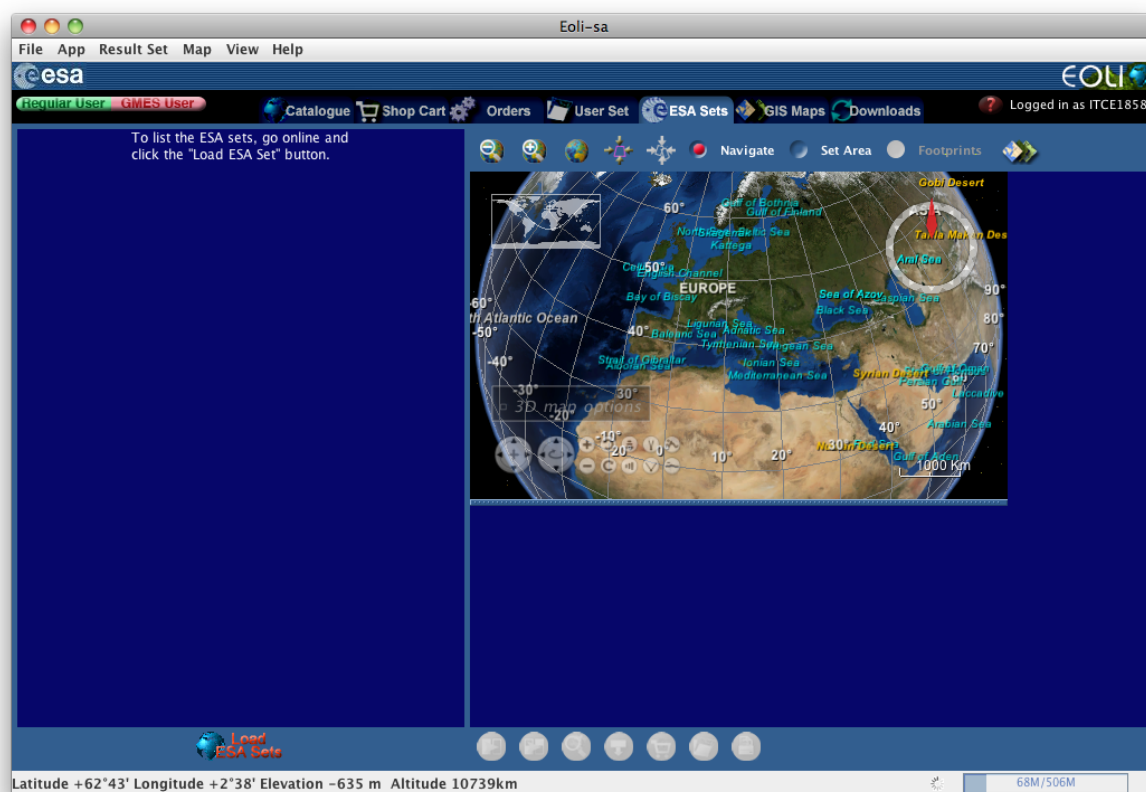
Chapter 10. The ESA Set workspace - Loading ESA sets

This section explains how you can use the ESA Set workspace to load sets of products prepared by ESA in the framework of particular campaigns or for a group of users.

10.1. Overview

The ESA Set workspace (Figure 10.1, “The ESA Set workspace”) is where you can load ESA sets. Data products in the ESA Set workspace can either be moved in the Shop Cart workspace to be ordered or be stored in the User Set workspace for future use.

Figure 10.1. The ESA Set workspace



10.2. Loading ESA sets to the ESA Set workspace

You can load ESA sets from the ESA Set workspace only if you work in on-line mode. Consequently, first connect the server (Section 5.2, “Connecting to the Server”).


Then, load ESA sets clicking the  button. All the ESA sets prepared by ESA and on-line are automatically loaded in your ESA Set panel (Figure 10.2, “The ESA Set panel”).

Figure 10.2. The ESA Set panel



10.3. Adding ESA set items

From the ESA Set panel, you can add ESA set items:


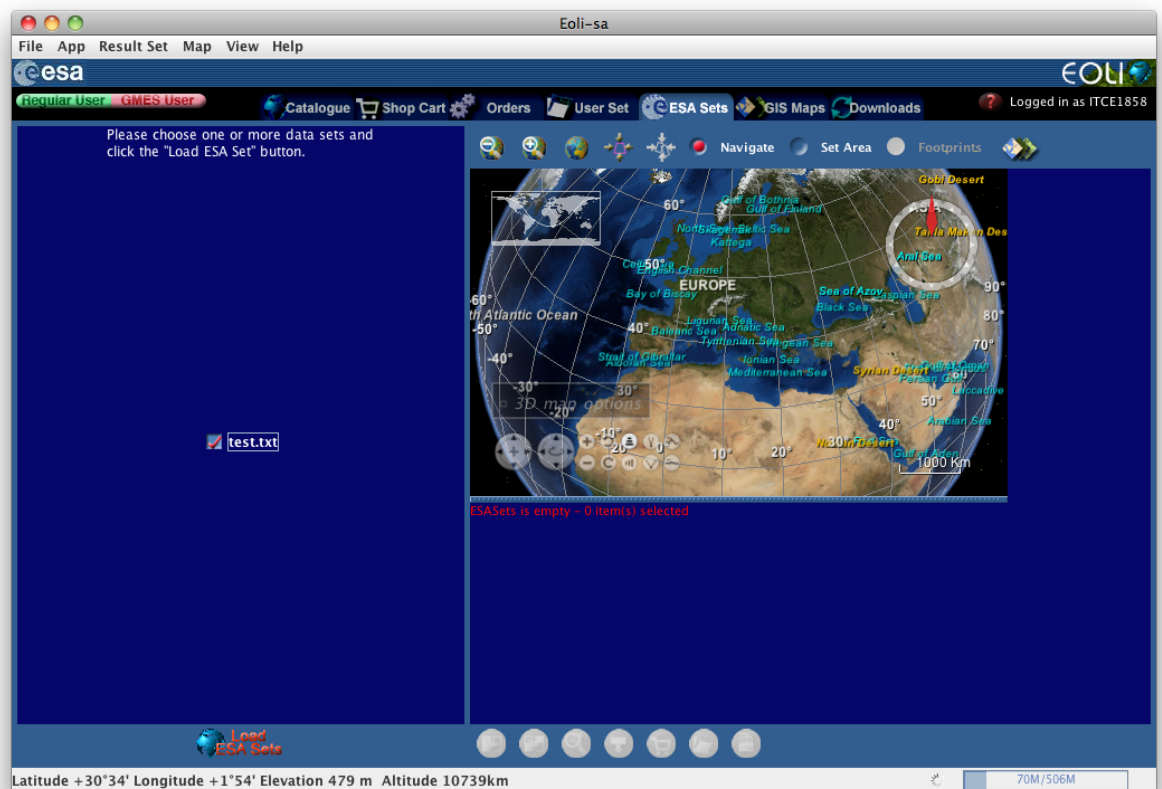
1. selecting one or several ESA sets of interest by checking the boxes on the left of the ESA set names. ESA sets which are selected have a red tick.
2. clicking the  button. The ESA set items are automatically displayed in the Table of Results (Figure 10.3, “ESA Sets workspace after loading items”).

Figure 10.3. ESA Sets workspace after loading items



From this step, you can use the classical available functions of EOLI-SA such as to access the item details (Section 4.3.2, “Item detailed information”), to add an item to the Shop Cart workspace or to the User Set workspace via the respective buttons of the Tool bar.

Chapter 11. The GIS Maps workspace - Using Map layers

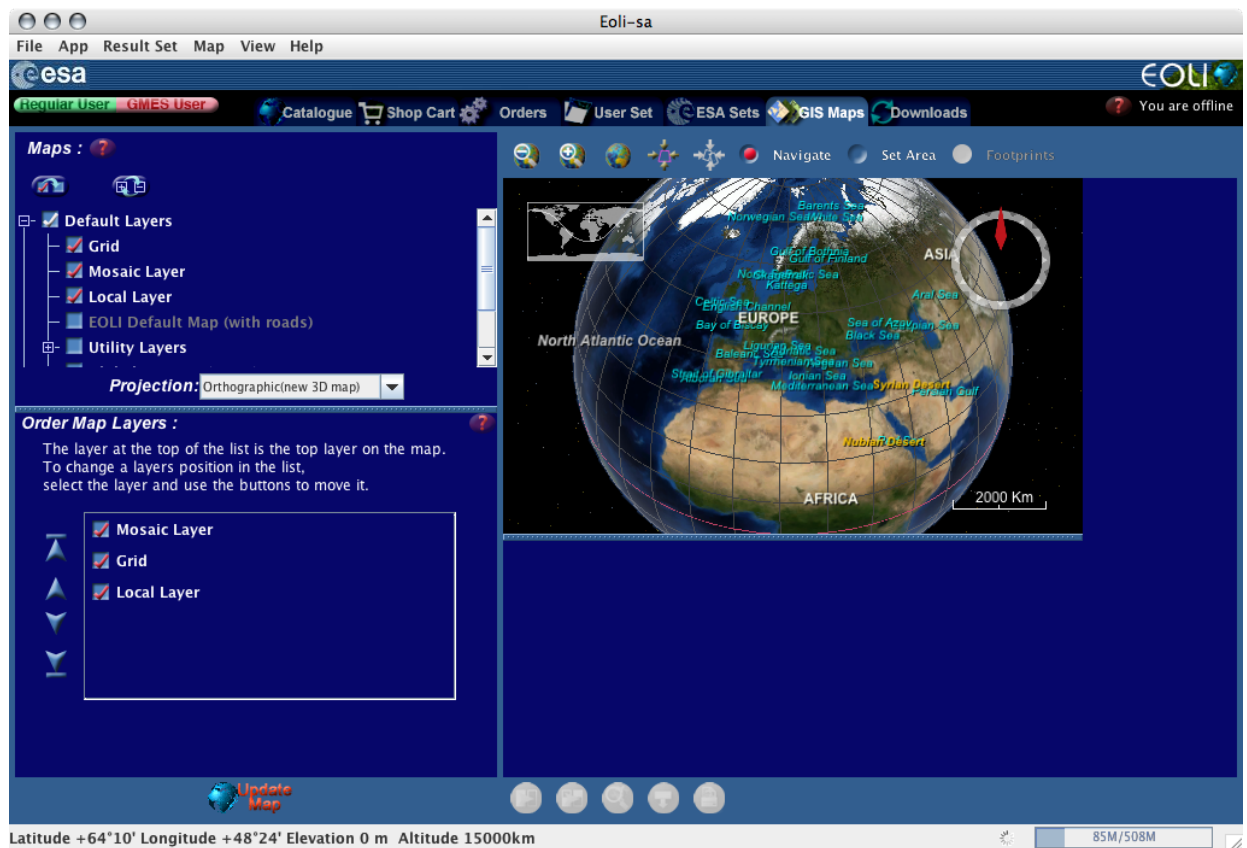
11.1. Overview

By default, EOLI-SA uses a built-in vector map layer which only represents coast lines at a rather coarse resolution.

