



“Moving-Away-From-MARC”-a-thon: Visualizing Resource Descriptions in the Linked Data Environment



RIMMF 3

?

BIBFRAME

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Course Summary

This Program for Cooperative Cataloging information session will provide attendees with an understanding of how semantic web and linked data principles can leverage access to library resources and enhance user experiences. It also provides hands-on opportunities to explore RIMMF, a training tool that can be used to create, edit, and visualize RDA metadata, and the BIBFRAME Editor, a simple tool that enables input of any BIBFRAME vocabulary element.

It is intended for BIBCO, CONSER, NACO and SACO operations representatives, standing committee chairs, PoCo representatives, and others associated with the PCC who attend the May 2016 OpCo Meeting at the Library of Congress.

Learning Objectives

At the end of this session, participants will better understand:

- the relevance of linked-data in processing library resources today and in the future
- why RDF is an important linked data format
- how RIMMF works as a training and visualization tool to view RDA outside the constraints of MARC
- how the BIBFRAME Editor may be used to encode RDA bibliographic resource descriptions into BIBFRAME vocabulary
- how to think of catalog elements as RDA elements rather than as MARC elements to be ‘translated’ into RIMMF or BIBFRAME (or other visualizations)

Training Methods

Discussion and demonstration

Duration

4 hours

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Unit 1: A Few Things We’ve Learned

BIBFRAME vs. MARC – A Reminder on Terminology

Some LC staff, when first seeing the BIBFRAME Editor, have asked,
 “Why does the BIBFRAME Editor use *RDA* vocabulary?
 Shouldn’t it use *BIBFRAME* vocabulary?”

The Editor *does* in fact use BIBFRAME vocabulary, behind-the-scenes. The black headers and blue RDA element names which you see in the Editor are there to help you group the RDA elements by the FRBR entities -- because this is what you already know. These bridges from what you know to what you don’t know are useful crutches: you enter data for the RDA terms you know, and the Editor ‘translates’ them into BIBFRAME vocabulary which you don’t know.

However ...

What is *not* a useful crutch is to think of these as *MARC* elements. Try to start ‘thinking in RDA’ – not ‘thinking in MARC.’ This may be a big change for you. Currently, you don’t think of an element as the ‘Title Proper,’ you think of it as the 245 \$a; you don’t think of it as a ‘Contents note’ and a ‘Related work,’ you think of it as a 505 and a 7XX \$at; and so on.

Starting now:

- Stop thinking of the elements as *MARC* elements.
- Start thinking of them as *RDA* elements. In fact, this should not be difficult -- the labels in the Editor are *RDA* terms, and the blue links lead to *RDA* instructions.
- *Do not ask yourself:*
 - “What MARC element is this?”
 - “What is the MARC coding for this element?”

Or, put another way ...

Instead of asking ...

“Where in *BIBFRAME* does this 264 data get pasted?”

Think ...

“This is the *Publication Statement*. The *Publication Statement* is *Manifestation* data. It is entered in the “*Manifestation*” section of the *BIBFRAME* profile, at the element titled “*Publication Statement (RDA 2.8)*.”

How We Think This Material Can Help

In each of the next 4 Units, we will work with both RIMMF and BIBFRAME to create catalog descriptions for a resource. For each of the four resources -- a print monograph, an online serial, a music score, and an MP3 download -- we will:

- 1st. Create a description in RIMMF
- 2nd. Create a description in BIBFRAME
- 3rd. Export the RIMMF to RDF, and discuss what we see

Unit 2: Print Monograph in RIMMF and BIBFRAME

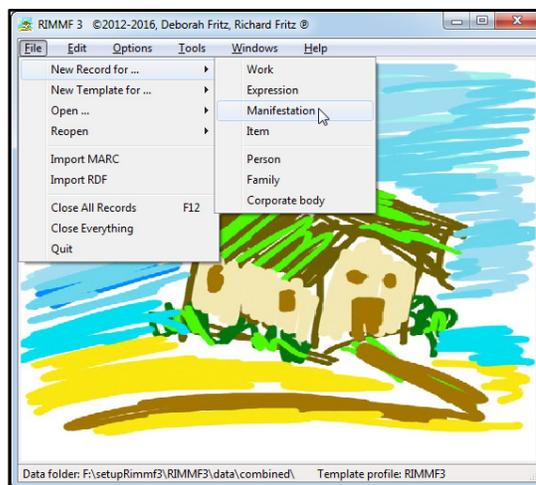
Creating a Description in RIMMF – Manual Creation

Terms to Define

- The **Entity Index** is the list of all the “records” in the RIMMF database. It can be accessed by pressing <CTRL> + e or by clicking on **Tools > Entity Index** from the home screen.
- **R-Tree** is short for **Relationship Tree**. It is a visualization screen of all the relationships of a resource, which can start from the Person/CB/F or the W/E/M. It is an excellent way to see the FRBR/RDA relationships in action, as well as to check your work while in the process of cataloging a resource. It can be accessed at the bottom of a W/E/M record, on the bottom right-hand corner. We will see how the R-Tree is used at the end of this demonstration.

Create a New Record for the Manifestation

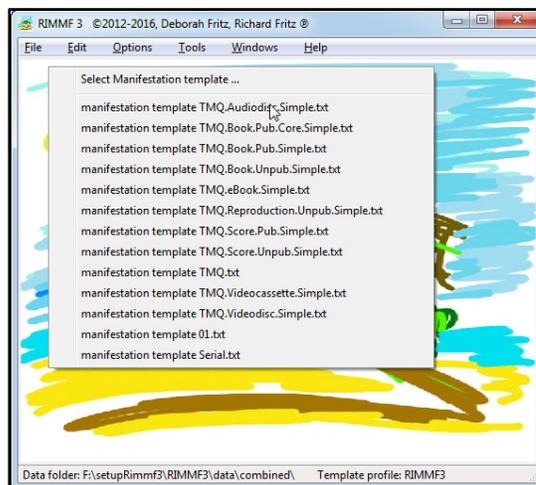
- ✓ Open RIMMF by double-clicking on the icon
- ✓ Click on **File > New Record for ... > Manifestation**



- ✓ Choose a template appropriate to the type of Manifestation

You may not find one that exactly matches your resource, so choose the closest possibility.

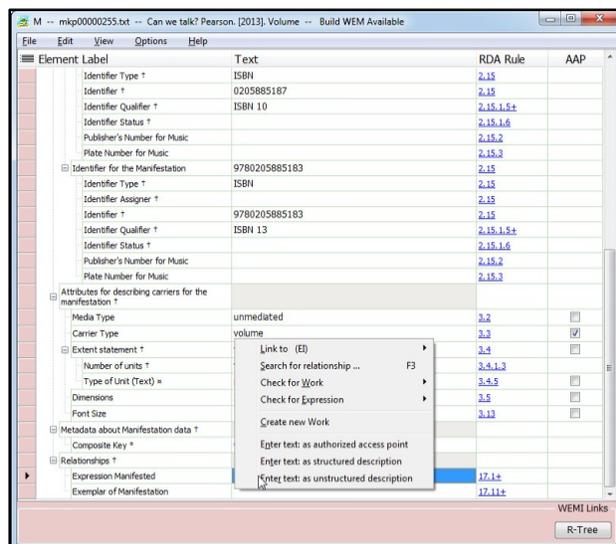
Some data will be filled in for you by the particular template you use. This data can be changed, if necessary. To do this, simply place your cursor in a field and highlight/delete, then type the correct information. To delete an entire field, right-click on the attribute name and select **Delete**.



- ✓ Fill in the following data, if it is not already provided for you:
 - Title Proper: Transcribe
 - Statement of Responsibility: Transcribe; note that each Statement of Responsibility goes in a separate field.
 - Place of Publication: Transcribe
 - Publisher's Name: Transcribe
 - Date of Publication: Record. Add brackets, etc., as needed.
 - Copyright Date: Record. Press <Shift> + <F1> to produce the “©”
 - Mode of Issuance: Choose from the drop-down list, generally provided by template, but this can be changed as necessary
 - Media Type: Choose from the drop-down list, generally provided by template, but this can be changed as necessary
 - Carrier Type: Choose from the drop-down list, generally provided by template, but this can be changed as necessary
 - Number of Units: Record the number. If you have multiple extent statements, you will need to add a separate box of Number and Type, as needed, for each one
 - Type of Unit (Text): Choose from the drop-down list
 - Dimensions: Record
 - Note on Related Manifestation: List the chapter titles, if you so choose. Use an established format, such as ISBD
- ✓ Click in the “Extent Statement” box to auto-fill it after you have filled in Type of Unit, etc.
- ✓ Click in the “Composite Key” Text box. This is created based on data already entered. It can be changed based on the boxes checked in the right-hand column, entitled AAP.
 - If you need to add an element not offered in the template, place the cursor on the field above where you want the new field to appear and press <F4>. Start typing the name of the element you need, or simply look at the drop-down list of elements available.
- ✓ Be sure to save the record!

Create a New Record for the Work

- ✓ Scroll to the bottom of the Manifestation record and find the “Expression Manifested” text box.
- ✓ Press <F5> in this text box
- ✓ Select **Create New Work**
- ✓ Select the appropriate template



The “Build WEM” Process

Certain Work data will be auto-filled from data that you provided in the Manifestation:

- Preferred Title for the Work (from Title Proper)
- Date of Work (from Date of Publication)
- Source Consulted (from Title Proper and Date of Publication)

Note that all of these auto-filled elements can be changed, if necessary.

- ✓ Remove initial article(s) from the “Preferred Title for the Work” and capitalize the first word of the Title
- ✓ Change “Date of Work” and other elements, as needed, to reflect the actual work
- ✓ As needed, change the “Creator” label to “Author” or another more specific relationship designator, if known. Click on the dropdown arrow next to Creator and select a more specific term. If nothing more specific is known, the general relationship designator is fine.
- ✓ Link to the Author, if already in the Entity Index:
 - Press <F5>
 - Click on **Link to (EI)**
 - Select **Authorized Access Point for the Person/CB/F Entity**
- ✓ If the Author is not already in the Entity Index but *does* exist in the NAF, place the cursor where the Name would be, and search using <F3>. Import from NAF and modify the Person record as needed.
Or...
- ✓ If the Author is not already in the Entity Index and does *not* exist in the NAF, place the cursor where the Name would be, press <F6> and select **Create New Person**. Fill out the information as available and save the record.
- ✓ Click in the “Authorized Access Point” text box in the Work Template

Notice that the AAP changes to reflect which elements have been checked in the AAP column. You can easily change this by changing what has been checked.

- For any compilation, consider the possibility of creating Whole/Part Relationships to the individual Works. This would entail creating at least a Work and Expression for each component part of the resource and linking them to the established Manifestation. The alternative is to create a Related Manifestation as a structured description (like the current contents note). If you opted to do this, you would do it in the RIMMF Manifestation record.

- ✓ Enter **fully established** for “Status of Identification”

Create a New Record for the Expression

- ✓ Press <F5> in the Expression of Work text box
- ✓ Select **Create New Expression**
- ✓ Select the appropriate template

Certain Expression data is provided as constant data because of the template you chose:

- Content Type:
Text
- Language of Expression:
English

Element Label	Text	RDA Rule	AAP
Expression			
RIMMF Identifier °	mkp00000257	no rule	
Attributes for identifying the Expression †			
Content Type	Text	6.9	<input checked="" type="checkbox"/>
Language of Expression	English	6.11	<input type="checkbox"/>
Date of Expression	2013	6.10+	<input type="checkbox"/>
Other Distinguishing Characteristic of the Expression		6.12	<input type="checkbox"/>
Attributes for describing content of the expression †			
Summarization of the Content		7.10	
Illustrative Content		7.15	
Colour Content		7.17	
Supplementary Content		7.16	
Metadata about Expression data †			
Authorized Access Point °	Can we talk? (Compilation : 2013). Text	6.27.3	
Variant Access Point °		6.27.4.5	
Status of Identification		5.7.1	
Source Consulted	Can we talk?, 2013	5.8	
Cataloguer's Note		5.9	
Relationships †			
Work Expressed	Can we talk? (Compilation : 2013) <mkp00000256>	17.6+	<input checked="" type="checkbox"/>
Manifestation of Expression	Can we talk? Pearson. [2013]. Volume <mkp00000255>	17.9+	
Contributor ×		20.2+	
Related Expression ×		26.1+	

Other data will be auto-filled for you by the “Build WEM” process from data that you provided in the Work or Manifestation:

- Date of Expression (from Date of Work)
- Authorized Access Point (from the AAP of the Work + Content Type)
- Source Consulted (from Title Proper and Date of Publication)

- ✓ Enter **fully established** for “Status of Identification”
- ✓ Add other attributes as needed, such as:
 - illustrative content
 - color content
 - supplementary content

Notice any entities in the statement of responsibility. Is there an editor? An illustrator? These are contributors and can be added as relationships at the Expression level.

Add a Link in the Expression to a Contributor

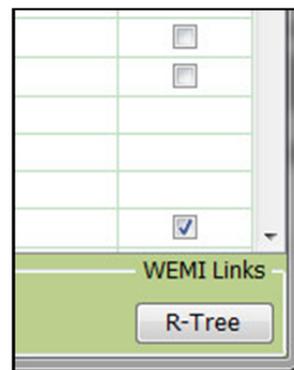
- ✓ Press <F4> to create a new field (if it is not already in the template), and type **Contributor**.

Once you’ve selected “Contributor,” the more specific relationship designators for type of contributor become available (this example assumes you are adding an editor)

- ✓ Change the “Contributor” label to “Editor” or another relationship designator, as appropriate
 - Click on the label, type **edi** and select **Editor**
 - <Tab> to the text box
 - Click in the Text box for “Editor”
 - Press <F5>
 - Click on **Link to (EI)**
 - Select **Name of Person**
 - See instructions on p. 5 above for what to do if the Person is not in the Entity Index.
 - Save the record

View the R-Tree

- ✓ Click on **R-Tree**, from the Work record



- Click on the **Person** heading
- Press <Ctrl> + <R> to switch to the R-Tree for the Creator
- Examine all relationships to be sure that they are accurate

Notice that the relationship labels are correctly given as “Author of,” etc., based on the relationship designators chosen at the Work and/or Expression level.

- ✓ Close everything, if you are finished

Creating a Description in BIBFRAME

Alert!

In this demonstration, we are using the current production version of the BIBFRAME Editor, which is intended for internal LC testing only.

In Appendix C at the end of this material, you will find a link to an external version of the Editor which you are welcome to experiment with, and please remember to report the results of your experimentation.

Brief Overview of the BIBFRAME Editor

The Editor contains “Profiles” -- templates -- for each of the types of resources you see at the left. For each, you can select one of three profiles -- “Work,” “Instance,” or “Work/Instance.”

- ✓ In this exercise, we will select the **Work/Instance** profile, which affords the greatest flexibility for recording the greatest range of cataloging elements.

The profile is divided into the WEMI entities -- Work, then Expression, then Manifestation. This is intended to help you use your knowledge of FRBR/RDA to find the appropriate field in which to enter data (there is – *duh!* -- no ‘tag list’ such as you find in a MARC-based system).¹

Each element is labeled in blue with its RDA name and instruction number. And – here is a *really* helpful feature – each of the links takes you right to that instruction in the RDA Toolkit.

- *The vocabulary in the Editor is the **RDA** vocabulary, because that is what you know. What you don’t see is the behind-the-scenes **BIBFRAME** vocabulary. So the result is that you create a BIBFRAME ‘record’ -- without necessarily knowing BIBFRAME.*

Four different types of ‘fields’ are used to enter data:

- A direct-entry field, in which you simply type data and then click on the “+” sign.; two examples of this are “Illustrative Content” and “Statement of Responsibility”
 - A dialog field, in which you click on the shaded button and type the appropriate data; two (slightly different) examples of this are “Principal Creator” and “Publication Statement.” In some of these (e.g., “Creator”), the dialog offers an opportunity to search for an authorized form or term.
 - A direct-entry field pre-populated with ‘default’ text; an example is “Content Type”
 - A direct-entry field in which you click to select (or type and then select) from a menu of possible values; an example of this is “Language of Expression”
- *For the purposes of this exercise, we will assume that there is no BIBFRAME description available – we are starting “from scratch.”*

¹ It has been our experience that knowing FRBR and RDA solidly is a great advantage in using the Editor. Those who struggle with RDA are likely to struggle with where to enter data in the Editor.

