



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: [22373911](#).

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 to 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](#)

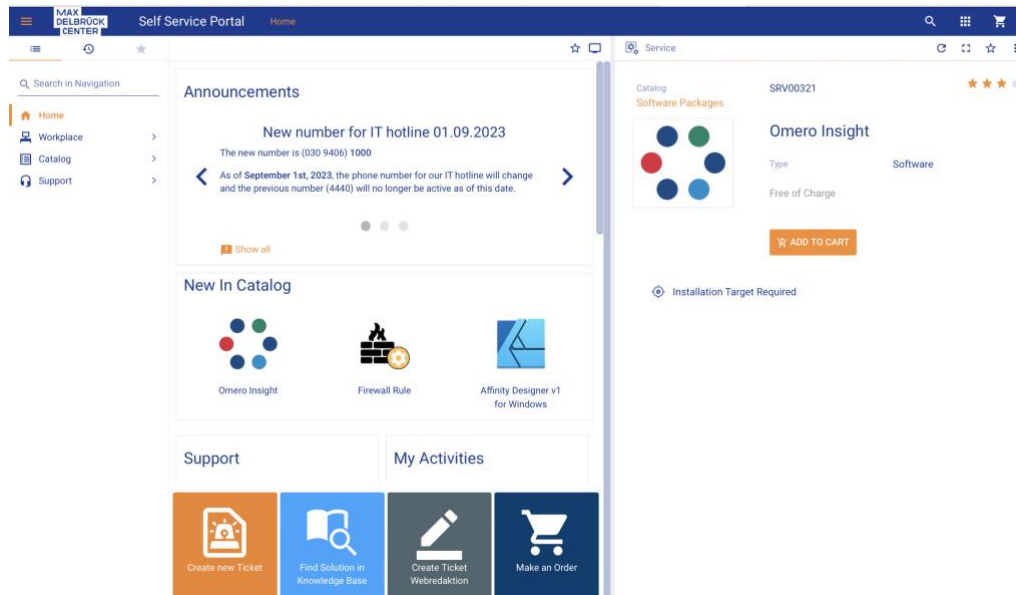
- 3) If you have doubts or comments, please contact the Research Data Management Department:

Oscar.Migueles@mdc-berlin.de

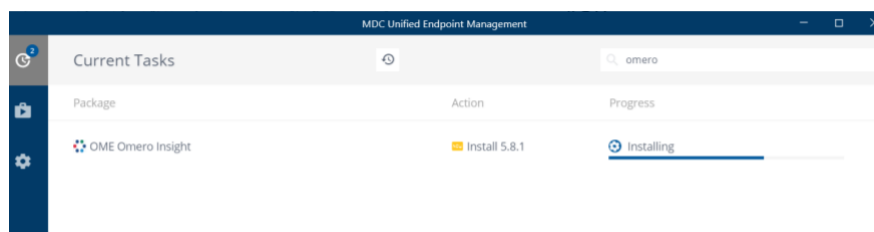
Inga.Patarcic@mdc-berlin.de

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

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



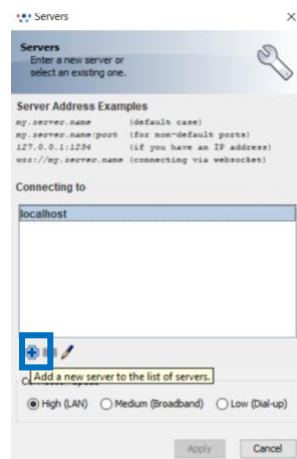
2. Proceed with the installation via the Matrix 42 system.



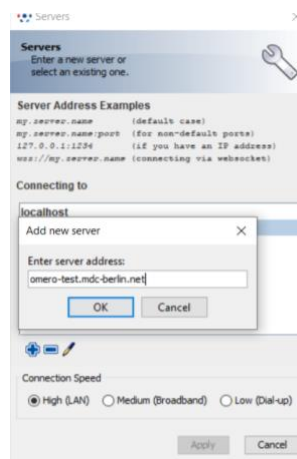
3. Open the OMERO Insight client application and enter the server's details by clicking on the wrench icon.



- Next, click on the plus icon to add the MDC server.

