

OMERO tooling and the OME community

or how I somehow turned into a Python package maintainer

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these slides at



<https://pages.erickratamero.com/ome2026-talk>

If you don't know me...

...hi!

- This is my first (solo) OME Community Meeting talk!
- Quick background:
 - Open-source microscopy things for the last 8 years
 - Led a team that did some cool things with OME
 - Started a new job at EMBL fairly recently



**I do not need to
introduce OMERO.**

OMERO and me: how it started



“can you try to
install OMERO?”

Story #1: ezomero

Meet Dave Mellert



OMERO tooling and the OME community | Erick Ratamero

“maybe this is useful”

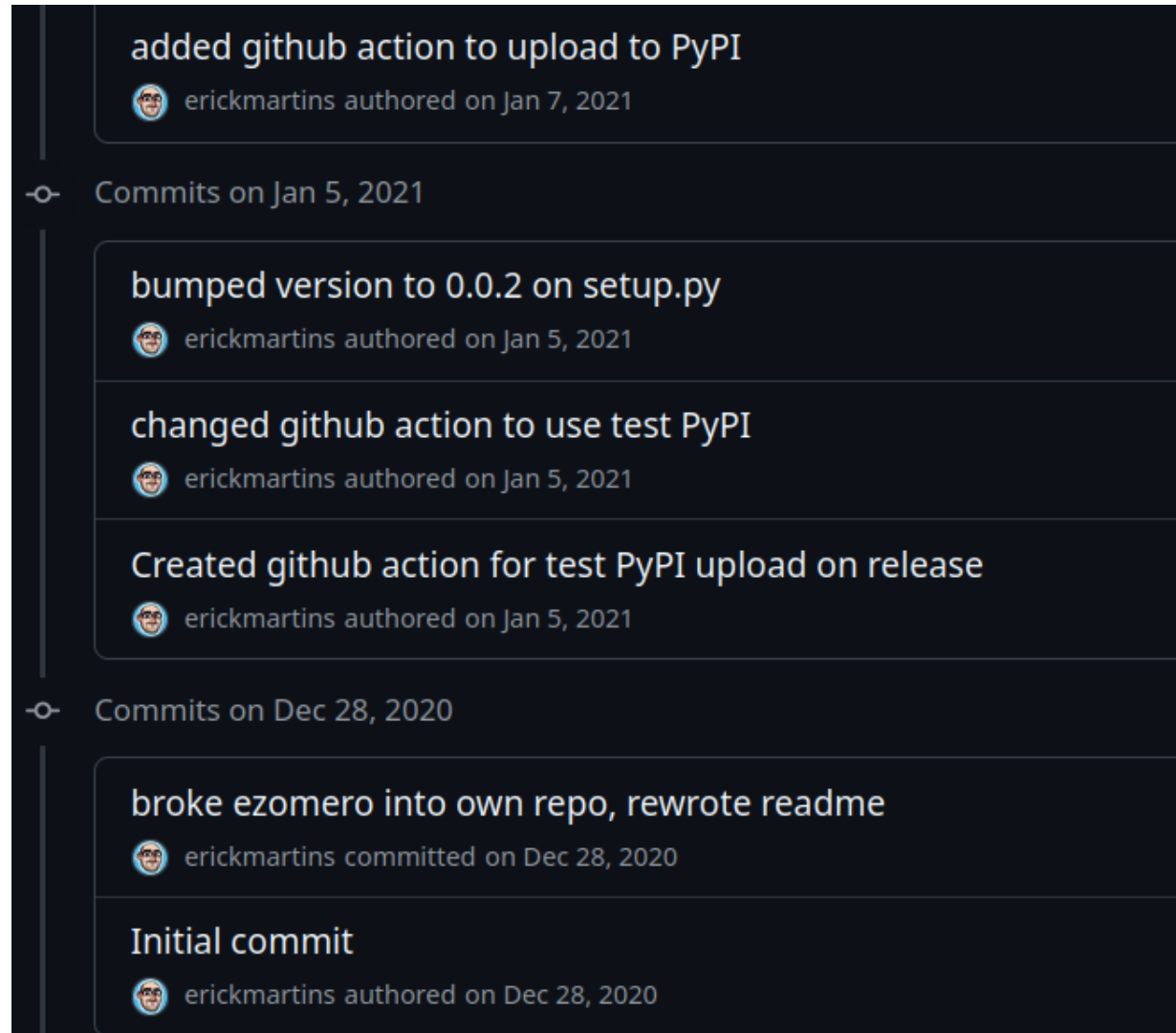
```
def get_map_annotation(conn, map_ann_id):
    """Get the value of a map annotation object

    Parameters
    -----
    conn : ``omero.gateway.BlitzGateway`` object
        OMERO connection.
    map_ann_id : int
        ID of map annotation to get.

    Returns
    -----
    kv_dict : dict
        The value of the specified map annotation object, as a Python dict.

    Examples
    -----
    >>> ma_dict = get_map_annotation(conn, 62)
    >>> print(ma_dict)
    {'testkey': 'testvalue', 'testkey2': 'testvalue2'}
    """
    kv_pairs = conn.getObject('MapAnnotation', map_ann_id).getValue()
    kv_dict = {}
    for k, v in kv_pairs:
        kv_dict[k] = v
    return kv_dict
```

