Archiving Electronic Literature

A Workflow

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Project

- *Preserving German Net Literature And Making It Long-Term Available*
- Deutsches Literaturarchiv Marbach[1]
- German Research Foundation
- Project duration: jan 2013 - apr 2016
- Wiki: `https://wwik.dla-marbach.de/line`

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[1] `http://www.dla-marbach.de`

Corpus

- Net literature / electronic literature
- 50 works
- Hypertext, Flash, Prezi, Hypercard, ...
- 1989, 1995 - 2012
- Examples:
  `https://wwik.dla-marbach.de/line/index.php/Die_Quellen`

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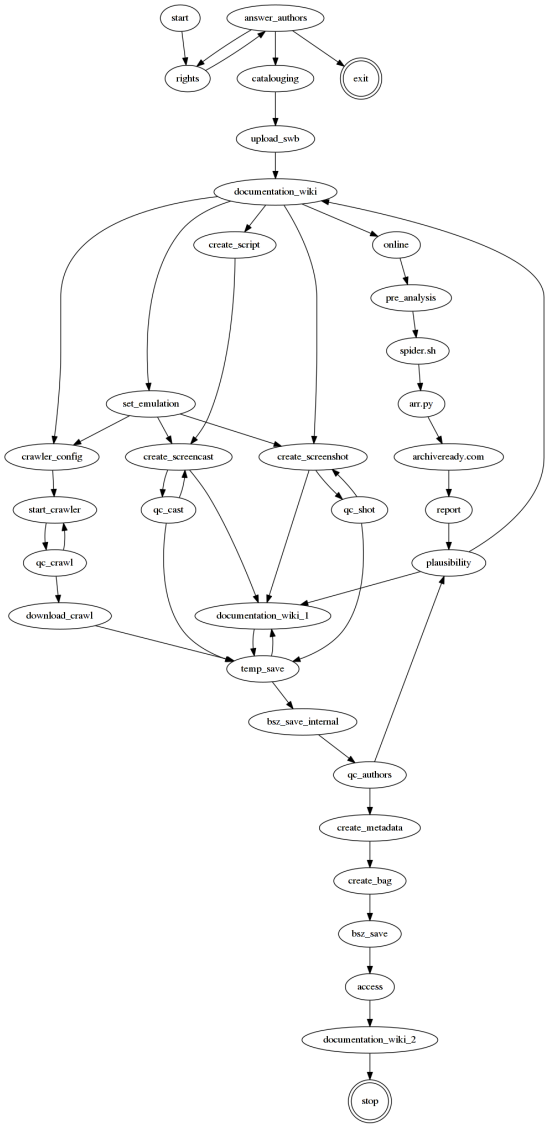
Workflow sketch



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Workflow (simplified)

1. Obtaining rights for archiving
2. Cataloguing
3. Begin documentation (project wiki)
4. Archivability analysis of the web ressource
5. Harvesting and documentation
   - Online and crawlable: Crawl
   - Online or emulated: Screencast
   - Online or emulated: Screenshot
   - Source code/databases available: Source code
6. Create metadata.xml and bag
7. Transfer bag to long-term preservation service provider (BSZ)
8. Make available (BSZ)
9. Finish documentation (project wiki)

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Workflow (even more simplified)

1. Obtaining rights for archiving
2. Cataloguing
3. Begin documentation (project wiki)
4. **Archivability analysis of the web ressource**
5. Harvesting and documentation
   - Online and crawlable: Crawl
   - Online or emulated: Screencast
   - Online or emulated: Screenshot
   - Source code/databases available: Source code
6. **Create metadata.xml and bag**
7. Transfer bag to long-term preservation service provider (BSZ)
8. Make available (BSZ)
9. Finish documentation /project wiki)

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Archivability analysis

- Using `http://archiveready.com`'s API
- ArchiveReady analyses one website per request
- Tests/Facettes:
  - Accessibility
  - Standards and Compliance
  - Cohesion
  - Performance
  - Metadata

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Archivability analysis

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1. Find all URL
2. Pass and receive the json report
3. Interprete report
4. optimize crawl

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Spider

```
#!/usr/bin/env zsh

wget -nv -r --spider -i $1 2 > &1 |
egrep " URL: " |
awk '{ print $3 }' |
sed "s@URL:@@g" >> corpus_link_list.txt

cat corpus_link_list.txt|sort|uniq >
corpus_link_list_sorted_uniq.txt
```

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corpus_link_list_sorted_uniq.txt

```
(...)
http://oliver-gassner.de/textratouren/n99/index.html
http://oliver-gassner.de/textratouren/n99/ly.html
http://oliver-gassner.de/textratouren/n99/qu.html
http://oliver-gassner.de/textratouren/n99/re.html
(...)
```

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arrr.py

Python script that ...

