



# IMPLEMENTING BIBFRAME IN KOHA

Laurence Rault, BibLibre



# WHO AM I

- At BibLibre since 2008
- Working with Koha for 20 years...
  - first as documentalist
  - project manager
  - now development team manager
- What I like
  - there is always something new in Koha
  - specifying, testing, solving
  - helping the librarians



# BIBLIBRE

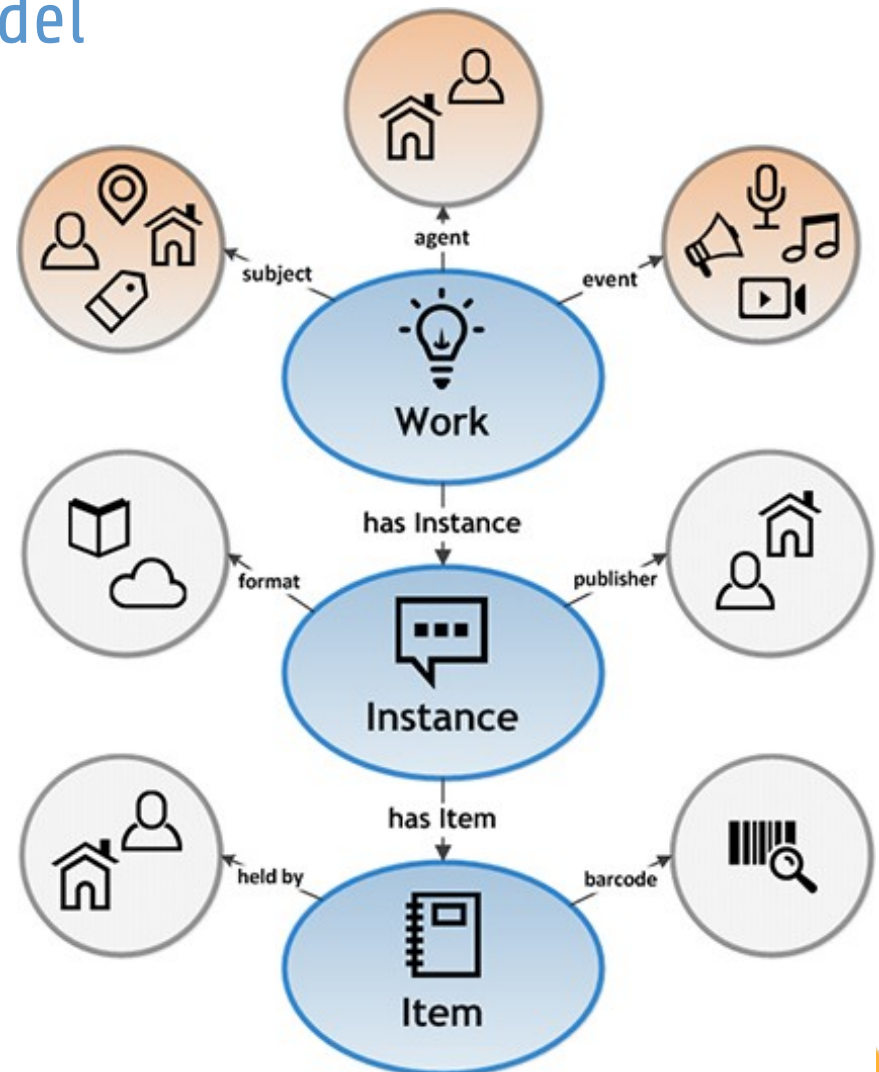
Open Source software and services for libraries



# ABOUT BIBFRAME

## ➤ BIBFRAME 2.0 model

- work
- instance
- agent, etc.
- items





# KOHA AND BIBFRAME

- What has been done (in 2025)
  - 1. POC Store data as Bibframe format in Koha
  - 2. POC Import Bibframe data into Koha, stored in Bibframe format



