

One Object – Three Systems

DoD with ALEPH, DigiTool and Primo

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The National Library & Ex Libris

- ALEPH
 - Since 1999
 - Participant in Austrian Library Consortia
- DigiTool
 - Since 2004/5

The National Library & Ex Libris

- Primo („Quicksearch“)
 - Since 2011 (stp May 2011)
 - Consortial installation hosted by OBV

Digitization On Demand

- Copy Requests
 - Since 2009 all copy requests by users are handled digitally
 - Department decides whether to scan the full item or only requested pages
 - Department decides whether the the digital version should be available online

Digitization Workflow

- Pre-Requisites
 - Each item has to have a barcode
 - Pagination is mandatory
 - Copyright is checked and item is under public domain
 - Orderer should get the copies he paid for *before* they are online
 - Department / Collection marks page that should be used for thumbnail

Digitization Workflow

- Processing
 - Scanned images are stored in a defined directory structure
 - Top level directory per item is named after the ALEPH barcode
 - Directory name parameter for X-Server request
 - File name convention for colour chart

Digitization Workflow

- Processing
 - Semi-automated workflow
 - Application developed inhouse
 - Check completeness
 - Check mandatory files (e.g. color chart)
 - Assignment of additional information
 - Thumbnail image
 - Load to DTL y/n
 - Store at Federal Computing centre y/n
 - Creation of DVD for customer

Processing

- Interface

z
z. _ .
{v,v}
/)_
" "

Digitalisation On Demand

1: Daten Checken **2: Metadaten sichern** 3: DVD Erstellen

Auftragsnummer: ▼ ▼

1. acnumber AC08550631

[ONB OPAC](#) filename Turini_Francesco-Madrigali_a_una_due_e_t

[DATA->dod](#) total_size 1868101630 (1781 MB)

[ANNO->dod](#) highest_nr 60

 farbkeil exists

 MIMETypes image/tiff 61

Processing

- Parameters submitted by the interface are stored in a file for further automated processing
 - barcode=+Z95163900;date_str=Wed Jul 6 09:58:18 2011;date_num=1309939098.07866;brz=true;digitool=true;exists_on_brz=false;data_source=vd;thumb=6;abt=MUS2;flag=2;leerseiten=9

Processing

- Application automatically submits 3 X-Server requests in the background
 - Request for Session-ID
 - not mandatory but used to lower amount of sessions
 - Request for barcode
 - Returns set number
 - Present Set

Processing

- Request for Session-ID
 - http://aleph18.onb.ac.at/X?op=login&user_name=XXXX&user_password=XXXX&library=onb01
 - <login><session-id>I8AB1VMBNVBBH6IRAFLGI3BE6BDLMB6EKB1AN74CC2MR29KM2R</session-id></login>
 - Request work without login and password
 - Make sure to restrict X-Server access in server_ip_allowed

Processing

- Request for barcode
 - <http://aleph18.onb.ac.at/X?op=find&base=onb01&code=bar&request=%2bZ43207201&session=ADYVEPY5KA4PRVDU6AF1RA3E3Y4SRI8HKG6CJTXY4DQ1L7XFUH>
 - returns set number for result
 - `<find><set_number>078831</set_number><no_records>00000001</no_records><no_entries>00000001</no_entries><session-id>ADYVEPY5KA4PRVDU6AF1RA3E3Y4SRI8HKG6CJTXY4DQ1L7XFUH</session-id></find>`

Processing

- Present Set
 - http://aleph18.onb.ac.at/X?op=present&set_no=078831&set_entry=1&session=ADYVEPY5KA4PRVDU6AF1RA3E3Y4SRI8HKG6CJTXY4DQ1L7XFUH

Processing

- Present

```
<present>
<record>
<record_header>
<set_entry>000000001</set_entry>
</record_header>
<doc_number>000435100</doc_number>
<metadata><oai_marc>
<fixfield id="LDR">-----nM2.01200024-----h</fixfield>
<fixfield id="FMT">MH</fixfield>
<varfield id="001" i1="-" i2="1">
<subfield label="a">AC03060708</subfield>
</varfield>
<varfield id="002" i1="a" i2="1">
<subfield label="a">20001018</subfield>
</varfield>
```

Processing

- Background Operations
 - XML-Output of present request is stored in image directory
 - File is named with 001-Identifier
 - Service Copies
 - Low resolution images are created automatically
 - Thumbnail is created

Processing

- Background Operations
 - Transfer of archive copies to storage at Federal Computing Center
 - Transfer of service copies to temporary storage
 - A list of all barcodes with creation date of each directory is provided
 - Used by ingest application