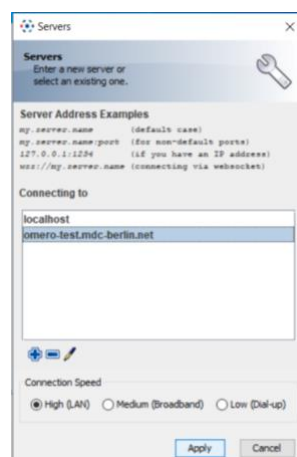


- Write the test server name “**omero-test.mdc-berlin.net**” and click OK.



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.

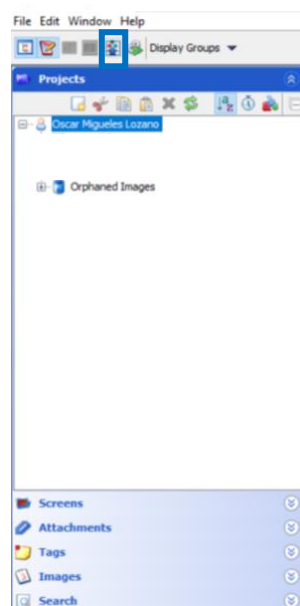
- Select the server and click “Apply”.



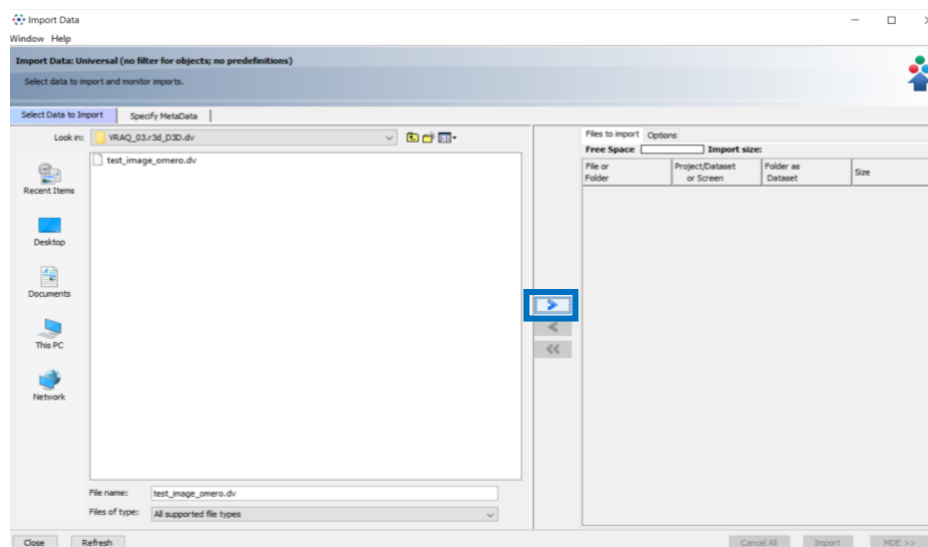
7. Now introduce your MDC credentials in the main OMERO.insight client application to login.



