USER MANUAL
for public users

OMNES ISS

ESA Space Heritage in Images
Web Application

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SUMMARY

INTRODUCTION

This manual intends to provide users with appropriate guidelines for accessing the Digital Image Archive through the ISS platform (Image Server System).

The following paragraphs will show the user interface of the ISS web application as well as the description of all functionalities.

The ISS interacts with a service executing image import processes and related metadata.

The ISS is compliant with the International Image Interoperability Framework (IIIF) which is globally used to share images with all web platforms and image viewers using the same framework. The ISS allows users to manage annotations and tags on images through an open and large-scale collaboration in order to enrich the archive content.

Recommended references for a better understanding of this document:

- Dublin Core Metadata Initiative (DCMI) at http://dublincore.org/
- International Image Interoperability Framework (IIIF) at http://iiif.io/
- Mirador at http://projectmirador.org/

RECOMMENDED WEB BROWSERS

It is recommended to use a fully HTML5 compliant web browser like Google Chrome or Microsoft Edge and a display resolution higher than 1366x768 pixels.
Cookies and popup windows must be enabled to correctly use the application.

Note: You may experience compatibility issues using Microsoft Internet Explorer browser.

1   DIGITAL IMAGE ARCHIVE STRUCTURE

The Digital Image Archive consists of logic items called series; each series is made up of sequence of images (one or more than one) in digital form (file).
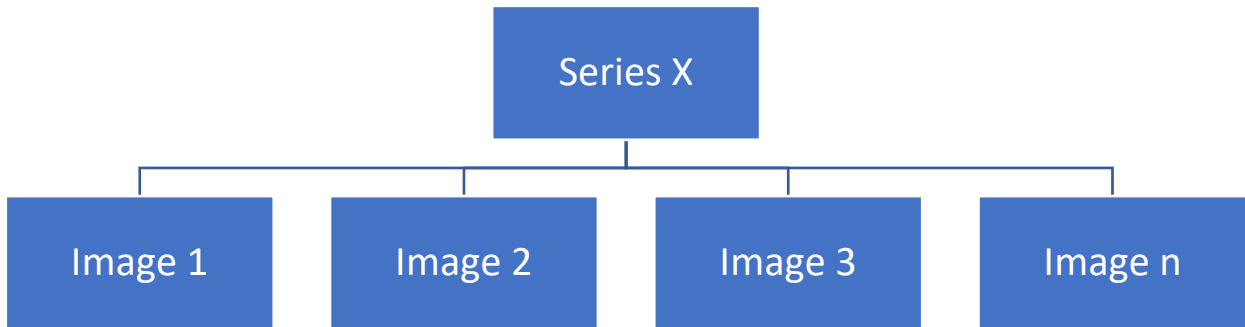

Image 1 - Relation between series and images

Each *Series* or *Image* type are described using a *Dublin Core* (DC) metadata set. The series metadata describe, generally, the content of an entire series, while the metadata associated to images are used to describe in a more specific way every single image (for example, subjects in the photograph, author of the photograph, shooting date, etc...).

Each item, both *Series* or *Image* type, is identified by a unique identifier number which is recorded in the DC element called *Identifier*. The same identifier cannot be assigned to more than one series or image.

When an image belong to a series, the relationship is shown in the *DC Relation* element through the following statement: "*isPartOf series:[series_identifier]*". Each image has its own unique *Identifier* that usually corresponds to the series *Identifier* plus a progressive numerical, for example:

```
Series:     ESTEC-PHOTO-1964.04.01
Image 1:    ESTEC-PHOTO-1964.04.01-001
Image 2:    ESTEC-PHOTO-1964.04.01-002
…
```

2 SEARCH PORTAL

The ISS platform allows anonymous users to search for content from the digital archive.

Image 2 - Portal for search into the archive

After accessing the platform for the first time, or by clicking on *Home* on the main menu at the top of the page, the list of the latest series uploaded to the Digital Image Archive is shown in chronological order, from the most recent to the less recent.