As in current MARC-based systems, it does not really matter where in the profile you start.

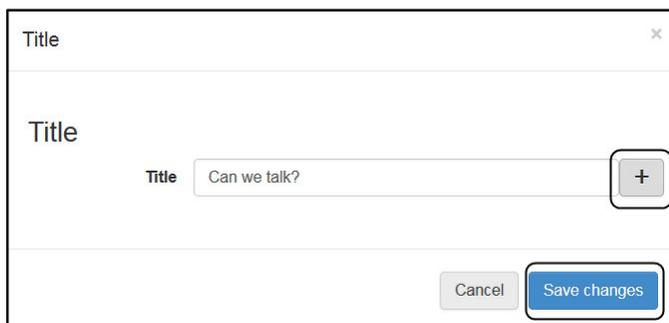
We’ll start with the Manifestation because that is how many catalogers approach a resource.

Manifestation Elements

- ✓ Click on the Title Proper button and type:

Can we talk?

- Then click on both the + and **Save changes**



The title displays, with two additional buttons, used to edit or delete the element:

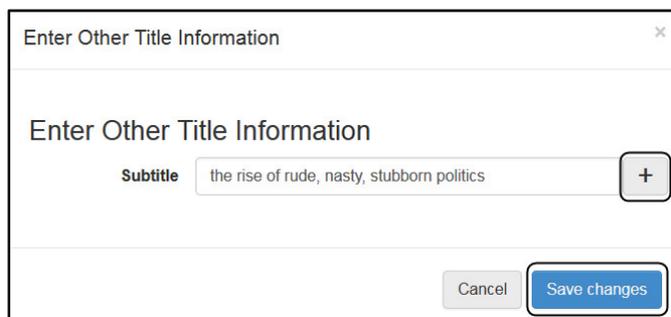


- ✓ Click on the Other Title Information button

In the text box, type:

the rise of rude, nasty, stubborn politics

- Then click on both the + and **Save changes**

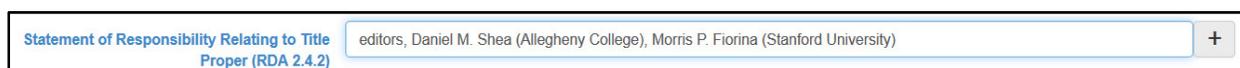


- Again: after the element is saved, you can click on the pen to edit or the trash can to delete the element
- You can ‘hover’ the cursor over the element to read the complete text in the tooltip

- ✓ Click in the Statement of Responsibility direct-entry box and type:

editors, Daniel M. Shea (Allegheny College), Morris P. Fiorina (Stanford University)

- Then click on the +



- ✓ Click on the Publication Statement button to enter its three sub-elements in a single dialog:
 - Click in each box and type the appropriate data
 - Be sure to click on the + after each sub-element!
 - And be sure to click on **Save Changes** after you have “plused” each sub-element!

- Note that the display looks unusual, because we did not enter the punctuation separating sub-elements. We did this precisely because they ARE different sub-elements (we will see how they display in the ‘record’).

If we had chosen to record more than one place of publication for this resource (as on the title page), we could have done one of the following:

- include the separating “[space]; [space]” between places
- enter one place, click on the +, enter another place, and click on the + again.

- ✓ Click in the Copyright Date box
 - Type <Ctrl>+<Alt>+6 to produce the © symbol (*called for by RDA*)
 - Type **2013**
 - Then click on the +

- ✓ Click in the Mode of Issuance box to select **single unit** from the menu

- ✓ We can simply accept the defaults for Media Type and Carrier Type. Nothing further needs to be done with these.

- ✓ Click in the Extent box and type:
vi, 217 pages

- Then click on the +

The screenshot shows a text input field with the label "Extent (RDA 3.4)". The text "vi, 217 pages" is entered. To the right of the text are two icons: a yellow pencil (edit) and a red trash can (delete).

- ✓ Click in the Dimensions box and type:
23 cm

- Then click on the +

The screenshot shows a text input field with the label "Dimensions (RDA 3.5)". The text "23 cm" is entered. To the right of the text are two icons: a yellow pencil (edit) and a red trash can (delete).

- ✓ Click in the Call Number box and type:
JK1726.C36 2013

- Then click on the +

The screenshot shows a text input field with the label "Call Number". The text "JK1726.C36 2013" is entered. To the right of the text are two icons: a yellow pencil (edit) and a red trash can (delete).

Work and Expression Elements

How will we enter these Work and Expression elements (and perhaps other optional ones)?

- Preferred Title
- Subjects
- Related Works
- Contents Note
- Content Type
- Language of Expression
- Illustrative Content
- Supplementary Content
- Contributors

BIBFRAME has no “Expression” entity. But the Editor has been designed so you can use your knowledge of the FRBR structure underlying RDA to see where to enter these elements. We will scroll to the top of the profile and work down through the “Work” elements and then the “Expression” elements.

- ✓ Click on the “Preferred Title for the Work” Title button and type
Can we talk?

- Then click on both the + and **Save changes**

The screenshot shows a text input field with the label "Preferred Title for the Work (RDA 6.2.2)". The text "Can we talk?" is entered. To the right of the text are two icons: a yellow pencil (edit) and a red trash can (delete).

- ✓ Click on the Subjects button next to “Subject of the Work” to enter the *first* subject:

This full string is not represented by an authority record, so we need to use the “Input” function:

- ✓ Click in the “Input Subject” box and type:

**Political culture—United States—
History—21st century**

- Then click on both the + and **Save changes**

- Remember that you can hover the cursor over the text box to review the entire content of the element

- ✓ Click on the Subjects button again to enter the *second* subject:

Again, this full string is not represented by an authority record, so we’ll use the “Input” function:

- ✓ Click in the “Input Subject” box and type:

Politics, Practical—United States—History—21st century

- Then click on both the + and **Save changes**

- ✓ Click on the Subjects button again to enter the *third* subject:

Again, this full string is not represented by an authority record, so we’ll use the “Input” function:

- ✓ Click in the “Input Subject” box and type:

Courtesy—Political aspects—United States—History—21st century

- Then click on both the + and **Save changes**

The Editor now displays all three subjects you have input:

“Related Works” Elements

RDA and LC-PCC PS 25.1 direct that, for a resource such as this, we should:

“give an analytical authorized access point for the predominant or first work in the compilation when it represents a substantial part of the resource”

We could disagree about whether the first part of this whole represents a “substantial” part of this resource, and whether recording a Contents Note would be burdensome. But for the sake of practicing the entering of these data elements, we will put those discussions aside.

- ✓ Click on the Related Works button

In the “Record...” box, type:

Container of (work): Shea, Daniel M. Can we talk?

- Then click on the + and **Save changes**

- ✓ Click in the Contents Note box and type: (to save time, we will only type the first two parts) **Chapter 1. Can we talk? The rise of rude, nasty, stubborn politics / Daniel M. Shea and Morris P. Fiorina – Chapter 2. The powerful – if elusive -- nature of civility / Susan Herbst**

- Then click on the +

The next set of elements are entered in the “Expression” area of the profile.

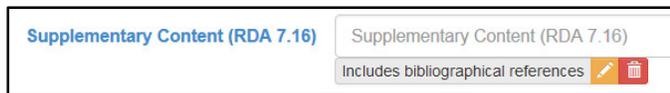
- ✓ Click in the Content Type box
 - ✓ We can accept the default of **text**, but we will also apply the option to add an additional type for the illustrations
 - Type **st** and select **still image**.

The Editor now displays both Content Type values

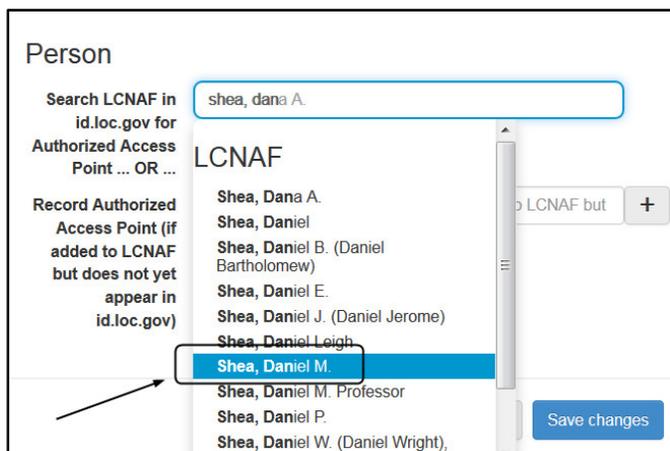
- ✓ Click in the Language of Expression box, type **eng**, and select **English**

- ✓ Click in the Illustrative Content box and type **illustrations**

- ✓ Click in the Supplementary Content box and type
Includes bibliographical references

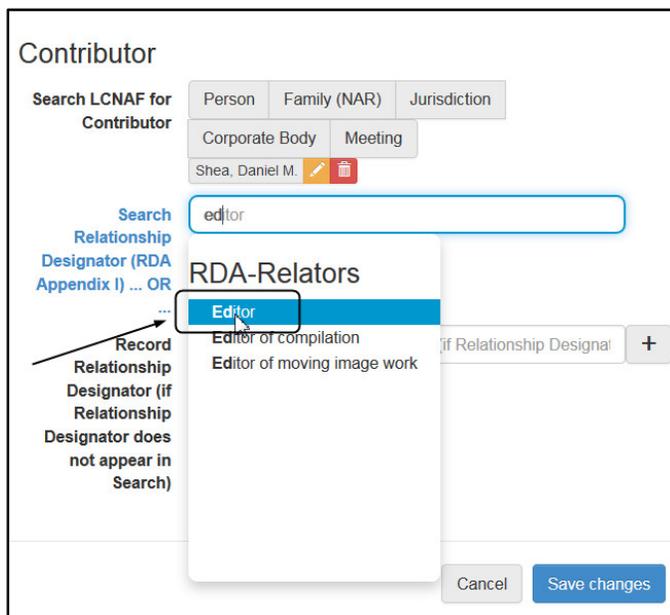


- ✓ Click on the Contributor button to record the first editor
 - ✓ Click on the Person button
 - ✓ Click in the “Search...” box
 - Type **shea, dan**
 - Select **Shea, Daniel M** from the list
 - Click on the + at the end of the “Record ...” box (selecting from a menu equates to ‘recording’)
 - Click on **Save changes**



A Relationship Designator is not required for this contributor. But we will see how to record one in the BIBFRAME Editor:

- ✓ Click in the “Search Relationship Designator” box
 - Type **ed**
 - Select **Editor** from the list
 - Click on the + at the end of the “Record ...” box
 - Click on **Save changes**



Repeat these steps for the second editor.

The Editor now displays both editors under the “Contributor” button:



!!! There is no current capability to retrieve a record created earlier. Therefore, it is especially important to “Preview” and analyze the record before clicking on “Save” (in fact, you *cannot* “Save” the record except from the “Preview” view).

- ✓ Click on Preview
- ✓ Click on Save

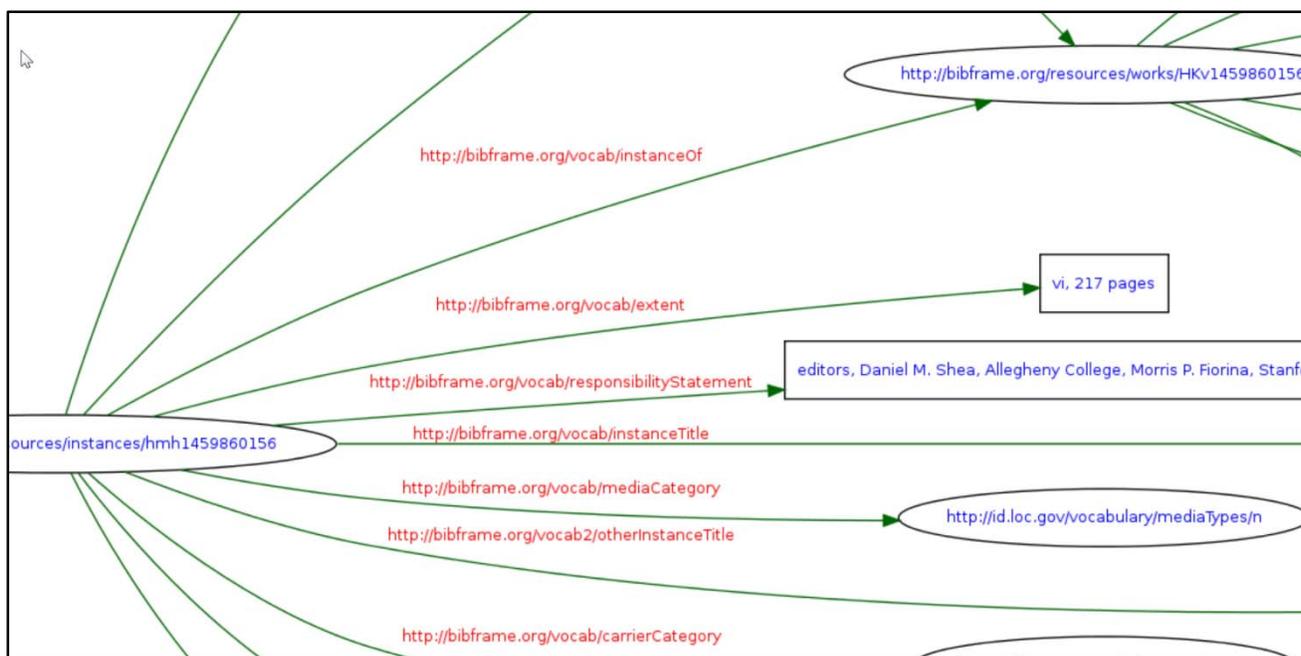
Exporting BIBFRAME to RDF

The preview shows the BIBFRAME data in JSONLD-Expanded format. The JSONLD can be copied in its entirety and pasted into an RDF translator to convert it from JSONLD to RDF XML. A common free conversion tool is RDF Translator <http://rdf-translator.appspot.com/> After converting from JSONLD to RDF XML, the data can be copied and pasted into the W3C Validation service: <https://www.w3.org/RDF/Validator/rdfval> The data can then be “parsed” into triples (table below) and an RDF graph (portions on the following pages).