1. reads a text file line by line (URL by URL)
2. passes URL to archiveready.com
3. receives json report
4. beautifies report
5. saves to text file
6. prints problematic findings

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Analysis report

Example:
`https://wwik-prod.dla-marbach.de/line/images/4/48/Noise99_beurteilung_spiegelungsfaehigkeit.pdf`

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Procedure

- Depending on the report, create / get
  - Screenshot
  - Screencast
  - Crawl
  - Source code / database

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Objects to archive

Screenshot: Image files
Screencast: Video files
Crawls: Heritrix_Job_Directories.tar.gz
Sourcecode: sourcefile.tar.gz

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DLA-Bag

```
bag/
|
|-- data
|    \-- screenshot_00.jpg
|    \-- screenshot_00.tif
|    \-- (...)
|
|-- manifest-sha1.txt
|      51afb385ha019f34b67ae1  data/screenshot_00.jpg
|      (...)
|
|-- metadata.xml
|
\-- bagit.txt
\-- bag-info.txt
```

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Metadata

Documentation of

- bibliographic information
- legal information
- technical information

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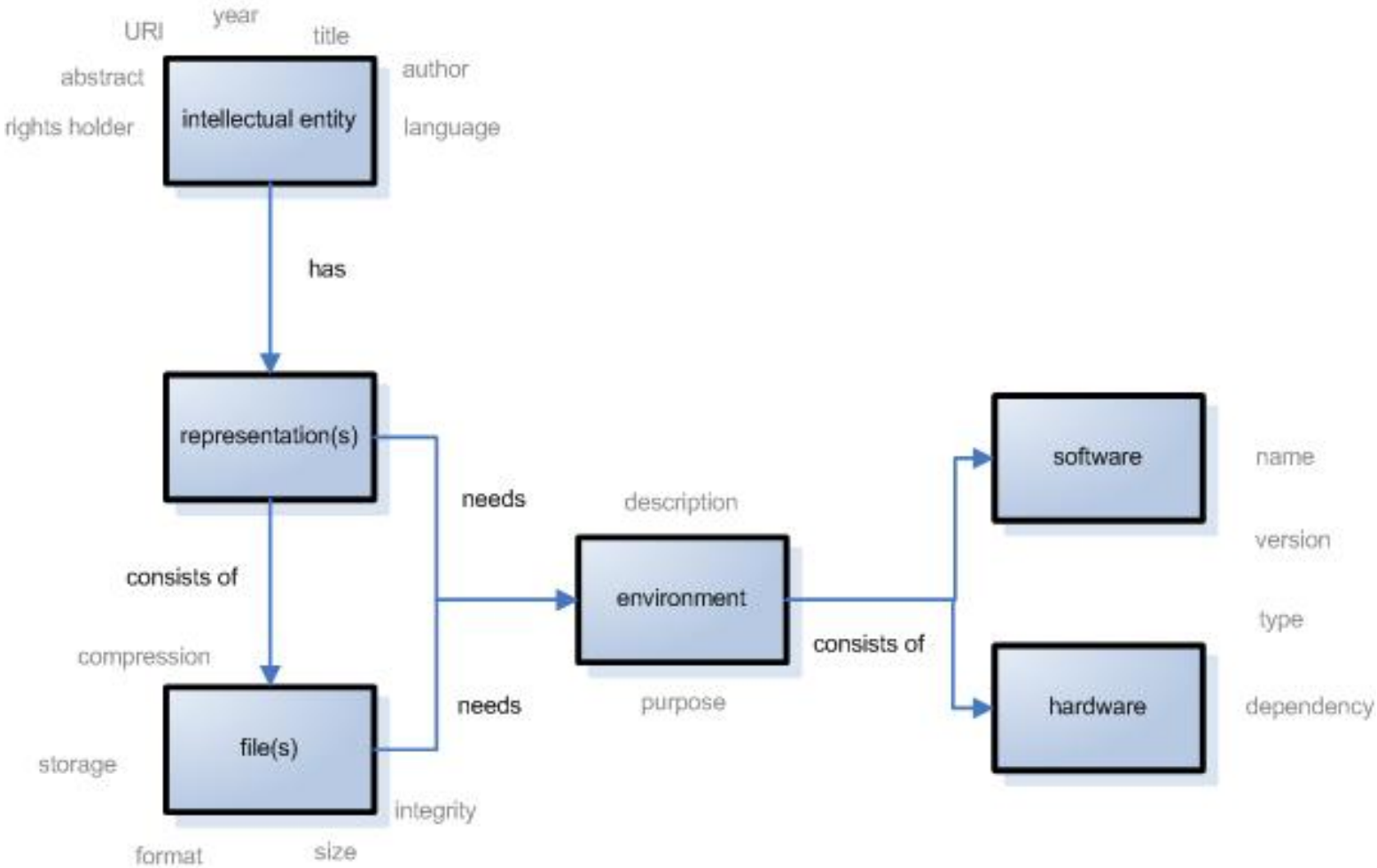
Metadata



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Metadata

- METS
- MODS
- PREMIS

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METS

- metsHdr
- dmdSec
- amdSec
- fileSec
- structMap
- structLink
- behaviorSec

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METS

- **metsHdr**
- **dmdSec**
- **amdSec**
- **fileSec**
- **structMap**
- structLink
- behaviorSec

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MODS

abstract
accessCondition
classification
extension
genre
identifier
language
location
name
note
originInfo
part
physicalDescription
recordInfo
relatedItem
subject
tableOfContents
targetAudience
titleInfo
typeOfResource

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PREMIS - Version 2

- file
- representation

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PREMIS - file

objectIdentifier
preservationLevel
significantProperties
objectCharacteristics
originalName
storage
environment
signatureInformation
relationship
linkingEventIdentifier
linkingIntellectualEntityIdentifier
linkingRightsStatementIdentifier

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PREMIS - file

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More Information

1. Workflow: `https://wwik-prod.dla-marbach.de/line/index.php`
2. ArchiveReady: `http://archiveready.com`
3. The CLEAR method: `https://doi.org/10.1007/s00799-015-0144-4`
4. arrr.py: `https://github.com/netzliteratur/arrr`
5. SWBcontent: `https://www.bsz-bw.de/mare/lza/swbcontent.html`

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Thank you!

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