However, EOLI-SA is capable to retrieve and display other map layers obtained from various OpenGIS compliant map servers (Open GeoSpatial Consortium standards). Actually, Eoli-Sa supports **WMS 1.0 to 1.3.0** . Some layers have been pre-configured, among which Political Boundaries, DEMs, Bathymetry layers, Land Use Classifications and other GIS-related data.

The GIS Maps workspace (Figure 11.1, “The GIS Maps workspace”) allows you to define options for the visualization of the Map layers.

Figure 11.1. The GIS Maps workspace





Using the GIS Maps workspace, you can (Figure 11.1, “The GIS Maps workspace”):

1. select one or several layer maps from the Map Tree panel;
2. select the map projection;
3. set the ordering of the map layers;
4. define the layer properties (if available);
5. define a Region Of Interest using the Map;

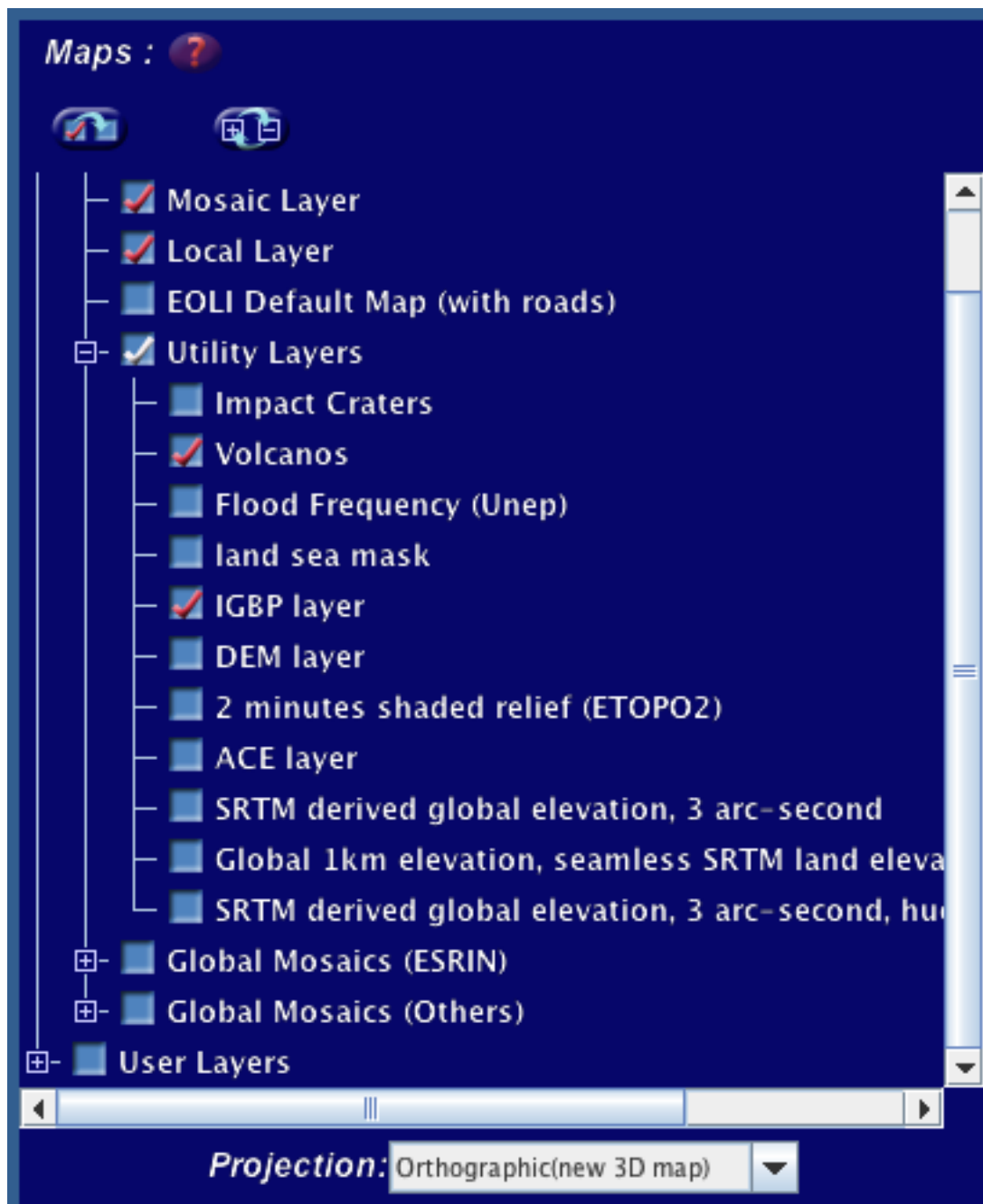
6. update the Map via the Update Map button.

11.2. Selecting Map Layers

In the Layers Tree (Figure 11.2, “The Map Layers Tree”), you can select several layers of interest by checking the boxes on the left of the layer names. Expand or collapse the Layers Tree using the  button; deselect all layers using the  button.

Layers which are selected have a red tick in the check box. A branch of the tree will have a red tick if all layers within this branch are selected, and a white tick if only part of the layers is selected.

Figure 11.2. The Map Layers Tree



By default, EOLI-SA uses three special layers:

1. Local Layer: This is the built-in coast line layer, which you should use in off-line mode;
2. Mosaic Layer: This is an internal layer used as a container for all thumbnails which are projected on the map (see Section 11.9, “Displaying thumbnails on the map: The Mosaic function”);
3. Grid: this is a transparent grid layer which you can overlay on any other map layers.

Other groups of layers are also available:

1. Default layers including the 2 previous mentioned layers plus a Grid and a Local layers
2. Utility layers including for example Impact Craters, Volcanoes, Flood Frequency, Land Sea mask, IGBP classification, DEM layers derived from different sources
3. Global Mosaics layers derived from ESA remote sensing data such as MERIS, ERS-2/ATSR, ASAR data
4. Global Mosaics layers derived from non-ESA remote sensing data such as MODIS/Aqua, MODIS/Terra, VMS, AVHRR/NOAA data

Figure 73 gives you some examples of layers you can set using EOLI-SA.

Note that the more layers you select, the slower the performance of your query will be.



You can resize the Maps panel by moving (click and drag) the separator bar between the Maps and Order Map Layers panels.

