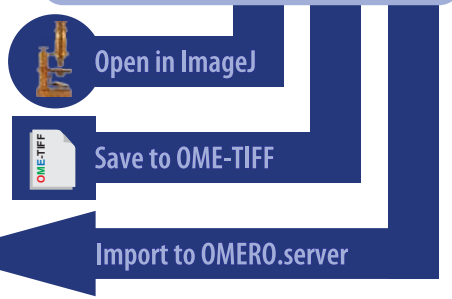
Bio-Formats is a Java library for reading and writing microscopy images. It can parse pixels and metadata from a large number of formats. Usable with ImageJ, OMERO, or your own code.

Readable Image and Metadata Formats

DeltaVision DV
Bitplane Imaris IMS
Improvision OpenLab RAW
Leica LAS AF LIF LEI
Zeiss AxioVision ZVI
PerkinElmer Flex
Nikon NIS-Elements ND2
Nikon EZ-C1 TIFF
MetaMorph TIFF & STK
PerkinElmer UltraView
TillPhotonics TillVision
Prairie Technologies TIFF
Olympus Si SlideBook
Zeiss LSM 510 VisiTech XYS
OME-TIFF OME-XML
uManager DICOM
IPLab MRC nrrd
TIFF + many more



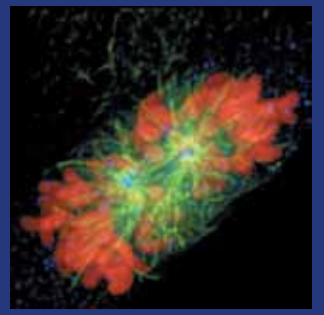
The Open Microscopy Environment is a multi-site collaborative effort producing tools to enable data management for biological imaging. Our goal is to provide life scientists with sophisticated software and data analysis tools to support their work. Designed to interact with existing commercial software, all OME formats and software are freely available under an open source license.

OME is developed as a joint project between research-active laboratories at the University of Dundee, NIA Baltimore and LOCI Madison (Laboratory for Optical and Computational Instrumentation). OME has active collaborations with many imaging, informatics and industry groups.
Glencoe Software provides commercial licenses for both OMERO and Bio-Formats along with delivering the Glencoe Software DME, a customized, supported, and indemnified version of OMERO.

Funding for OME has been provided by:

http://www.openmicroscopy.org/

open microscopy environment



A pretty picture?

A measurement?

OMERO
image data management

Bio-Formats
proprietary data conversion

OME-XML
standardised data model

OME-TIFF
standardised data storage

metadata management and data format standards for biological light microscopy

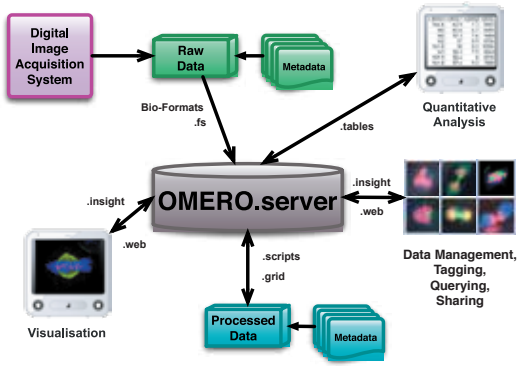
http://www.openmicroscopy.org/

OME-XML and OME-TIFF

OME-XML is a common specification for light microscopy file formats. It provides a rich extensible model to save information related to microscopy experiments with the acquired images. OME-TIFF stores multi-dimensional microscope images and associated metadata in a simple, standardised file format that can be read by ImageJ, Matlab, Photoshop, and many commercial imaging software tools.

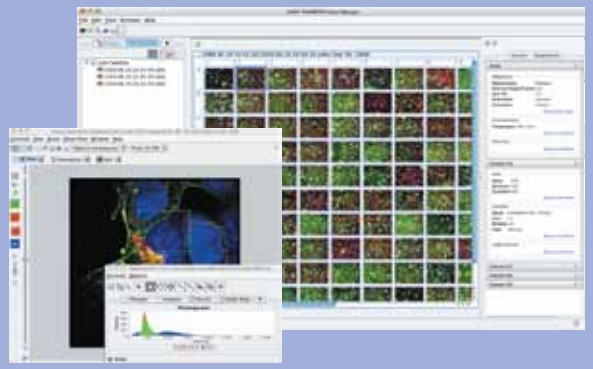
OMERO.server

OMERO (OME Remote Objects) is a Java Enterprise application that provides integration, visualisation, management, and analysis facilities for biological image data. Support for microscopy, HCS, and graphics image data is built-in, and full data query and search facilities are enabled. All data in OMERO is accessible by any OMERO client, or you can use your own Matlab, Java, C++, or Python application. A single OMERO.server installation can support the image data requirements of a lab or imaging facility.



OMERO Clients

OMERO.insight provides access to data stored in an installation of OMERO.server. This allows a scientist to remotely manage, view, collaborate, annotate, tag, and measure multi-dimensional images from anywhere.



OMERO.importer allows the importing and archiving of all file formats supported by Bio-formats. It provides a standard file browser to help the user choose which files to import and where to put them in an OMERO.server.

OMERO.editor records experimental data in a structured way. This can be used to annotate OMERO.server images or be viewed independently. Complex protocols can be assembled using workflow templates.

OMERO.web enables a web browser to connect to an OMERO.server and combines a multi-dimensional image viewer with a platform for collaboration and a pathway for publishing work.

Demo Accounts

Take advantage of the OMERO platform and request a free demo account!

We will contact you with an IP address, username and password for connecting to the demo server in Germany, hosted by:

Karlsruhe Institute of Technology

http://openmicroscopy.org/info/demo

Scripting and OMERO

OMERO provides the ability to write your own analysis routines in many popular languages. These routines can run on your machine and pull data from the server, or they can be installed on the server for execution on the grid. Either approach allows your results to be stored back to the server, linking them to the original data.