Ingest

- Ingest Maintenance Application
 - Small database
 - Inhouse development
 - Status of ingest
 - Guarantees:
 - » No redundant ingest
 - » User requested objects get an embargo (6 weeks)
 - » Request from library are handled immediately
 - Contains parameters for command line ingest script

Ingest

- Command line ingest
 - Tasker.sh
 - Transformer
 - METS
 - Tasks
 - Add Metadata (DC)
 - » dc:alephszncid
 - Attribute Assignment
 - » Barcode in partition_b
 - Thumbnail for COMPLEX/METS

Ingest

- METS-File
 - Archive copies referred by URL
 - Low resolution service copies for physical ingest in DTL
 - Very simple logical structure (only pagination)
 - Thumbnail is object #1 in file_sec

Ingest

– METS

- `<mets:fileSec>`
- `<mets:fileGrp USE="archive">`
- `<mets:file ID="FID00000001" MIMETYPE="image/jpeg" SEQ="1" GROUPID="GID00000001">`
- `<mets:FLocat LOCTYPE="URL" xlink:type="simple"`
`xlink:href="http://data.onb.ac.at/dico/Z43207201/00000005.jpg"/>`
- `</mets:file>`
- `<mets:file ID="FID00000002" MIMETYPE="image/jpeg" SEQ="2" GROUPID="GID00000002">`
- `<mets:FLocat LOCTYPE="URL" xlink:type="simple"`
`xlink:href="http://data.onb.ac.at/dico/Z43207201/00000002.jpg"/>`
- `</mets:file>`
- `<mets:file ID="FID00000003" MIMETYPE="image/jpeg" SEQ="3" GROUPID="GID00000003">`
- `<mets:FLocat LOCTYPE="URL" xlink:type="simple"`
`xlink:href="http://data.onb.ac.at/dico/Z43207201/00000003.jpg"/>`
- `</mets:file>`
- `<mets:file ID="FID00000004" MIMETYPE="image/jpeg" SEQ="4" GROUPID="GID00000004">`
- `<mets:FLocat LOCTYPE="URL" xlink:type="simple"`
`xlink:href="http://data.onb.ac.at/dico/Z43207201/00000004.jpg"/>`

DigiTool -> ALEPH

- DTL-ALEPH sync
 - Add object (z403) to ALEPH
 - Get full descriptive from ALEPH to DTL
 - Replication: 4 times/day
 - Synchronisation: Only once per ALEPH library (night)

Primo

- Digital objects are available in both ALEPH and Primo
 - To avoid redundant records in Primo:
 - DTL objects linked to ALEPH are published from ALEPH only
 - No thumbnail (workaround will be presented later)
 - No fulltext (objects are images only)

Primo

- Consortia
 - Primo in consortial installation, hosted by OBV
 - Central catalog in ALEPH with downward replication to local catalogue
 - No DTL-ALEPH sync with Central catalogue

Primo

- Primo-Publishing
 - Primo publishing from ALEPH is done from central catalogue
 - Links to DTL not persistent
 - Links to DTL not available in central catalogue -> loss
 - -> Mechanism required to get persistent links into Primo

Primo

- DTL-Links in Central Catalogue
 - Requirement
 - ANL maintains re-direct to offer persistent links
 - re-direct from stable URL to DTL Delivery URL
 - Processing
 - OBV checks ALEPH z403 once/week
 - Identifies pids
 - Creates persistent URL with PID

Primo

- DTL-Links
 - OBV adds persistent URL to central catalogue records
 - DTL links published to Primo
 - Central view
 - Local views that own title
 - DTL links replicated to local ALEPH catalogues
 - Distribution to all catalogues that own title

Primo

- Thumbnails
 - Get Thumbnails from DTL
 - Thumbnails not present in ALEPH
 - Mechanism to get thumbnails to Primo required
 - » How to find thumbnails for links from Primo?
 - » Link in Primo points to VIEW-manifestation
 - » PID of thumbnail not known in Primo

Primo

- Thumbnails
 - Mechanism
 - Script submits an sql request to DTL to identify all thumbnails
 - All thumbnails are copied to new directory with PID of VIEW manifestation as filename

Primo

- SQL

- ```
SELECT
a.id,
c.root,
b.internalpath,
e.pid
FROM
D31_REP00.HDECONTROL a,
D31_REP00.HDESTREAMREF b,
D31_REP00.HRESTORAGE c,
D31_REP00.HDERELATION d,
D31_REP00.HDECONTROL e
WHERE
e.pid LIKE '%%d'
e.pid not like 'DTL%%'
AND (a.usagetype = 'THUMBNAIL')
AND (a.id = b.id)
AND (c.appid = b.storageid)
AND (d.control = a.id)
AND (e.id = d.targetcontrol)

ORDER BY
a.id DESC
```