ezomero is born!




It's more successful than I ever hoped for.

Downloads last day: 40
Downloads last week: 348
Downloads last month: 1,031

40	651	1.9K	91K
last day	last week	last month	total

downloads 90k

►  Community Partners

77 results for **ezomero**

ezomero

Advanced filters ▼

Story #2: omero-cli-transfer

Sometimes you get new requirements.

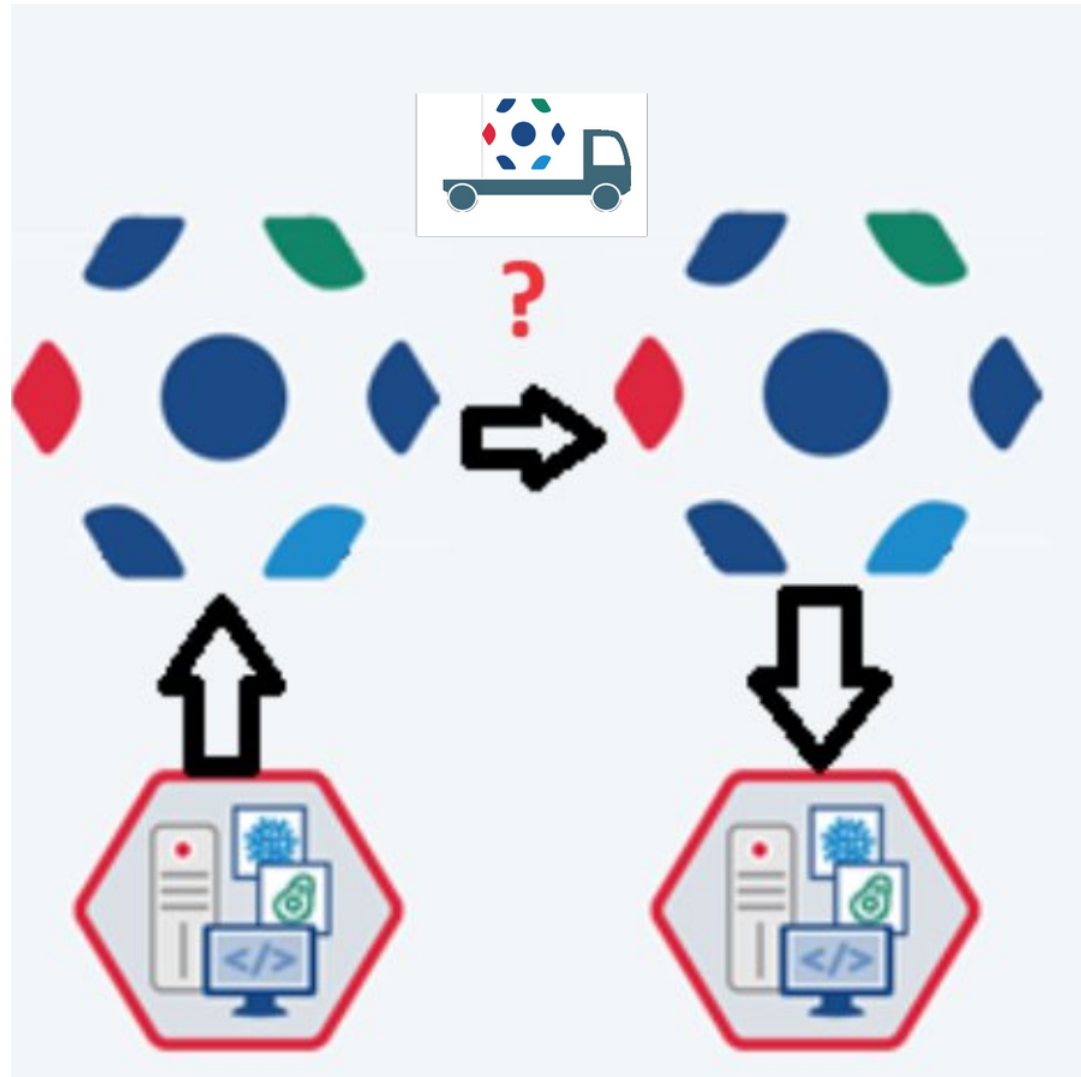


- Publishing at images.jax.org
- Data hosting
- [NGFF](#)



- Data ingestion
- Collaboration within [JAX](#)
- Annotating images

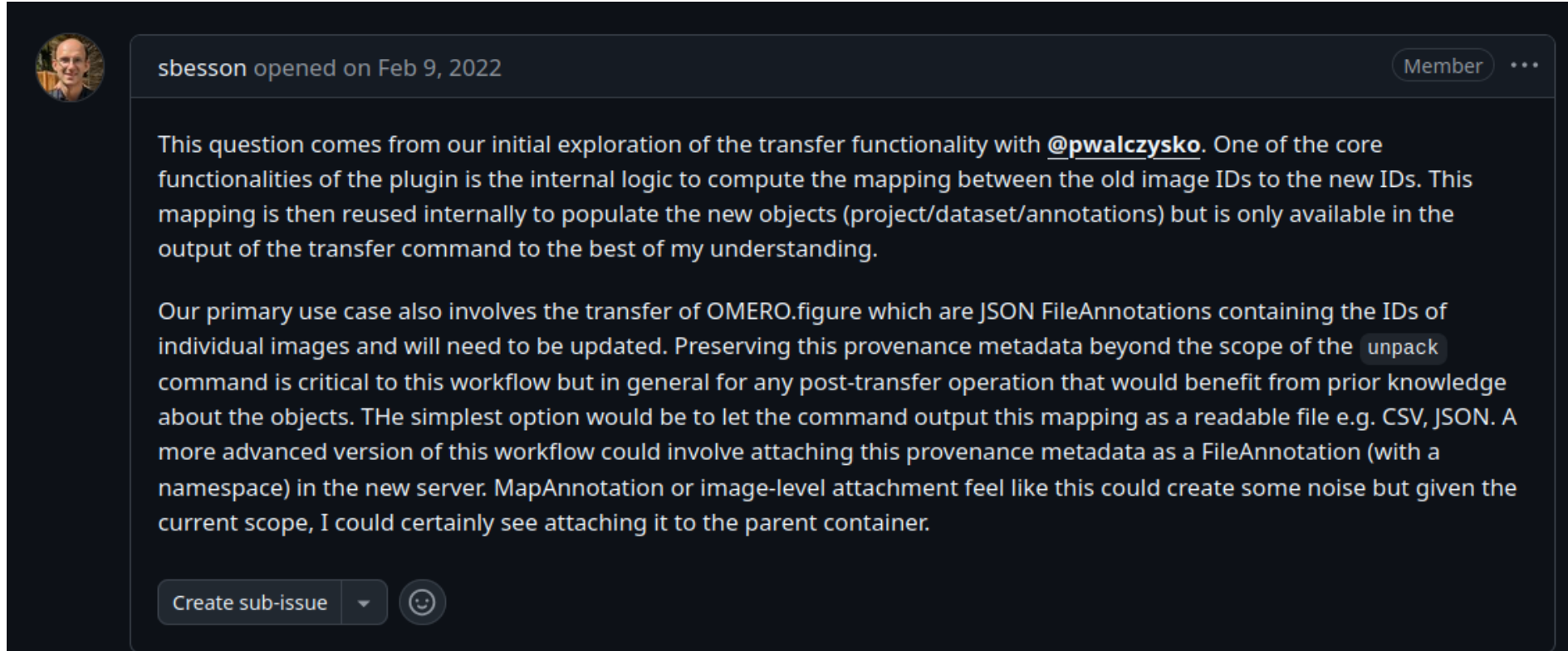
“AFAIK there’s nothing like that”