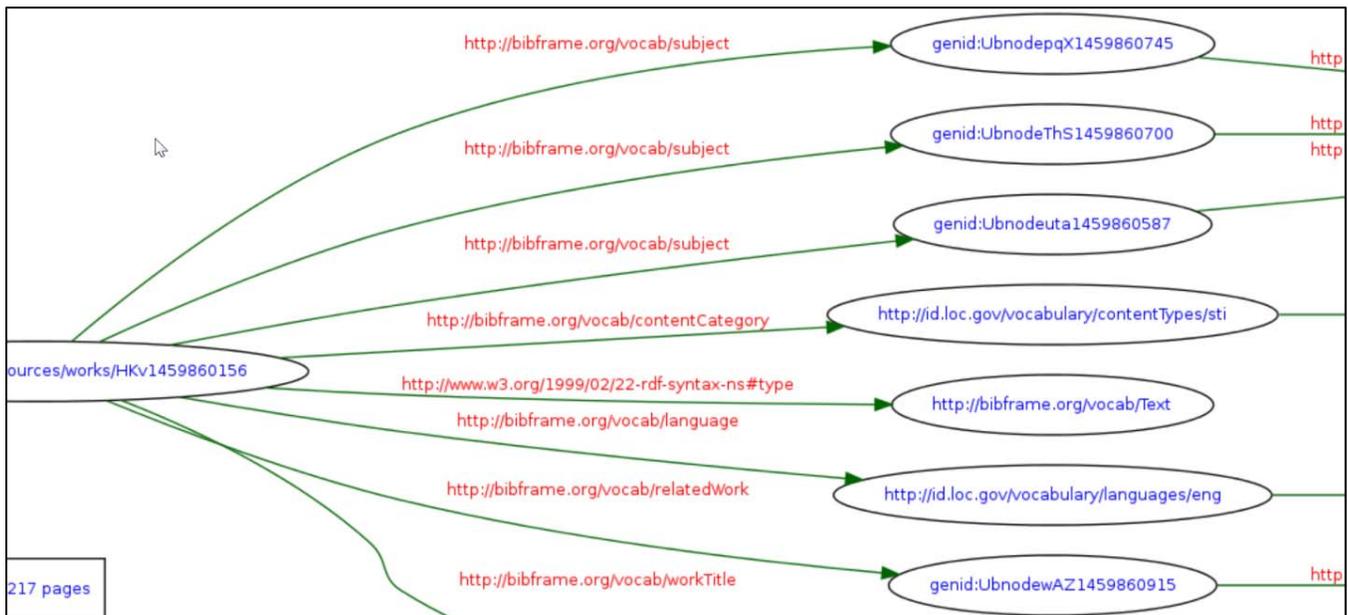
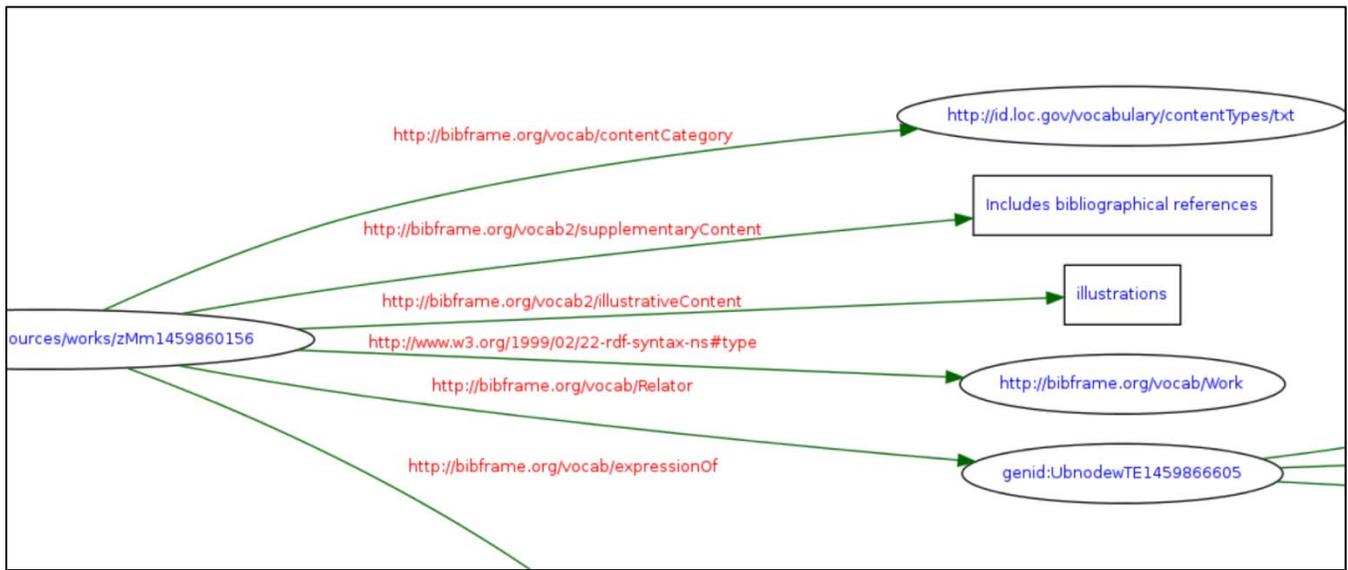
BIBFRAME Triples

Subject	Predicate	Object
http://bibframe.org/resources/instances/hmh1459860156	http://bibframe.org/vocab2/otherInstanceTitle	genid:Ubno
http://bibframe.org/resources/instances/hmh1459860156	http://bibframe.org/vocab/mediaCategory	http://id.
http://bibframe.org/resources/instances/hmh1459860156	http://bibframe.org/vocab/instanceTitle	genid:Ubno
http://bibframe.org/resources/instances/hmh1459860156	http://bibframe.org/vocab/carrierCategory	http://id.
http://bibframe.org/resources/instances/hmh1459860156	http://bibframe.org/vocab/instanceOf	http://bib
http://bibframe.org/resources/instances/hmh1459860156	http://bibframe.org/vocab/copyrightDate	"©2013"
http://bibframe.org/resources/instances/hmh1459860156	http://bibframe.org/vocab/dimensions	"23 cm"
http://bibframe.org/resources/instances/hmh1459860156	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://bib
http://bibframe.org/resources/instances/hmh1459860156	http://bibframe.org/vocab/publication	genid:Ubno
http://bibframe.org/resources/instances/hmh1459860156	http://bibframe.org/vocab/extent	"vi, 217 p
http://bibframe.org/resources/instances/hmh1459860156	http://bibframe.org/vocab/responsibilityStatement	"editors, I Morris P. I
http://bibframe.org/resources/works/HKv1459860156	http://bibframe.org/vocab/workTitle	genid:Ubno
http://bibframe.org/resources/works/HKv1459860156	http://bibframe.org/vocab/subject	genid:Ubno
http://bibframe.org/resources/works/HKv1459860156	http://bibframe.org/vocab/contentCategory	http://id.
http://bibframe.org/resources/works/HKv1459860156	http://bibframe.org/vocab/language	http://id.
http://bibframe.org/resources/works/HKv1459860156	http://bibframe.org/vocab/relatedWork	genid:Ubno
http://bibframe.org/resources/works/HKv1459860156	http://bibframe.org/vocab/subject	genid:Ubno
http://bibframe.org/resources/works/HKv1459860156	http://bibframe.org/vocab/subject	genid:Ubno
http://bibframe.org/resources/works/HKv1459860156	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://bib

BIBFRAME Instance Graph (Fragment)



BIBFRAME Work/Expression Graph (Fragment)



Unit 3: Online Serial in RIMMF and BIBFRAME

Creating a Description in RIMMF – Creation by Import, Using <F3>

Find and View the Manifestation Record for Importing

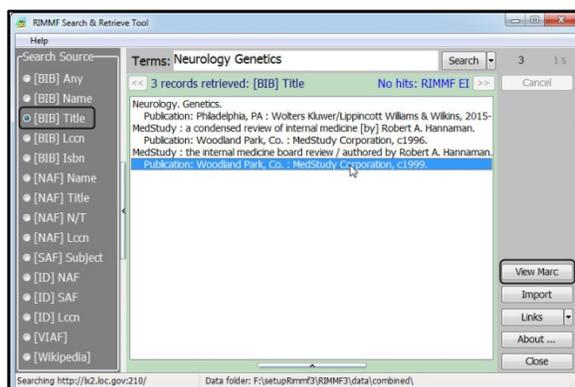
- ✓ Open RIMMF by double-clicking on the icon

This process starts with the assumption that the resource has already been cataloged using MARC. RIMMF is primarily searching the LC catalog and authority file.

- ✓ Press <F3>

You can search by Title, Name, ISBN, LCCN, or by ANY. Apply basic search skills: the more specific your strategy, the more successful your search.

- ✓ Change the Search Source to **[BIB] Title**
- ✓ Search for **Neurology Genetics**



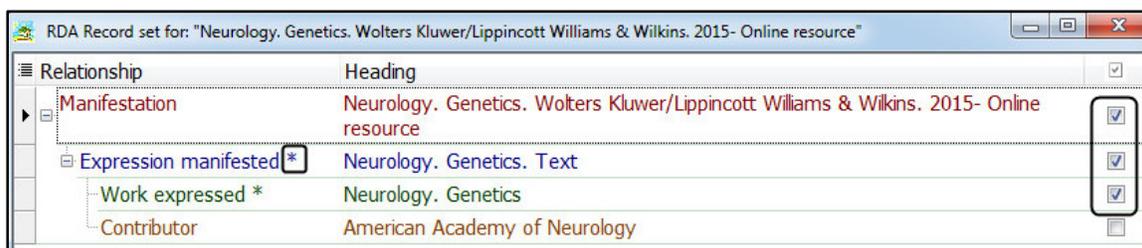
This retrieves several hits, but only one is the journal we are searching for.

- ✓ Click on **View MARC** to view the original MARC record and confirm it is the one you want.

This is a serial, which frequently has a 130 field. Anytime a bibliographic record has a 130 or a 240 field, a Work or Expression Authority record is possibly available, and you have the option of importing the Work and/or Expression *before* importing the Manifestation. This example will proceed on the assumption that you are NOT doing that (this specific example does *not* have a 130), but instead starting with a Manifestation import, as that is the more usual situation.

- ✓ Select the MARC record for the bibliographic record you have chosen
- ✓ Click on **Import** on the Search screen

This will bring in the Work/Expression/Manifestation complex of records for the MARC record. If a Work and/or Expression has already been brought in for that Manifestation, it will show them in this list, but the box on the right will not be marked. If there are Persons/Corporate Bodies/Families related to this Manifestation, they also will be brought in as part of the complex of records. All items with an asterisk in this list are being created by the RIMMF program.



- ✓ Click on the down arrow next to **Import** at the center bottom of the screen and select **Import selected records**, which imports all records with a checkbox marked on the right hand side of this screen.
- ✓ Click on **OK** for “X records imported”

The resulting screen shows a list of imported records. You may double-click on each record in order to open it and examine the metadata and be sure that it is in the correct location. You may also close this screen and open the records from the Entity Index.

In the MARC to RIMMF/RDA transition, certain things are assumed by necessity. For example, any 700 fields are assigned the role of contributor, even if that person is in fact a second author (i.e., a ‘creator’, in the FRBR/RDA conception). This means that you need to examine each record after import in order to confirm that it correctly reflects the information and relationships of the work in hand.

- ✓ Open the Manifestation record by double-clicking on the Manifestation title.
- ✓ Examine each attribute to be sure it accurately reflects the resource. Add, modify, or delete as necessary.

If you need to add an element not offered in the template, place the cursor on the field above where you want the new field to appear and press <F4>. Start typing the name of the element you need or simply look at the drop-down list of elements available.

- ✓ Click inside the “Extent Statement” field to change it from the imported phrase to the composed field.
- ✓ Check or uncheck the fields that can be added to the Composite Key, as needed
 - (This is a RIMMF field, and the Manifestation version of an Authorized Access Point)
 - Click inside the Composite Key field; it will change to reflect the elements that have been added or removed
- ✓ Save the record
- ✓ Do the same with the Expression and Work records. Clarify any relationship designators by adjusting the general terms to more specific terms, as applicable.
- ✓ Check or uncheck the fields that can be added to the Authorized Access Point.
- ✓ Click inside the Authorized Access Point to reflect elements that have been added or removed

View the R-Tree

- ✓ Click on **R-Tree**, from the Work record
 - Click on the **Person** heading
 - Press <Ctrl> + <R> to switch to the R-Tree for the Creator
 - Examine all relationships to be sure that they are accurate
- ✓ Close everything, if you are finished

Creating a Description in BIBFRAME

- *For the purposes of this exercise, we will assume that there is no BIBFRAME description available – we are starting “from scratch.”*
- *We know that there is no BIBFRAME description available, so there is no need to search for BIBFRAME resources. Again, we will use the “Work, Instance” profile.*

In the BIBFRAME “Work, Instance” profile, we can enter the RDA “Manifestation” elements:

Manifestation Elements

- ✓ Click on the Title Proper button and type:
 - Neurology. Genetics**
 - Then click on both the + and **Save changes**

The title displays, with two additional buttons used to edit or delete the element:

- ✓ Click on the Key Title button (This step assumes that you have access to the ISSN Portal and can confirm ISSN related data. An abbreviated key title has not been assigned.)

In the Key Title box, type:

- Neurology. Genetics**
- Then click on both the + and **Save changes**

After the element is saved, click on the pen to edit or the trash can to delete the element

- ✓ Enter the “Numeric and/or Alphabetic Designation of First Issue or Part of Sequence”
 - Click on the + after entering the data.

- ✓ Enter the “Chronological Designation of First Issue or Part of Sequence”
 - Click on the + after entering the data.

- ✓ Click on the Publication Statement button to enter its sub-elements in a single dialog:
 - Click in each box and type the appropriate data
 - Be sure to click on the + after each sub-element!
 - And be sure to click on **Save Changes** after you have “plused” each sub-element!

- Note that the display looks unusual, because we did not enter the punctuation separating sub-elements. We did this precisely because they ARE different sub-elements (we will see how they display in the ‘record’).



- If we had chosen to record more than place of publication for this resource (as on the title page), we could have done one of the following:
 - include the separating “[space]; [space]” between place, *or*
 - enter one place, click on the +, enter another place, and click on the + again (*better?*)

- ✓ Click in the Mode of Issuance box to select **serial** from the menu
 - Then click on the +

- ✓ Click in the Frequency box and type **Bimonthly**
 - Then click on the +

- ✓ Click in the Note on Title box and type **Title from PDF cover**
 - Then click on the +

Note on Title (RDA 2.17.2)	Title from PDF cover.
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- ✓ Click in the Issue, Part, or Iteration Note box and type **Description based on Volume 1, Number 1 (June 2015) publishers web site, viewed March 10, 2016**
 - Then click on the +

Issue, Part, or Iteration Note (RDA 2.17.13)	Issue, Part, or Iteration Note (RDA 2.17.13)
	Description based on: Volume 1, number 1...

- ✓ Click again in the Issue, Part, or Iteration Note box and type **Latest issue consulted: Volume 2, Number 3 (June 2016) viewed March 10, 2016**

Issue, Part, or Iteration Note (RDA 2.17.13)	
Description based on: Volume 1, number 1...	Latest issue consulted: Volume 2, Number...

- ✓ We can simply accept the defaults for Media Type and Carrier Type. Nothing further needs to be done with these.

Media type (RDA 3.2)	Media type (RDA 3.2)
	computer

Carrier Type (RDA 3.3)	Carrier Type (RDA 3.3)
	online resource

- ✓ Click in the Call Number box and type **QP356.22**
 - Then click on the +

Call Number	Call Number
	QP356.22

Work and Expression Elements

How will we enter these Work and Expression elements (and perhaps other optional ones)?

- Principal Creators and other Creators
- Preferred Title
- Place of Origin
- Subjects
- Dewey Classification
- Content Type
- Language of Expression

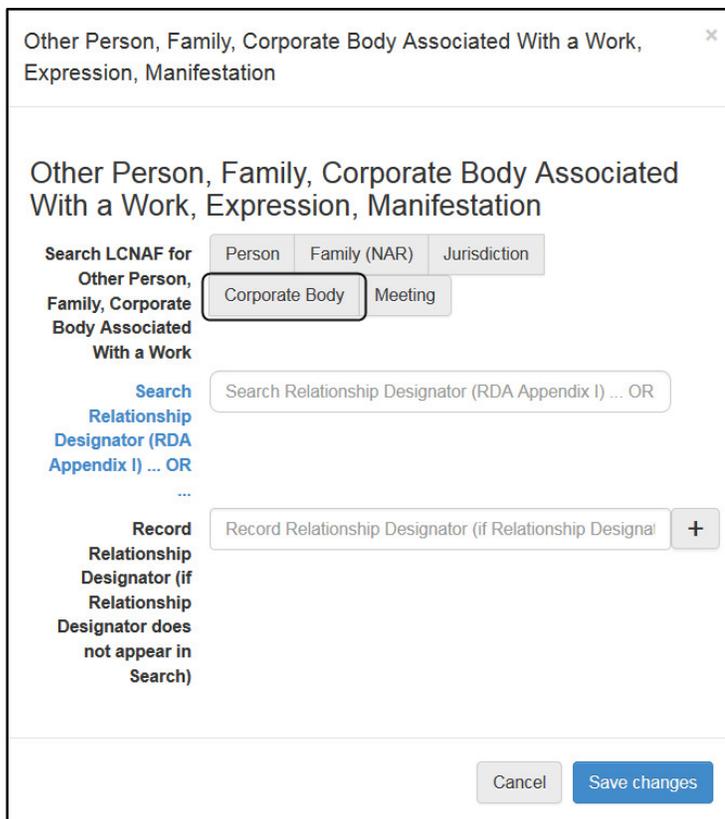
BIBFRAME has no “Expression” entity. But the Editor has been designed so you can use your knowledge of the FRBR structure underlying RDA to see where to enter these elements. We will scroll to the top of the profile and work down through the Work, and then Expression, elements.

This work doesn’t have a “Principal Creator” but has an issuing body that would be considered an “Other Person, Family, or Corporate Body Associated With a Work (RDA 19.3).”

