



Utilizing ~~Alma APIs~~ the Alma Bibs API to create new workflows for indexers / subject librarians (like myself)

<http://www.slideshare.net/danmichaelo/dd15>

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University of Oslo Library, Norway
IGeLU 2015 Developers day
2015-09-05

1. The Metadata Editor

File Edit Tools

You have 3 warning(s) in your record

Authority(98172598690000041) Bibl

Working on -Mesoscopic electroni (990701587894702201) , Created by import (09/06/2015 12:50:49 CEST)

100 1 \$\$a Heinzel, Thomas

245 1 0 \$\$a Mesoscopic electronics in solid state nanostructures \$\$c Thomas Heinzel

250 0 0 \$\$a 2nd, completely rev. and enl. ed.

260 0 0 \$\$a Weinheim \$\$b Wiley-VCH \$\$c c2007

300 0 0 \$\$a XV, 395 s. \$\$b ill.

490 1 0 \$\$a Physics textbook

650 0 0 \$\$a Mesoscopic phenomena (Physics)

650 0 0 \$\$a Nanostructures

650 7 0 \$\$a Mesoskopiske systemer \$\$2 noubomn

650 7 0 \$\$a Mikroelektronikk \$\$2 noubomn

650 7 0 \$\$a Nanomaterialer \$\$2 noubomn

650 7 0 \$\$a Mikroelektronikk \$\$2 tekord

Nanostructures (98172598690000041)

LDR 00696cz##a2200181n##0020926133043.0008020801||#anannbabn##00198172598690000041010\$\$a sh 91006390040\$\$a DLC \$\$c DLC \$\$d V053 0 0 \$\$a QC176.8.N35150\$\$a Nanostructures550 \$\$w g \$\$a Nanoscience550 \$\$w g \$\$a Physics
\$\$a Work cat · Nanostru

Current cataloger level [80] Kat2, change to [80] Kat2

Info Alerts

008
"#" is not a valid code for position 17 for field 008

1. The Metadata Editor

File Edit Tools  Heggø,

Working on -Optical modeling and (991316336354702201) , Created by import (09/06/2015 16:42:31)

035			\$\$a (NO-TrBIB)131633635
040			\$\$a NO-TrBIB \$\$b nob \$\$e katreg
082	0	4	\$\$a 621.31244 \$\$q NoOU \$\$2 23
100	1		\$\$a Krc, Janez
245	1	0	\$\$a Optical modeling and simulation of thin-film photovoltaic devices : \$\$b Janez K Marko Topic
260			\$\$a Boca Raton, Fla. \$\$b CRC Press \$\$c c2013
300			\$\$a XIII, 258 s. \$\$b ill.
650	7		\$\$a Tynnfilmer \$\$x Numerisk modellering \$\$2 noubomn
650	7		\$\$a Elementmetoder \$\$2 noubomn
650		7	\$\$a Solceller \$\$x Tynnfilmer \$\$2 noubomn
700	1		\$\$a Topic, Marko
776	0		\$\$w 991334423224702201
856	4	2	\$\$3 Beskrivelse fra forlaget (lang) \$\$u http://content.bibsys.no/content/?

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650	7	7	7	7	\$\$a Tynnfilmer \$\$x Numerisk modellering \$\$2 noubomn
650	7	7	7	7	\$\$a Elementmetoder \$\$2 noubomn
650	7	7	7	7	\$\$a Solceller \$\$x Tynnfilmer \$\$2 noubomn
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2. An alternative interface (sketch, probably too minimal)

MMS: 991503175224702204 (IZ) / 991503175224702201 (NZ)

Introduction to general relativity, black holes, and cosmology

Yvonne Choquet-Bruhat (2015)

Dewey class

523.1

523.1 'The universe, galaxies, quasars' in WebDewey

Subjects

Generell relativitet ×

Sorte hull ×

Kosmologi ×

Lærebok (form) ×

New subject

Preview MARC21

Save to Alma

2. An alternative interface (sketch, probably too minimal)

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Subjects

Generell relativitet ×

Sorte hull ×

Kosmologi ×

Lærebok (form) ×

New subject

Record: #13777 (noubomn)

Preferred terms: "Sorte hull" (nb),
"Sorte hull" (nn), "Black holes" (en)

Alternative terms: "Svarte hull" (nb)

See also: (no entries)

Mapped to: (no mappings)

2. ... with suggestions?