Figure 11.3. IGBP landcover layer

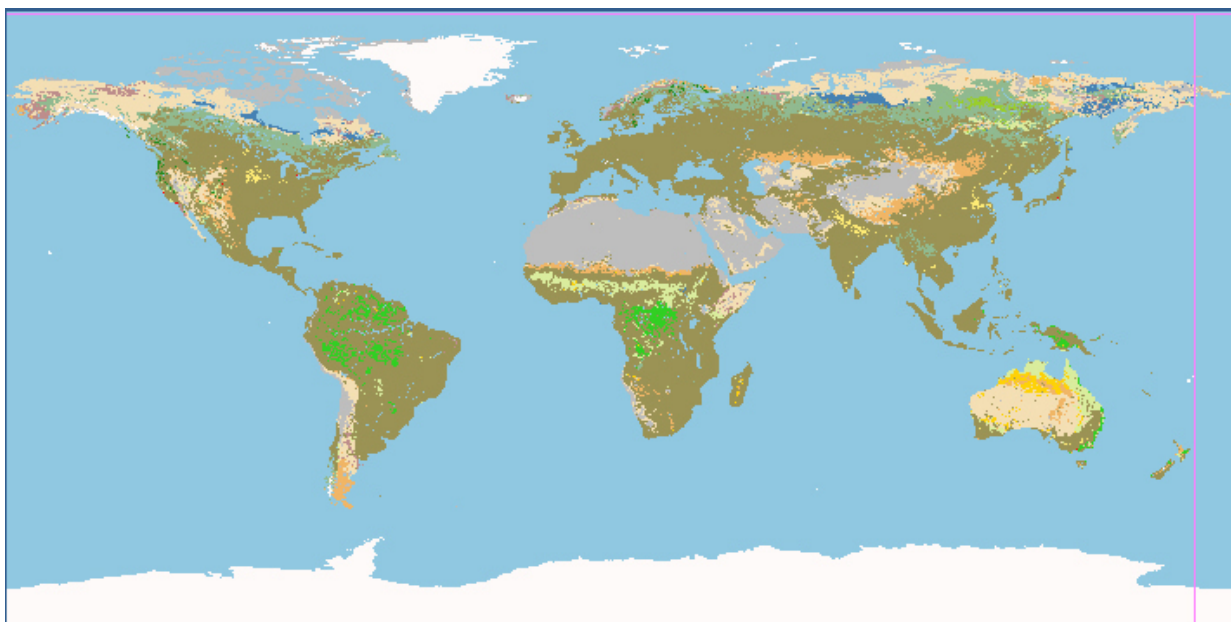


Figure 11.4. ETPO02 layer

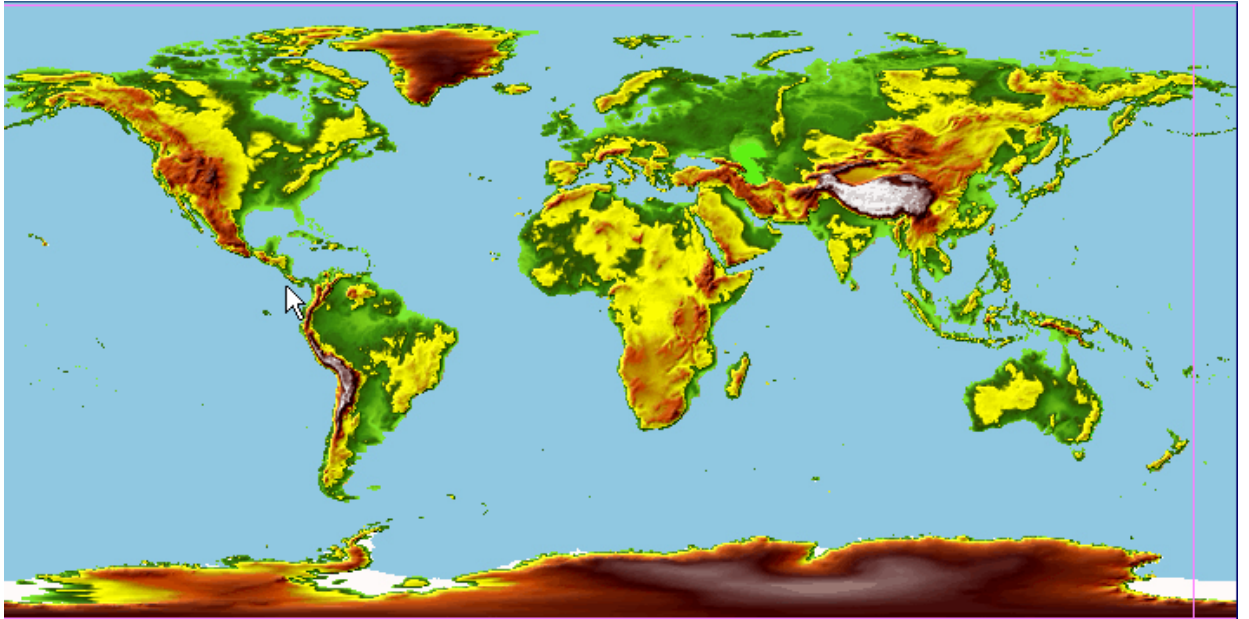


Figure 11.5. MERIS-RR mosaic layer



Figure 11.6. ERS-2/AATSR mosaic layer

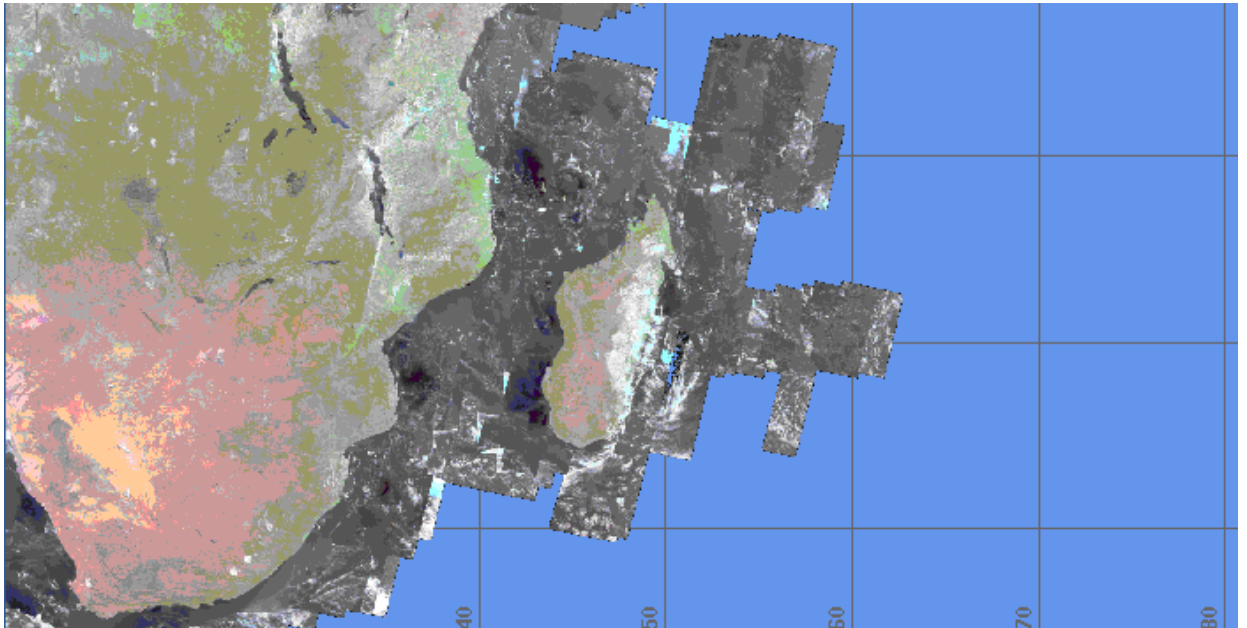


Figure 11.7. EOLI default map layer



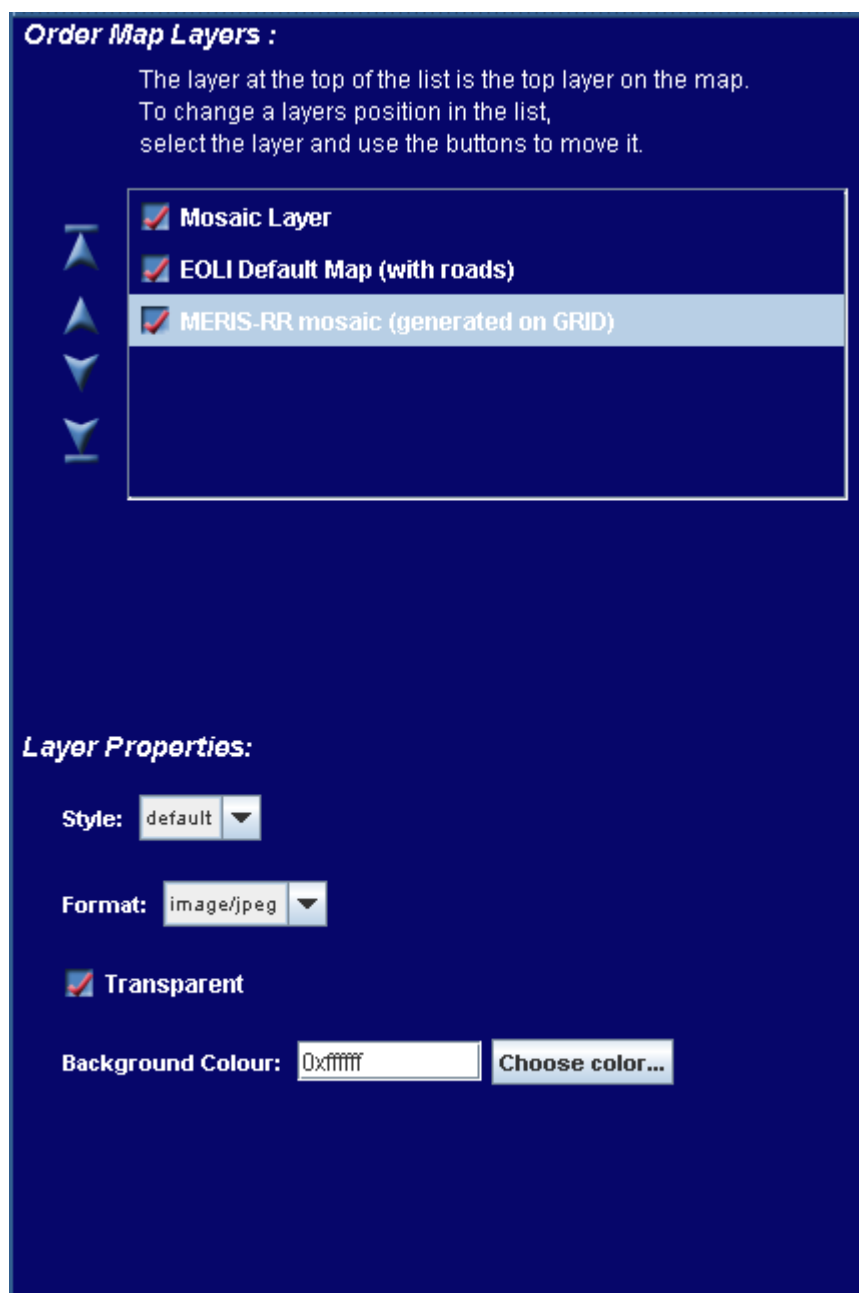
Figure 73: Examples of map layers: Figure 11.3, “IGBP landcover layer” , Figure 11.4, “ETPO02 layer” , Figure 11.5, “MERIS-RR mosaic layer” , Figure 11.6, “ERS-2/AATSR mosaic layer” and Figure 11.7, “EOLI default map layer”

11.3. Setting Map Layers

When you select (respectively unselect) a layer or a group of layers, they are automatically added (resp. deleted) at the end of (resp. from) the Order Map Layers list. The list of the layers is displayed in the Order Map Layers panel.


Selected layers appear with a red tick in the check box. You can unselect them at this level unchecking them.

Figure 11.8. The Order Map Layers panel and the Layer Properties fields



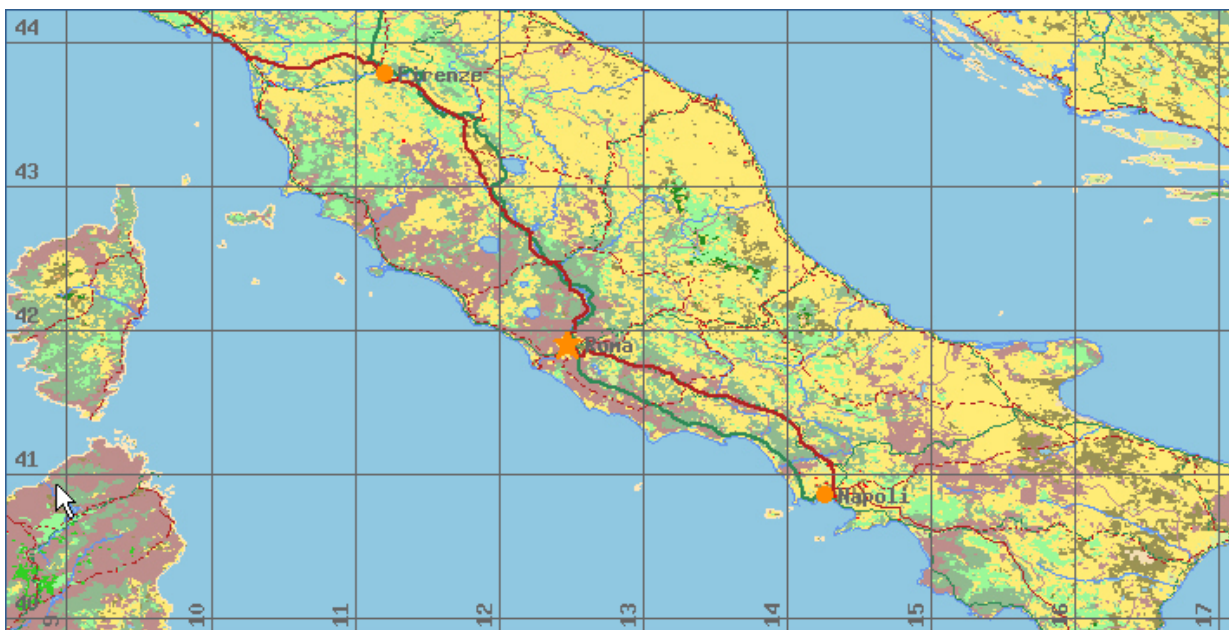
Selected layers can be ordered using the arrows on the left of the Map Layers list (top most, 1 step up, 1 step down, bottom most).

The selected layers will be rendered on the map in the defined ordered, from bottom to top, each layer masking the previous one.

 The layer order should therefore be such that transparent layers (i.e. roads, grid and mosaic) comes first in the list (Figure 11.9, “Example of the superposition of several map layers”).

When you click on a layer in the Order Map Layers list, Layer Properties appears under the Map Layers list. They are accessible via drop-down menus or check boxes. Examples of layer properties are Style, Image format, Transparency, Background colour. You can modify them depending on the items.

Figure 11.9. Example of the superposition of several map layers



11.4. Setting the Projection Map

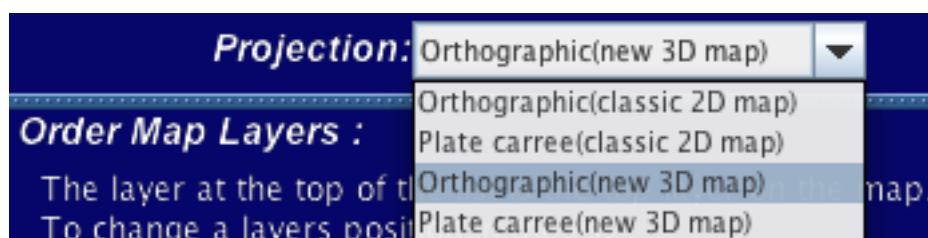
Depending on map module used by Eoli-SA, a list containing supported map module and its related projection will be displayed. Select the map module and projection you want to use. (Figure 11.10, “How to select the Map Projection”).