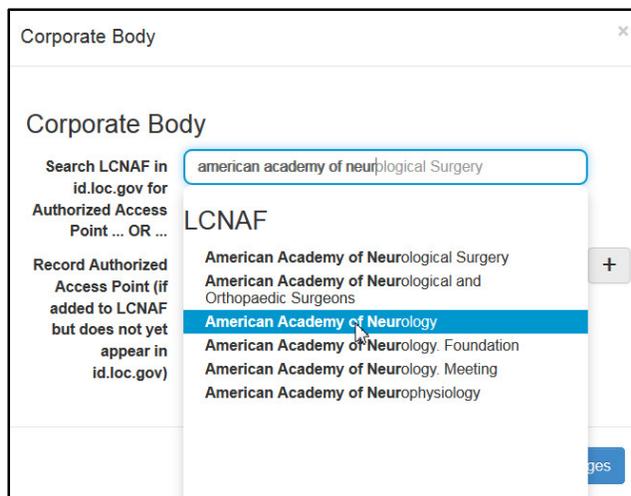
- ✓ Click on the Other Person, Family ... button



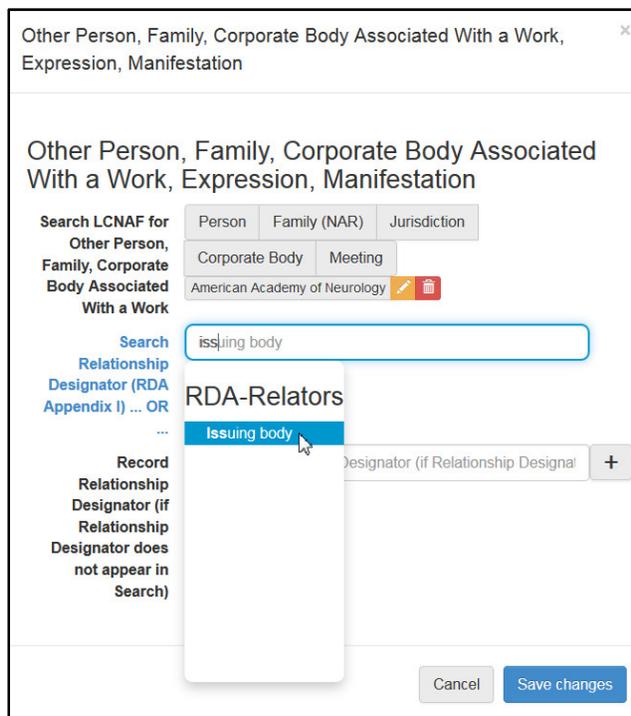
- ✓ Select “Corporate Body”



- ✓ Search for the corporate body in the Search LCNAF ... search box.
 - Type **american academy of neur**
 - Select the desired entity from the menu
 - Then click on the + and **Save changes**



- ✓ Search for the relationship designator in the “Search Relationship Designator ... ” box
 - Type **iss**
 - Select the desired term from the menu
 - Then click on the + and **Save changes**



The issuing body has now been recorded:

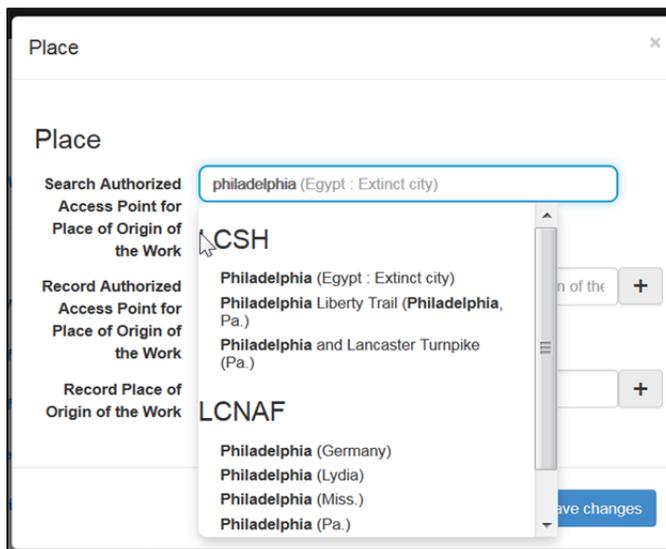


- ✓ Click on the Title button next to “Preferred Work Title” and type **Neurology. Genetics.**
 - Then click on both the + and **Save changes**



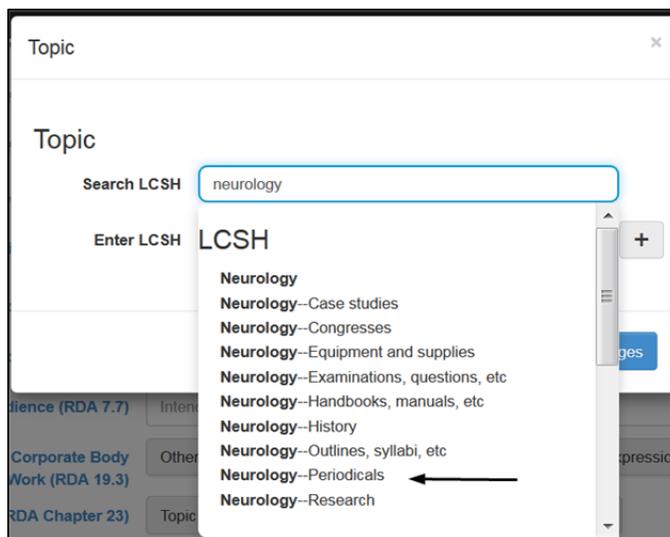
- ✓ Click on the Place button next to “Place of Origin of the Work.”
This dialog allows you to search for an authorized form of the place or to record the place of origin if known.

- Type **Philadelphia** and then select **Philadelphia, Pa.**
- Then click on **Save changes**



- ✓ Click on the Topic button next to “Subject of the Work” to enter the subject:

- Type **Neurology** and then select **Neurology—Periodicals**
- Then click on both the + and **Save changes**



The Editor now displays the subject heading you have input:



- ✓ Click on the “Dewey Classification Information” button.

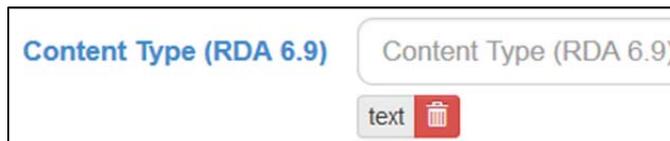


The default edition number is 23; there is no need to do anything if that is correct.

- Enter the Dewey Classification number
- Then click on both the + and **Save changes**

The next few elements are entered in the “Expression” area of the profile.

- ✓ Click in the Content Type box
 - ✓ We can accept the default of **text**



- ✓ Click in the Language of Expression box, type **eng** and select **English**



- ✓ Click on Preview

Exporting BIBFRAME to RDF

The preview shows the BIBFRAME data in JSONLD-Expanded format. The JSONLD can be copied in its entirety and pasted into an RDF translator to convert it from JSONLD to RDF XML. A common free conversion tool is RDF Translator <http://rdf-translator.appspot.com/>

After converting from JSONLD to RDF XML, the data can be copied and pasted into the W3C Validation service: <https://www.w3.org/RDF/Validator/rdfval> The data can then be “parsed” into triples (table below) and an RDF graph (portions on the following pages).

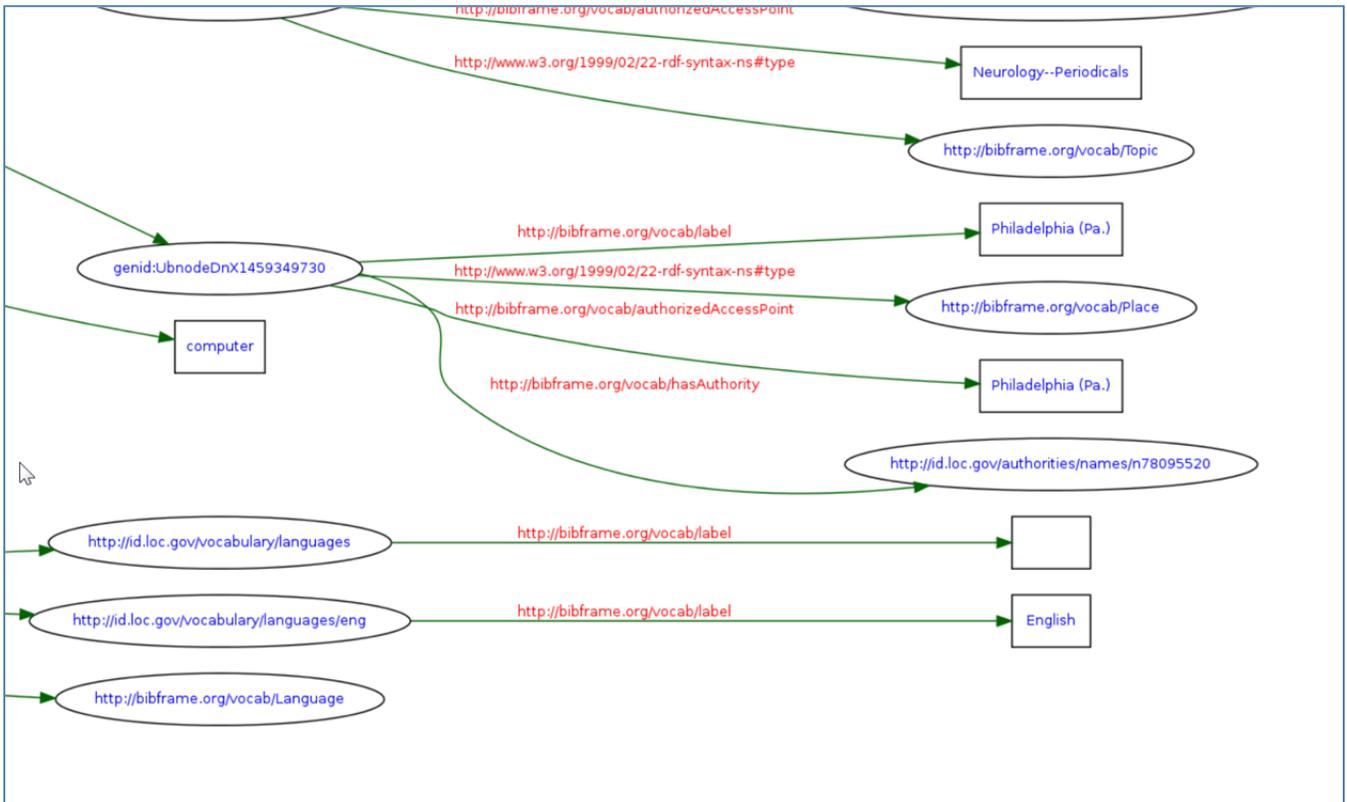
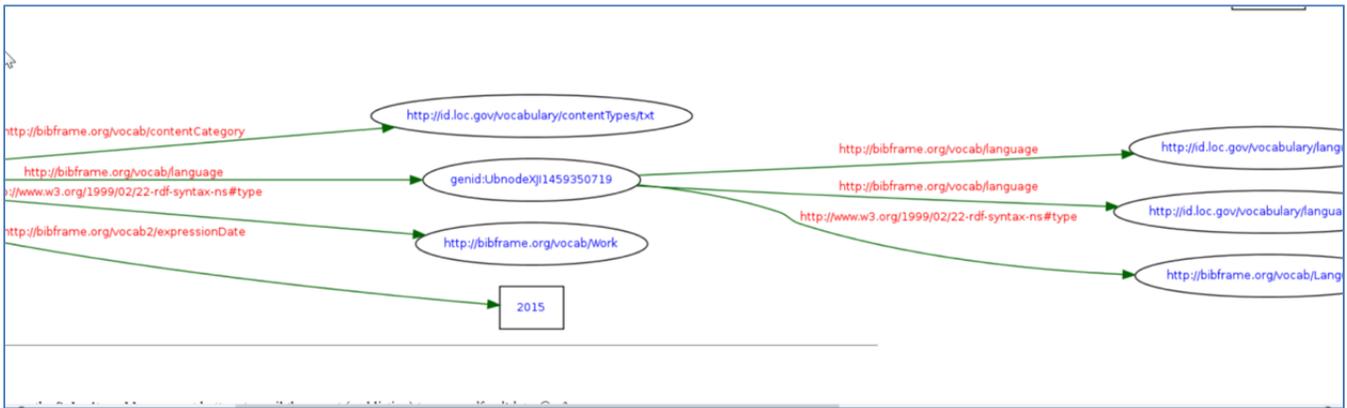
BIBFRAME Triples

Subject	Predicate	Object
genid:UbnodeDnX1459349730	http://bibframe.org/vocab/hasAuthority	http://id.loc.gov/authorities/names/n78095520
genid:UbnodeDnX1459349730	http://bibframe.org/vocab/label	"Philadelphia (Pa.)"@en
genid:UbnodeDnX1459349730	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://bibframe.org/vocab/Place
genid:UbnodeDnX1459349730	http://bibframe.org/vocab/authorizedAccessPoint	"Philadelphia (Pa.)"@en
genid:UbnodePNx1459341460	http://bibframe.org/vocab/titleValue	"Neurology. Genetics."
genid:UbnodePNx1459341460	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://bibframe.org/vocab/Title
genid:UbnodeYHN1459350797	http://bibframe.org/vocab/issn	"2376-7839"
genid:UbnodeYHN1459350797	http://bibframe.org/vocab/issnL	"2376-7839"
genid:UbnodeYHN1459350797	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://bibframe.org/vocab/identifier
http://bibframe.org/resources/works/SoL1459255268	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://bibframe.org/vocab/Text
http://bibframe.org/resources/works/SoL1459255268	http://bibframe.org/vocab/subject	genid:UbnodeFyz1459341990
http://bibframe.org/resources/works/SoL1459255268	http://bibframe.org/vocab/originPlace	genid:UbnodeDnX1459349730
http://bibframe.org/resources/works/SoL1459255268	http://bibframe.org/vocab/workTitle	genid:UbnodePNx1459341460
http://bibframe.org/resources/works/SoL1459255268	http://bibframe.org/vocab/classificationDdc	genid:UbnodempW1459436610
http://bibframe.org/resources/instances/Anw1459255268	http://bibframe.org/vocab/carrierCategory	http://id.loc.gov/vocabulary/carriers/cr
http://bibframe.org/resources/instances/Anw1459255268	http://bibframe.org/vocab/keyTitle	genid:UbnodeuXg1459350835
http://bibframe.org/resources/instances/Anw1459255268	http://bibframe.org/vocab/identifier	genid:UbnodeYHN1459350797
http://bibframe.org/resources/instances/Anw1459255268	http://bibframe.org/vocab/lccn	genid:UbnodeOnv1459424127
http://bibframe.org/resources/instances/Anw1459255268	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://bibframe.org/vocab/Serial
http://bibframe.org/resources/instances/Anw1459255268	http://bibframe.org/vocabs/serialFirstIssueDate	"June 2015"
http://bibframe.org/resources/instances/Anw1459255268	http://bibframe.org/vocab/instanceOf	http://bibframe.org/resources/works/SoL1459255268
http://bibframe.org/resources/instances/Anw1459255268	http://bibframe.org/vocab/note	"Description based on: Volume 1, number 1 (June 2015); publisher's Web site, viewed Nov. 2, 2015."
http://bibframe.org/resources/instances/Anw1459255268	http://bibframe.org/vocab/serialFirstIssue	"Volume 1, Number 1"
http://bibframe.org/resources/instances/Anw1459255268	http://bibframe.org/vocab/note	"Latest issue consulted: Volume 2, Number 3 (June 2016) (viewed March 10, 2016)."
http://bibframe.org/resources/instances/Anw1459255268	http://bibframe.org/vocab/mediaCategory	http://id.loc.gov/vocabulary/mediaTypes/c
http://bibframe.org/resources/instances/Anw1459255268	http://bibframe.org/vocab/instanceTitle	genid:Ubnodekwh1459256157
http://bibframe.org/resources/instances/Anw1459255268	http://bibframe.org/vocab/classificationLcc	"QP356.22"
http://bibframe.org/resources/instances/Anw1459255268	http://bibframe.org/vocab/note	"Title from PDF cover."
http://bibframe.org/resources/instances/Anw1459255268	http://bibframe.org/vocab/frequency	"Bimonthly"
http://bibframe.org/resources/instances/Anw1459255268	http://bibframe.org/vocab/publication	genid:Ubnodeks1459282037

BIBFRAME Instance Graph (Fragment)



BIBFRAME Work/Expression Graph (Fragment)





Unit 4: Notated Music in RIMMF and BIBFRAME

Creating a Description in RIMMF – Creating by Import, Not Using <F3>

Find and Export a Bib Record From Any Library Catalog

- ✓ Open RIMMF

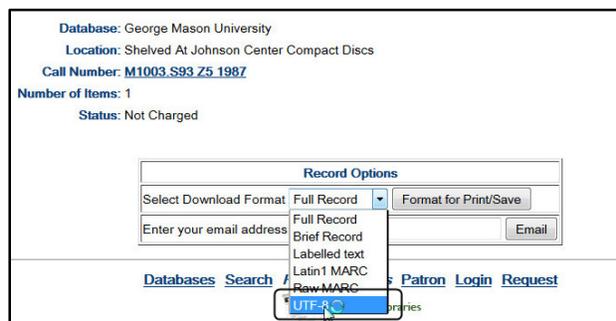
Start from the Main Menu

For the previous resource, we used <F3> to go to the LC public catalog and download and import a MARC record to RIMMF. For this resource, we will get records from any catalog that allows export of MARC records from the public catalog or for which you have cataloging access, and so can export a MARC record (e.g., from OCLC, if you are a member).