MMS: 991503175224702204 (IZ) / 991503175224702201 (NZ)

Introduction to general relativity, black holes, and cosmology

Yvonne Choquet-Bruhat (2015)

Dewey class



Suggestions: 523.1 The universe, galaxies, quasars ? 530.11 Relativity theory ?

Subjects

New subject

Preview MARC21

Save to Alma

Introduction to general relativity, black holes, and cosmology

Yvonne Choquet-Bruhat (2015)

Dewey class

Suggestions: [523.1 The universe, galaxies, quasars](#)  [530.11 Relativity theory](#) 

Subjects

New subject

Suggestion	Source
Sorte hull (subject) 	'Black holes (Astronomy)' (LCSH / FAST), ...
Kosmologi (subject) 	LCSH: Cosmology (Worldcat), TEKORD: Kosmologi (NTNU)
?	LCSH: Gravitational waves (Worldcat),
Lærebok (form) 	Textbook

Preview MARC21

Save to Alma

3. The Bibs Api: Getting a record

```
|HOST="api-eu.hosted.exlibrisgroup.com"
|MMS_ID=999305572714702204
|API_KEY=mySecretKey

curl -XGET \
-H "Accept: application/json" \
-H "Authorization: apikey ${API_KEY}" \
-o record.json \
"https://${HOST}/almaws/v1/bibs/${MMS_ID}"
```

```
1 {
2     "anies": [
3         "<?xml version=\"1.0\" encoding=\"UTF-16\"?>\n<record>\n  \n",
4     ],
5     "author": "Nassau, Kurt",
6     "complete_edition": "2nd ed.",
7     "created_by": "import",
8     "created_date": "2015-06-04Z",
9     "holdings": {
10         "link": "https://api-eu.hosted.exlibrisgroup.com/almaws/v1/bibs/9",
11         "value": null
12     },
13     "isbn": "0471391069",
14     "issn": null,
15     "link": null,
16     "linked_record_id": {
17         "type": "NZ",
18         "value": "990114012304702201"
19     },
20     "mms_id": 990114012304702204,
21     "network_number": [
22         "(NO-TrBIB)011401230",
23         "011401230-47bibsys_ubo"
24     ],
25     "originating_system": "ILS",
26     "originating_system_id": "011401230-47bibsys_ubo",
27     "place_of_publication": "New York",
28     "publisher_const": "Wiley",
```

```
1  {
2      "anies": [
3          "<?xml version=\"1.0\" encoding=\"UTF-16\"?>\n<record>\n  \n",
4      ],
5      "author": "Nassau, Kurt",
6      "complete_edition": "2nd ed.",
7      "created_by": "import",
8      "created_date": "2015-06-04Z",
9      "holdings": {
10         "link": "https://api-eu.hosted.exlibrisgroup.com/almaws/v1/bibs/9",
11         "value": null
12     },
13     "isbn": "0471391069",
14     "issn": null,
15     "link": null,
16     "linked_record_id": {
17         "type": "NZ",
18         "value": "990114012304702201"
19     },
20     "mms_id": 990114012304702204,
21     "network_number": [
22         "(NO-TrBIB)011401230",
23         "011401230-47bibsys_ubo"
24     ],
25     "originating_system": "ILS",
26     "originating_system_id": "011401230-47bibsys_ubo",
27     "place_of_publication": "New York",
28     "publisher_const": "Wiley",
```

The bibliographic record (why array?)

Wrong encoding

?

All this info is
also in the
MARC record.
Ignored upon
saving.

3. The Bibs Api: Updating the record

```
curl -XPUT \
-H "Content-Type: application/json" \
-H "Accept: application/json" \
-H "Authorization: apikey ${API_KEY}" \
-d '@record.json' \
"https://${HOST}/almaws/v1/bibs/${MMS_ID}"
```

Meet: *The error*

```
1  {
2      "errorList": {
3          "error": [
4              {
5                  "errorCode": "402203",
6                  "errorMessage":
7                      "Input parameters mmsId 999305572714702204 is not valid."
8              }
9          ]
10     },
11     "errorsExist": true,
12     "result": null
13 }
```

Meet: *The error*

```
1  {
2      "errorList": {
3          "error": [
4              {
5                  "errorCode": "402203",
6                  "errorMessage":
7                      "Input parameters mmsId 999305572714702204 is not valid."
8              }
9          ]
10     },
11     "errorsExist": true,
12     "result": null
13 }
```

Solution: Use XML rather than JSON until Ex Libris fixes this..