The proposed list will be updated depending on layer you have selected in your layer list.

Some WMS layer support for example just Orthographic projection and other may support just **LLXY** projection. Depending on these layers, the list of supported map module will be displayed to user.

- for WMS layer that support just projection **EPSG:4326** or **CRS:84 (LLXY)** we only show LLXY-classic 2d mode, orthographic (new 3D map) mode, and platte carree (new 3D map) as these map module retrieves image tiles in a **LLXY** projection
- for WMS layer that support just Orthographic projection, we only show orthographic (classic 2D map) as this map module retrieve images in an orthographic projection
- for WMS layers that support both projection we will show all map modules

Figure 11.10. How to select the Map Projection



11.5. Displaying and Updating Map Layers

To display or update Map layers,

1. select the Map Layers of your interest from the Map Layers Tree,
2. order them and,
3. press the Update Map  button.

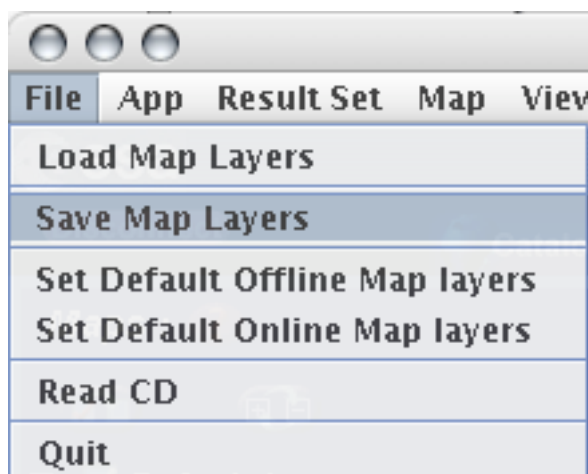
This will display the Map Layers.

Then, this Map is applied in all the other workspaces.

11.6. Saving and loading a Map Layers

To save your Map Layers for future use, select File >> Save Map Layers from the Menu Bar (Figure 11.11, “The Load/Save Map Layers”).

Figure 11.11. The Load/Save Map Layers



These can subsequently be reloaded by selecting File >> Load Map Layers from the Menu Bar. The Map Layers files are saved as XML files, i.e. with a .xml extension.

This function is useful when you need to create a Map from a list of several Map Layers and use it regularly.

11.7. Setting default Online/Offline Map Layers

By default, EOLI-SA offers Default Layer. However, you can configure your own Map Layer.

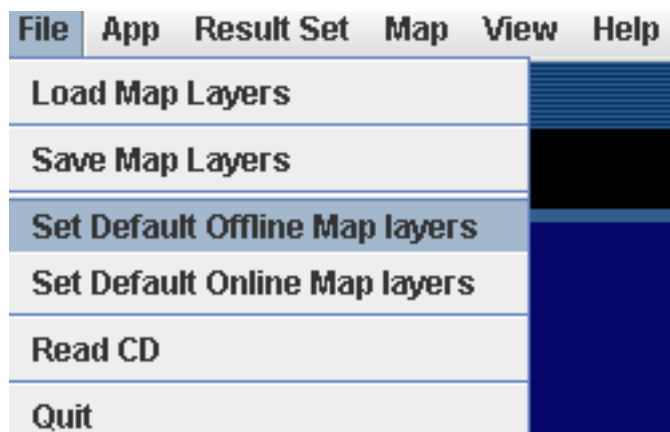
EOLI-SA manages (layer orders) both Online and Offline default map layers.

If Online default Map Layer is configured (saved) then user will see his layer order in the map in Online mode and inversely in Offline mode he will see his offline default map layers.

11.7.1. Setting default Offline Map Layers

User can set default Offline Map Layers by using action "Set default Offline Map Layers" in the menu bar (see figure below)

Figure 11.12. Setting default Offline Map Layers

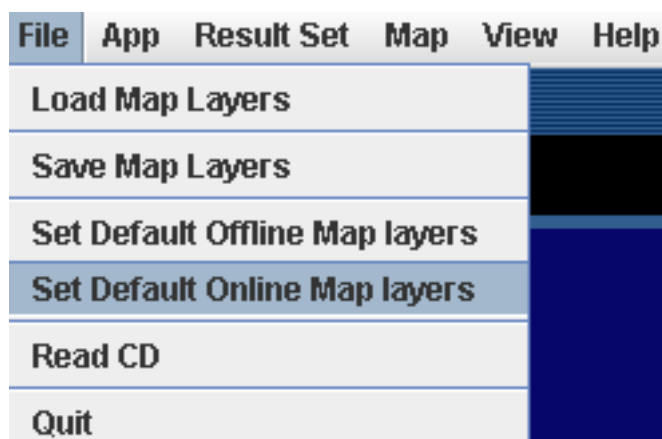


Default Offline Map Layers (orders) will be saved.


11.7.2. Setting default Online Map Layers

User can set default Online Map Layers by using action "Set default Online Map Layers" in the menu bar (see figure below)

Figure 11.13. Setting default Online Map Layers



Default Online Map Layers (orders) will be saved.

 If EOLI-SA is offline and default Offline Map Layers contains Online Layers then these layers will be grayed out in the tree panel and, of course, will not appear in the map.

11.8. Adding User Layers

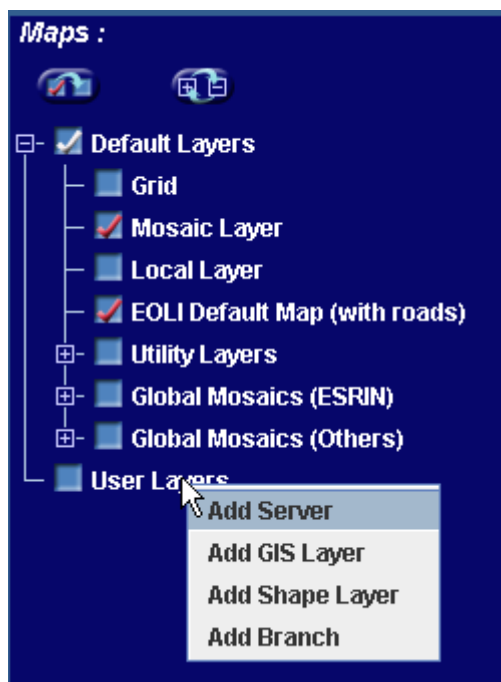
By default, EOLI-SA offers Default Layers. However, you can configure your own Layer Map from available layers at a freely accessible OpenGIS compliant map server that supports the orthographic projection.

11.8.1. Connecting a server

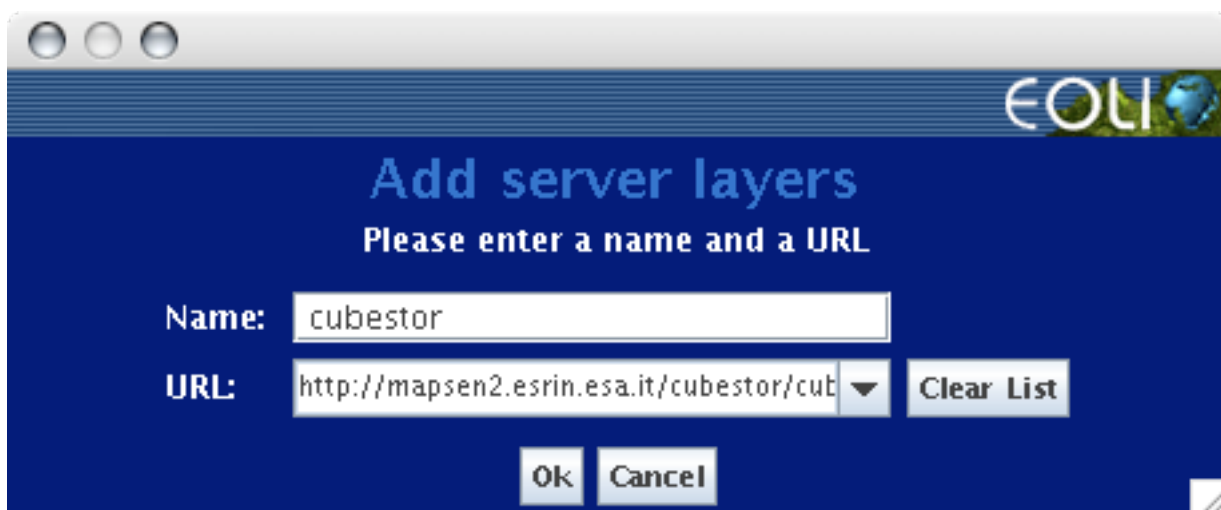
How to connect an OpenGIS map server

1. right-click on the User Layers box.

Figure 11.14. The User Layers box



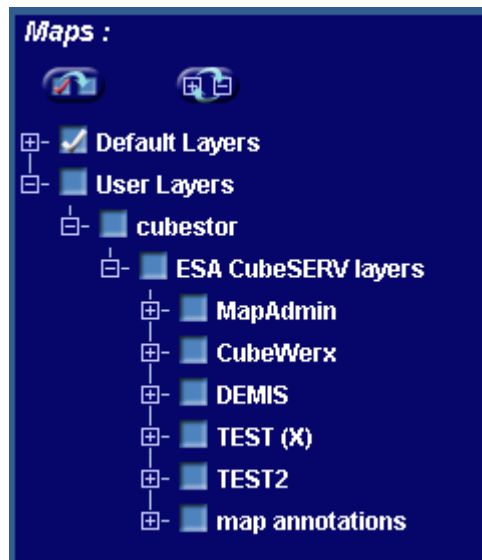
2. A menu appears
3. select the "Add Server" menu
4. a window appears.
5. **Figure 11.15. The "Add Server" window**



6. Enter the name and the URL of the server
7. Click on the "Ok" button to get layers list from the server.

Once the server connects, the Layers available on the server are automatically added to the Layers Map Tree under the Branch User Layers >> Name of the Server (Figure 11.16, "Result of the connection to a server").