- ✓ In your browser, Go to: <http://catalog.loc.gov/>
- ✓ Search for a resource
- ✓ Open the record
- ✓ Click on the **Save Record** option (at the far left of the screen)
 - Save format: **MARC (Unicode/UTF-8)**
 - Click on **Save**
 - Save the record to somewhere where you can find it easily (e.g., your Desktop)

Unless you rename it, a record that you export from the LC catalog will be named **records.mrc**.

As mentioned earlier, you can do something similar from any open catalog that offers the UTF-8 MARC option to download. If you have to save it in a program such as Wordpad or Notepad, do so in a file ending with .mrc and make sure that you download the UTF-8 version, so that RIMMF can handle the diacritics.



Make sure that, after saving, it ends ONLY in .mrc and that the program hasn't added something like .txt to the end of it. If the program has added that, simply Rename and delete that portion of the name. (e.g., change the filename **record.mrc.txt** to **record.mrc**).

Import the Bib Record

- ✓ Find the saved record
- ✓ Drag and drop the record onto the RIMMF home screen.



From this point on, the process works exactly like the <F3> import seen in the previous Unit.

- ✓ Click on the down arrow next to the **Import** button
- ✓ Select **Import selected records**
- ✓ Click on **OK** for “X records imported”

The resulting screen shows a list of imported records. You may double-click on each record to open it and examine the metadata and be sure that it is in the correct location. You may also close this screen and open the records from the Entity Index.

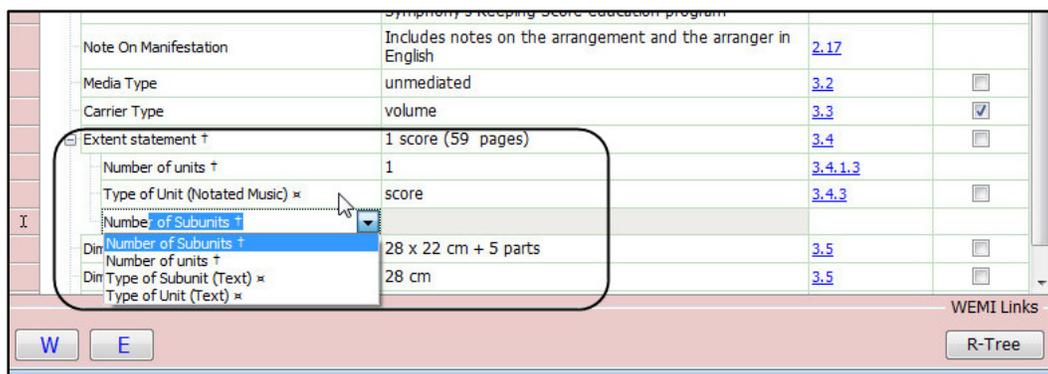
In this specific example, I am importing a music score of *The rite of spring*, by Igor Stravinsky, which I exported as a bibliographic file from OCLC (ARN # 944289946). Recalling what was said earlier about importing a record with uniform titles, I *first* searched under the NAF N/T in to import the Work record for *The rite of spring*, as well as the NAR for Igor Stravinsky, so that RIMMF would not have to create the Work record, but would instead use the authority record, with all the variants available. This means that when I import the score record from my Desktop, RIMMF will recognize the Work and Person in the database, and not re-import them. If I did not do this, the Work record would be created by RIMMF and not include the rich data already found in the authority record for this Work.

Remember that you need to examine each record after importation in order to confirm that it correctly reflects the information and relationships of the work in hand.

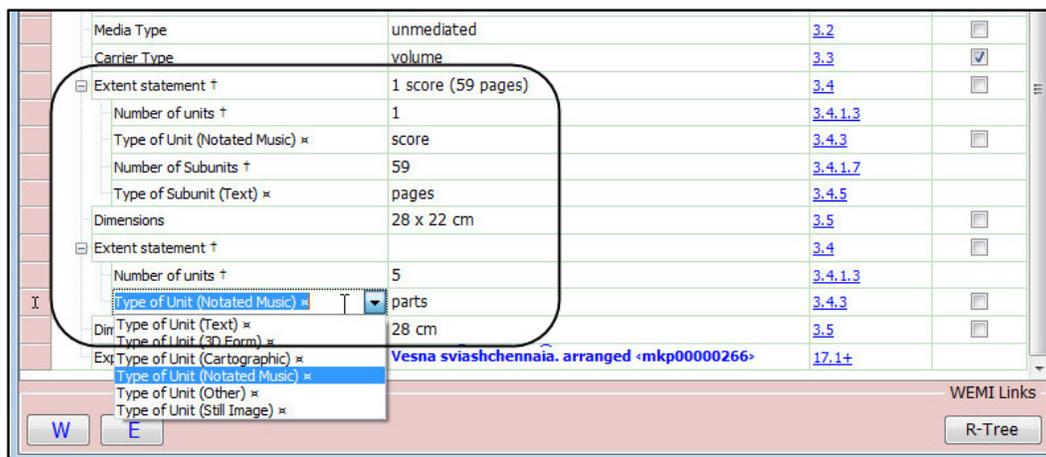
- ✓ Open the Manifestation record by double-clicking on the Manifestation title.
- ✓ Examine each attribute to be sure it reflects the resource. Add, modify, or delete as necessary.

If you need to add an element not offered in the template, place the cursor on the field above where you want the new field to appear and press <F4>. Start typing the name of the element you need or simply look at the drop-down list of elements available.

- ✓ Click in the “Extent Statement” field to edit it from the imported phrase to the composed field.
 - For a music score, there are two parts to this extent statement. Record the number of pages as a Number of Subunits and Type of Subunits (Text).
 - You also need to add a *second* extent statement for 5 parts. Use Number of Units and Type of Units (Notated Music).



- ✓ Clean up the Dimension statement by moving the **28 x 22 cm** after the Extent statement for the score and the **28 cm** after the Extent statement for the parts.
- ✓ Move attributes (e.g., note information) to the appropriate level of entity
- ✓ Check or uncheck the fields that can be added to the Composite Key, as needed.
- ✓ Save the record



Edit the Expression and Work Records

- ✓ Adjust any relationship designators from general terms to more specific terms, as applicable.
- ✓ Add “Medium of Performance of Musical Content” to the Expression record and paste in the note information from the Manifestation that applies to the Expression.
 - Remove “Sponsoring Body” from the Work entity
 - Why did we do this? It is because the sponsoring body is really the San Francisco Symphony’s Keeping Score educational outreach program, and not the San Francisco Symphony Orchestra itself. Optionally, a PCC cataloger could have established an authorized access point for the program, and then add that entity as a sponsoring body in this description. But in this case, the cataloger decided to omit the sponsoring body, since it was incorrect.
 - Check or uncheck the fields that can be added to the Authorized Access Point. Click inside the AAP field to reflect the elements that have been added or removed.

View the R-Tree

- ✓ Click on **R-Tree**, from the Work record
 - Click on the **Person** heading
 - Press <Ctrl> + <R> to switch to the R-Tree for the Creator
 - Examine all relationships to be sure that they are accurate
- ✓ Close everything, if you are finished

Creating a Description in BIBFRAME

- *For the purposes of this exercise, we will assume that there is no BIBFRAME description for the RDA expression available – we are starting “from scratch.”*

Let's start with the RDA work – The Rite of Spring.

- Remember that for the print monograph, we *started* with the Manifestation/Instance. BIBFRAME is ‘order-agnostic’ about the entering of individual elements.

There are some pitfalls with this resource. Rather than discard this example -- *which was a sound recommendation by people who know a lot more about this than I do!* -- let's look at the problems, for the sake of discussion. There is an RDA problem: as RDA is currently written, Medium of Performance is a Work attribute, not an expression attribute. But since we are describing an arrangement -- an RDA expression -- of another musical work, and our arrangement is for a different Medium of Performance, how are we going to include the Medium of Performance for this arrangement? In light of the JSC Music Working Group's RSC Discussion Paper (6JSC/MusicWG/Discussion/3, 31 July 2015 – titled Additional element for Medium of Performance of the Expression) and taking the FRBR LRM study into account, let's imagine that we can safely describe Medium of Performance for a musical expression.

We are only playing around here – this is not the real world.

The reason I suggest we play around is because of the BIBFRAME definition of “Work.” Remember that there is no such thing as a BIBFRAME expression. So in BIBFRAME terms, we have two works – the original ballet *Rite of Spring*, and the arrangement for wind quintet. In RDA terms, we only have one work and one expression of that original work. This dichotomy was one that kept coming up in the LC BIBFRAME Pilot, and it is yet to be fully resolved.

Another pitfall with this resource – and many of us who work with copy cataloging can relate to this – we discover that this arrangement of *Rite of Spring* is not “complete” – it is a woodwind arrangement of selections from *Rite of Spring* so we will need to add “Selections” to the preferred title.

And can you deal with one more complication? In researching the work, we discover that the arranger made two arrangements for woodwind quintet of *Rite of Spring*! In this example and in the following example, we are describing the longer of the two arrangements. But because we discovered that there are two arrangements for the same medium of performance, we will need to deal with conflict resolution as well.

Remember, these types of complications and pitfalls are not uncommon – you may have to deal with similar situations when cataloging other resources.

We'll first consider the RDA work and the first BIBFRAME work – Stravinsky's Rite of Spring.

Work Elements

Here is some information about the Work *Rite of spring* that we will use to populate the Work area of the BIBFRAME profile:

- Creator of Work (RDA 19.2)
 - Stravinsky, Igor, 1882-1971 (NAF)
- Preferred Title for a Musical Work (RDA 6.14.2)
 - Vesna sviashchennaia
- Variant Title for a Musical Work (RDA 6.14.3)
 - Rite of spring
- Form of Work (RDA 6.3)
 - Ballets (Music) (LCGFT)
- Date of Work (RDA 6.4)
 - 1913
- Place of Origin of the Work (RDA 6.5)
 - Clarens (Switzerland) (NAF)
- Medium of Performance of the Work (RDA 6.15)
 - Orchestra (LCMPT)

Expression Elements

Here is where things really get interesting ...

Our woodwind quintet arrangement of *Rite of Spring* is an RDA expression of the work for ballet. But in BIBFRAME terms, this *RDA expression* is a new *BIBFRAME work*.

To begin, after we have described the RDA work, we contemplate the RDA expression – with its own unique Medium of Performance (an RDA work element!)

Note the “non-RDA” hyperlink “Medium of Performance of the Musical Expression – 6JSC/MusicWG/Discussion/3”. Since Medium of Performance of the Musical Expression does not yet exist in RDA, the link goes to the JSC Music Working Group's RSC Discussion Paper.



We have the longer of the two arrangements for woodwind quintet, with some “doubling” (with piccolo for flute, and clarinet in B-flat for clarinet in A).

Here is a partial view of a very long input screen for Medium of Performance:

This is an experimental screen that is being tested not only in BIBFRAME, but also in the wider music community at large, as refinements are made in the Medium of Performance vocabulary as it will be used in Linked Open Data.

We won't fill this out now, in the interest of time. The lookups are linked to LCMPT – a controlled vocabulary developed by LC and the Music Library Association (MLA).

Medium of Performance: Individual Facets

Search Individual Instrument or Ensemble in LCMPT ... OR ...	Search Individual Instrument or Ensemble in LCMPT ... (
Record Individual Instrument or Ensemble	Record Individual Instrument or Ensemble +
Number of Parts: Individual Instrument ... AND/OR ...	Number of Parts: Individual Instrument ... AND/OR ... +
Number of Performers: Individual Instrument ... AND/OR ...	Number of Performers: Individual Instrument ... AND/OR ... +
Number of Players: Percussion ... AND/OR ...	Number of Players: Percussion ... AND/OR ... +
Number of Hands: Individual instrument ... AND/OR ...	Number of Hands: Individual instrument ... AND/OR ... +
Number of Ensembles	Number of Ensembles +
Search Doubling Medium of Performance ... OR ...	Search Doubling Medium of Performance ... OR ...
Record Doubling Medium of Performance	Record Doubling Medium of Performance +
Search Alternative Instrumentation Medium of Performance ... OR ...	Search Alternative Instrumentation Medium of Performa

- ✓ We can simply accept the Content Type, which is pre-programmed into the profile for Notated Music:

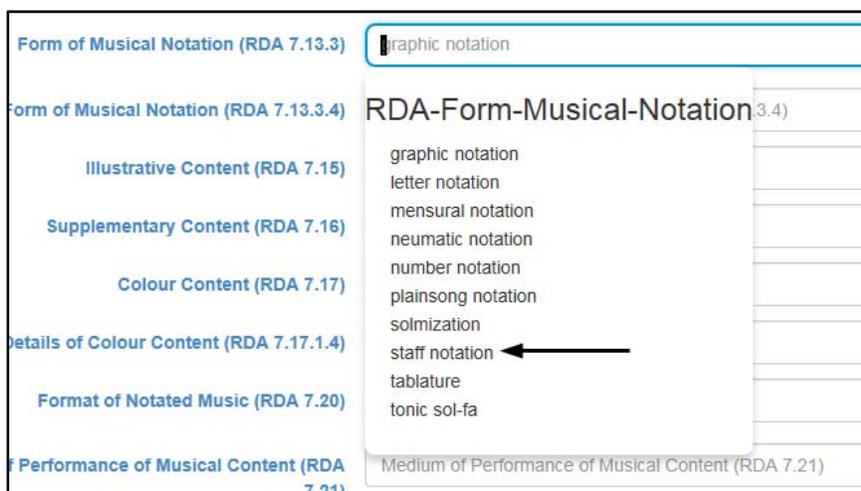


We can infer the Date of Expression from the manifestation date

- ✓ Click in the Date of Expression box and type **2013**
 - Be sure to click on the Plus signs to save all of the data!

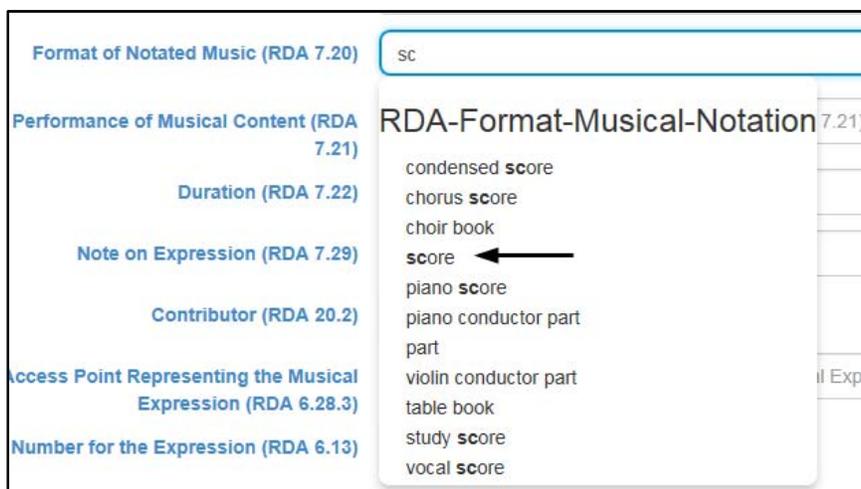
“Form of Musical Notation” is a controlled term.

