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Content Conversion Specialists

METS / ALTO introduction

Why would I use METS and ALTO?

- “I digitize lots of different items and each type is digitized to a different format. Some are Word, some are PDF, some are XML, some are just JPG – I need it all to be the same, but what is the best way?”

- “I’d like to offer full text search to the scientists and researchers in the complete collection, so I need to build a text index of the complete collection – and I might want to change the presentation system in three years, so I need the source data in a non-proprietory format”

- “I need to organize my digitization project accordingly to long term preservation standards – how long will PDF exist? I might need something more robust”

What is METS?

- METS -> Metadata Encoding and Transmission Standard
- Established in 2001
- XML based open standard
- Schema is hosted at Library of Congress (LOC)
- Maintained by METS Editorial Board
- Current version: 1.10
- Usesd for longterm preservation

What does METS do?

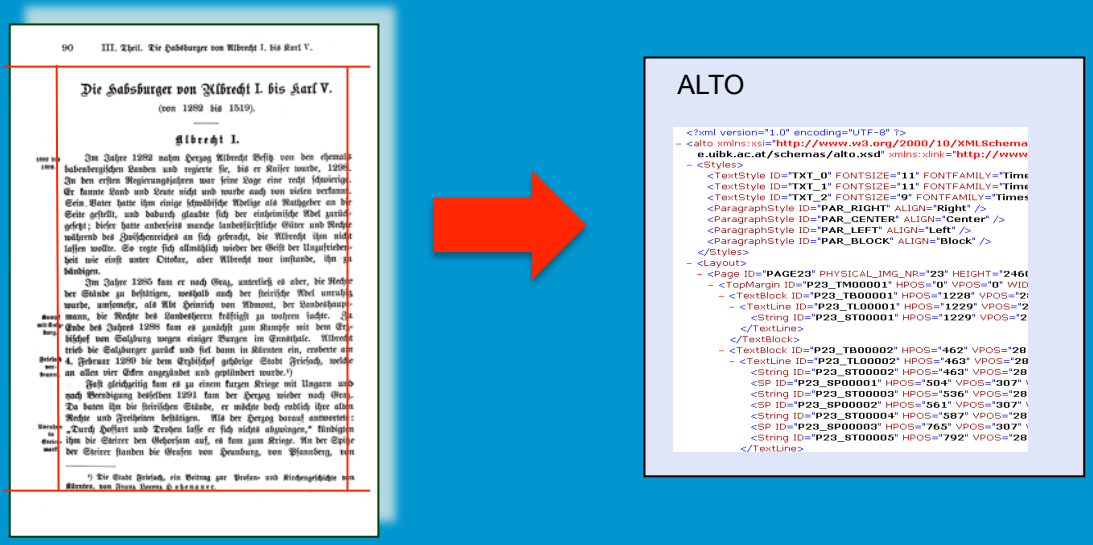
- METS files are used to describe a digital object
  - printed media (book, newspaper, journal), audio or video media
  - any other item
- METS usually embeds different kinds of metadata / metadata standards
  - Descriptive metadata (DC, MODS, MARC21)
  - Administrative metadata (Mix, PREMIS, …)
- May contain structural information
  - Physical structure (page based / file based)
  - Logical structure (chapter based / article based / track based)
- May link to any other digital objects
  - Image files, Audio / video files, Text files
  - External metadata objects

What is ALTO?

- ALTO –> Analyzed Layout and Text Object
- XML based open standard
- Schema is hosted at Library of Congress (LOC)
- Maintained by ALTO Board
- Current version: 2.1 (Draft 3.0)

What does ALTO do?

- Contains the content of a single page
- Describes the layout of a printed page to re-build the original page
- Describes the styles, layout and block type information
- May contain tags which contain more information about content (e.g. **named entities**)



