Invenio as a library system.

Replacing Aleph at DESY library

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HELMHOLTZ GEMEINSCHAFT

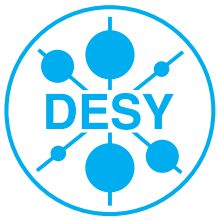
DESY

Overview

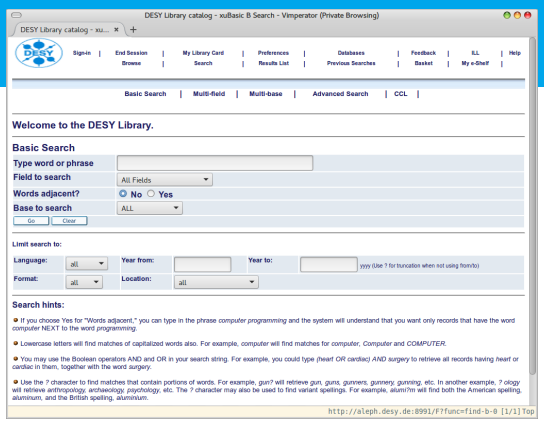
- Invenio BibCirculation 1.1
- Bibliographic
- Patrons
- Holdings
- Circulation history

Invenio as a library system.

Part I: Invenio BibCirculation 1.1



Goals



- Replace ALEPH 22
  - Lightweight solution
  - Software consolidation
  - OpenSource
- **Integrate library services**
  - Library holdings (Books and gray literature)
  - Patron Driven Acquisition (Data delivery from Schweitzers)
  - Journals (Electronic and eventually print)
  - Publications database (Reporting, digitization, retro cataloguing)
  - Document delivery (Inter Library Loan, scan service...)
  - Publishing house* (Theses, DESY proceedings ...)
  - Approval/review workflow*
  - APC management*

* Sideffect: ensures reporting

What started out as a publications database is about to become the central hub for all libraries services.

Problems with BibCirculation

- Bit hackish code... (some hardcoded CERN)
- No SIP-Self Service (only checkout/checkin method at DESY)
- No library cards / patron barcodes
  (required for Self Service)
- No handling for multiple email addresses
  (multiple login methods at DESY; one is the library card)
- Separation of circulation from the rest
  - Holdings not searchable (e. g. barcode, availability...)
  - No "New items" display (derives from holdings as well)

- 110 technical issues (89 to go online)
- 17 issues for librarians (some are quite large...)

DESY

Invenio as a library system.

Part II: Bibliographic and Holdings

DESY

From Aleph 22 ...

Legacy...

long history, several migrations: data cleanup

- ALEPH 22 allows MarcXML output via `print-03`
- Not all records hold an ALEPH 22 SysNo (extract `aleph.seq` for mapping)
- Identify and map document types (ALEPH 22 → JOIN²)
- Require *expansion* for holdings (cf. Slides from N. Schulz (Oxford), IGeLU 2013)
- PST ALEPH 22s holdings (virtual field)
- Automatize dumping in ALEPH 22 (`job_list`)

Reverse engineering is time consuming

Detailed in Aleph_migration.md (to be finished and published)

...to Invenio

- Use batch-`websubmit` (enforce JOIN²data model)
- Define mapping and field transformations
- Define string translations (e. g. Hrsg. → Editor)
- Report on tag coverage and field contents (did we get everything?)
- Add data cleanup (e. g. normalize URLs, clean description chars)
- Hook up with INSPIRE (conference proceedings)
- Fix some sloppy cataloguing in historic records (e. g. dissertation notes)
- Expand holdings to Marc (8527_, 8767_)
- Add `bibsched tasklet` populates Invenios holdings table

(`ConvertAlephXML2Invenio.py`, ≈ 2100 lines)

Holdings mapping 8527_

subfield	value	ALEPH 22 field code
$2	Source	derived from 852___b
$a	Library	852___b (translated)
$b	collection	852___c / 852___5 (translated)
$c	shelfmark	090___a
$h	classification	derived from 090___a
$p	barcode	852___p padded to 6 digits
$t	item number	[counter]
$x	nonpublic note	
$z	public note	

