Micron Oxford: users & facilities

1. users / data

- 85 registered current users
- ~30 TB data (linux + windows)
Micron Oxford: users & facilities

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2. microscopes

- 2 Deltavisions
- 2 spinning disks
- 2 OMX microscopes
- Olympus confocal
- planned: SPIM microscope
- planned: confocal
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3. network & storage

University Kerberos realm (& SSO)

HP StorNext server
5+20 TB

Micron linux server
15 TB

processing node

NFS

e.g. spinning disk, OMX controller

NFS

e.g. Deltavision, OMX processing

16/17 Feb 2012

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OMERO at Micron Oxford

- Installed on StorNext hierarchical storage
- Version 4.3.3.
- 20 users, ~1/2 current, 2 or 3 active, 2 TB data
OMERO at Micron Oxford

Installed on StorNext hierarchical storage

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Plan A. killer application

1. patch-based denoising

- uses John Sedat / Dave Agard’s Priism
- currently require MRC or TIFF input
- goal: run job remotely, retrieve result & link to original
Plan A. killer application

1. patch-based denoising

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- goal: run job remotely, retrieve result & link to original

2. other applications: flat-field correction, alignment of multi-channel data, deconvolution, SI reconstruction, localization microscopy
## Plan B. go-between

<table>
<thead>
<tr>
<th>Software</th>
<th>Used by Micron?</th>
<th>Formats supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiji / ImageJ</td>
<td>yes</td>
<td>(bioformats)</td>
</tr>
<tr>
<td>Volocity</td>
<td>yes</td>
<td>ome.tiff, .tiff, .dv</td>
</tr>
<tr>
<td>softWoRx</td>
<td>yes</td>
<td>.dv, .tiff, ome.tiff?</td>
</tr>
<tr>
<td>Matlab</td>
<td>yes</td>
<td>(bioformats)</td>
</tr>
<tr>
<td>Priism</td>
<td>yes</td>
<td>MRC, .tiff</td>
</tr>
<tr>
<td>CellProfiler</td>
<td>not yet</td>
<td>(bioformats)</td>
</tr>
<tr>
<td>KNIME</td>
<td>not yet</td>
<td>(bioformats)</td>
</tr>
<tr>
<td>Icy</td>
<td>not yet</td>
<td>(bioformats)</td>
</tr>
<tr>
<td>Vaa3D</td>
<td>not yet</td>
<td>(bioformats)</td>
</tr>
<tr>
<td>BioimageXD</td>
<td>not yet</td>
<td>.tiff, MRC, ome.tiff?</td>
</tr>
<tr>
<td>Imaris</td>
<td>trial</td>
<td>(bioformats)</td>
</tr>
<tr>
<td>Amira</td>
<td>trial</td>
<td>.tiff, amira mesh</td>
</tr>
<tr>
<td>Metamorph</td>
<td>yes</td>
<td>.tiff, .stk</td>
</tr>
<tr>
<td>Image-Pro Plus / AutoQuant</td>
<td>trial</td>
<td>?</td>
</tr>
<tr>
<td>Huygens</td>
<td>trial</td>
<td>ome.tiff, .tiff, MRC, HDF5</td>
</tr>
<tr>
<td>ITK &amp; VTK</td>
<td>not yet</td>
<td>(bioformats)</td>
</tr>
</tbody>
</table>
Plan C. secure image repository

1. essential
   • nothing is lost on import
   • record of the origin of the data
   • always possible to recover data & metadata
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   • data deletion possible (to trash first), history/metadata eternal
   • undo; Time Machine-like historical snapshots
   • local versions of a project, sync
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OMERO: feedback/questions

1. hierarchy

   from: Project -> Dataset -> Image

   to: Project -> Dataset -> Image -> Processed image (or just links/tags?)
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plain .tiff export?
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   remote OMERO.fs clients for re-import? webclient import?
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upload blind
import metadata, or trash
generate pixels / compact image on demand
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   remote OMERO.fs clients for re-import?  webclient import?

4. more admin functionality & info in web admin / insight
   e.g. statistics, quotas, last login, permissions

16/17 Feb 2012
graeme.ball@bioch.ox.ac.uk
OME satellite developer

Job Details

OME Software Developer
Department of Biochemistry, South Parks Road, Oxford
Grade 8: £37,012 - £44,166 p.a.

We are seeking to appoint a software developer to work as part of a unique, world-leading collaborative academic software research and development project (the Open Microscopy Environment) that is changing the way bio-science works. This is an exciting stage of the project, where the core functionality that has already been built can be delivered to large numbers of end users and integrated with a whole ecosystem of complementary tools including: ImageJ2/PI, KNIME, CellProfiler, Matlab and many others.

Candidates should have a strong software development track record and be comfortable working in a collaborative environment. They should hold a relevant degree with post-qualification software development experience; familiarity with client/server and/or image-related application development is especially desirable. The ideal candidate would possess strong object-oriented programming skills, preferably in python and/or java, and have significant experience with unix-based software development and SQL database applications. Open source development expertise, particularly using github, would be advantageous, as would familiarity with some of the project’s other core technologies: ZeroC ICE, CYC+++, Django, PyTables, XM, TIFF images. An academic background related to imaging or computer vision would also be considered a plus. Given the large number of technologies and disciplines involved in this project, the position will be an excellent opportunity to learn new skills.

This full-time post is available from the 1 April 2012. It is funded by the Wellcome Trust for up to 3 years in the first instance and is under the direction of Professor Ian Davis.

Please quote reference number BR497 when applying and include a cv and a supporting statement.

The closing date for applications is midday on Friday 16 March 2012 with interviews for shortlisted candidates approximately two weeks later.

Contact Person: Margaret Dixon or Rita Emberton
Contact Phone: 01865 613204
Contact Email: jobs@bioch.ox.ac.uk

Closing Date: 16-Mar-2012

Click on the link(s) below to view documents
102354 BR497 OME Software Developer Grade 8

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• stack overflow $350 / 30 days
• sourceforge/ slashdot $290 / 30 days
• monster.co.uk £199

closing date 16-Mar!