

dspyce

Jörg Bieszczak, Eike Löhden



# Overview

1. Who are we and what is our scenario?
2. What is *dspyce*?
3. Further developments

## We are ...



- **Eike Löhden** DevOps for DSpace at the Library of Marburg University, since 2022. Angular and Java development, support for multiple DSpace repositories.
  - **Jörg Bieszczak**, DevOps for RDM at IT-Department. Working on main topic „Digitization Workflow and Storage of archival material for HLA (State Archives of Hesse)“
- 
- Philips University of Marburg is located in German federal state of Hesse. One of the oldest universities in Germany (Est. 1527).
  - Close connected to several institutions in research or GLAM contexts...
  - We currently host/develop 10 DSpace productive repository instances (67 to ~10 million items)

# We are working on ... DSpace ;-)

## Our Scenario

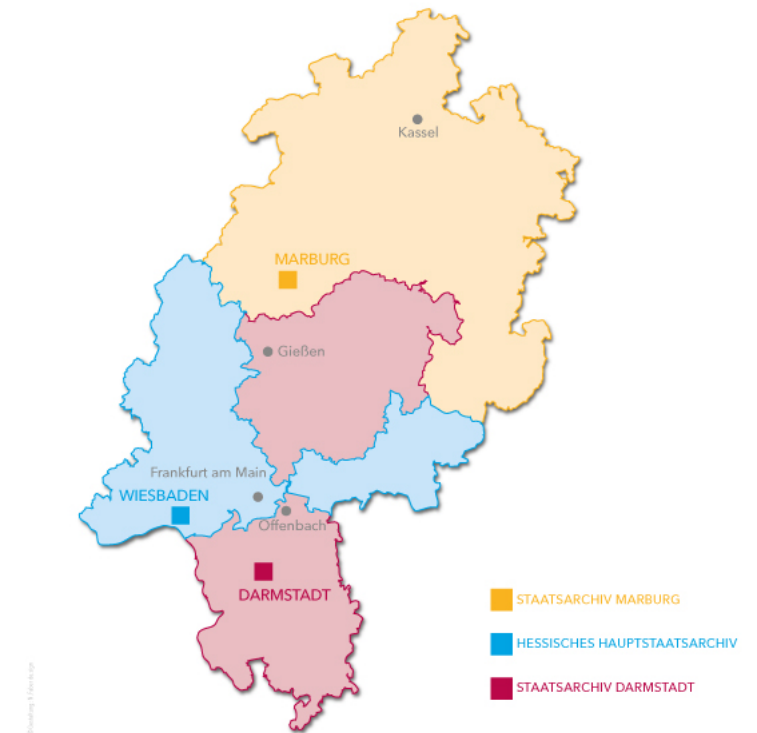
Building a new Repo for the State Archives of Hesse (HLA)

- Initial import of ca. 26 Millions of master items, representing 2% of total material (175 Kilometers “on shelf”)
- 782 TB of Imagery (Dec. 2023) on CEPH-Storage
- Estimating ca. 40 Million Bitstreams for import
- A „human readable“ data structure to transform into DSpace bitstreams.
- A little bit like building Harry Seldons Foundation on Terminus ;-)



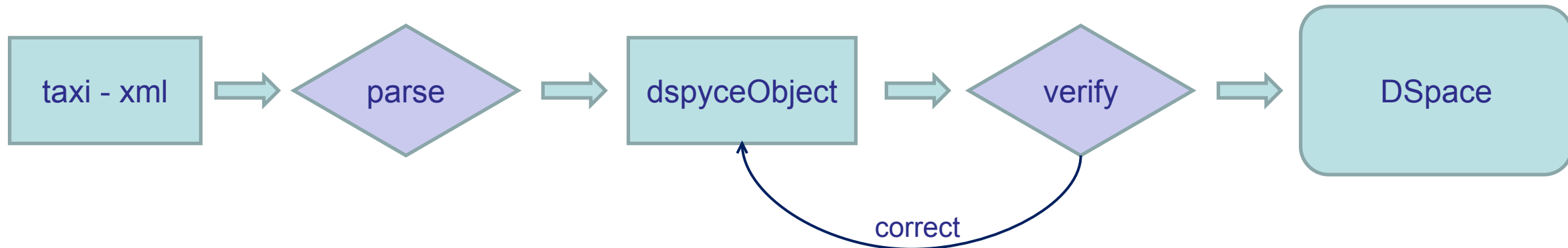
# The Challenge

- Nearly 0,8 PB images of digitized material
- 24 TB of derivatives (rendered JPGs, Thumbnails etc.)
- Transformation of „human readable“ data structure into DSpace bitstreams and metadata
- Using of intermediate XML-Format TAXI with BaseX
- House / Fond / Item (Archiv-Standort / Bestand / Stück bzw. Verzeichnungseinheit)
- Structure mapping exactly to the Community/Collection-Concept
- No downtime for item-Access during importing process and necessary symlinking procedure until full representation with DSpace
- Proper interaction with KITODO and ARCINSYS