Figure 11.16. Result of the connection to a server



In Figure 11.16, “Result of the connection to a server” , we connected the valid OpenGIS URL

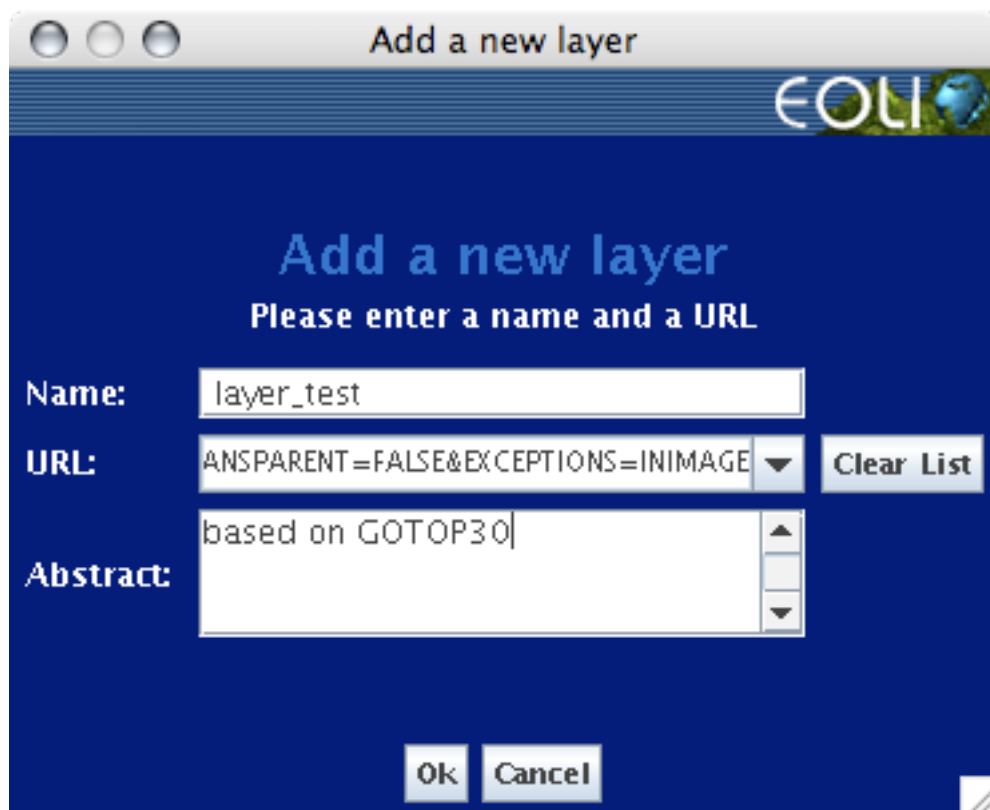
<http://mapserv2.esrin.esa.it/cubestor/cubeserv/cubeserv.cgi>

Then, select the Map Layers of you interest as described in Section 11.2, “Selecting Map Layers” to use it.

11.8.2. Adding GIS Layer

If you want to add directly a GIS layer (and not all the layer maps available on a server), right-click on the User Layers box. A menu appears (Figure 78a); select the Add GIS Layer item. Then, an Add a new layer window appears (Figure 11.17, “The Add a new layer window”) where you have to define the name and a valid OpenGIS URL. You can also add a comment in the Abstract field. Click on the Ok button to load a new layer in the Map Layer Tree.

Figure 11.17. The Add a new layer window



In Figure 11.17, “The Add a new layer window” , we connected the valid OpenGIS URL:

**`http://mapserv2.esrin.esa.it/cubestor/cubeserv/cubeserv.cgi?
VERSION=1.0&REQUEST=map&LAYERS=GTOPO30:MapAdmin&STYLES=classic&FORMAT=GIF&BGCO`**

The Layer is then automatically added to the Layers Map Tree under the Branch User Layers >> Name of the layer.

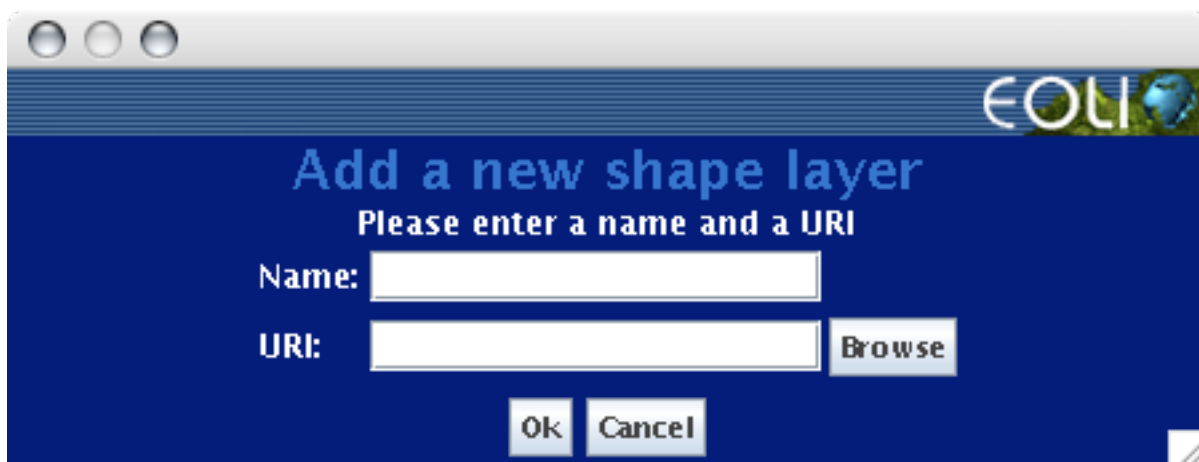
Then, select the Map Layers of you interest as described in Section 11.2, “Selecting Map Layers” to use it.

11.8.3. Adding Shape Layer

You can add Shape layers only if they are available in your local environment.

To add a shape layer, right-click on the User Layers box. A menu appears; select the Add Shape Layer item. Then, an Add a new shape layer window appears (Figure 11.18, “The Add a new shape layer window”) where you have to define the layer name and the URI of the shape file. A shape file is defined with a .shp extension. A Browse button is available to find the shape file in your directories. Click on the Ok button to load the shape layer in the Map Layer Tree.

Figure 11.18. The Add a new shape layer window



Then, select the Map Layers of you interest as described in Section 11.2, “Selecting Map Layers” to use it.

Using the right-click on the User Layers Tree

Using the right-click on the User Layers Tree you can also

- add a new branch to receive new layers
- rename a branch or a Rename a layer
- remove a Layer from a branch
- show legend (when available) of a layer

11.9. Displaying thumbnails on the map: The Mosaic function

Thumbnails may be projected directly on the map. You can use this function to help you positioning a sub-scene when preparing an order or to simply create a basic mosaic.

Projected thumbnails are added to a special map layer named Mosaic layer.

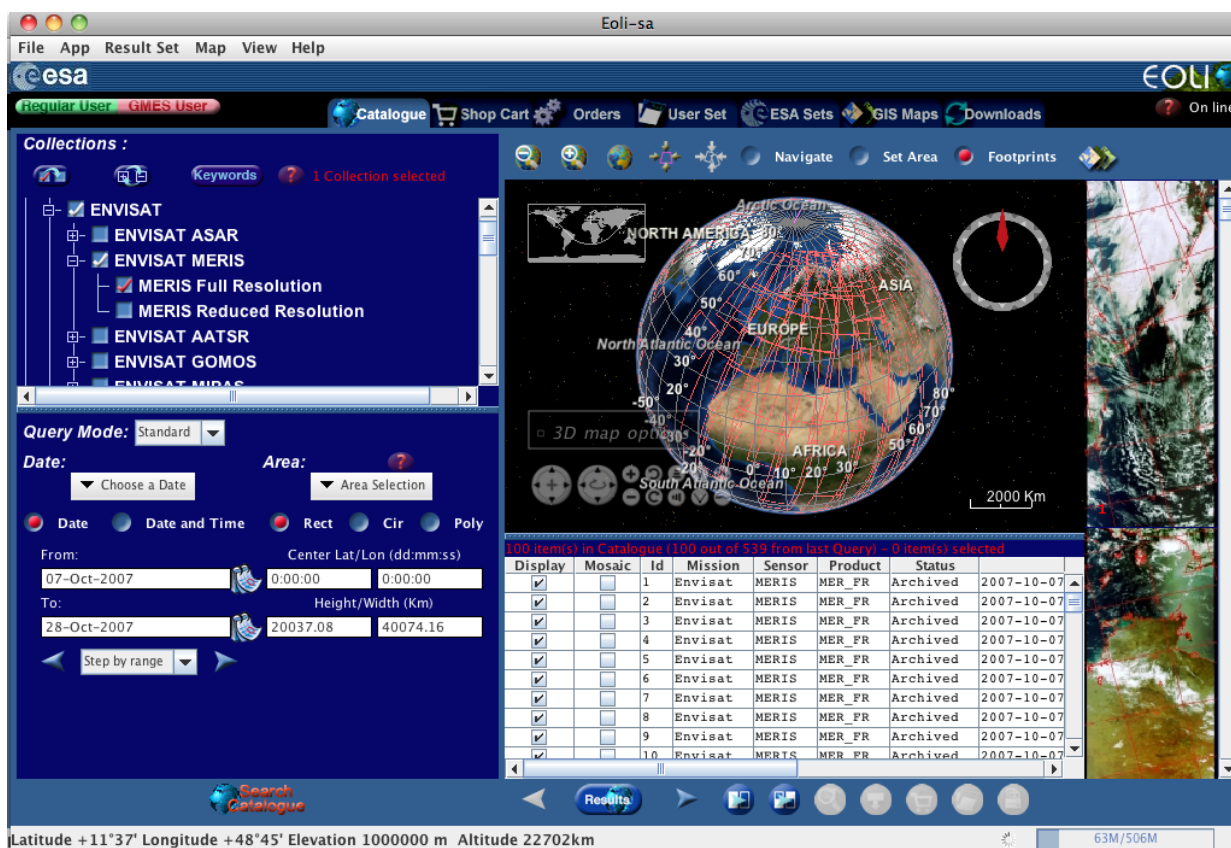
See previous sections for details on how to select and organize map layers to enhance the map display.

To add one or more thumbnail images on the map (i.e. on the Mosaic layer), proceed as follow:

1. Select the item(s) of which you want to project the thumbnail(s).
2. Click on one of the selected thumbnails and drag it on any area in the map (Figure 11.19, “Adding thumbnail images to the mosaic layer”). Alternately, after selecting thumbnails, click on the Mosaic checkbox of the Toolbar to add a thumbnail image to the Mosaic layer.

You can add thumbnail images on the Mosaic layer from all the workspaces.

Figure 11.19. Adding thumbnail images to the mosaic layer



To remove a thumbnail from the Mosaic layer, go to the Order Map Layers panel of the GIS workspace, click on the Mosaic layer to display the layer properties. Then, click on the thumbnails you want to delete and click on the Delete button. The Map is updated after clicking the Update Map button.