- ✓ Click in the Form of Musical Notation box and type **sta**, then select the proper term (**staff notation**) from the list which the Editor looks up in RDA 7.13



“Format of Notated Music” is also a controlled term.

- ✓ Click in the Format of Notated Music box and type **sc**, then select the proper term (**score**) from the list which the Editor looks up in RDA 7.20 (this time the link is made to the RDA Registry -- <http://rdaregistry.info/termList/FormatNoteMus/>):



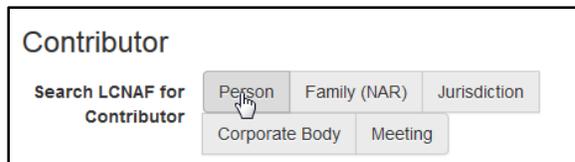
We have done a good job identifying the expression through its Medium of Performance, but what about the contributor who created the arrangement?

We can search for his name in the LC/NACO Authority File by clicking on Contributor. And we might consider adding a relationship designator as well ...

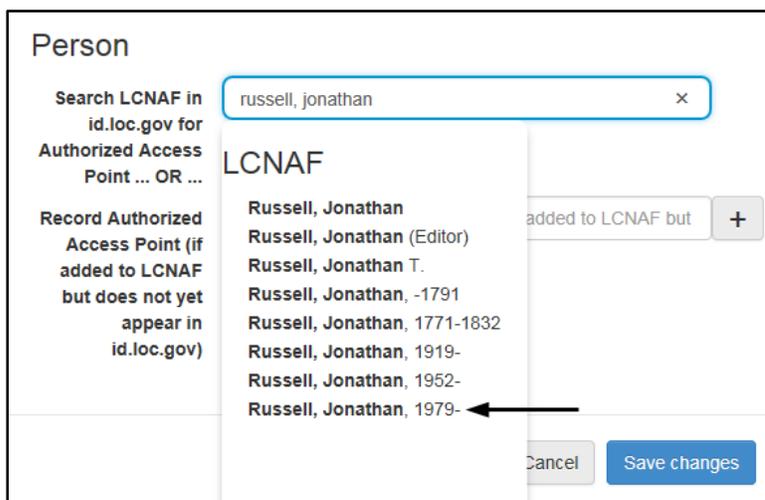
- ✓ Click on the Contributor button



- ✓ Click on the Person button

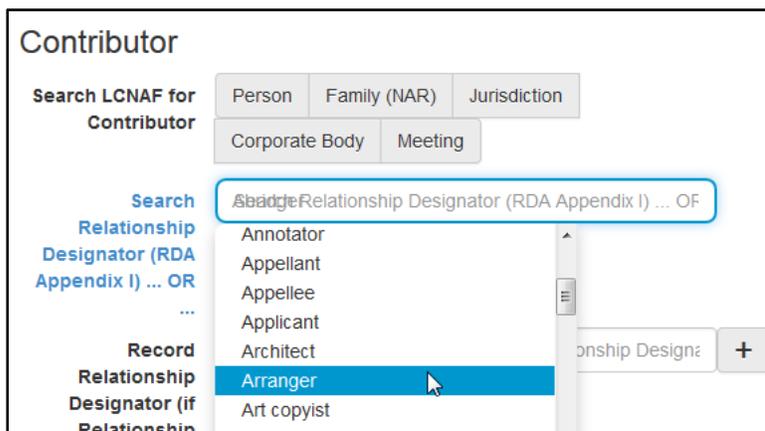


- ✓ Type **russell, jonathan** and select the correct person from the menu



- ✓ Click in the Search Relationship Designator box and type **arr**

“arranger” appears on the menu



But where is the “of music” extension that we see in RDA Appendix I?

There are some RDA relationship designators that are not in the lookup in id.loc.gov, so in this case, we can record the relationship designator as a “literal” and key it in explicitly:

- ✓ Click in the “Record Relationship Designator ... box”
 - Type **arranger of music** and click on the + sign

Now we can key in the authorized access point for our expression – but remember that this RDA expression is going to be a BIBFRAME work! And LC policy at this point is to make this an “undifferentiated” expression – that is why there is nothing added to the subfield \$o **arranged** to make this a unique expression authorized access point. And remember, we already have discovered that there are two arrangements by the same arranger, with the same medium of performance, for these selections from *Rite of Spring*!

- Remember to click on the + sign

Manifestation Elements

Most of the data that will be described in this part of the web-form follows the examples in the earlier resources, so we won’t go through those elements here. But there is some information that is unique to notated music cataloging, so let’s take a look at those elements:

The Extent of our resource consists of the score itself, plus five parts.
 RDA 3.4.3 “Extent of Notated Music” covers this unique extent statement:

- ✓ Click in the “Extent” box, type **1 score (59 pages)** and click on +
- ✓ Click again in the box, type **5 parts**, and click on the +

Did you notice that Number and Type of Units are included in the general Extent area of the profile?

There also is a Music Plate Number associated with this resource.

- ✓ Click on the button next to “Identifier for the Manifestation”

ISBN, ISMN, UPC, Music Publisher/Plate, Distributor Numbers

ISBN	<input type="text"/>	+
ISMN	<input type="text"/>	+
Universal Product Code (UPC)	<input type="text"/>	+
Music Publisher Number	<input type="text"/>	+
Music Plate Number	<input type="text"/>	
Music Distributor Number	<input type="text"/>	+

Cancel Save changes

- ✓ Click on the Music Plate Number button

- ✓ Click in the “Plate Number” box
 - Type **10016** and click on the + sign

Music Plate Number

Publisher Name (for example, Edward B. Marks Music Corporation)	<input type="text"/>	+
Scheme	<input type="text"/>	
Plate Number (for example, 12670-14)	<input type="text"/>	+
Plate Number and Publisher Name (recorded as in MARC 028 20 field, for example, 12670-14 Edward B. Marks Music Corporation)	<input type="text"/>	+

In most other respects in the Manifestation/Instance area, this resource is not unusual.

- ✓ Click on Preview

Exporting BIBFRAME to RDF

The Preview shows the BIBFRAME data in JSONLD-Expanded format. The JSONLD can be copied in its entirety and pasted into an RDF translator to convert it from JSONLD to RDF XML. A common free conversion tool is RDF Translator <http://rdf-translator.appspot.com/> After converting from JSONLD to RDF XML, the data can be copied and pasted into the W3C Validation service: <https://www.w3.org/RDF/Validator/rdfval> The data can then be “parsed” into triples (table below) and an RDF graph (portions on the following pages).

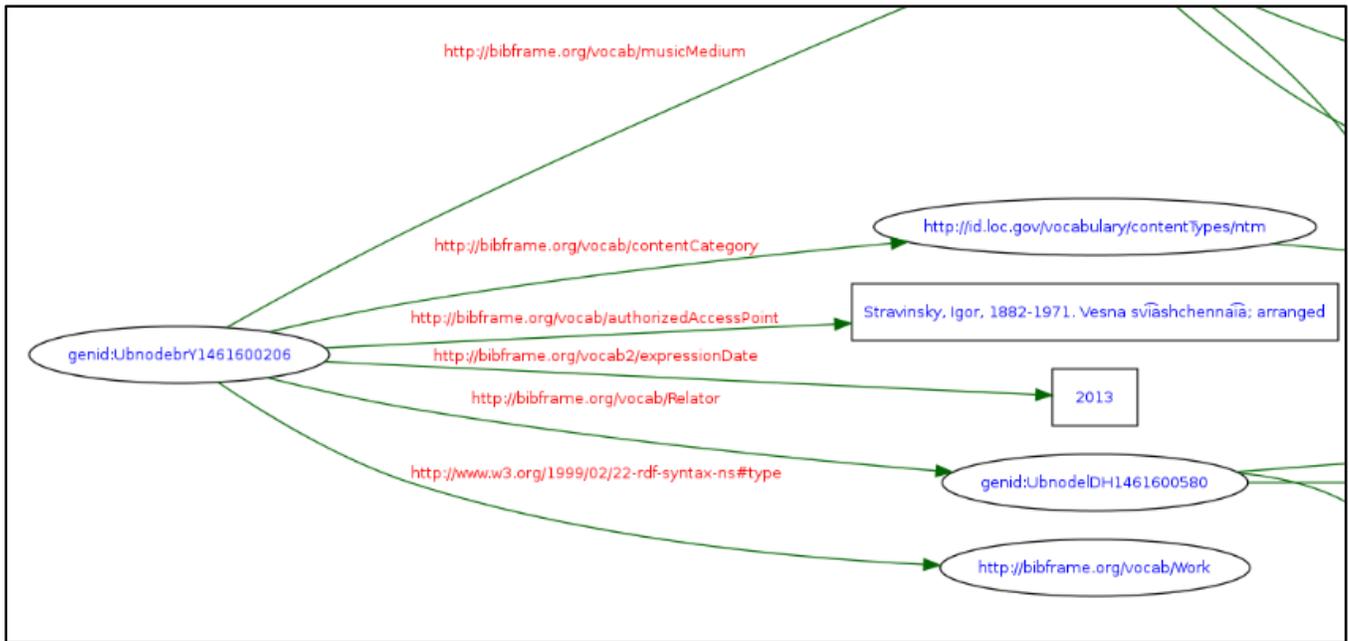
BIBFRAME Triples (Partial view—Literal values)

31	genid:UbnodeuQX1461600206	http://bibframe.org/vocab/mediaCategory	http://id.loc.gov/vocabulary/mediaTypes/n
32	genid:UbnodeuQX1461600206	http://bibframe.org/vocab/note	"Caption title"
33	genid:UbnodeuQX1461600206	http://bibframe.org/vocab/responsibilityStatement	"Igor Stravinsky"
34	genid:UbnodeuQX1461600206	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://bibframe.org/vocab/Instance
35	genid:UbnodeuQX1461600206	http://bibframe.org/vocab/responsibilityStatement	"arr. Jonathan Russell"
36	genid:UbnodeuQX1461600206	http://bibframe.org/vocab/carrierCategory	http://id.loc.gov/vocabulary/carriers/nc
37	genid:UbnodeuQX1461600206	http://bibframe.org/vocab/publication	genid:UbnodehPj1461600818
38	genid:UbnodeuQX1461600206	http://bibframe.org/vocab/dimensions	"28 x 22 cm"
39	genid:UbnodeuQX1461600206	http://bibframe.org/vocab/extent	"1 score"
40	genid:UbnodeuQX1461600206	http://bibframe.org/vocab/instanceOf	genid:UbnodeWLO1461600206
41	genid:UbnodeuQX1461600206	http://bibframe.org/vocab/extent	"59 pages"
42	genid:UbnodeuQX1461600206	http://bibframe.org/vocab/instanceTitle	"For woodwind quintet"
43	genid:UbnodeuQX1461600206	http://bibframe.org/vocab/classificationLoc	"M559.S913 V4 2013"
44	genid:UbnodeuQX1461600206	http://bibframe.org/vocab/extent	"5 parts"
45	genid:UbnodeuQX1461600206	http://bibframe.org/vocab/identifier	genid:UbnodeFPQ1461600901
46	genid:UbnodehPj1461600818	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://bibframe.org/vocab/Provider
47	genid:UbnodehPj1461600818	http://bibframe.org/vocab/providerPlace	"[Louisville, Kentucky]"
48	genid:UbnodehPj1461600818	http://bibframe.org/vocab/providerName	"Potenza Music Publishing"
49	genid:UbnodehPj1461600818	http://bibframe.org/vocab/providerDate	"[2013]"
50	genid:Ubnodefft1461600904	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://bibframe.org/vocab/Identifier
51	genid:Ubnodefft1461600904	http://bibframe.org/vocab/label	"10016 Potenza Music Publishing"
52	genid:Ubnodefft1461600904	http://bibframe.org/vocab/identifierValue	"10016"
53	genid:Ubnodefft1461600904	http://bibframe.org/vocab/identifierScheme	http://id.loc.gov/vocabulary/identifiers/musicPlate
54	genid:Ubnodefft1461600904	http://bibframe.org/vocab/identifierAssigner	"Potenza Music Publishing"
55	http://id.loc.gov/vocabulary/identifiers/musicPlate	http://bibframe.org/vocab/label	"Music Plate"

BIBFRAME Triples (Partial view—Targeted values)

17	genid:UbnodeWLO1461600206	http://bibframe.org/vocab/modeOfIssuance	http://z3950.org/relators/rm/docmode
18	genid:UbnoderVW1461600433	http://bibframe.org/vocab2/musicMediumDoubling	http://id.loc.gov/authorities/performanceMediums/mp2013015553
19	genid:UbnoderVW1461600433	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://bibframe.org/vocab/musicMedium
20	genid:UbnoderVW1461600433	http://bibframe.org/vocab2/musicMediumNumberOfPerformers	"5"
21	genid:UbnoderVW1461600433	http://bibframe.org/vocab2/musicMediumNumberOfParts	"5"
22	genid:UbnoderVW1461600433	http://bibframe.org/vocab2/musicMediumNumberOfEnsembles	"1"
23	genid:UbnoderVW1461600433	http://bibframe.org/vocab/musicMedium	"1"
24	genid:UbnoderVW1461600433	http://bibframe.org/vocab/musicMedium	http://id.loc.gov/authorities/performanceMediums/mp2013015154
25	genid:UbnoderVW1461600433	http://bibframe.org/vocab/musicMedium	http://id.loc.gov/authorities/performanceMediums/mp2013015268
26	genid:UbnoderVW1461600433	http://bibframe.org/vocab/musicMedium	http://id.loc.gov/authorities/performanceMediums/mp2013015074
27	genid:UbnoderVW1461600433	http://bibframe.org/vocab/musicMedium	http://id.loc.gov/authorities/performanceMediums/mp2013015342
28	genid:UbnoderVW1461600433	http://bibframe.org/vocab/musicMedium	http://id.loc.gov/authorities/performanceMediums/mp2013015507

BIBFRAME Instance Graph (Fragments)





Unit 5: MP3 Download in RIMMF and BIBFRAME

Creating a Description in RIMMF – Manual Creation, Using ‘Cloning’

Open RIMMF

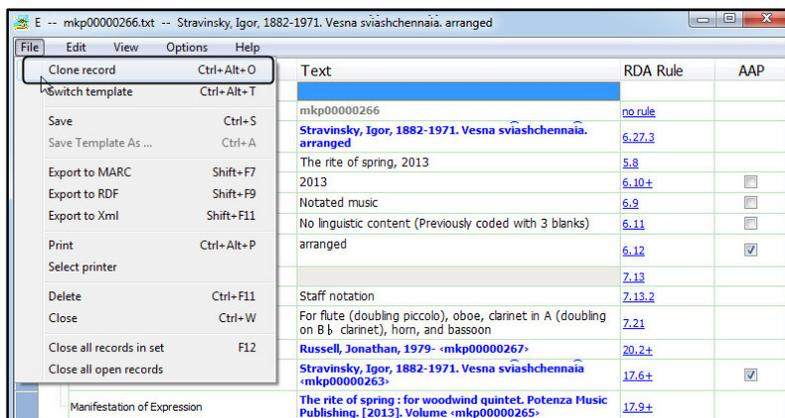
- ✓ Open RIMMF by double-clicking on the icon

Clone the Expression

Open a record for which you already have a Work/Expression/Manifestation. For this resource, we will open an already-created Expression, and clone that.

We have a record for the W/E/M complex for Stravinsky’s *The rite of spring*, the longer of two arrangements by Jonathan Russell. We will now add a new Expression for a *performance* of this arrangement, performed by the Imani Winds woodwind quintet.

- ✓ Open the Expression record you wish to use.
- ✓ Click on **File > Clone Record**; or press <Ctrl> + <Alt> + <o>.



- ✓ Select the appropriate template
- ✓ Click on **OK**
- ✓ Click on **Add record**

NOTE: You cannot edit the new, cloned record until you have added it.

Now, examine this record to see what needs to be added or changed in this new record.

Examine each attribute to be sure it accurately reflects the resource. Add, modify, or delete as necessary. Change field attributes by either making a different selection from a drop-down list or simply deleting what is in the field and typing the new information.

