OME's mission is to facilitate the storage, exchange and re-use of bioimaging data.

BIO-FORMATS

150+ Proprietary File Formats* (PFFs)

Nikon, Oxford Instruments IMARIS, FUJIFILM GE Healthcare, PerkinElmer For the Better, MERCK, OLYMPUS, GE, Molecular Devices, PHILIPS, ZEISS, Leica Biosystems, YOKOGAWA Co-innovating tomorrow, 3i, HAMAMATSU PHOTON IS OUR BUSINESS

* designed for acquisition

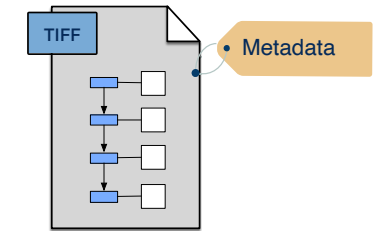
Repeated, on-the-fly translation

One-off conversion → Open formats → Efficient streaming

Analysis clients & libraries

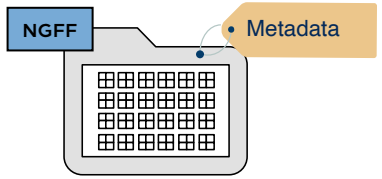
ImageJ, CellProfiler cell image analysis software, PyTorch, TensorFlow, VISIOPHARM, napari, ORBIT, scikit-image, pandas, scikit-learn, HALO, KNIME, DASK, R, MATLAB

OME-TIFF



GitHub glencoesoftware / bioformats2raw raw2ometiff

OME NGFF



Zarr v2 + N5 = Zarr V3

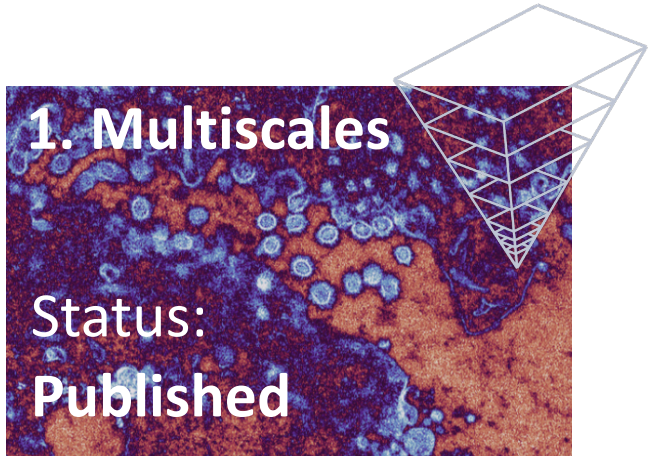
GitHub ome / ome-zarr-py

Josh Moore (notjustmoore)
Virtual Frontiers in Biology

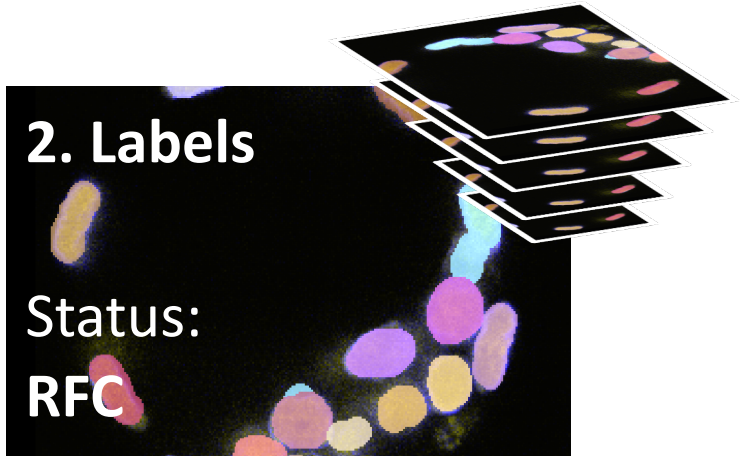
University of Dundee
Open Microscopy Environment
School of Life Sciences, University of Dundee
Dundee, Scotland, UK

openmicroscopy

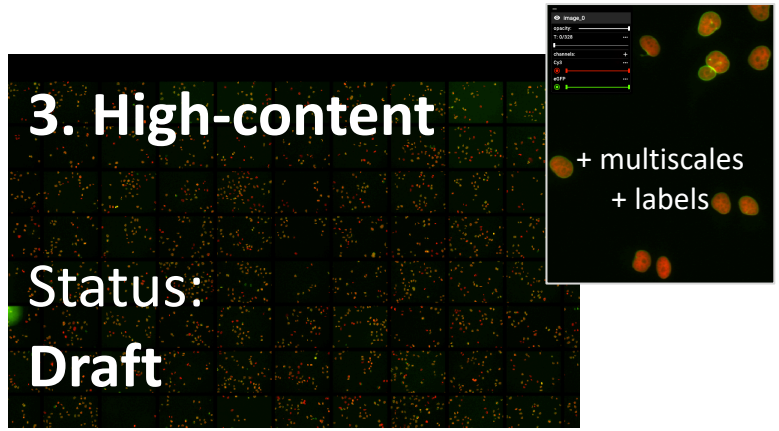
Designing a next-generational file format



Lamers *et al.* (idr0083, CC BY 4.0)
Science (2020)



Blin *et al.* (idr0062, CC BY 4.0)
PLOS Biology (2019)

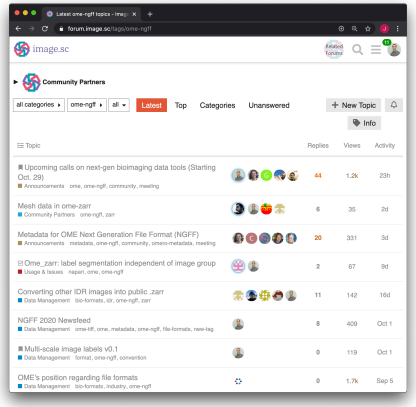


Hériché *et al.* (idr0002, CC-BY 4.0)
MBoC (2016)

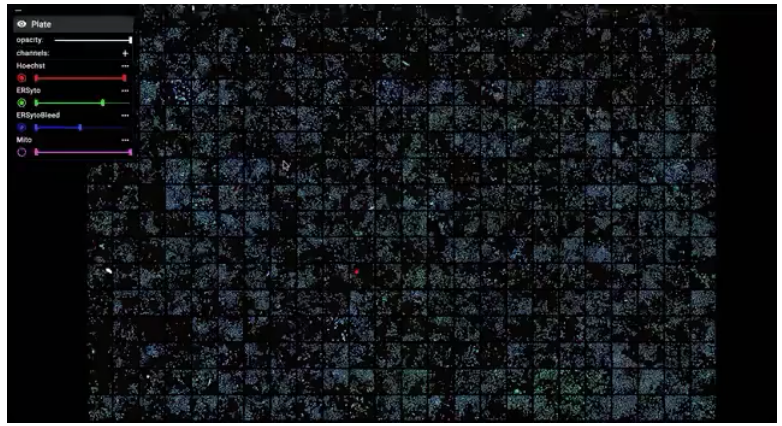
→ https://s3.ebi.embassy.ac.uk/idr

Next steps:

- spatial context/transforms
- provenance/extensible metadata, …



https://forum.image.sc/tag/ome-ngff



Data access with Viv
Gehlenborg lab, Harvard Medical School