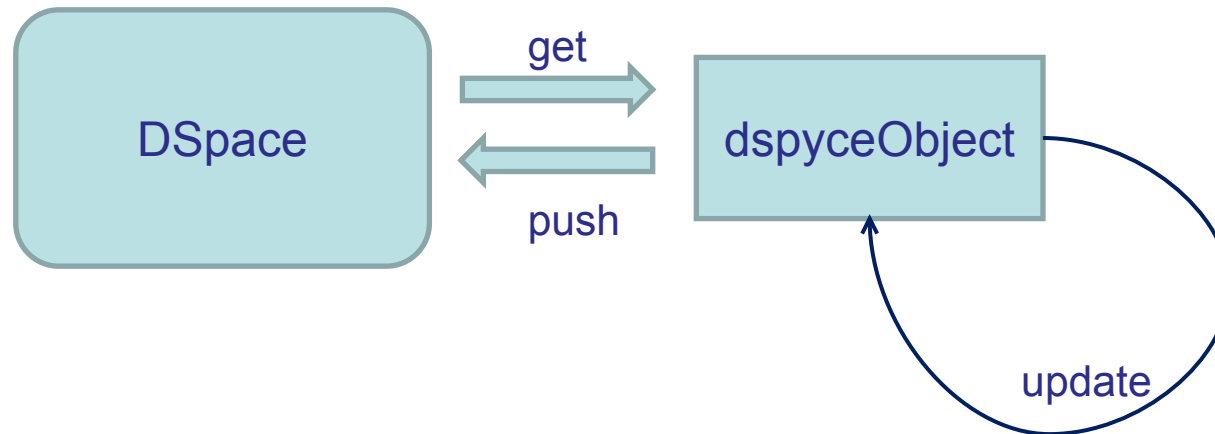
# dspyce – technical overview

- We needed a consistent workflow to create and modify the data:
  - Important was not only to create the dspace objects via RestAPI, but to have a representation of DSpace-objects to verify the data before adding them to the repository



# dspyce – technical overview

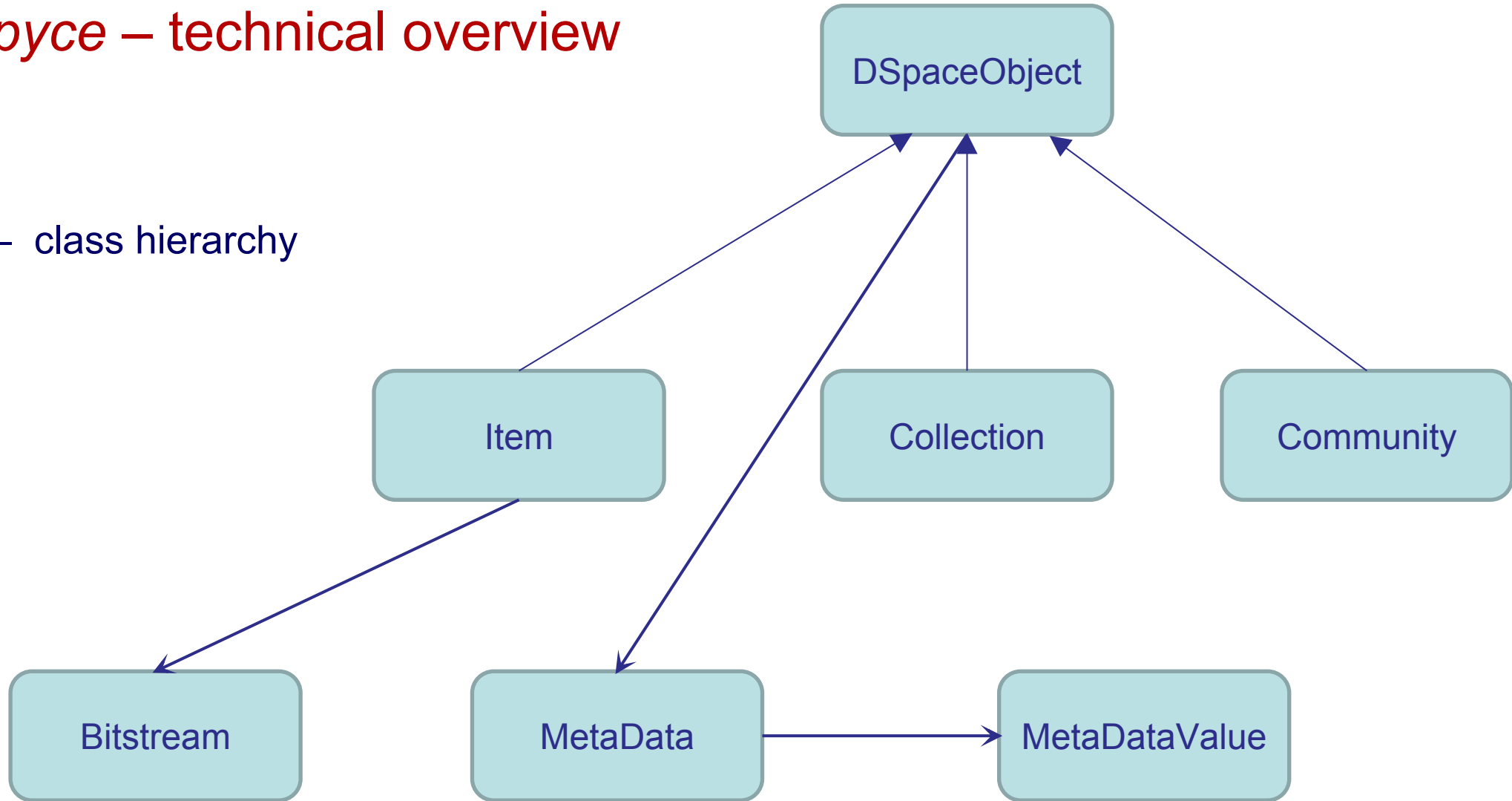
- We needed a consistent workflow to create and modify the data:
  - The dspyce representation helps us to modify the data without risking to break the compatibility with our repository





# *dspyce* – technical overview

– class hierarchy





# Planned developments

- Better integration for the RestAPI
- Authorization management
- Parallelisation
- Better metadata validation
- Unifying with [\*dspace-rest-python\*](#)

Thank you