If you need to add an element not offered in the template, place the cursor on the field above where you want the new field to appear and press <F4>. Start typing the name of the element you need or simply look at the drop-down list of elements available.

- ✓ Record the “Duration” of **18 min., 59 sec.**
- ✓ Record the “Place of Capture” and “Date of Capture”
 - Davies Symphony Hall, San Francisco, CA
 - 2012 September 23
- ✓ Add the contributor Imani Winds, using <F3> to search
 - Change the relationship designator to “Performer” once the record for Imani Winds has been imported.

Metadata about Expression data †			
Authorized Access Point *	Stravinsky, Igor, 1882-1971. Vesna sviashchennaia. Performed music. arranged	6.27.3	
Variant Access Point *		6.27.4.5	
Status of Identification	fully established	5.7.1	
Source Consulted	https://itunes.apple.com/us/album/lite-spring-arranged-for-wind/id693525677	5.8	
Cataloguer's Note		5.9	
Relationships †			
Work Expressed		17.6+	<input checked="" type="checkbox"/>
Manifestation of Expression		17.9+	
Contributor *	Imani Winds	20.2+	
Related Expression *		26.1+	
Medium of Performance of Musical Content	For flute (doubling piccolo), oboe, clarinet in A (doubling on B♭ clarinet), horn, and bassoon	7.21	

- ✓ Delete “Language of Expression” and “Script Notation”
- ✓ Check or uncheck the fields that can be added to the Authorized Access Point.
 - Click inside the Authorized Access Point field to reflect the elements added or removed
- ✓ Save the record

Create a New Record for the Manifestation

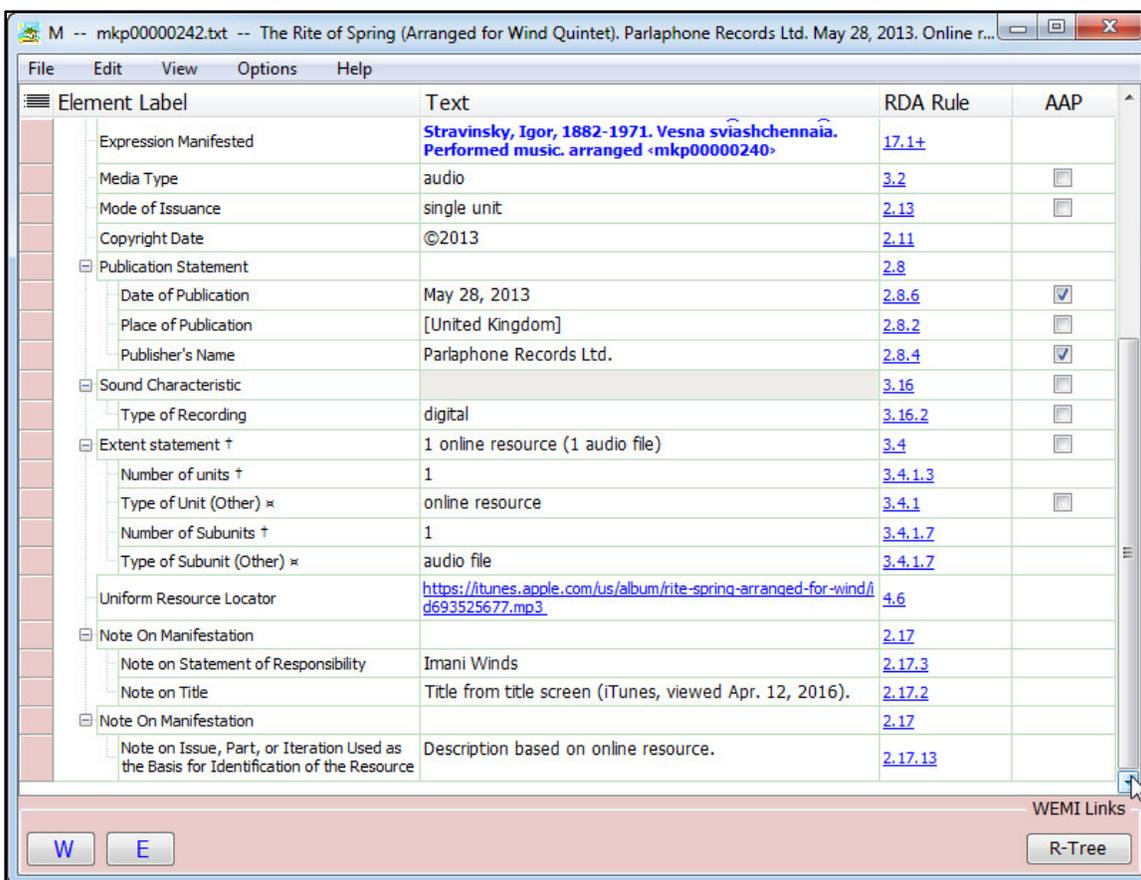
- ✓ Press <F5> in the Manifestation of Expression Text box
- ✓ Select **Create New Manifestation**
- ✓ Select the appropriate template

Certain Manifestation data is provided for you as a result of the template you have chosen.

NOTE: There is not a template available currently for an online recording of performed music. Simply choose the closest template and modify as necessary.

You will need to:

- Change the note on Title to Title from title screen (source, date viewed).
- Change “Media Type” to **audio** from the drop-down list
- Press <F4> for a new field and type **uni** to find the URL; paste URL source
- “Carrier Type”: select **online resource** from the drop-down list
- The “Extent Statement” should read: **1 online resource (1 audio file)**
- “Type of Recording”: select **digital** from the drop-down list
- “File Type”: select **audio file** from the drop-down list
- “Encoding Format”: select **MP3** from the drop-down list
- The relationship to the Expression Manifested is already there, because the new Manifestation started from within the correct Expression record.



- ✓ Save the record

View the R-Tree

- ✓ Click on **R-Tree**, from the Work record
 - Click on the **Person** heading
 - Press <Ctrl> + <R> to switch to the R-Tree for the Creator
 - Examine all relationships to be sure that they are accurate

Note that we now have 2 Expressions, both arrangements of the same orchestral work.

- ✓ Close everything, if you are finished

Creating a Description in BIBFRAME

- *Now we have an iTunes MP3 download for a digital audio performance of the longer arrangement we described in the previous unit.*
- *We can use our description of that expression, and create a new expression for this musical performance.*

Just as in the previous example, we can pre-populate the RDA Expression area of the Audio CD BIBFRAME Profile based on our previous work with the woodwind quintet score, and then we can modify the description to reflect the MP3 audio download.

We are using the Audio CD BIBFRAME Profile since that was a resource type tested in the LC BIBFRAME Pilot – we will make adjustments to the Media and Carrier Types as needed, and we will be sure that the description does represent the MP3 download.

The screenshot shows the 'RDA Work' interface. At the top left, the title 'RDA Work' is displayed. Below it, a 'Lookup' field contains the search query 'stravinsky, igor, 1882-1971. Vesna'. To the right of the search field is a blue button labeled 'Pages'. Below the search field, a list of 'LC-Works' is shown. The list includes several entries for Stravinsky's 'Vesna sviashchennaia', with different descriptions and RDA identifiers. The first entry is 'Stravinsky, Igor, 1882-1971. Romansy, op. 6. Vesna'. The second entry is 'Stravinsky, Igor, 1882-1971. Vesna sviashchennaia; arranged'. The third entry is 'Stravinsky, Igor, 1882-1971. Vesna sviashchennaia balet'. The fourth entry is 'Stravinsky, Igor, 1882-1971. Vesna sviashchennaia arranged'. The fifth entry is 'Stravinsky, Igor, 1882-1971. Vesna sviashchennaia (Sketches)'. The sixth entry is 'Stravinsky, Igor, 1882-1971. Vesna sviashchennaia'. On the left side of the interface, there are two labels: 'Creator of Work (RDA 19.2)' and 'Preferred Title for a Musical Work (RDA 6.14.2)'. A vertical scrollbar is visible on the right side of the LC-Works list.

Note that our arrangement of Selections is not represented by an authorized access point – we would need to use the same authorized access point we created in the previous example. The authorized access point we need has not yet been established in the BIBFRAME resource database triple store. So we need to create it now, or wait for the one we created in the previous example to distribute to the BIBFRAME triple store.

RDA Work

Lookup Save changes

OR

Creator of Work (RDA 19.2)

Principal Creator	Other Creators
Stravinsky, Igor, 1882-1971	 

Preferred Title for a Musical Work (RDA 6.14.2)

Title
Vesna sviashchennaia. Selections; ar...

We can accept the Content type that is in the Audio CD BIBFRAME Profile:

Content Type (RDA 6.9)	<input type="text" value="Content Type (RDA 6.9)"/>
	performed music 

We have a Place and Date of Capture, and a Duration:

Place of Capture (RDA 7.11.2)	Davies Symphony Hall, San Francisco, CA
Date of Capture (RDA 7.11.3)	2012 September 23
Language of the Content (RDA 7.12)	Language of the Content
Duration (RDA 7.22)	18 min., 59 sec.

And now we have a performing group – the Imani Winds:

Contributor

Search LCNAF for Contributor

Person Family (NAR) Jurisdiction

Corporate Body Meeting

Imani Winds  

Search Relationship Designator (RDA Appendix I) ... OR ...

Record Relationship

performer

RDA-Relators

Performer

Designator (if Relationship Designator) 

Manifestation Elements

In the interest of time, we will not enter the Manifestation elements

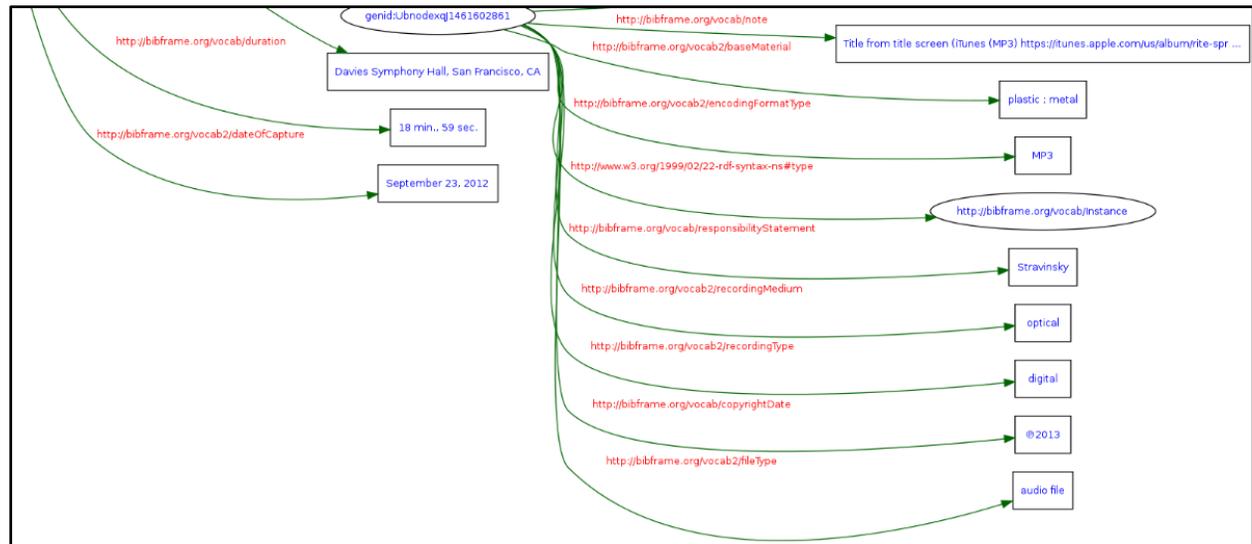
- Title Proper (RDA 2.3.2)
 - Rite of Spring
- Other Title Information (RDA 2.3.4)
 - Arranged for wind quintet
- Statement of Responsibility (RDA 2.4.2)
 - Stravinsky
- Publication Statement (RDA 2.8)
 - [United Kingdom]
 - [Parlophone Records Ltd.]
 - [2013]
- Copyright Date (RDA 2.11)
 - p2013
- Mode of Issuance (RDA 2.13)
 - single unit
- Media Type (RDA 3.2)
 - audio
- Carrier Type (RDA 3.3)
 - online resource
- Extent (RDA 3.4)
 - 1 online resource (1 audio file)
- Call Number

Exporting BIBFRAME to RDF

BIBFRAME Triples (Partial view—Literal values)

83	genid:Ubnodewj1461603485	http://bibframe.org/vocab/label	"Imani Winds"@en
84	genid:Ubnodewj1461603485	http://bibframe.org/vocab/authorizedAccessPoint	"Imani Winds"@en
85	genid:Ubnodewj1461603485	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://bibframe.org/vocab/Organization
86	genid:Ubnodewj1461603485	http://bibframe.org/vocab/hasAuthority	http://id.loc.gov/authorities/names/nr2004006173
87	genid:Ub51resourcesworkslw83057580	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://www.loc.gov/mads/rdf/v1#Authority
88	genid:Ub63resourcesworkslw83057580	http://www.loc.gov/mads/rdf/v1#authoritativeLabel	"Stravinsky, Igor, 1882-1971."
89	genid:Ub63resourcesworkslw83057580	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://bibframe.org/vocab/Lccn
90	genid:Ub63resourcesworkslw83057580	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://bibframe.org/vocab/Identifier
91	genid:Ubnodewj1461602903	http://bibframe.org/vocab/identifierValue	"n 83057580"
92	genid:Ubnodewj1461602903	http://bibframe.org/vocab/authorizedAccessPoint	"Stravinsky, Igor, 1882-1971. Vsesna svi~ashchennai~a: arranged"@en
93	genid:Ubnodewj1461602903	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://bibframe.org/vocab/Work
94	genid:Ubnodewj1461602903	http://bibframe.org/vocab/sameWork	http://id.loc.gov/resources/works/lw83057580
95	genid:UbnodeaHV1461603288	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://bibframe.org/vocab/Title
96	genid:UbnodeaHV1461603288	http://bibframe.org/vocab/subtitle	"arranged for wind quintet"
97	genid:Ub33resourcesworkslw83057580	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://www.loc.gov/mads/rdf/v1#Authority
98	genid:Ub33resourcesworkslw83057580	http://www.loc.gov/mads/rdf/v1#authoritativeLabel	"Stravinskii, Igor' Fedorovich, 1882-1971."
99	http://id.loc.gov/vocabulary/contentTypes/prm	http://bibframe.org/vocab/label	"performed music"@en
100	genid:UbnodeBeq1461603183	http://bibframe.org/vocab/titleValue	"Rite of spring"
101	genid:UbnodeBeq1461603183	http://www.w3.org/1999/02/22-rdf-syntax-ns#type	http://bibframe.org/vocab/Title
102	http://id.loc.gov/vocabulary/relators/prf	http://bibframe.org/vocab/label	"Performer"@en
103	http://id.loc.gov/vocabulary/mediaTypes/s	http://bibframe.org/vocab/label	"audio"@en
104	http://rdaregistry.info/termist/ModIssue/1001	http://bibframe.org/vocab/label	"single unit"@en

BIBFRAME Instance Graph (Fragment)



Appendix A. Discussion Questions

Resource 1: Print Monograph

Was it more difficult to comprehend the recording of catalog data into the Editor, since it did not involve your knowledge of MARC?

Did you find that your knowledge of the FRBR/RDA entities and relationships helped you to understand the entry of data into the Editor?

Resource 2: Online Serial

Looking at a BIBFRAME visualization “rdf”, can you identify a triple and explain its parts?

Is a triple with a literal still linked data?

Resource 3: Music Score

How would you map the RDA Group One entities represented in the RIMMF output for this resource to the corresponding BIBFRAME “entities”? (e.g., how many RDA Works, Expressions, and Manifestations are represented in this resource? how many BIBFRAME Works and Instances are represented?)

In describing this resource in BIBFRAME, we took an “unauthorized” approach to describing the arrangement with controlled Linked Data URIs in the Medium of Performance. How did you deal with this situation when describing the resource in RIMMF? Did it present any problems there in terms of Linked Data?