Prototypes are easy!



...then people start using it.




A screenshot of a GitHub issue opened by user sbesson on February 9, 2022. The issue title is not visible, but the content discusses the transfer functionality of a plugin, specifically the internal logic for mapping old image IDs to new IDs and the reuse of this mapping for new objects. It also mentions the transfer of OMERO.figure JSON FileAnnotations and the need to update them, as well as the importance of preserving provenance metadata beyond the scope of the 'unpack' command. The issue includes a 'Create sub-issue' button and a smiley face emoji.

sbesson opened on Feb 9, 2022 Member ...

This question comes from our initial exploration of the transfer functionality with [@pwalczysko](#). One of the core functionalities of the plugin is the internal logic to compute the mapping between the old image IDs to the new IDs. This mapping is then reused internally to populate the new objects (project/dataset/annotations) but is only available in the output of the transfer command to the best of my understanding.

Our primary use case also involves the transfer of OMERO.figure which are JSON FileAnnotations containing the IDs of individual images and will need to be updated. Preserving this provenance metadata beyond the scope of the `unpack` command is critical to this workflow but in general for any post-transfer operation that would benefit from prior knowledge about the objects. The simplest option would be to let the command output this mapping as a readable file e.g. CSV, JSON. A more advanced version of this workflow could involve attaching this provenance metadata as a FileAnnotation (with a namespace) in the new server. MapAnnotation or image-level attachment feel like this could create some noise but given the current scope, I could certainly see attaching it to the parent container.

Create sub-issue ▼ 

It's **ALSO** more successful than I ever hoped for.

Downloads last day: 11
Downloads last week: 100
Downloads last month: 221

17	552	1K	48K
last day	last week	last month	total

downloads **48k**

37 results for omero-cli-transfer

omero-cli-transfer

Advanced filters ▼

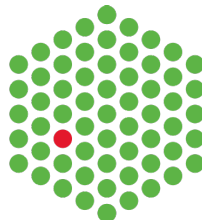
Bottom line: keep showing up!

I am not a software engineer. My code is ugly.

```
def get_server_path(anrefs: List[AnnotationRef],
                    ans: List[Annotation]) -> Union[str, None]:
    fpath = None
    xml_ids = []
    for an in anrefs:
        for an_loop in ans:
            if an.id == an_loop.id:
                if isinstance(an_loop, XMLAnnotation):
                    xml_ids.append(an_loop.id)
                else:
                    continue
    for an_loop in ans:
        if an_loop.id in xml_ids:
            if not fpath:
                tree = ETree.fromstring(to_xml(an_loop.value,
                                                canonicalize=True))

                for el in tree:
                    if el.tag.rpartition('}')[2] == "CLITransferServerPath":
                        for el2 in el:
                            if el2.tag.rpartition('}')[2] == "Path":
                                fpath = el2.text

    return fpath
```



...but people find it useful.

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