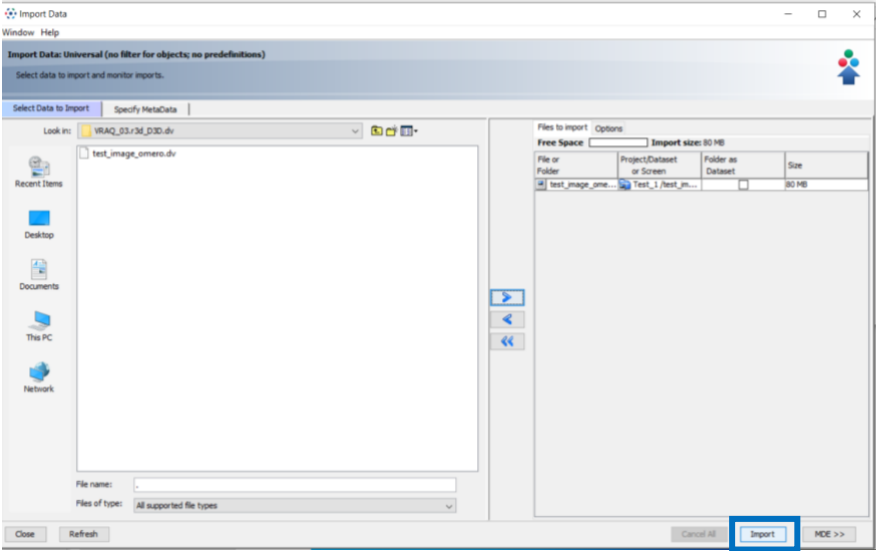
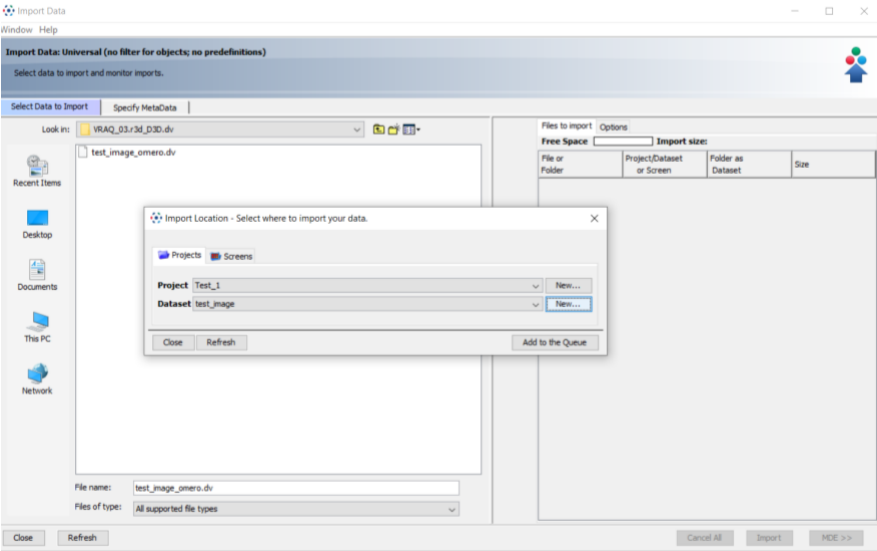
8. Once connected to the server, it is possible to upload images by clicking on the Import icon located in the upper panel.



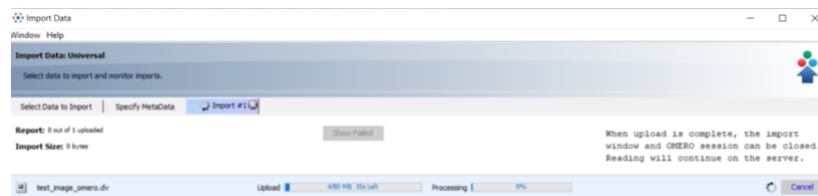
9. Find the image(s) to be uploaded and click on the blue arrow pointing to the right in order to put the file(s) in the import queue.



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




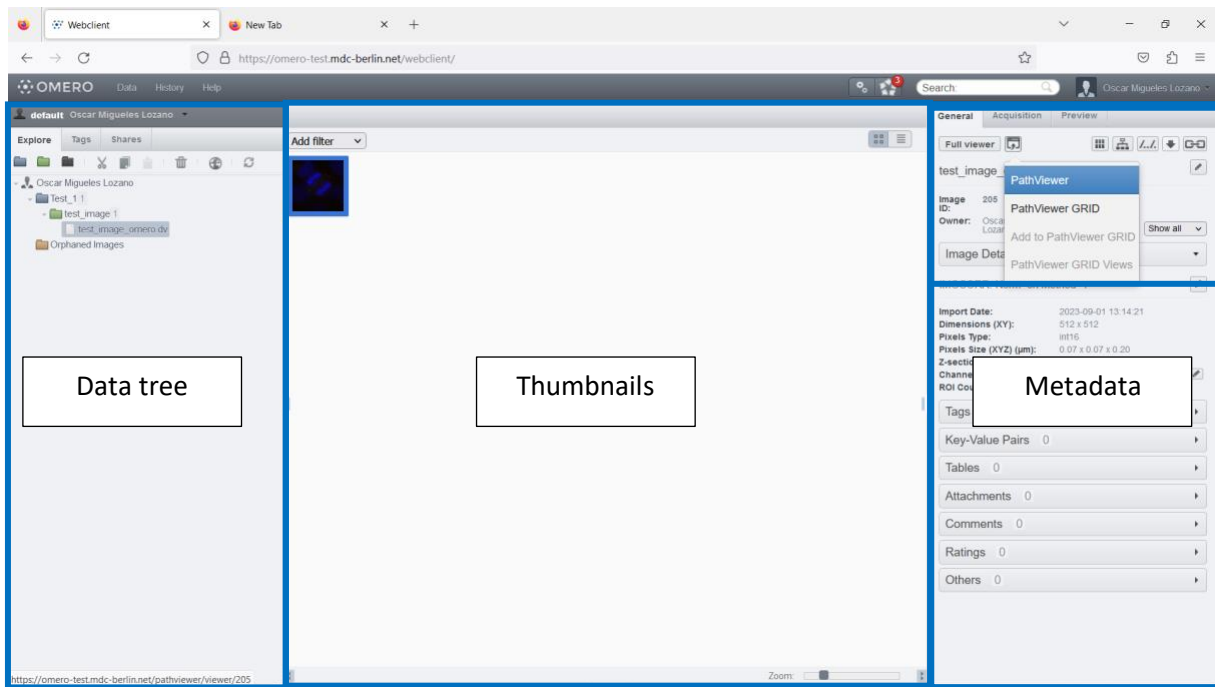
11. Once the upload has finished go to OMERO web, in the case of this example “<https://omero-test.mdc-berlin.net/>” and use your MDC credentials to login. If you intend to use the production version, go to <https://omero.mdc-berlin.net/>.