# Primo

- Primo-Setup for thumbnail
  - Additional Data Section (local field)
    - Takes link in record to VIEW- Manifestations and extracts PID with regular expression

Rule group:

Source:          Enabled

Conditions logic:

Condition 1 - Logic:

Condition 1 - Source:

Condition 1 - Routines:

Transformations:

Behavior:

# Primo

- Primo-Setup for thumbnail
  - Link Template
    - Replaces URL prefix
    - Adds PID to new URL that points to thumbnails
      - » <http://data.onb.ac.at/dtl/PID> (objects)
      - » <http://data.onb.ac.at/dtlthumb> (thumbnails)

## > Mapping Tables

Sub System :

Table Name :

### Mapping Table Rows



ONB\_DTL\_thumb

<http://data.onb.ac.at/dtlthumb/{{addata/lad23}}>

Link to DigiTool-Thumbnails

# Primo

- Primo-Setup for thumbnail
  - PNX-Link Section
    - Takes generated new URL

**Rule group** links\_thumbnail

**Source** Constant Value: \$STONB\_DTL\_thumb  Enabled

**Conditions logic**

**Conditions** + True

Condition 1 - Logic True

| Condition 1 - Source | Type | Field | Ind1 | Ind2 | Last | Step | Subfield | Success If |
|----------------------|------|-------|------|------|------|------|----------|------------|
| MAB                  |      | 655   | e    |      |      | 0    | Include  | x          |

Condition 1 - Routines +

General Parameter

Routine: Check string equals string

Parameter: ONB-DTL

**Transformations** +

Transformation: Copy As Is Parameter:

Behavior

**Action** OR




# Primo-Examples

- Mainz Psalter

**1 Ergebnisse für ÖNB Gesamtbestand** sortiert nach: Relevanz ▼

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**Psalterium : Mit Ordinarium officii, Cantica, Tedeum, Symbolum Athanasianum, Allerheiligenlitanei, Collectae und Orationes. Im Anhang Totenoffizium und Hymnar**  
 [Mainz] : Johann Fust und Peter Schöffer 14. Aug. 1457  
**Prüfen Sie die Verfügbarkeit**

[Bücher](#)   [Bestellen](#)   [Standorte](#)   [Details](#)

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**1 Ergebnisse für ÖNB Gesamtbestand** sortiert nach: Relevanz ▼


- [http://search.obvsg.at/primo\\_library/libweb/action/display.do?tabs=detailsTab&doc=ONB\\_aleph\\_acc0037625\\_20&&displayMode=full&tab=default\\_tab&vid=ONB](http://search.obvsg.at/primo_library/libweb/action/display.do?tabs=detailsTab&doc=ONB_aleph_acc0037625_20&&displayMode=full&tab=default_tab&vid=ONB)

# Primo-Examples

- Gutenberg Bible

1 Ergebnisse für ÖNB Gesamtbestand sortiert nach: Relevanz ▼

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1   **Biblia**  
 [Mainz] : [Druckerei der 42-zeiligen Bibel, d.i. Johann Gutenberg, Johann Fust und Peter Schöffer] [um 1454-55, nicht nach August 1456]  
**Prüfen Sie die Verfügbarkeit**

Bücher    Bestellen    Standorte    Details

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[http://search.obvsg.at/primo\\_library/libweb/action/search.do?tab=onb\\_digital&indx=1&vl\(freeText0\)=AC07988562&vid=ONB&fn=search](http://search.obvsg.at/primo_library/libweb/action/search.do?tab=onb_digital&indx=1&vl(freeText0)=AC07988562&vid=ONB&fn=search)

# Conclusion

- Technologies
  - No sophisticated new technologies
  - Existing tools
  - Some PERL scripting
- Project
  - Complexity
    - 3 applications
    - Local vs. Central

# Conclusion

- Project
  - Cooperation
    - Implementation not possible without cooperation with OBV
    - Seamless integration of features
    - Win2Win
      - ANL gets required functionality
      - Consortia gets links to objects to distribute in all participating systems

# Outlook

- DTL-objects with Access Rights
  - Primo RTA
    - DTL objects harvested from ALEPH don't have information whether objects are not free
    - Workaround
      - If objects is protected information is copied as string to DTL label
      - Label is replicated to ALEPH und harvested into Primo

# Outlook

- Orders
  - Integrated Order forms from Primo missing
    - Integration of non Ex Libris Systems
    - -> SFX (?)
- ABO (Austrian Books Online)
  - Google Books digitization
  - Not handled with DigiTool
  - Access via Primo
    - Fulltext

# THANK YOU!

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