Each record is identified by a label, *Image* or *Series*, a title and a unique identifier number. For each record, a thumbnail of the original image - or an image cover when it refers to a series - is shown. Descriptive and administrative metadata are displayed in Dublin Core and are available alongside each thumbnail.

The results are grouped in pages and users can browse them by using the bar which is below the main menu. On top left, the information relating to the number of results is shown, whereas on top right buttons allowing users to navigate the pages, together with the current page indicator and the total number of pages, are displayed.

Please note that each session will expire after a certain period of inactivity (i.e. session timeout) or anytime you close the browser. When a session has expired, it will not be possible to edit or delete the annotations created during that session.

2.1 QUICK SEARCH ACROSS ALL FIELDS

In order for users to carry out a quick search, it is possible to enter any text in the search field "*Search terms…*" and click on 🔍 button or press the *Enter* button on the keyboard.

The searched text will be highlighted in the search results.

2.2 ADVANCED SEARCH

To enable the advanced search, users can click on *Advanced* on the main menu. Under the main menu bar, new options will be shown in order for users to filter and refine their search through more sets of Dublin Core elements.
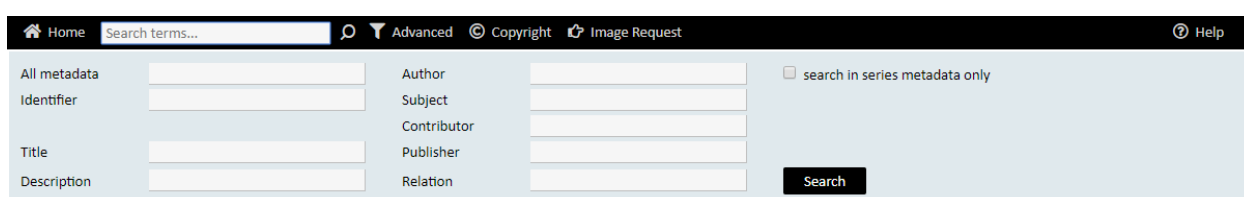

Image 3 – Advanced search filter

Please enter a value to search in the available fields, then click on the *Search* button or press the *Enter* button on the keyboard.

The logic operator AND will be applied on all fields chosen by users when searching.

Search can be limited to metadata from series by clicking on the *"search in series only"* checkbox.

To close the advanced search, please click on the *Advanced* toggle button again.

2.3 VIEWING SERIES AND IMAGES

To view the images from each series, please click on the series or image thumbnail. A new window with an embedded image viewer (IIIF compliant) will be displayed.
For more details about the use of the image viewer, please refer to the par. 3.

2.4 DOWNLOADING IMAGE IN VARIOUS FORMATS

Below each *Image* thumbnail, some buttons will allow users to download an high-resolution image in various formats: JPG, PNG or TIF. Please click on the preferred format.
Note: The browser may open the image in a new window instead of downloading it directly onto your PC. In this case, to save the image, right click on the image and select *"Save image as..."*.

2.5 COPYING THE URL OF IIIF MANIFEST

Below each *Series* item thumbnail, a *Copy IIIF manifest* button is available in order for users to copy the manifest URL. This URL can be used in any IIIF compliant viewer either to display the whole series or to compare, for example, images from different series.
After copying the manifest URL, paste the value in the appropriate text field of the IIIF viewer (please refer to the manual of the image viewer being used).