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.



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/>

OMERO clients

A standard OMERO user just needs to download the client package with a compatible version for their institutional server (e.g. 5.5.8 clients will connect to 5.6.0 servers but not to 5.4.0 servers). Full instructions for installation are on the [guides](#).

If you do not have an institutional server, you can take advantage of the OMERO platform hosted by the OME team in Dundee and sign up for a free demo account at <https://demo.openmicroscopy.org/signup/>. You will receive an email with your username and password allowing you to connect to the server in Scotland.




Windows

OMERO.insight-5.8.2.exe

[Download \(119 MB\)](#)

OMERO.insight-5.8.2.msi


[Download \(147 MB\)](#)



Mac OS X

OMERO.insight-5.8.2.dmg

[Download \(142 MB\)](#)

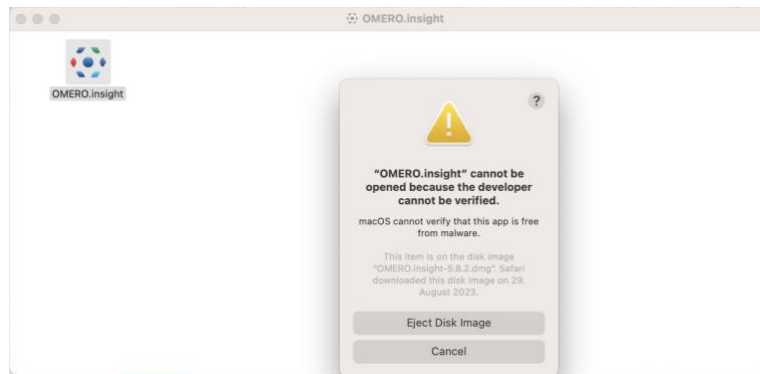


Linux

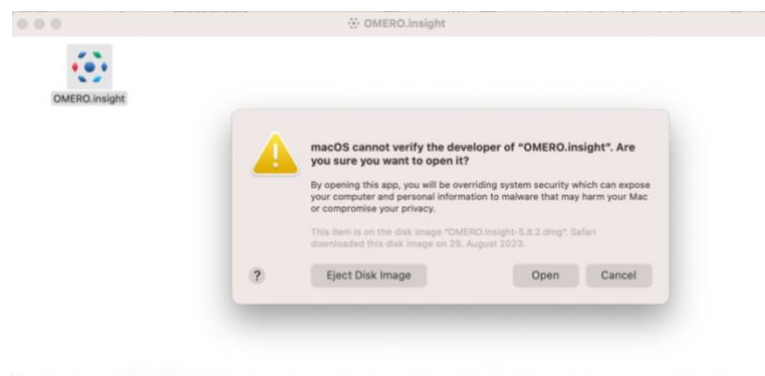
OMERO.insight-5.8.2.zip


[Download \(74 MB\)](#)

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.



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