Back in Alma

008 | 141024s1753####xx#|||||o|||000|u|eng|d

035 | \$\$a 14409455x-47bibsys_ubo

035 | \$\$c (NC T-PIDM14409455x)

040 | 245 | Information

An external process has changed the original record. It is recommended to reload original record.

Close

four times the number to be met with in any other book of this kind. VI.
two hundred pies, (with the shapes of them engraven on copper-plates
yorkshire muffins, &c. VII., Receipts for all manner of pickling, potting,



Chemistry of structure-function relationships in cheese edited by Edyth L. Malin, Michael H. Tunick

Book {Book - Physical} (New York Plenum Press c1995)

ISBN: 030644982X

Series: Advances in experimental medicine and biology vol. 367

Subject: Food Technology -- Cheese Composition Congresses -- Cheese and others

Language: English **Record number:** (NO-TrBIB)951713205

Availability: [Physical version](#) at **UiO Medisinsk bibliotek: UMED Tidsskr (k00246)** (1 copy, 1 available)

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[Items](#) | [More info](#)

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?><bib><mms_id>999517132054702204</mms_id><linked_record_id type="NZ">999517132054702201</linked_record_id><title>Chemistry of structure-function relationships in cheese</title><isbn>030644982X</isbn><network_numbers><network_number>(N0-TrBIB)951713205</network_number><network_number>951713205-47bibsys_ubo</network_number></network_numbers><place_of_publication>New York</place_of_publication><publisher_const>Plenum Press</publisher_const><holdings link="https://api-eu.hosted.exlibrisgroup.com/almaws/v1/bibs/999517132054702204/holdings"/><created_by>import</created_by><created_date>2015-06-04Z</created_date><suppress_from_publishing>false</suppress_from_publishing><originating_system>ILS</originating_system><originating_system_id>951713205-47bibsys_ubo</originating_system_id><record>
```

```
<leader>01193cam a2200301 u 4500</leader><controlfield tag="001">999517132054702201</controlfield><controlfield tag="005">20110607095845.0</controlfield>
```

Authentication

In order to use the interface, users would need to authenticate themselves somehow... but all actions will still be carried out on behalf of the API key owner.

Can we have Alma OAuth?

php-alma-client

<https://github.com/scriptotek/php-alma-client>

```
1 <?php
2 use Scriptotek\Alma\Client as AlmaClient;
3
4 $apiKey = 'mySecretKey';
5 $region = 'eu';
6 $client = new AlmaClient($apiKey, $region);
7
8 # The Alma Bib object
9 $mmsId = '990114012304702204';
10 $bib = $client->bibs[$mmsId];
11
12 # Append a subject to the MARC21 record
13 # (it's a File_MARC object)
14 $bib->record->appendField(
15     new File_MARC_Data_Field('650', array(
16         new File_MARC_Subfield('a', 'Sorte hull'),
17         new File_MARC_Subfield('2', 'noubomn'),
18         new File_MARC_Subfield('0', '13777'),
19     ), null, '7')
20 );
21
22 $bib->save();
```

<https://github.com/scriptotek/php-marc>

Extends File_MARC with some helper classes for handling of specific fields. Example:

From...

```
$bib->record->appendField(  
    new File_MARC_Data_Field('650', array(  
        new File_MARC_Subfield('a', 'Sorte hull'),  
        new File_MARC_Subfield('2', 'noubomn'),  
        new File_MARC_Subfield('0', '13777'),  
    ), null, '7')  
);
```

...to...

```
$bib->record->subjects->append([  
    new Subject('Sorte hull', 'noubomn', '13777')  
]);
```

<https://github.com/scriptotek/php-alma-client>
<https://github.com/scriptotek/php-marc>

Questions?
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d.m.heggo@ub.uio.no