3 IMAGE VIEWER

The ISS platform uses *Mirador* as a default image viewer. When users click on the image thumbnail on the user interface, the image viewer window pops up.
Below is the main window of the image viewer:
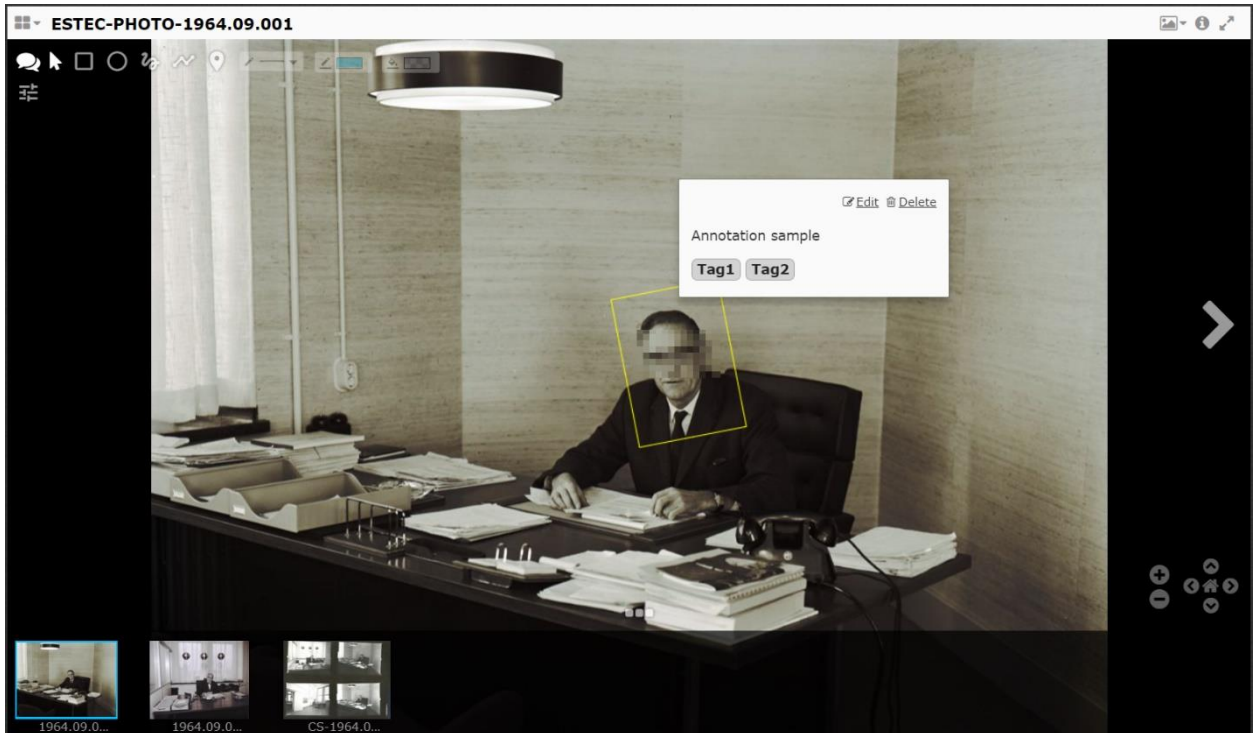
Image 4 – Main window of Mirador

3.1 VIEWING MODES

The image viewer allows you to select the viewing mode by clicking on the ![icon] on top right of the header bar.
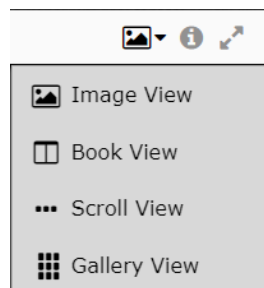

Image 5 - Viewing mode in Mirador

To change the viewing mode, select an item from the drop-down menu.

To view the metadata relating to the current series, click on the ![info icon] icon.

To enable or disable the full screen viewing, click on the ![fullscreen icon] icon.

3.2 ANNOTATION MANAGEMENT TOOLS

To enable the annotations viewing, adding and/or editing, users need to click on the icon. Alongside the icon new editing options are displayed.

Image 6 - Annotations management tools

The first icon allows users to select an existing annotation area, while the next ones allows users, respectively, to create annotations areas with rectangular, oval, free or polygonal shapes. The last three icons concern the area style, including thickness and border color, filling color and transparency.