Resource 4: MP3 Download

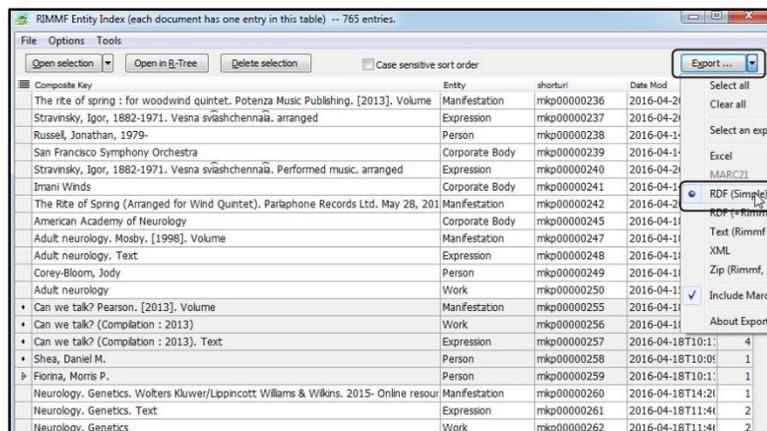
Should we be limited to one ontology? Why or why not?

What are some reasons for libraries to transition to new technology like linked data?

Appendix B. RIMMF Export to RDF

RIMMF can export to RDF from different points of entry. This example will start from the Entity Index.

- ✓ Type <Ctrl> + <e> to open the Entity Index.
- ✓ **Highlight the records** you wish to export (use standard Windows methods to select multiple files).
- ✓ On the top right hand corner of the EI screen, click on the down arrow next to Export and select **RDF (Simple)**.
- ✓ Click on **Export**



This will display a dialog box with a pre-created name for the file that contains all the records selected, which is partially based on the date. You can keep that name or assign your own.

- ✓ Either way, click on **OK** and the file that is created is automatically saved to your Desktop.

Once this is done, you will see a second dialog box, stating that ‘X’ records have been exported.

- ✓ Click on **OK** to accept this

The file that has been saved to your Desktop will have the .nt ending. This indicates that it has been saved in the N-triples serialization of RDF. It can be opened by any text reader software, such as Notepad. Once opened, the file will contain many URI’s, and the occasional literal (in quotation marks), which express the triples. These triples can be converted by one of the many RDF converter available on the web into other serializations.

(I used www.easyrdf.org/converter to create the RDFXML serialization of this group of five records).

Having converted them, you can see the visualization at the website

<https://www.w3.org/RDF/Validator/>, which will produce a table of all the triples in this data model, as well as a .png image of the relationships.

Triples

```

ei-export-160425.nt - Notepad
File Edit Format View Help
<http://rilmfdata.com/r/mkp00000258> <http://rilmf.com/vocab/authorizedAccessPointPerson> "mkp00000258" .
<http://rilmfdata.com/r/mkp00000258> <http://rilmf.com/vocab/statusOfIdentificationPerson> <http://rdaregistry.info/termList/statidentification/1001> .
<http://rilmfdata.com/r/mkp00000258> <http://rilmf.com/vocab/sourceConsultedPerson> "The state of the parties, 1994: CIP t.p. (Daniel M. Shea) galley (assist. prof. of pol. sci., research fellow at Ray C. Bliss Institute of Applied Politics, Univ. of Akron) BL e-mail sent 30 Oct. 2006, no reply received" .
<http://rilmfdata.com/r/mkp00000258> <http://rilmf.com/vocab/sourceConsultedPerson> "Kasniunas, Nina. Campaign rules, c2010: ECIP t.p. (Daniel M. Shea) data view (b. 1961)" .
<http://rilmfdata.com/r/mkp00000258> <http://rdaregistry.info/Elements/a/P50117> "Shea, Daniel M." .
<http://rilmfdata.com/r/mkp00000258> <http://rdaregistry.info/Elements/a/P50094> "LCCN n 94058175" .
<http://rilmfdata.com/r/mkp00000258> <http://rdaregistry.info/Elements/a/P50094> "(Uk)003051526" .
<http://rilmfdata.com/r/mkp00000258> <http://rdaregistry.info/Elements/a/P50094> <https://lcn.loc.gov/n94058175> .
<http://rilmfdata.com/r/mkp00000258> <http://rdaregistry.info/Elements/a/P50156> <http://rilmfdata.com/r/mkp00000257> .
<http://rilmfdata.com/r/mkp00000259> <http://rilmf.com/vocab/authorizedAccessPointPerson> "mkp00000259" .
<http://rilmfdata.com/r/mkp00000259> <http://rilmf.com/vocab/statusOfIdentificationPerson> <http://rdaregistry.info/termList/statidentification/1001> .
<http://rilmfdata.com/r/mkp00000259> <http://rilmf.com/vocab/sourceConsultedPerson> "His Representatives, roll calls ... 1974" .
<http://rilmfdata.com/r/mkp00000259> <http://rilmf.com/vocab/sourceConsultedPerson> "The new American democracy, 1998: CIP t.p. (Morris Fiorina)" .
<http://rilmfdata.com/r/mkp00000259> <http://rdaregistry.info/Elements/a/P50117> "Fiorina, Morris p." .
<http://rilmfdata.com/r/mkp00000259> <http://rdaregistry.info/Elements/a/P50094> "LCCN n 80131625" .
<http://rilmfdata.com/r/mkp00000259> <http://rdaregistry.info/Elements/a/P50094> "(OcolCoca00511985)" .
<http://rilmfdata.com/r/mkp00000259> <http://rdaregistry.info/Elements/a/P50156> <https://lcn.loc.gov/n80131625> .
<http://rilmfdata.com/r/mkp00000256> <http://rdaregistry.info/Elements/w/P10223> "Can we talk?" .
<http://rilmfdata.com/r/mkp00000256> <http://rdaregistry.info/Elements/w/P10004> "Compilation" .
<http://rilmfdata.com/r/mkp00000256> <http://rdaregistry.info/Elements/w/P10219> "2013" .
<http://rilmfdata.com/r/mkp00000256> <http://rilmf.com/vocab/authorizedAccessPointWork> "mkp00000256" .
<http://rilmfdata.com/r/mkp00000256> <http://rilmf.com/vocab/statusOfIdentificationPerson> <http://rdaregistry.info/termList/statidentification/1001> .
<http://rilmfdata.com/r/mkp00000256> <http://rilmf.com/vocab/sourceConsultedWork> "Can we talk?, 2013" .
<http://rilmfdata.com/r/mkp00000256> <http://rdaregistry.info/Elements/w/P10078> <http://rilmfdata.com/r/mkp00000257> .
<http://rilmfdata.com/r/mkp00000256> <http://rdaregistry.info/Elements/w/P10256> "Political culture\u2014United States\u2014History\u201421st century" .
<http://rilmfdata.com/r/mkp00000256> <http://rdaregistry.info/Elements/w/P10256> "Politics, Practical\u2014United States\u2014History\u201421st century" .
<http://rilmfdata.com/r/mkp00000256> <http://rdaregistry.info/Elements/w/P10256> "Courtesy\u2014Political aspects\u2014United States\u2014History\u201421st century" .
<http://rilmfdata.com/r/mkp00000257> <http://rdaregistry.info/Elements/e/P20001> <http://rdaregistry.info/termList/RDContent/1020> .
<http://rilmfdata.com/r/mkp00000257> <http://rdaregistry.info/Elements/e/P20006> <http://id.loc.gov/vocabulary/languages/eng> .
<http://rilmfdata.com/r/mkp00000257> <http://rdaregistry.info/Elements/e/P20214> "2013" .
<http://rilmfdata.com/r/mkp00000257> <http://rdaregistry.info/Elements/e/P20207> <http://rdaregistry.info/termList/IllusContent/1001> .
<http://rilmfdata.com/r/mkp00000257> <http://rdaregistry.info/Elements/e/P20207> <http://rdaregistry.info/termList/IllusContent/1006> .
<http://rilmfdata.com/r/mkp00000257> <http://rdaregistry.info/Elements/e/P20207> photograph .
<http://rilmfdata.com/r/mkp00000257> <http://rdaregistry.info/Elements/e/P20207> <http://rdaregistry.info/termList/IllusContent/1014> .
<http://rilmfdata.com/r/mkp00000257> <http://rdaregistry.info/Elements/e/P20206> "Includes bibliographical references." .
<http://rilmfdata.com/r/mkp00000257> <http://rilmf.com/vocab/authorizedAccessPointExpression> "mkp00000257" .
<http://rilmfdata.com/r/mkp00000257> <http://rilmf.com/vocab/statusOfIdentificationExpression> <http://rdaregistry.info/termList/statidentification/1001> .
<http://rilmfdata.com/r/mkp00000257> <http://rilmf.com/vocab/sourceConsultedExpression> "Can we talk?, 2013" .
<http://rilmfdata.com/r/mkp00000257> <http://rdaregistry.info/Elements/e/P20231> <http://rilmfdata.com/r/mkp00000256> .
    
```

Browser window showing a table of triples from a data model. The table has columns for Number, Subject, Predicate, and Object.

Number	Subject	Predicate	Object
1	http://rilmfdata.com/r/mkp00000258	http://rilmf.com/vocab/authorizedAccessPointPerson	"mkp00000258"
2	http://rilmfdata.com/r/mkp00000258	http://rilmf.com/vocab/statusOfIdentificationPerson	http://rdaregistry.info/termList/statidentification/1001
3	http://rilmfdata.com/r/mkp00000258	http://rilmf.com/vocab/sourceConsultedPerson	"The state of the parties, 1994: CIP t.p. (Daniel M. Shea) galley (assist. prof. of pol. sci., research fellow at Ray C. Bliss Institute of Applied Politics, Univ. of Akron) BL e-mail sent 30 Oct. 2006, no reply received"
4	http://rilmfdata.com/r/mkp00000258	http://rilmf.com/vocab/sourceConsultedPerson	"Kasniunas, Nina. Campaign rules, c2010: ECIP t.p. (Daniel M. Shea) data view (b. 1961)"
5	http://rilmfdata.com/r/mkp00000258	http://rdaregistry.info/Elements/a/P50117	"Shea, Daniel M."
6	http://rilmfdata.com/r/mkp00000258	http://rdaregistry.info/Elements/a/P50094	"LCCN n 94058175"
7	http://rilmfdata.com/r/mkp00000258	http://rdaregistry.info/Elements/a/P50094	"(Uk)003051526"
8	http://rilmfdata.com/r/mkp00000258	http://rdaregistry.info/Elements/a/P50094	https://lcn.loc.gov/n94058175
9	http://rilmfdata.com/r/mkp00000258	http://rdaregistry.info/Elements/a/P50156	http://rilmfdata.com/r/mkp00000257
10	http://rilmfdata.com/r/mkp00000259	http://rilmf.com/vocab/authorizedAccessPointPerson	"mkp00000259"
11	http://rilmfdata.com/r/mkp00000259	http://rilmf.com/vocab/statusOfIdentificationPerson	http://rdaregistry.info/termList/statidentification/1001
12	http://rilmfdata.com/r/mkp00000259	http://rilmf.com/vocab/sourceConsultedPerson	"His Representatives, roll calls ... 1974"
13	http://rilmfdata.com/r/mkp00000259	http://rilmf.com/vocab/sourceConsultedPerson	"The new American democracy, 1998: CIP t.p. (Morris Fiorina)"

Appendix C. Related Links and Resources

RIMMF

RIMMF home page (general information, links to user guide, and links for downloading):

<http://www.marcofquality.com/wiki/rimmf3/doku.php?id=rimmf>

Download RIMMF3 link (specific instructions and download options):

<http://www.marcofquality.com/wiki/rimmf3/doku.php?id=download&nocache>

BIBFRAME

Bibliographic Framework Initiative website

<https://www.loc.gov/bibframe/>

BIBFRAME Implementation & Testing

<https://www.loc.gov/bibframe/implementation/index.html>

BIBFRAME 1.0 Editor (Demo site)

<http://bibframe.org/tools/editor/#>

Resources for Hands-on Guided Practice Session

Moving Away from MARC-athon” Resource Surrogates

<https://www.loc.gov/aba/pcc/documents/OpCo-2016/MovingAwayfromMARCSurrogates.pdf>
(PDF 1MB)

Ordered List of Continuing Resources

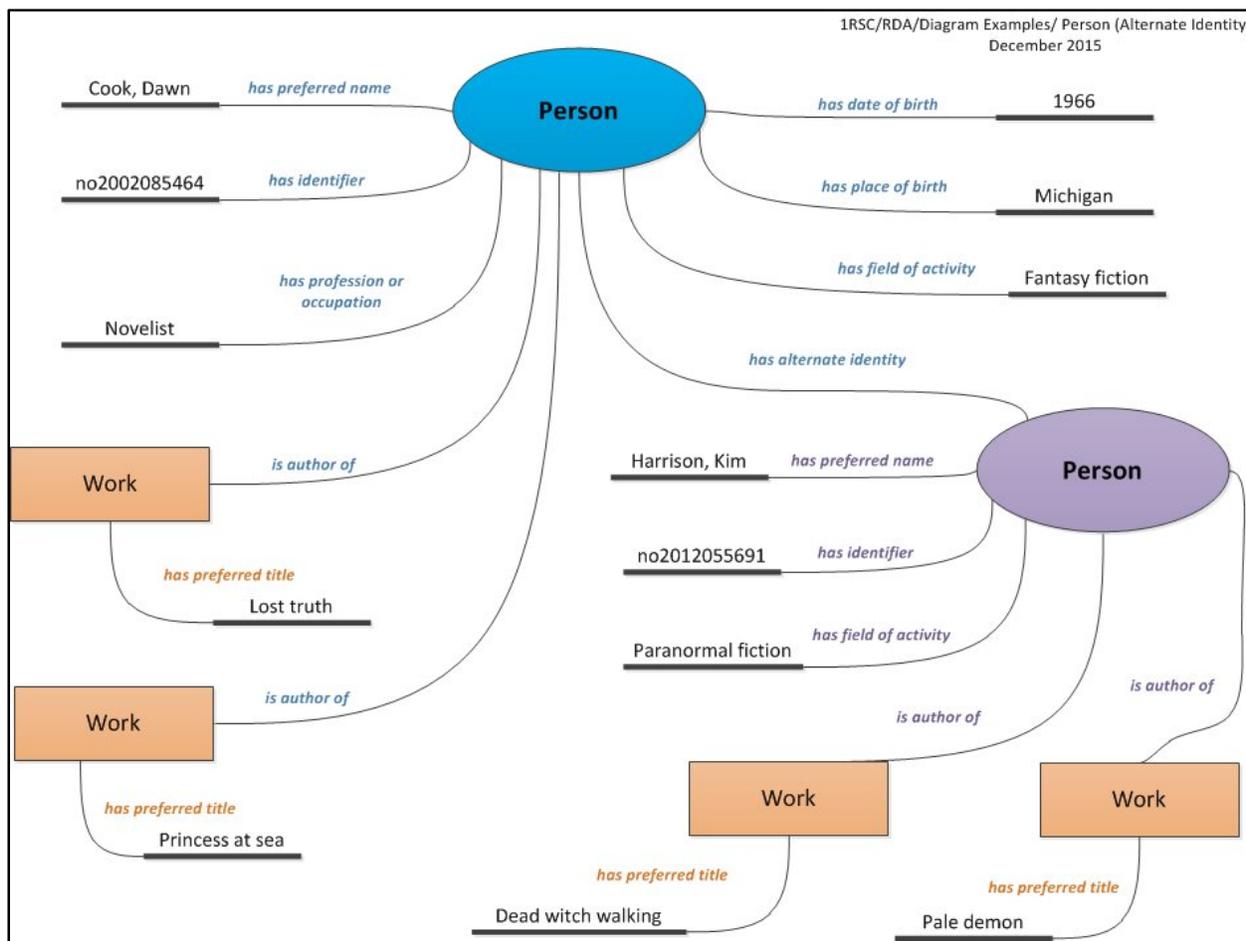
<https://www.loc.gov/aba/pcc/documents/OpCo-2016/List-online-resources.pdf> (PDF 92KB)

Appendix D. More on ‘Thinking in RDA’

Provided here are two schematics designed to help you get away from MARC and think of cataloging elements in BIBFRAME terminology (this page) or FRBR/RDA terminology (the next page).²

(Please note that the two schematics represent unrelated entities)

- The schematic below illustrates the BIBFRAME vocabulary and relationships associated with a *Person* responsible for a *Work*:



- The schematic on the next page illustrates the FRBR entities and RDA terms for a specific resource:

² We are indebted to Kate James, Policy and Standards Division, Library of Congress, for these schematics