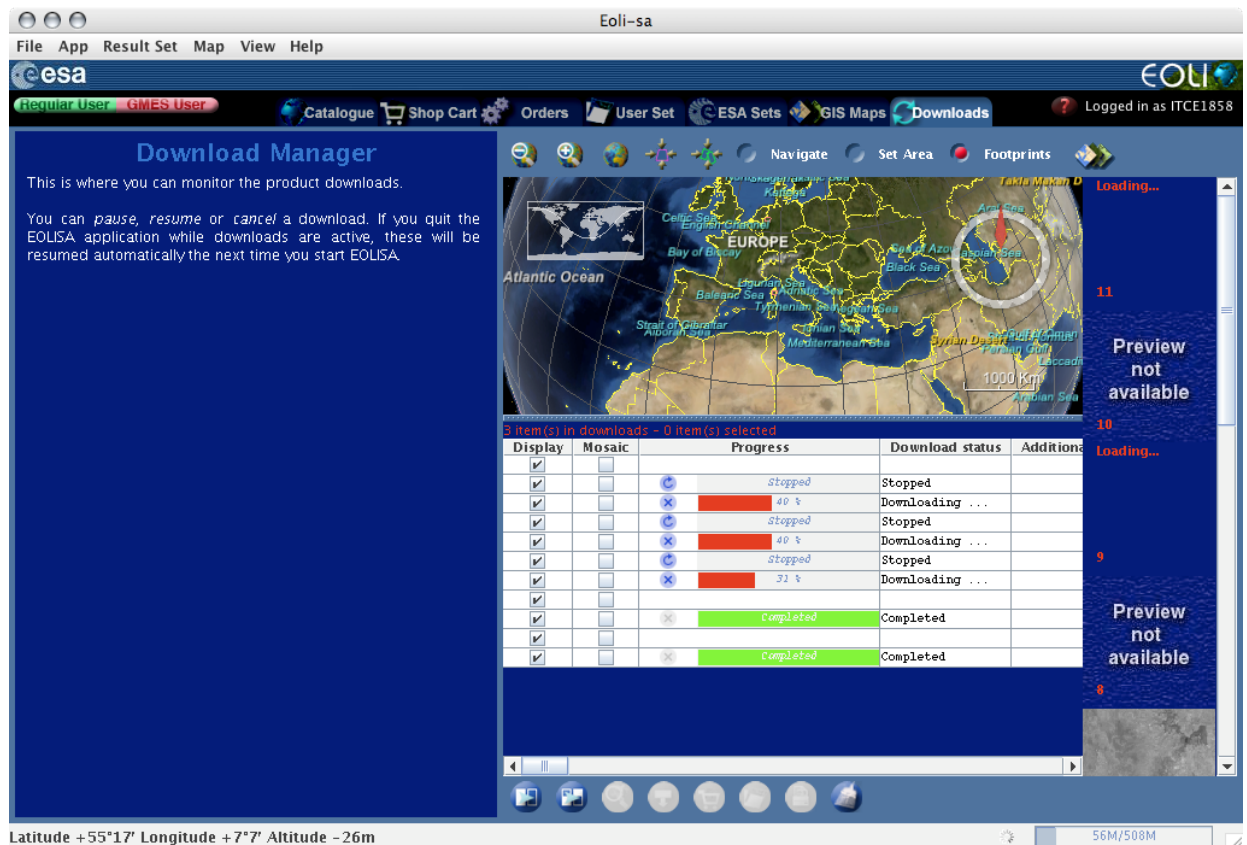
Alternately, you can remove one or several thumbnails by deselecting the items in the Table of Results, on the Map or in the Thumbnail list or by deselecting on one row, Mosaic checkbox column, all the other selected items are also deselected.

Chapter 12. The Downloads Workspace - Monitoring downloads

This chapter explains how you can monitor the products downloads.

12.1. Overview

Figure 12.1. The downloads workspace



The downloads workspace is where products downloads are stored. As in any workspace, items can be visualized/selected on the map and in the preview list.

Items which are ordered (via online access service (see Section 7.6.1, "Online access service")) from the shopcart are removed immediately from the shopcart and are added into the downloads workspace table data.

Eolisa will permanently (from one session to the other) hold the information of each download, and will allow download recovery.



EoliSA supports a configurable number of parallel download threads so if the maximum number of download are reached, then all new downloads will be in queued state until they are free up.


It is possible to resume/stop, clean a download (by clicking the corresponding button).When cleaning a download that is stopped , the corresponding file is deleted from disk.

When switching workspace, the ongoing downloads aren't interrupted.

The EoliSA main window status bar contains a button icon to give access to the download status window.Clicking on the icon will switch EoliSa to the "Downloads Workspace".

The icon have 2 states:

- animated  when at least one download is in progress.
- static  when they are no ongoing downloads.

The download status window contains a general **“Clean Up”** button  that can be used to remove all completed, stopped and error entries. This action removes all items from the table that are Completed, Stopped or in Error and the partially downloaded files, if any.

12.2. Download dataset specific columns

The download table shows the items grouped by **"online access sessions"** (called orders here below).

- one line for the **"order"** , several for the requested item (using Group column with value n-1)
- For each requested item (Group column is n-2 , n-3 , n-4 , . . .) : all columns from ShopCart except "order"
- Additional columns for requested items are :
 - **"Download Status"** wich contains the download status (i.e Processing... , Downloading, Stopped, Error or Queued)
 - **"Additional Status"** which contains a message depending on the download's state
 - **"Download name"** wich is either name of the order service (see Section 7.6, “Submitting orders”) or "Product download" (if triggered from the product download function (see Section 4.5, “Download of on-line available products”))
 - **"Download Request Date"** wich is the date/time when the group was added to the download table, not when the download actually starts
 - **"Progress"** that displays the progress bar of the download and button to control the download. The progress bar change color (green) when download is completed.
 - **"Filename"** wich is the download file name

12.3. Order monitoring (polling)

This section explains how to monitor an order that has been done via order service (see Section 7.6, “Submitting orders”)

When an order has been done via an online access service option, Eolisa will do a polling mechanism in order to retrieve items ordered. Sometime the order takes long time to be processed (example an **"enhanced online access"** order may take many hours to be processed), so Eolisa will poll on the server to request information about the order state.

The status of an order is displayed on the specific column of the order (see forward). Given an order,

- if there is an error then the error message will be displayed in the **"status"** column
- if there is an item that is ready then eolisa will start to download automatically the item
- Eolisa can download a whole order item that is returned by the server. The **"whole order"** contains additional data for the order

You can abort an order by right-clicking on a specific order. This menu (**"Abort and Delete Order"** see Figure 12.2, “Monitoring Order”) is always available , whatever the status of the order and of its order items. It

deletes everything from the table, delete on-going download threads if any, delete partially downloaded files if any. It is the only way the get rid of orders for which the polling always fails.

Figure 12.2. Monitoring Order

5 item(s) in downloads - 2 item(s) selected

Id	Mission	Sensor	Product	Status	Start	
1						
2	SPOT-4	HRVIR	Mul20m11A2	Archived	2007-10-01 10:29:49.12	200
3						
4	SPOT-4	HRVIR	Mul20m11A2	Archived	2007-10-01 10:29:57.51	200
5						
6	SPOT-4	HRVIR	Mul20m11A2	Archived	2007-10-01 10:29:57.51	200
7						
8	Landsat-7	TM			04-08 09:54:06.17	200
9						

Select all rows with same value
Download Product
Abort and Delete Order

12.4. Monitoring downloads

This section explains the download specific actions.

For each item, there is a single toggle button, in the table, which is putted before the progress bar, in the same column.



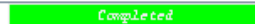
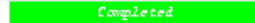

- This toggle button is the "Stop" icon  if item is "downloading..." or "Queued". Clicking on the button stop the download
- This toggle button is the "Resume" icon  if item is "Stopped". Clicking on the button resume download if there are available thread, otherwise the download is Queued.

Figure 12.3. The download Action Menu

Filename	Additional status	Download status	Progress	Sensor	Pr
58254050923100337210_1A_NETWORK.2IP		Completed		HRVIR	Mul20:
2317070922115135110_1A_NETWORK331...		Completed		HRVIR	Mul20:
EB2_20070917.jar.part		...		HRVIR	Mul20:

Select all rows with same value
Download Product
Download Actions
Clean
Stop
Resume
Open Folder

Right click on an item shows the following menu (see Figure 12.3, "The download Action Menu"), depending on the item status:

- **"Clean"** : for any item in status **"Stopped"** , **"Error"** or **"Completed"** . This action removes the item from the table and the partially downloaded files, if any
- **"Stop"** : for any item in status **"downloading..."** or **"Queued"** . Stop set the item in **"Stopped"** status.
- **"Resume"** : for any item in status **"Stopped"** or **"Error"** . Resume sets the item in **"Downloading..."** or **"Queued"** status depending on the available threads.
- **"Open Folder"** : for any item. Open the folder where download is saved.

Chapter 13. Setting Preferences

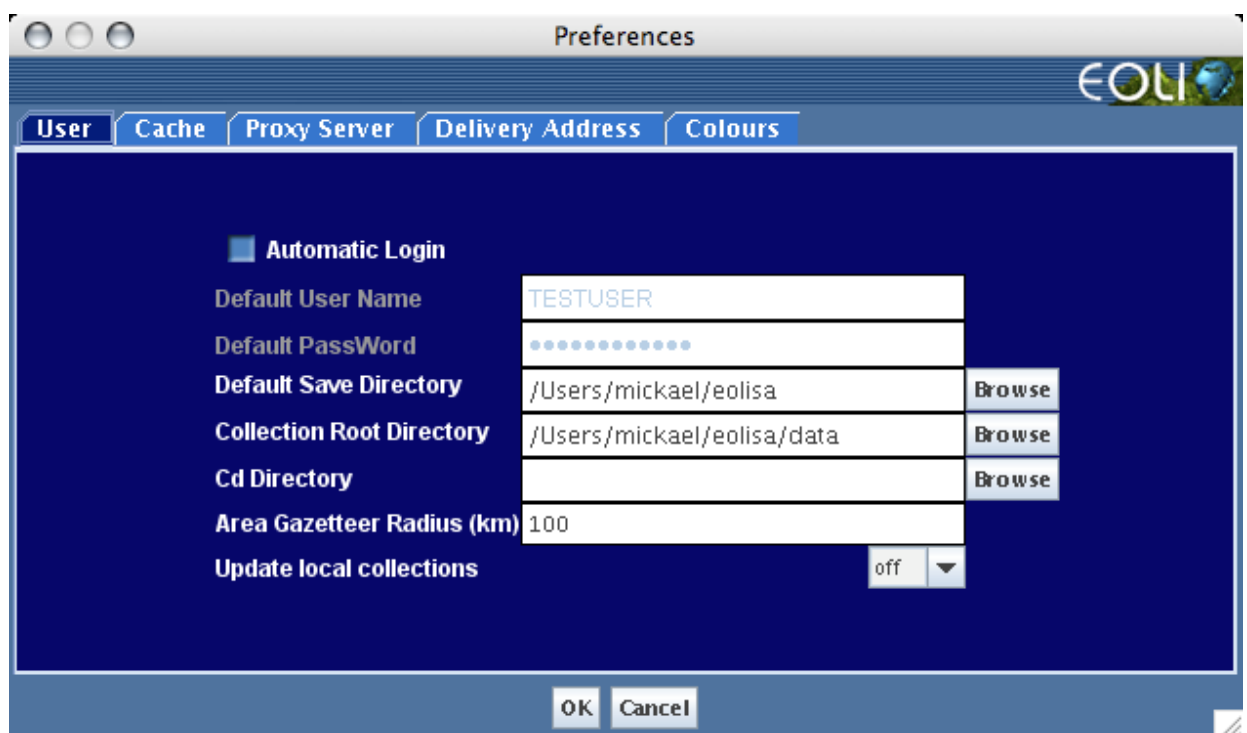
This chapter describes how to configure your own settings in order to optimize the use of EOLI-SA.