# POC 1 : STORE DATA AS BF FORMAT

- [https://git.bibliore.com/bibliore/kohac/commits/branch/ft/MT47974\\_BibFrame](https://git.bibliore.com/bibliore/kohac/commits/branch/ft/MT47974_BibFrame)
  - create a new record from Koha interface and save it
  - it is converted to bibframe on the fly using an XSLT stylesheet
    - <https://github.com/lcnetdev/marc2bibframe2>
  - stored as bibframe in biblio\_metadata
  - converted back to marc21 to be displayed

```
biblionumber: 3
  format: bibframe/xml
  schema: rdf
  metadata: <?xml version="1.0" encoding="UTF-8"?>
<rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#" xmlns:rdfs="http://www
c.gov/ontologies/bflc/" xmlns:madsrdf="http://www.loc.gov/mads/rdf/v1#"><bf:Work rdf:ab
<bflc:aap>Harry Potter and the Deathly Hallows, part 1</bflc:aap>
<bflc:aap-normalized>harrypotterandthedeathlyhallowspart1</bflc:aap-normalized>
```



# POC 2 : IMPORT BF DATA INTO KOHA

- [https://git.bibliore.com/bibliore/kohac/commits/branch/ft/MT50602\\_BibFrame\\_Import](https://git.bibliore.com/bibliore/kohac/commits/branch/ft/MT50602_BibFrame_Import)
- Import RDF : `bulkrdfimport.pl`  
(just like `bulkmarcimport.pl` imports MARC)
- In the code :
  - Allow to use `AddBiblio` with RDF/XML documents
  - Add new `TransformRDFToKoha` function to feed `biblio/biblioitems` tables



# POC 2 : IMPORT BF DATA INTO KOHA

## ➤ Specifications

- Work -> one bibliographic record
- Instance -> one bibliographic record
- The record was serialized as RDF XML in biblio\_metadata table
- A basic mapping was done for the Koha to BF fields

tagfield	tagsubfield	librarian	kohafield	bibframe tag	
520	a	Summary, etc.	biblio.abstract	<bf:summary>	
100	a	Personal name	biblio.author	<bf:Contribution> <bf:agent>	? With content = a link to Agents as <bf:agent rdf:resource=" <a href="http://id.loc.gov/rwo/agents/no20020458">http://id.loc.gov/rwo/agents/no20020458</a> "/> ?
110	a	Corporate name or jurisdiction name as entry element	biblio.author	<bf:Contribution> <bf:agent>	
001	@	Koha biblionumber	biblio.biblionumber		
260	c	Date of publication, distribution, etc.	biblio.copyrightdate	<bf:ProvisionActivity> simpleDate	
264	c	Date of production, publication, distribution, manufacture	biblio.copyrightdate	<bf:ProvisionActivity> simpleDate	
042	d	Creation date	biblio.datecreated		



# KOHACon 25

- POC presented at KohaCon in Wellington
- Workshop
- What the community would like in first stage
  - be able to import Bibframe record in Koha
  - see the Bibframe record
  - be able to export a record in Bibframe format
  - store as Marcxml
  - so that all the Koha functionalities can be used



# WIP : KOHA PLUGIN

- BibFrame Import plugin
  - <https://git.bibliore.com/bibliore/koha-plugin-bibframe-import>
  - Import record from Stage records for import
  - Conversion of the record to marcxml via an existing xslt stylesheet (<https://github.com/lcnetdev/bibframe2marc>)
  - only MARC21 for now



# WIP : KOHA PLUGIN

## Stage MARC records for import

- Select a MARC file to stage in the import reservoir. It will be parsed, and
- You can enter a name for this import. It may be useful, when creating a

## Upload a file to stage

File:  bibframe...OC\_HP.rdf

Upload file

## Settings

Comments about this file:

Record type:

Character encoding:

Format:



# WIP : KOHA PLUGIN

- No deduplication
- No items

Showing 1 to 1 of 1 entries Show  entries < Previous 1 Next >

#	Citation	Status	Match type	Match details	Diff	Record
22	<a href="#">Harry Potter and the Deathly Hallows, part 1 /</a>	Imported	No match			<a href="#">View</a> <a href="#">Edit</a>

