

MDC OMERO starting guide

User Manual

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1. Introduction

OMERO in a nutshell

OMERO (Open Microscopy Environment Remote Objects) helps users to organize, view, annotate and share image data in a secure central repository. It supports over 150 image file formats, including all major microscope formats.

OMERO has been widely accepted in the scientific community since its implementation allows easy data management and encourages collaboration. The original OMERO paper from 2012 has more than 500 citations, PMID: <u>22373911</u>.

OMERO at the MDC

Connection to the MDC network is necessary in order to connect to the OMERO servers.

There are two available servers:

- 1) Test https://omero-test.mdc-berlin.net/
- 2) Production https://omero.mdc-berlin.net/.

One can use the MDC credentials in order login to the OMERO servers. The test is the system that is **used only for test purposes**.

OMERO training resources:

1) Please check the training videos in the "Toolbox" section of the Academy MDC:

https://mdc.academymaker.de/#/catalog/

2) Some useful links for image viewing provided by the Glencoesoftware company:

PathViewer PathViewer Grid OMERO.iViewer OMERO.figure

3) If you have doubts or comments, please contact the Research Data Management Department:

Oscar.Migueles@mdc-berlin.de Inga.Patarcic@mdc-berlin.de

2. Installation of OMERO Insight and image uploading for Windows users:

1. Download OMERO Insight from the MDC Self Service Portal (<u>https://itsupport.mdc-berlin.net/</u>).

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2. Proceed with the installation via the Matrix 42 system.

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3. Open the OMERO Insight client application and enter the server's details by clicking on the wrench icon.

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181 OMERO is alterritorized under the terrers of the GHU GPL, For more information, with updamics except any
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4. Next, click on the plus icon to add the MDC server.



5. Write the test server name "omero-test.mdc-berlin.net" and click OK.

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Note that for this example we are using the **test server** but, if you decide to use the **production server** then enter "**omero.mdc-berlin.net**" in this section.

6. Select the server and click "Apply".

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7. Now introduce your MDC credentials in the main OMERO insight client application to login.



8. Once connected to the server, it is possible to upload images by clicking on the Import icon located in the upper panel.



9. Find the image(s) to be uploaded and click on the blue arrow pointing to the right in order to put the file(s) in the import queue.

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10. Name the project and the dataset. Subsequently, click on the import button.

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11. Once the upload has finished go to OMERO web, in the case of this example "<u>https://omero-test.mdc-berlin.net/</u>" and use your MDC credentials to login. If you intend to use the production version, go to <u>https://omero.mdc-berlin.net/</u>.

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eport: 0 out of 1 uploaded nport Size: 0 bytes	Show Failed		When upload is complete, the import window and CMERO session can be closed. Reading will continue on the server.
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	07-2022 University of Dundee, Open Mic OMERO Plus is licensed by Gle are information, contact your local OMER	ncoe Software to you, the End	f User. glencoesoftware.com

12. OMERO Plus is divided in three main panels.

On the left side it is possible see the structure of the projects and datasets, in the middle the image(s) thumbnails and on the right side, the metadata of the selected elements is shown.

Importantly, in the upper part of the third panel, there are different options to start manipulating the image. By default, the full viewer opens OMERO iviewer extension. Additionally, after clicking on the "open with" icon 🗊 the option to start PathViewer appears as well as Pathviewer GRID, in case it is desired to view different images at the same time.

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https://omero-test.mdc-berlin.net/pathviewer/viewer/205		Zoom:	

3. Installation of OMERO Insight for macOS users

1. It is necessary to download the OMERO insight application directly from the OpenMicroscopy website:

https://www.openmicroscopy.org/omero/downloads/

standard OMERO user just needs to download the	e client package with a compatible version for their ins	titutional server (e.g. 5.5.8 clients will connect to
.6.0 servers but not to 5.4.0 servers). Full instructio	ons for installation are on the guides .	
you do not have an institutional server, you can ta	ake advantage of the OMERO platform hosted by the C	ME team in Dundee and sign up for a free demo
	up/. You will received an email with your username an	d password allowing you to connect to the server i
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Windows	Mac OS X	Linux
OMERO.insight-5.8.2.exe	OMERO.insight-5.8.2.dmg	OMERO.insight-5.8.2.zip
	Download (142 MB)	Download (74 MB)
OMERO.insight-5.8.2.msi		

2. Once the ".dmg" file was downloaded, click on it to mount it. Then, open the application by clicking on the generated icon. It might be that macOS stops the user from this action with a warning stating that the "developer cannot be verified". If this happens, click on "Cancel".



3. Next, right-click the generated icon and click "Open". This time the warning should offer the option to open the app.

10.				
OMERO.insight				
	macOS cannot verify the developer of "OMERO.insight". Are you sure you want to open it? By opening this apo, you will be overiding system security which can expose or compromise your privacy. This item is on the disk image "OMERO.insight-5.8.2.dmg" Salari developed the disk image "OMERO.insight-5.8.2.dmg" Salari			
	?	Eject Disk Image	Open	Cancel

For easier accessibility, this icon icon be moved to the Applications folder. Follow the same steps as in the Windows case in order to establish the server and to connect.