13.1. Overview

You can access the Preferences window (Figure 13.1, “The Preferences window”) from App >> Preferences in the Menu Bar.

The Preferences window (Figure 13.1, “The Preferences window”) includes the following tabs:

Figure 13.1. The Preferences window

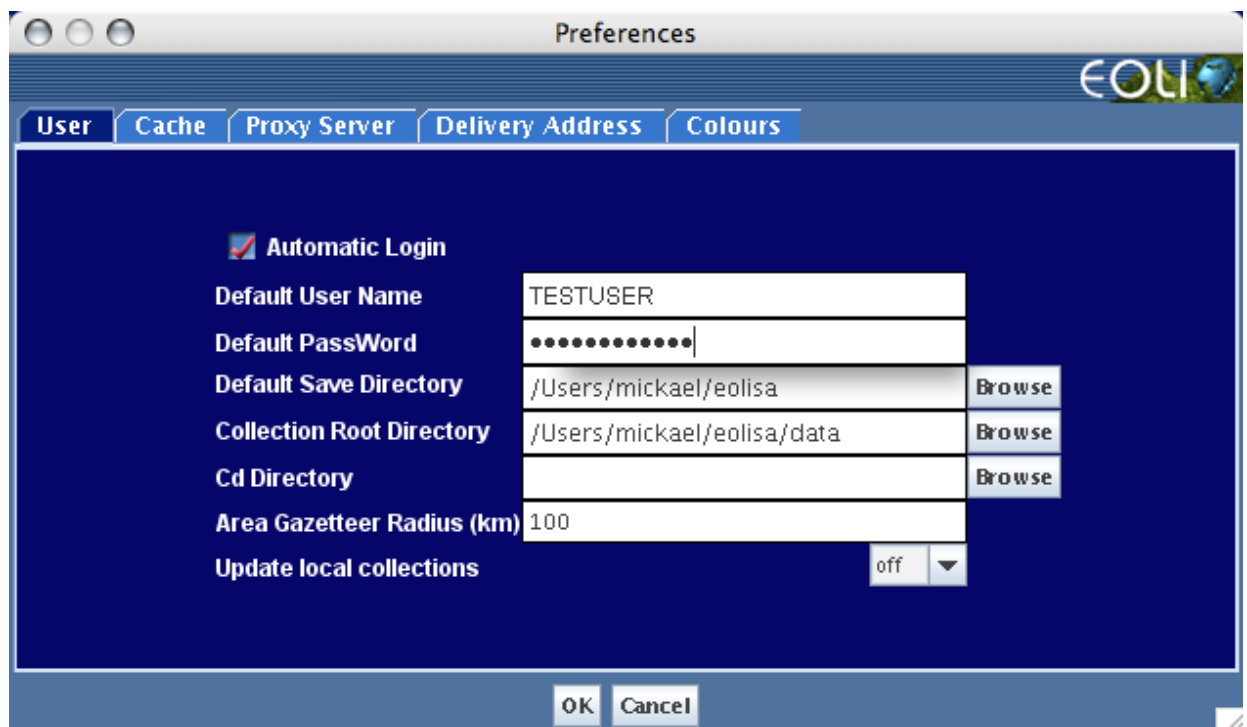


1. **User** : This is where you can store your information and location of directories
2. **Cache** : This is where you manage the cache
3. **Proxy Server** : This is where you can set the IP address of a proxy server
4. **Delivery Address** : This is where you can define your address for deliveries
5. **Colours** : This is where you can define the colours used in the EOLI-SA interface

Preferences are maintained from one session to the other.

13.2. The User preferences

Here you can set your personal information and define the location of your local directories (Figure 13.2, “The User preferences window”).

Figure 13.2. The User preferences window

You can check the Automatic Login field to force the application to authenticate a predefined user at start up. The authentication is performed automatically after a connection to a server is successfully established.

In this case, you must enter a user name (in the Default User Name field) and a password (in the Default PassWord field). These credentials are used at startup for the automatic authentication and also to provide default values to the login window (see Section 5.1, “On-line and off-line mode”).

The other fields comprise:

1. Default Save Directory, where you can define the directory where EOLI-SA will save data (e.g. when exporting items, saving a query or search area);
2. Collection Root Directory, where local collections are downloaded (you must create this directory manually if it does not exist yet);
3. CD Directory, which corresponds to the CD drive in your computer (for Windows, type D:\. For Mac, browse to the place where the CD drive is mounted);
4. Area Gazetteer Radius, which is used to define the radius in km of your area of interest;
5. Update local collections. You can set this field to:
 - Auto, if you want an automatic update of the local collections when you start EOLI-SA;
 - Off, if you don't want to update automatically the local collections.

13.3. The Cache Preferences

13.3.1. How does the cache work?

When you use EOLI-SA in on-line mode, EOLI-SA optimizes the number of interactions with the server by using a disk cache to store thumbnails and quick look images, product details, and maps.

When you use EOLI-SA in off-line mode (i.e. on a laptop PC, sitting in a plane), you are able to:

1. view the thumbnails of your Shop Cart, User Set and Orders workspaces
2. view the details of products, orders or order items

Products, orders and order items details which are cached are refreshed the first time you access them (while being connected to the server) since you last started EOLI-SA.

Maps are cached during one session only.

13.3.2. Managing the disk cache

Setting the disk cache size

The EOLI-SA disk cache size is **20 Mb** by default (Figure 13.3, “The Cache preferences window”) but you can modify it to improve overall performances or to minimize disk occupancy.

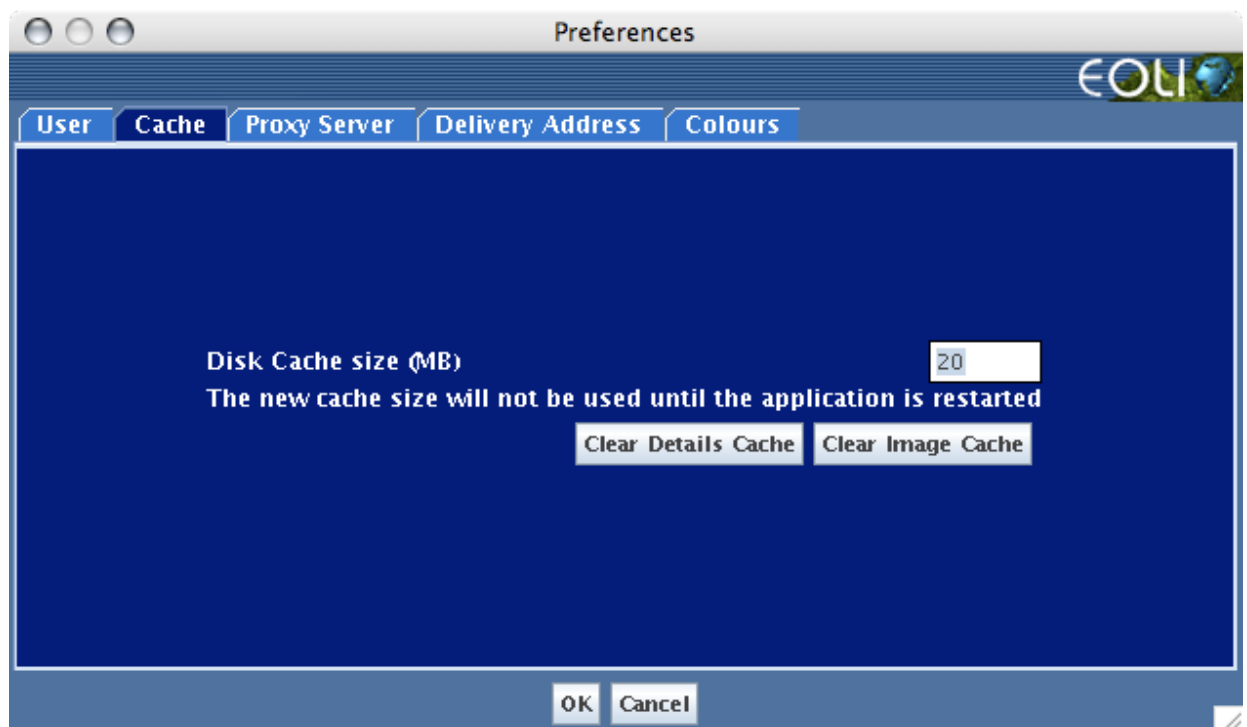
When you modify the Disk Cache Size, the new cache size is taken into account after a restart of the application.

When the cache is full, EOLI-SA will automatically delete the oldest entries to give room for the newest ones (as in a rolling buffer).

Emptying the disk cache

You can independently remove the items details or the images from the Disk cache by clicking on the **Clear Details Cache/Clear Image Cache buttons** (Figure 13.3, “The Cache preferences window”).

Figure 13.3. The Cache preferences window

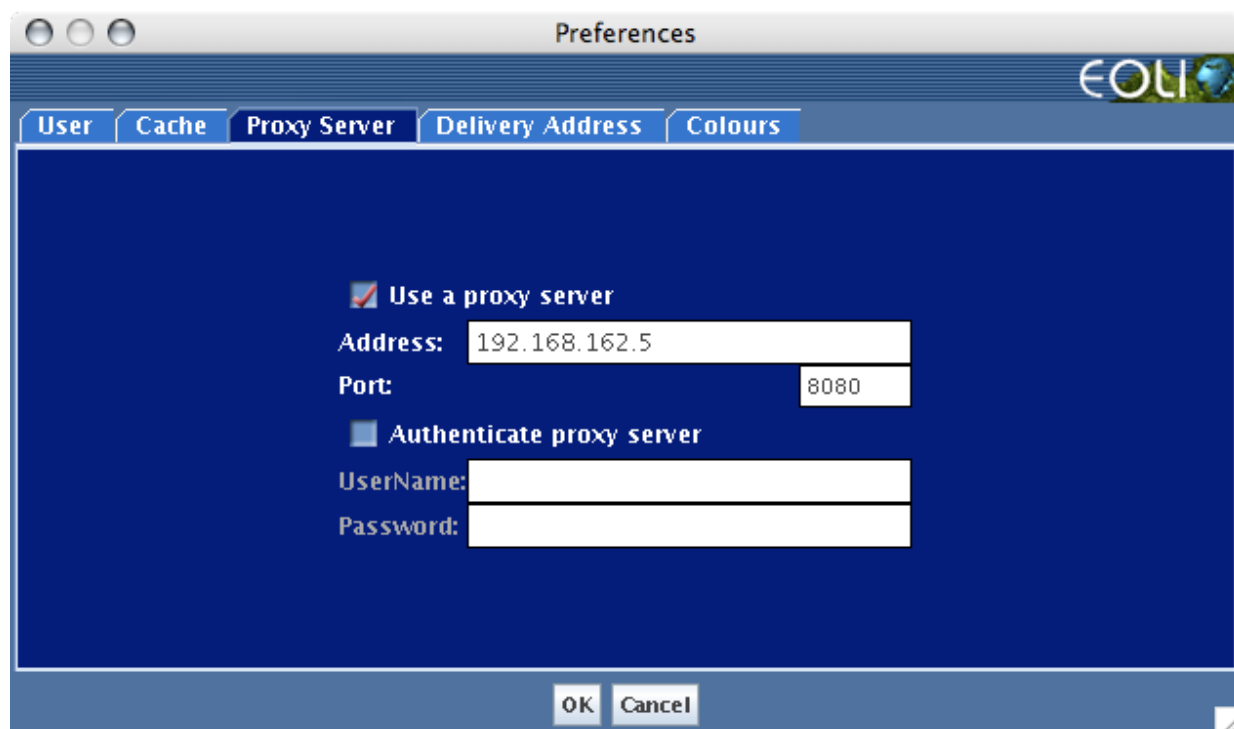


13.4. The Proxy Server Preferences

If your machine is located on an internal network protected by a firewall, you are most likely required to use a proxy server to access the world-wide-web. You should contact your network administrator for more details.