Note: DESY has two values for $2

- Hamburg: DE-H253
- Zeuthen: DE-B524

Holdings mapping 8767_

subfield	value	ALEPH 22 field code
$2	Source	derived from 852___b
$a	NSK	035___a
$c	price	- n/a -
$e	Vendor	- n/a -
$d	Accession date	- n/a -
$h	loan period	PST___6 (normalized)
$j	availability	derived from loan data
$l	temp. location	e. g. "on display"
$p	barcode	852___p padded to 6 digits
$t	item number	[counter]
$x	cost code	- n/a -

No price/vendor data as DESY did not use ACQ consistently

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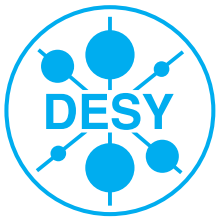
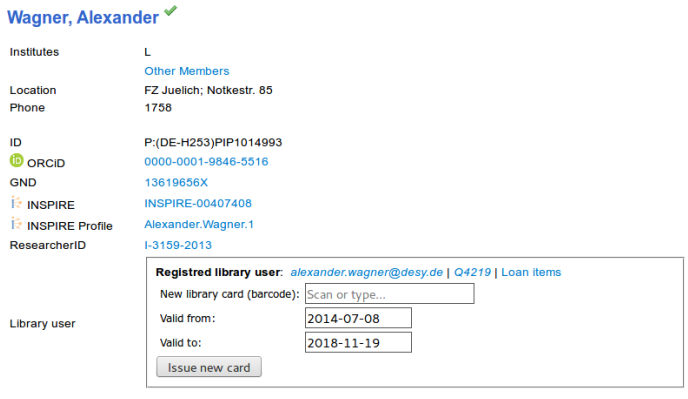
Part III: Patrons



cir-05

- Data extraction straight forward (`cir-05 export`) Data is not
- Add email-addresses in ALEPH 22 (mapping to authorities)
- Hook up login to people authority records (allows for multiple emails etc.)
- Generate authorities for external patrons
- Add format element to register library card
- Add People to `bibcirculation_template.py`



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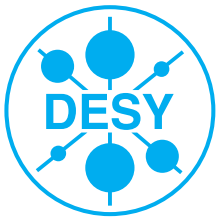
Part IV: Circulation history



Circulation history

- Easy: items on loan (cir-04)
- History: Not exposed by any export
- Stored in internal tables
- Requires SQL

```
$ rlwrap sqlplus

aleph@ALEPH22> set pagesize 0
aleph@ALEPH22> spool /tmp/aleph.history

aleph@ALEPH22> SELECT z35_id as patron,
                      z30_barcode as barcode,
                      z35_event_date as YYYYMMDD,
                      lpad(z35_event_hour, 4, 0) as HHMM,
                      z35_event_type as event
               FROM des50.z30, des50.z35
               WHERE z30_rec_key = z35_rec_key ||
               lpad(z35_item_sequence, 6, 0)
               ORDER BY z35_time_stamp ;
```

Event **sorting** is important!

- Dumps event log
- Just `replay.py`
- ILS Loanmigration
  - Dummy User
  - All unknown patrons
  - Allows for revision list

Self Service – SIP

- EasyCheck software (terminals)
- SIP Backend
  - Available at `https://github.com/join2/SIPServer`
  - Reuse Perl-code from Evergreen
  - Use `Inline::python`
  - `libSIP_join.py`
    - Handle `crc*` tables
    - Staff notifications by email
    - `patron` / `item` as required
    - `checkin()`
    - `checkout()`
    - `renew()`
- EasyCheck handles user interaction
  - barcode scanner (library card)
  - RFID scanner (media)

Put it all togeter...

- `CreateOPAC.py` (collection setup)
- `SetupLibraries.py` (library definitions, `bibedit` templates)
- `SetupVendors.py` (vendor definitions)
- `ConvertAlephXML2Invenio.py` (convert data from Aleph 22)
- `ConvertPatrons.py` (convert Aleph 22 patrons to JSON)
- `SetupBorrower.py` (setup patrons)
- `replay.py` (replay circulation events)
- `bst_AddHoldings.py` (update holdings from bibliographic)
- `lib_SIP.py` / `lib_ILS.py` (circulation, patron registration)
- Finish the docs

Sprint to close issues...

Thank you!

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