Glencoe Software

Exclusive Commercial Partner of Open Microscopy Environment (OME)

2024.05.29 I OME Meeting I Update on OMERO and Ecosystem

Open Source Synergy

A Powerful, Exclusive Partnership

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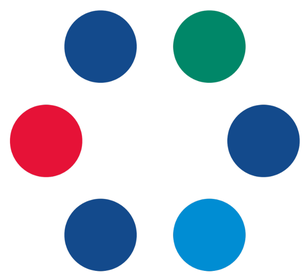


OME

COMMERCIAL LICENSES

Exclusive provider of commercial licenses for OMERO Plus and Bio-Formats

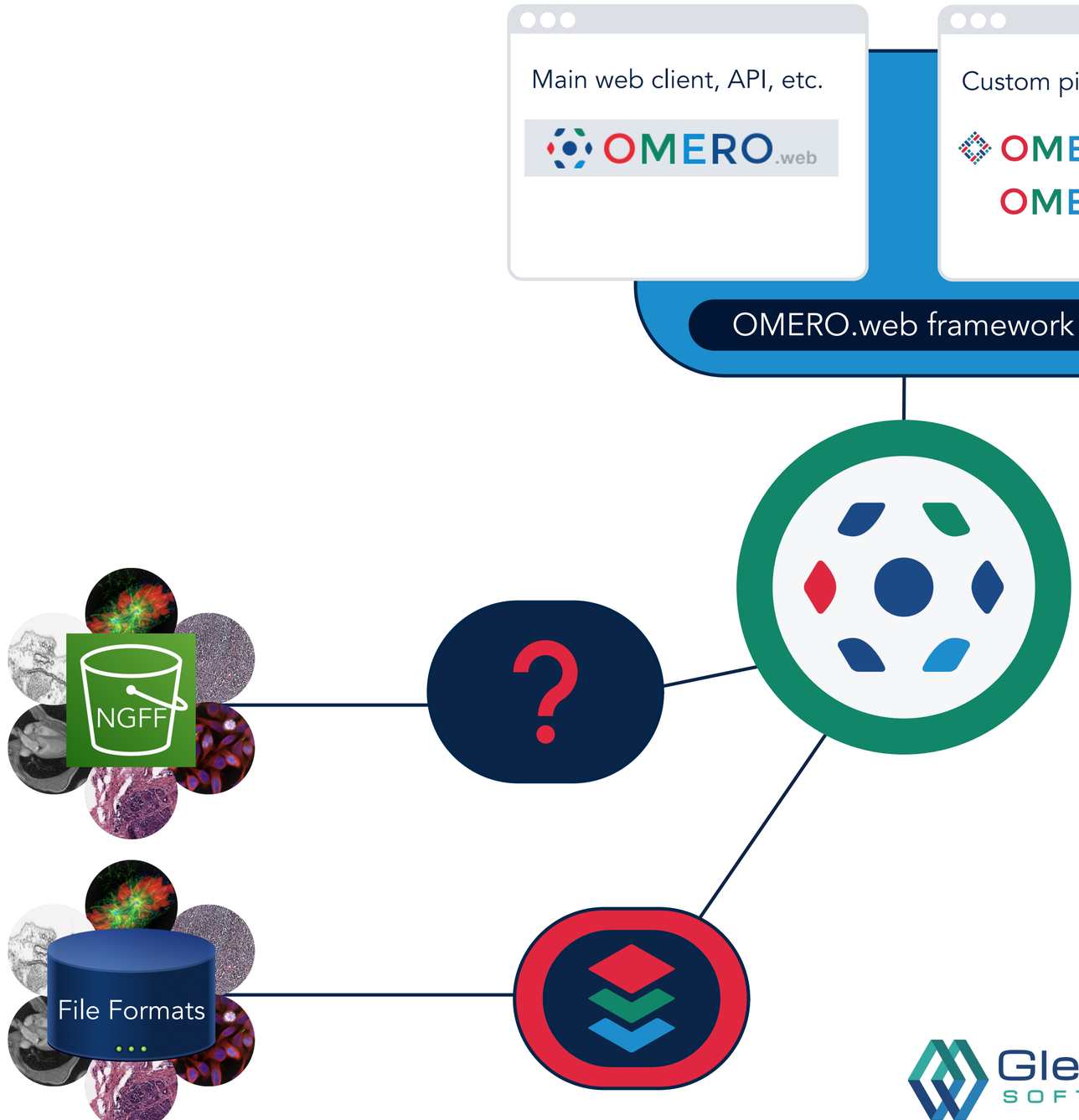
CUSTOMIZATION

New interfaces and integrations – both open source and commercial licenses

SERVICE & SUPPORT

Direct support relationships with Glencoe customers enables key maintenance work

OMERO Ecosystem



Weekly meetings for key components:

- OMERO.web: OME, Glencoe Software, GerBI
- OMERO.server: OME, Glencoe Software
- Bio-Formats: OME, Glencoe Software
- Even more contributors to NGFF and other apps – more on this later!