In general, you should put the same proxy setting that you use for your web browser (Figure 13.4, “The Proxy Server Preferences window”).

Figure 13.4. The Proxy Server Preferences window



EOLI-SA is also compatible with proxies that prompt for a username and password. You have to tick the Authenticate proxy server box and enter the User Name and Password.

13.5. The Delivery Address Preferences

Here you can set information related to your delivery address, **notification emailaddress** and **phone number** (Figure 13.5, “The Delivery Address Preferences window”). They will be automatically used when you create an order.

Figure 13.5. The Delivery Address Preferences window

The screenshot shows a 'Preferences' window with the 'Delivery Address' tab selected. The window has a blue header with the 'EOLI' logo. Below the header are tabs for 'User', 'Cache', 'Proxy Server', 'Delivery Address', and 'Colours'. The 'Delivery Address' tab contains the following fields:

- Default Delivery Address**: A dropdown menu.
- Organization**: Text field with 'recipient ident'.
- Recipient Name**: Text field with 'co'.
- Street Address**: Text field with 'streetAddress'.
- Postal Code**: Text field with 'postalCode'.
- City**: Text field with 'city'.
- County/State/Province**: Text field with 'state'.
- Country**: A wide text field with a dropdown arrow on the right.
- Telephone number of the recipient**: Text field with 'telNumber'.
- Notification Email**: Text field.

At the bottom of the form area is a button labeled 'Get Address from Server'. At the very bottom of the window are 'OK' and 'Cancel' buttons.

The delivery address allows user to add, edit and delete delivery address. User can create as many delivery addresses as he wishes. The delivery address is referenced by user defined name. It is used when user wants to order products (he or she can then select the address from a list that is displayed on the "product ordering window"). This functionality facilitates user to predefined multiple delivery addresses.

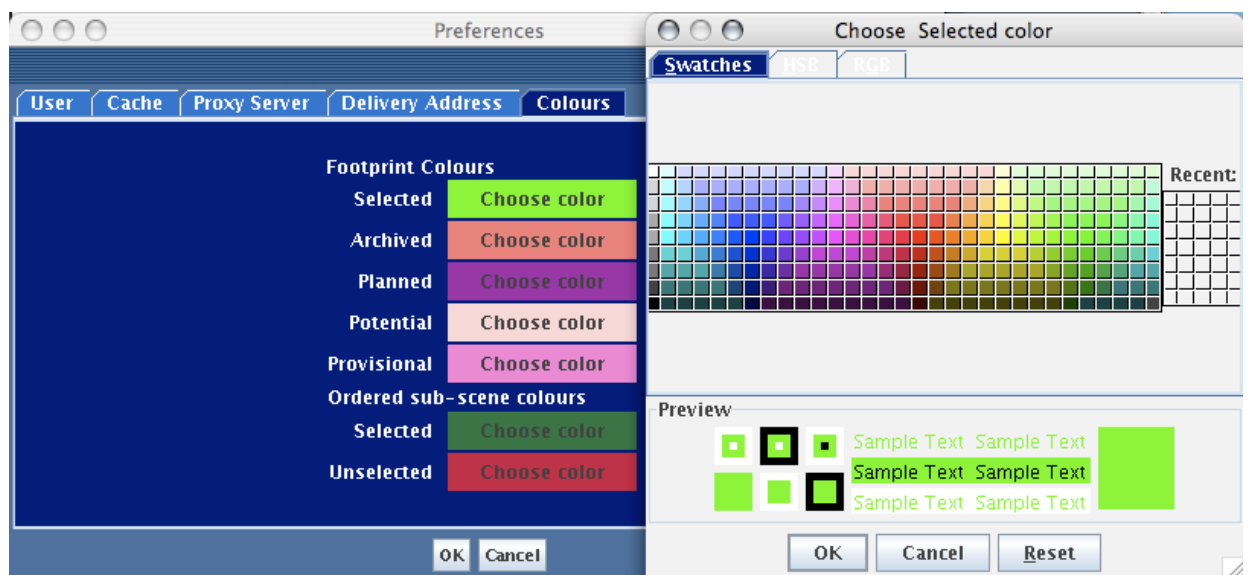
The button "**Get address from server**" fetch the delivery address from server, but user should be in "user known" connected mode to perform this kind of operation.

13.6. The Colours Preferences

Here you can set the colours used by EOLI-SA. The colours that can be modified are related to

1. Footprint Colours
 - **Selected** footprint
 - **Archived** footprint
 - **Planned** footprint
 - **Potential** footprint
 - **Provisional** footprint
2. Ordered sub-scene Colours
 - **Selected** sub-scene
 - **Unselected** sub-scene

Click on the Choose Colour button. A Choose Item Colour appears where you retrieve the classic functions to modify colours (using pallet or HSB & RGB colour selection)

Figure 13.6. The Colours Preferences window

Chapter 14. Troubleshooting

This chapter describes the most common problems seen in using EOLI-SA, and ways to fix or prevent them.

For each problem described below, a step by step procedure is provided.

Follow each step one by one and in order until the problem is fixed (not all steps are always necessary).

EOLI-SA suddenly fails to start. Everything was OK so far.

When EOLI-SA is launched, it first has to read a number of files which are stored on your local disk in the directory `eolisa` (inside the user home directory). If one of these files is corrupted for any reason, EOLI-SA will not start properly.

Try deleting from this directory the following files, one by one, until EOLI-SA starts properly:

1. Try deleting from this directory the following files, one by one, until EOLI-SA starts properly:
2. folder `collectionsFolder`
3. folder `orderServiceFolder`
4. folder `swathsFolder`
5. folder `orderdownloads` (you will loose your downloads preference)
6. folder `data` (you will loose your Local Inventory data)
7. `OnlineCollectionTree.xml`
8. `LocalCollectionTree.xml`
9. `ApplicationConfiguration.xml`
10. `UserPreferences.xml` (you will loose your preferences)
11. `userset.txt` (you will loose your User Set)
12. folder `shopcart` (you will loose your Shop Cart)



In the `eolisa` directory can be found the file `eolisa.log`, where error messages are logged. These messages, used internally for debugging purposes, might help you identify the file that causes the problem.

- Ultimately, you can delete the entire `eolisa` directory, but you will loose all your preference settings, User Set and Shop Cart files



Before you delete the `eolisa` directory you may preserve your user set and shop cart as follow: rename the files `userset.txt` to `myolduserSet.usr` and copy folder `shopcart`, and move them to another directory. Once EOLI-SA launches properly, you can try to recover these sets using the load set function in menu file)

I have added some local collections but I still cannot use them after a collection update

1. After you add some local collections, you must update them (Connect, then menu `App >> Update Collections`) before you can use them in a search;
2. Verify that the Collection Root Directory that is set in the preference panel does exist. If not, you have to create it manually before you update the local collections.

3. If that does not solve the problem, remove all local collections, restart EOLI-SA, add the local collections again, and update them.


I don't see any maps. The Map area is light blue.

This usually happens when EOLI-SA automatically disconnects from the server after a time-out period. When disconnected, EOLI-SA cannot use remote map layers anymore.

Open the Map Layer window and select the layer local layer (default).

Appendix A. User help

This appendix provides a brief overview of the user help

The EoliSA Graphical user interface (see Figure 3.2, “The EOLI-SA Interface”) contains context help buttons  in all the main interface panels (Collections, Date, Area, Advanced Criteria, grouped criteria, Shopcart, orders...) and windows (create order, download manager,...) allowing the user to quickly access the HTML user manual section that describes the features available in the related panel/context.

Appendix B. ESA data policy

This appendix provides a brief overview of the data distribution policy.

Distribution of data is aimed at promoting a balanced development of science, public utility and commercial applications. Distribution and use of data products accessible via EOLI-SA are governed by the terms and conditions of the ERS/ENVISAT Data Policy. Remember: you need to be registered to process data orders. Contact the ESA Earth Observation Missions Order desk Team at <eohelp@esa.int> for information on how to register.

Two categories of use apply to EOLI-SA data products:

1. Category 1 use
2. Category 2 use

Category 1 includes the use of data for research and applications development in support of a mission's objectives. Category 1 also covers research on long term issues of Earth System science, research and development in preparation for future operational use, certification of receiving stations as part of the ESA functions, and ESA internal use.

Category 2 comprises all uses that do not fall into Category 1, including operational and commercial use.

Data products which fall under Category 1 use are provided by ESA at reproduction cost or free of charge (to be waived by the Earth Observation Program Board). Their distribution and use are governed by the Terms and Conditions for the Utilization of Category-1 Data.

ESA retains the right to obtain a copy of all data products archived by third parties.

Contact the ESA Earth Observation Missions Order Desk Team for more information on how to order and use data products including data from third party missions and on how to register:

Address

The ESA Earth Observation Missions Order Desk Team

European Space Agency (ESA-ESRIN)

Via Galileo Galilei

00044 Frascati - Italy

tel: +39 06 94180777

e-mail: <eohelp@esa.int>

Glossary

Data Collections	Groups of data products of the same type. They are acquired by the same satellite family and instruments within the mission, and undergo the same processing procedures
Orbit	A revolution of the satellite from one ascending node to the next one. The first quarter of the orbit is Ascending and the satellite moves from the Equator (Node = 0) to the point closest to the North Pole. The following two quarters are Descending and the satellite moves down to the South Pole. The last quarter is Ascending and the satellite moves up towards the Equator.
Pass Type	Pass Type can be Ascending or Descending. Ascending Pass Type (A) corresponds to a satellite moving towards the North. Descending Pass Type (D) corresponds to a satellite moving towards the South.
Perpendicular baseline	The perpendicular distance between two viewing directions for a . between two satellite passes or of the same satellite on two different orbits.
Track	An imaginary line connecting the satellite and the Earth's center. As the Earth turns on its axis and the satellite orbits overhead, a line is created by the satellite's apparent path over the ground.