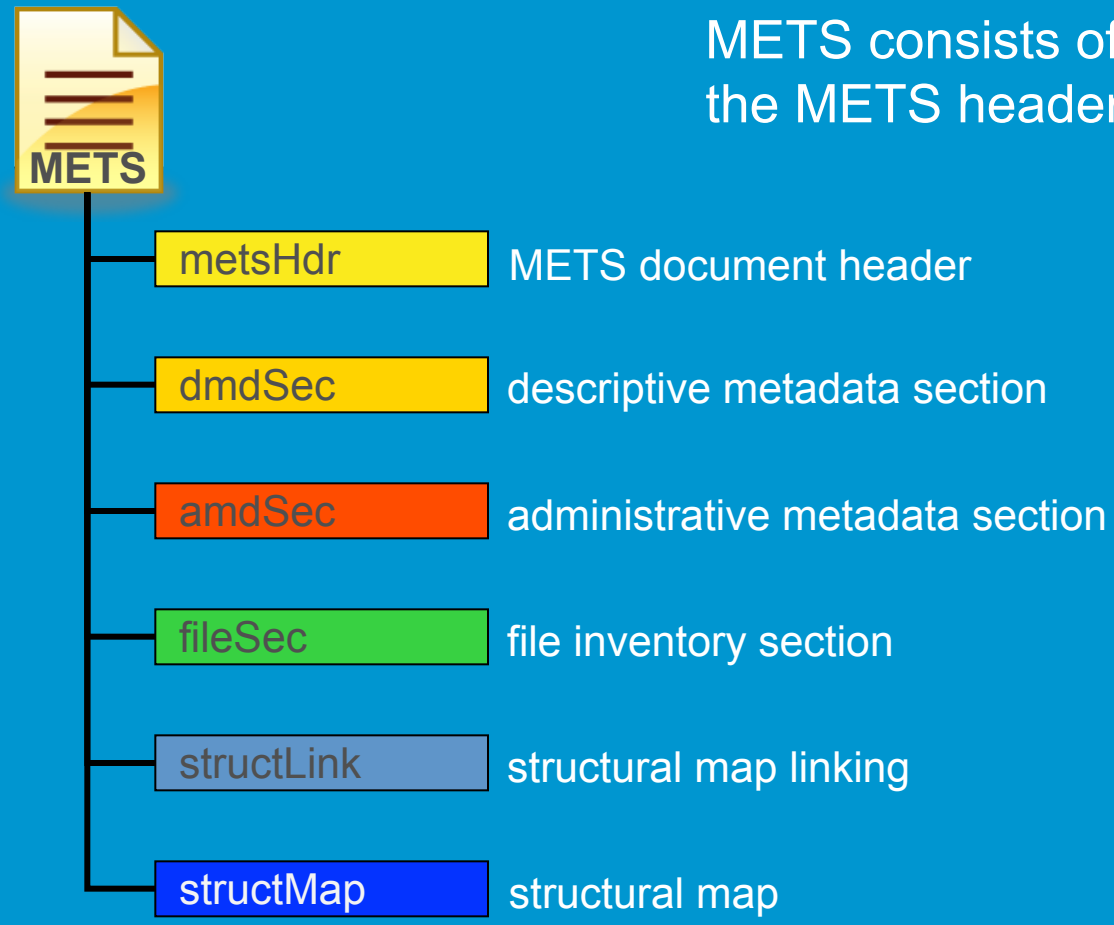
Why would you use XML standards?

- Fully documented XML format
- Can be used by any IT party later on
- Can be transformed to other formats in the future (for longterm preservation)
- Readable by humans

What are your benefits using METS/ALTO?

- It is the current industry standard for digitization used by hundreds of libraries and content providers
- The long-term sustainability of your digital objects is greatly enhanced
- Supports article and chapter segmentation
- You can handle objects in an easy way and exchange them with other parties
- You can create PDF, EPUB, DAISY and other formats from METS/ ALTO
- It is constantly maintained and developed (hosted by the Library of Congres)

How does a METS file looks like?



METS consists of five sections plus the METS header

What information include the METS sections?

- dmdSec – Descriptive Metadata Section, per logical unit
  - title and author, publishing date, language, copyright details, etc
- amdSec – Administrative Metadata Section, per image
  - resolution, bit depth, dimensions, source file name, scanner name, etc
- fileSec – File Inventory Section
  - File inventory and referencing (pointers to each image file, each ALTO file, derivatives)
- StructLink – Structural Link
  - Describes the logical structure of a complex digital object
- StructMap – StructuralMap
  - Decribes page by page the structure of the digital object

Summary | METS and ALTO?

- Established for the description of digitization of printed material
- The idea was to split the descriptive information and the content itself
- In order to handle objects in an easy way
- If all data would be in one XML file (e.g. TEI) the XML file would be huge
- METS and ALTO are maintained and continuously developed by libraries (hosted at Library of Congress)
- METS/ALTO data can be exchanged with other parties
- Many vendors are offering products for handling METS/ALTO data
- You can make PDF, EPUB, DAISY and other formats from METS/ALTO

More Information

- http://www.loc.gov/standards/mets/
- http://www.loc.gov/standards/alto/
- http://en.wikipedia.org/wiki/ALTO_(XML)
- http://www.veridiansoftware.com/knowledge-base/metsalto/
- http://www.nla.gov.au/ndp/project_details/documents/ANDP_Use_of_METSv2.pdf

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