

TiM 2023 Imaging workflows in OMERO Workshop

The presentation and a PDF version of the workshop are available at
<https://downloads.openmicroscopy.org/presentations/2023/TiM-Munsingen/>

Software versions used for this workshop:

- OMERO: 5.6.6
- OMERO.web: 5.16.0
- omero-guides: 2021.11.09
- OMERO.insight: 5.8.0
- OMERO.insight-ij: 5.8.0
- OMERO.iviewer: 0.12.0
- OMERO.figure: 5.1.0
- OMERO.parade: 0.2.3
- OMERO.duplicate: 0.4.0
- OMERO R gateway: 0.4.8
- Bio-Formats: 6.5.1
- Fiji/ImageJ: 2.0.0-rc-69/1.52p
- Matlab R2019a
- QuPath 0.4.2
- omero-metadata: 0.5.0
- Ilastik 1.3.3 (pipeline), 1.4.0b5 (inside the docker)

Summary

OMERO core concepts

- Data management - Metadata
- Viewer -3D Viewer
- Annotations

OMERO figure

- How to use figure
 - Images basic workflow
 - Scale Bars
 - ROIs

Programme

Import (for your information only)

In this section we will cover the various import options such as the import with or without data transfer and synchronous vs. asynchronous.

Desktop client install and import

For these 2 workflows, see

Video <https://www.youtube.com/watch?v=U5rH7ZmylAI&t=149s>

Guides:

<https://omero-guides.readthedocs.io/en/latest/upload/docs/import-desktop-client.html> and
<https://omero-guides.readthedocs.io/en/latest/upload/docs/import-desktop-client.html#import-for-another-user>

Command line import, bulk import, in-place import

These import sections not covered in the workshop can be found at

<https://omero-guides.readthedocs.io/en/latest/upload/docs/import.html>

OMERO core concepts

Data management and cooperation

See:

Guide <https://omero-guides.readthedocs.io/en/latest/introduction/docs/data-management.html>

Short video <https://www.youtube.com/watch?v=v85YD4cORk4>

Viewing images (OMERO.iviewer)

<https://omero-guides.readthedocs.io/en/latest/iviewer/docs/index.html>

Annotate data and filter using annotations

See:

Guide: <https://omero-guides.readthedocs.io/en/latest/introduction/docs/annotate.html>

Short video <https://www.youtube.com/watch?v=kW9O1M1obKc>

Analysis with Fiji

- Analysis with Fiji: Java
 - Fiji client side: manual Analysis via User Interface

For setup of the Fiji plugin see

<https://omero-guides.readthedocs.io/en/latest/fiji/docs/installation.html>

For the walkthrough in this workshop, see the four Fiji chapters

<https://omero-guides.readthedocs.io/en/latest/fiji/docs/installation.html>

https://omero-guides.readthedocs.io/en/latest/fiji/docs/threshold_manual.html

Search (for your information)

<https://omero-guides.readthedocs.io/en/latest/introduction/docs/search-omero.html>

Export (for your information)

<https://omero-guides.readthedocs.io/en/latest/download/docs/index.html>

OMERO parade

Data mining using OMERO.parade on Projects and Plates

See https://omero-guides.readthedocs.io/en/latest/parade/docs/omero_parade.html

OMERO figure

Fast creation of publication figures using OMERO.figure

See https://omero-guides.readthedocs.io/en/latest/figure/docs/omero_figure.html

See video <https://www.youtube.com/watch?v=mjINBUoGKRc>

Publication

Publication in OMERO is tantamount to moving data into a “Public” group.

See <https://omero-guides.readthedocs.io/en/latest/introduction/docs/data-publication.html>

See

<https://omero-guides.readthedocs.io/en/latest/introduction/docs/data-management.html#move-data-between-groups-owners-of-data>

To create a link to a Project/Dataset/Image in OMERO.web, click on the Project/Dataset/Image in the left-hand side tree. Then, in the right-hand pane, General tab, click on the “chain” icon



and copy the link from there.