Show  entries < Previous 1 Next >



# WIP : KOHA PLUGIN

➤ Import errors visible in Log Viewer

## Log entries

Showing 1 to 1 of 1 entries

Show  entries << First < Previous Next > Last >>

Search:  X Clear filter

Columns ▾ Export ▾ Copy shareable link Configure

Date	Librarian	Module	Action	Object	Info	Interface
04/27/2026 17:00	<a href="#">biblibre</a> <a href="#">biblibre (1)</a>	Cataloging	Create		BibFrame Import Plugin: Error during MARC::Record::new_from_xml: Field 040 must have at least one subfield at /usr/share/perl5/MARC/File/XML.pm line 483.	Staff interface

Showing 1 to 1 of 1 entries << First < Previous Next > Last >>



# WIP : KOHA PLUGIN

- What the stylesheet does currently
  - bf one work + instances => one single marc record
  - add instance title in field 300

```
<bf:Instance rdf:about="http://id.loc.gov/resources/instances/20593929-03" xmlns:bf="http://id.loc.gov/ontologies/bibframe/">  
<rdf:type rdf:resource="http://id.loc.gov/ontologies/bflc/SecondaryInstance"/>  
<bf:issuance rdf:resource="http://id.loc.gov/vocabulary/issuance/mono"/>  
<bf:title>  
  <bf:Title>  
    <bf:mainTitle>[16 film reels of 16 on 8 (146 min., 13,140 ft.)]</bf:mainTitle>  
  </bf:Title>  
</bf:title>  
<bf:extent>
```

```
300  _3 16 film reels of 16 on 8 (146 min., 13,140 ft.)  
      _a 16 film reels of 16 on 8 (146 min., 13,140 ft.)  
      _c 35 mm
```

```
758  _4 http://id.loc.gov/ontologies/bibframe/instanceOf  
      _1 http://id.loc.gov/resources/works/20593929
```

# WIP : KOHA PLUGIN

- What the stylesheet does currently
  - search for external authors to import them in the record

```
<bf:Contribution>  
  <bf:agent rdf:resource="http://id.loc.gov/rwo/agents/no2006100914"/>  
  <bf:role>  
    <bf:Role>  
      <rdfs:label xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#">direction</rdfs:label>  
    </bf:Role>  
  </bf:role>  
</bf:Contribution>
```

Contributor(s): **Yates, David, 1963- [direction]** | **Heyman, David, 19**  
**[writing]** | **Radcliffe, Daniel, 1989- [cast]** | **Grint, Rupert, 1988- [ca**  
Material type:  Film

- this can be set off
- if set off : no author name in the record
- if set on : performance ?



# WIP : KOHA PLUGIN LIMITATIONS

- Limitations (of the stylesheet)
  - Only one work per instance in the file
  - Only one work in the file
  - xslt for Bibframe (Library of Congress)



# WIP : KOHA PLUGIN LIMITATIONS

- Which Bibframe RDF ?
  - Library of Congress : bf, bflc
  - National Library of Sweden : kbv
- For the import
  - which stylesheet ?



# WIP : KOHA PLUGIN LIMITATIONS

- Data structure
  - problem with one record created based on the work
    - for the catalog
    - for the items
- No import of file with several works and instances
- No import of file with only works or only instances



# WHAT WOULD WE LIKE ?

- For the data structure (marcxml)
  - one record per work
  - one record per instance
  - distinguish work and instance records
  - links between them
  - ... or one record per instance with work data ?



# WHAT WOULD WE LIKE ?

- For the agents
  - import external data when reference to an URI ?
  - no import, and display on the fly from the URI ?
  - create a cache server with collected agents ?
  - other ?



# WHAT WOULD WE LIKE ?

- Search
  - Search on all records
- Display
  - simple display, with links between records
  - advanced display :
    - display all the instances of a work
    - display other editions



# NEXT STEPS

- Improve the import :
  - data structure
  - several works and instances
- Propose a simple display
- Create a bibframe to unimarc stylesheet
- Think about search and advanced display
- We need Bibframe datasets !



# NEXT STEPS

- Later :
  - manage the entities (agents, subjects...)
  - import the items ?



# NEXT STEPS

- The development is driven by BibLibre
- Each idea, feedback or help is welcome !

Tack !