3.2.1 HOW TO ADD AN ANNOTATION

To create or add an annotation, select the area shape (Image 6) and then draw it on the image. The image viewer can allow users to associate more areas to the same annotation and it is possible to run this operation as many times as you like.
When the area drawing on the image has been completed, users may create or add annotations, text and tags on the relevant window.
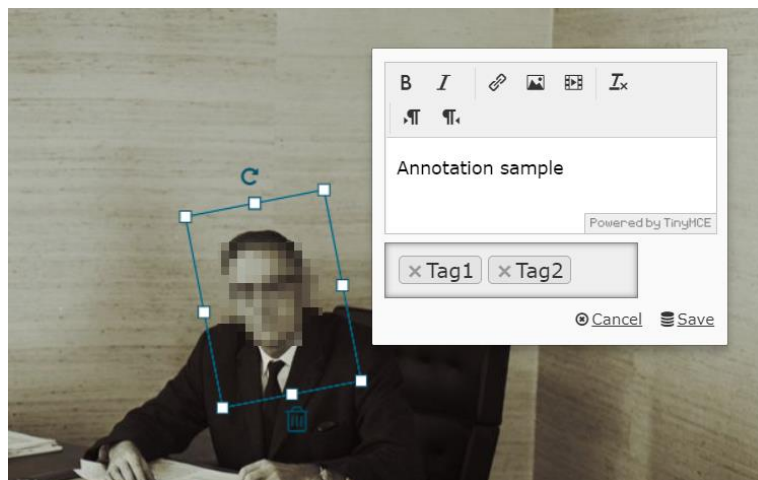
Image 7 - Annotation insert/edit

The image viewer allows users to run the following operations on an area:

- resizing by dragging the white points on the edges
- rotation by dragging the icon on the upper side
- deleting by clicking on the icon under the area

To select an area, just click on the chosen area edge.

To save the annotations and their areas, just click on the *Save* button.
To cancel the insert operation, click on the *Cancel* button.

3.2.2 VIEWING, EDITING AND DELETING ANNOTATIONS

The first icon with an arrow shape (Image 6) allows users to view the annotations by hovering the mouse pointer upon an annotation area. These areas can be easily identified as they consist of geometric shapes with colored edges upon the original image (for example, a rectangle with a blue edge, an oval, etc...). When you hover the pointer on one of these areas, a little window pops up displaying the annotation text, tags, the *Edit* button and the *Delete* button.

Image 8 – Annotation view

To edit an annotation, click on the *Edit* button.
By using this functionality, you can:

- edit or delete the annotation text
- edit, insert or delete tags
- add, edit or delete areas associated to the annotation (once at a time)

The areas associated to an annotation will be highlighted.
To edit an area please refer to the par. 3.2.1.

In order to these changes to take effect, both on areas and on a single annotation, click on the *Save* button. To cancel the operation, click on the *Cancel* button.

The *Delete* button allows users to delete completely the annotation, tags and all associated areas.

3.3 IMAGE MANIPULATION TOOLS

The image manipulation tools are available by clicking on the icon.

Image 9 - Image manipulation tools

The first two icons allow, respectively, to rotate the image in clockwise and counterclockwise. The next ones allow, respectively, to edit the brightness, contrast, colors saturation, to set the black and white view and to revert the image colors. The last icon will restore the original image view.

All the changes will be temporary and in view-only. The original image will not be altered.

3.4 VIEW MODE WITH MORE SLOTS

To add another viewing slot to compare images from different series, click on the top left button to select the slot position from the drop-down menu.

