Who are we?

Blazej Pindelski
OME Core Software Developer
University of Dundee
Collage of Life Sciences

Douglas Russell
OME Software Developer
University of Oxford
Department of Biochemistry

Working on the server code and test infrastructure

Embedded developer in The Department of Biochemistry
Data in Life Sciences

Vast data amounts in *biological imaging*

University of Dundee: ~13 TiB, monthly increase: 300 GiB
University of Oxford: ~13 TiB, monthly increase: 1 TiB

An image is a measurement

Qualitative and quantitative analysis

Drive towards *shareable* resources

“How can I reproduce this experiment and compare my results with the paper?”
Standard workflow
What is OME?
Increasing image complexity

Faas, et al., JCB, DOI: 10.1083/jcb.201201140
Increasing image complexity
Metadata exchange standard

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Open Data Management Platform

Allan et al, 2012, Nature Methods
OMERO clients - desktop

Google “omero insight agent”
OMERO clients - web

Google “omero web plugin”
OMERO’s Extensible Platform
ZeroC ICE (Internet Communications Engine)

http://www.zeroc.com/
Microscopy & Open Source

+ 119 Other Formats

OME-XML
Academia & Open Source

Not always a natural fit

Crucial to widespread adoption

Funding Dependant

Long-term sustainable solution
Consortium

University of Dundee
University of Oxford
University of Edinburgh
Harvard Medical School
Imperial College London
Carnegie Mellon
National Institute on Aging
Institut Pasteur
Integration with popular tools

ImageJ
Image Processing and Analysis in Java

KNIME

CellProfiler
cell image analysis software

JCB Data Viewer

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Open Microscopy Environment

openmicroscopy/openmicroscopy
OME (Open Microscopy Environment) develops open-source software and data format standards for the storage and manipulation of biological light microscopy data. A joint project between universities, research establishments and industry in Europe and the USA, OME has over 20 active researchers with strong links to the microscopy community. Funded by private and public research grants, OME has been a major force on the international microscopy stage since 2000.

Updated by sbesson about 1 hour ago

openmicroscopy/Imperial-FLIMfit
Updated by seanwarren about 2 hours ago

openMicroscopy/bioformats
Bio-Formats is a Java library for reading and writing data in life sciences image file formats. It is developed by the Open Microscopy Environment (particularly UW-Madison LOCI and Glencoe Software). Bio-Formats is released under the GNU General Public License (GPL); commercial licenses are available from Glencoe Software.

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http://github.com/openmicroscopy
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