Key successes:

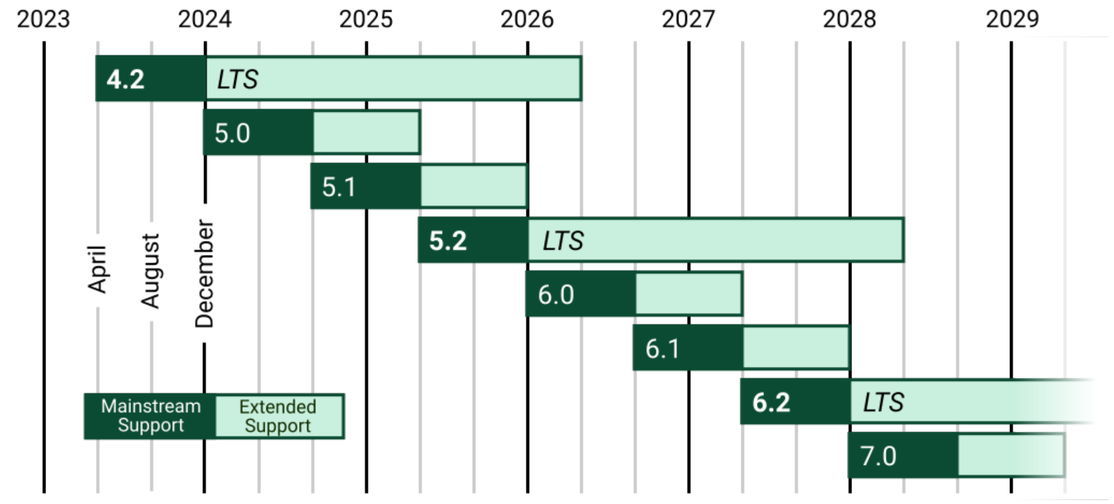
- More people enabled to run testing and to make releases of these key components
- Releases have become more frequent (4 releases of OMERO.web in 2022, 8 releases in 2023!)

Service and Support

Glencoe Software's commitment to key maintenance work

Django upgrade:

- Django is an open source, Python-based web framework used by OMERO.web
- Compatibility introduced for LTS version 4.2 by Glencoe and OME in OMERO.web (April-July 2023)
- Django 4.2 ultimately required (October 2023) – coordination between OME, Glencoe, GerBI, and other community members to release compatible OMERO.web apps: omero-iviewer, tagsearch, autotag, parade, figure, mapr, and others



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Service and Support

Glencoe Software's commitment to key maintenance work

```
Building wheels for collected packages: zeroc-ice
  Building wheel for zeroc-ice (setup.py) ... |
```

ZeroC Ice dependency:

- Open source software, used by OMERO for client-server communication. Required on the server and the client (by system administrators and by developers).
- Required version 3.6.5 wheels are only available for EOL Python versions, requiring the package to be built to install it.
- Glencoe Software now makes available pre-built Ice package wheels for Linux, macOS, and Windows and various Python versions.

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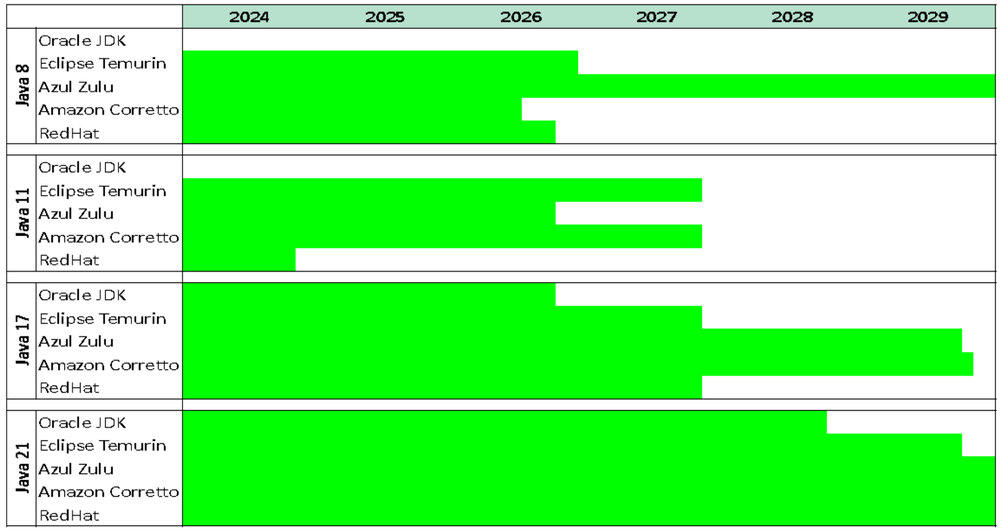
Service and Support