Image 10 - New viewing slot

The slot will be added in the selected position, and the window layout will be adapted accordingly. In the new slot area, click on *"Add Item"*. A new window will be opened through which users can select an image from those in the current series and/or add to the list new series.
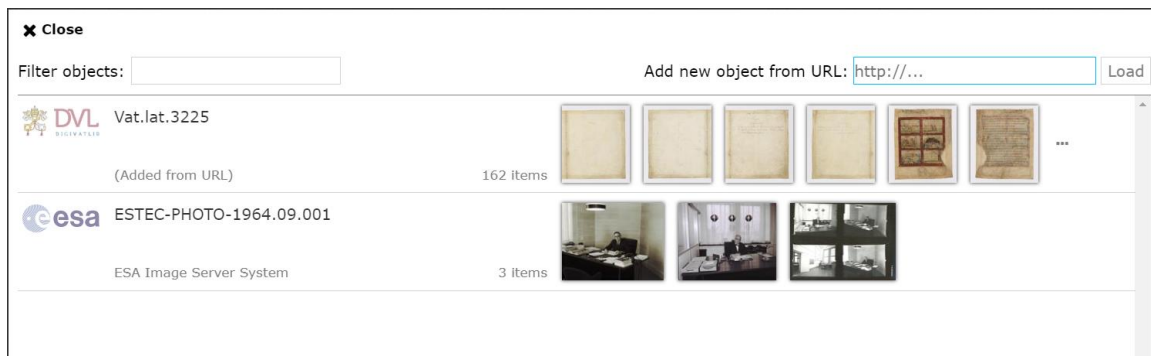

Image 11 - Dynamic series list

To add a new series, paste the URL IIIF manifest, copied previously, in the text field next to *"Add new object from URL"* and click on *Load*. The new series will be loaded in the list below. At this point, users can select the image they wish to add to the previous slot by clicking on the preferred thumbnail.

To search in the series list, please enter part of the series identifier in the field next to *"Filter objects"* and press the *Enter* button on the keyboard. Only the series with an identifier that matches the search criteria will be shown.
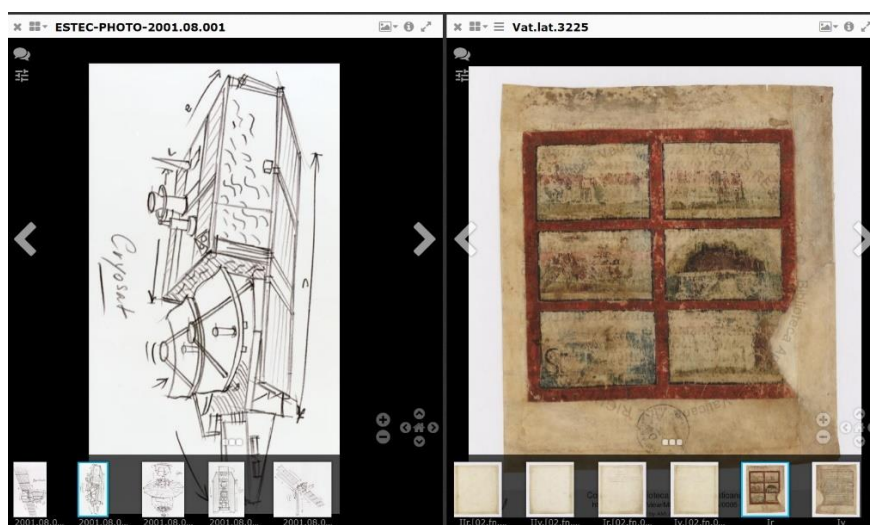
Image 12 - Example of viewing with two slots

To close any slot, click on the "x" button on top left.

The list of series will remain available as long as the viewer window is kept opened. In this way, users can quickly:

- – add or replace an image to an existing slot
- – add an image to a new slot

To replace an image in the slot, click on the *"Replace Object"* menu item in the drop-down menu of the slot management (Image 10).

4 GLOSSARY

Name	Description
DC	Dublin Core
DCMI	Dublin Core Metadata Initiative
IIIF	International Image Interoperability Framework
JPEG	Joint Photographic Experts Group
PNG	Portable Network Graphics
TIFF	Tagged Image File Format