Glencoe Software's commitment to key maintenance work

Java version support

- Most server-side components use Java (OMERO.server, Bio-Formats, etc.). Some clients use Java as well (OMERO.insight, conversion tools, etc.)
- All latest releases require Java 8+, some require at least Java 11+
- Work on Java 17 and 21 support in 2024 – ongoing discussions and work between OME and Glencoe



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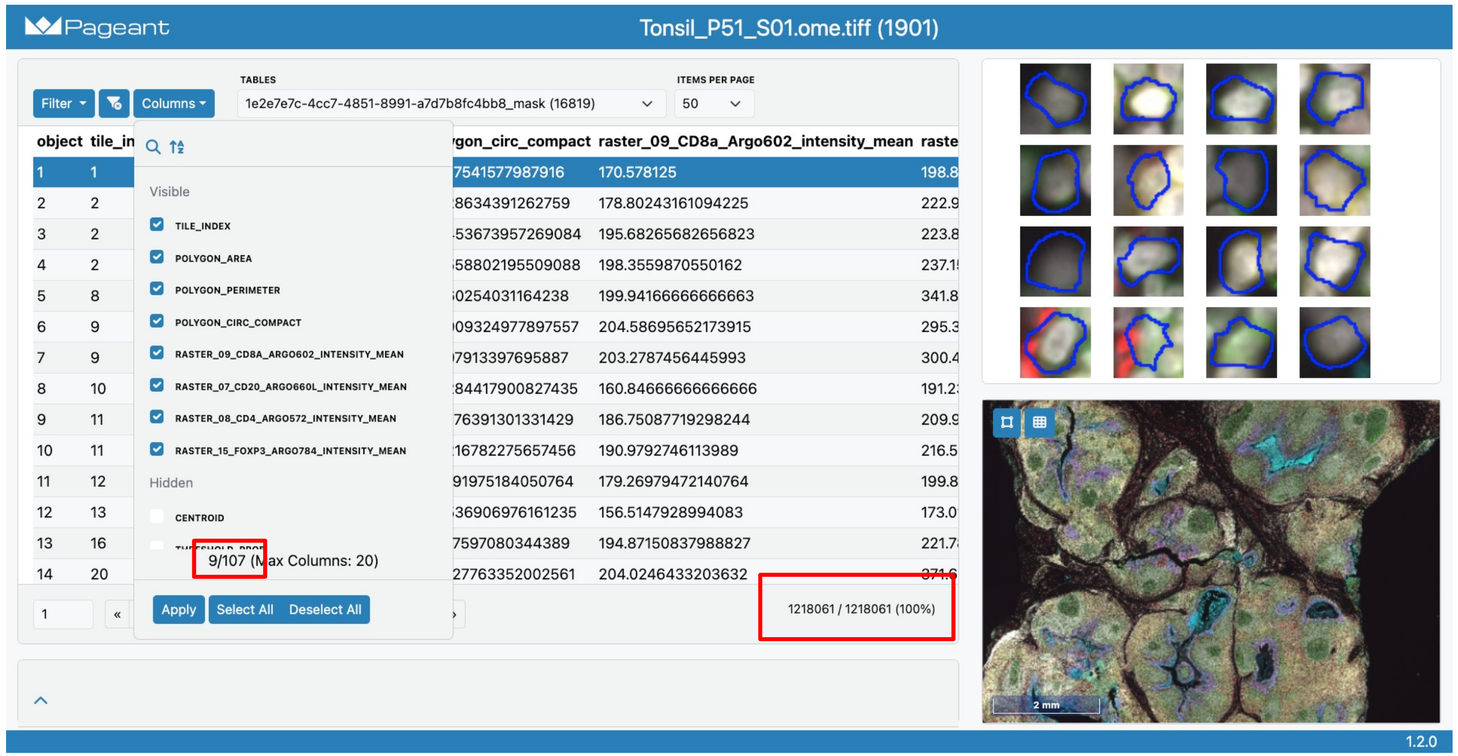
Customization

Open source contributions coming in 2024

OMERO.tables

- Currently uses PyTables as a backend
- Latest work from Glencoe Software uses OMERO.tables for “object-level” results (cell segmentation, spatial transcriptomics, etc.)
- Limited by the maximum number of columns and slow queries when row count is high
- Glencoe Software experimenting with new backends for OMERO.tables – come to the workshop!
- New developments in omero2pandas



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Thank you!


Main web client, API, etc.
OMERO.web
Custom pipelines / Apps
OMERO.figure
OMERO.iviewer
OMERO.web framework
NGFF
?
File Formats
...
Glencoe
SOFTWARE