
Language and Script Tags in BIBFRAME and in MARC: A Successful Collaboration



What is this BCP47 you speak of?

Establishes a standard method to encode language and script semantics into “language tags” for machine readability.

What is this BCP47 you speak of?

Best **C**urrent **P**ractice 47 (a.k.a. RFC 5646)

Produced under the aegis of the:
Internet Engineering Task Force (IETF)

2006 – First version of BCP47

2009 – Latest, current version of BCP47

What is this BCP47 you speak of?

Examples:

en

ca

es

csc [Catalan Sign Language]

ssp [Spanish Sign Language]

es-ES

es-MX

fr-CA

fr-FR

What is this BCP47 you speak of?

Examples:

“hello”@en

“bonjour”@fr

“안녕하세요”@ko

“colour”@en-GB

“color”@en-US

“un courriel”@fr-CA

“un mail”@fr-FR

What is this BCP47 you speak of?

Examples:

zh-Hant
zh-Hans

zh-Hant-TW
zh-Hans-CN

BCP47 supports far more complex encodings.

Example: zh-yue-Hant-HK

What is this BCP47 you speak of?

Basic rules:

- a) Use shortest language code when possible.
- b) Do not include script information if it can be inferred (from the language).
- c) Document any deviations from BCP47 rules.

“en” *not* “eng”

“ru” *not* “ru-Cyrl”

BCP47 Implementation at LC

Slow progress to codification but have arrived at:

- 1) Use shortest language code available
 - a. i.e. ISO639-1 codes trump ISO639-2 codes.
- 2) Retain/include script designation internally but conform to script inference rule when publishing.
 - a. i.e. Will store “yi-hebr” in internal data but use “yi” for distributed data.
- 3) No support currently for regional codes in language tags.
- 4) Make all lowercase.

BCP47 Implementation at LC

```
<bf:Instance rdf:about="http://id.loc.gov/resources/instances/19105203">
  <bf:publicationStatement>Sŏul-si: Pombom, 2014</bf:publicationStatement>
  <bf:publicationStatement xml:lang="ko-kore">서울시: 봄봄, 2014</bf:publicationStatement>
  <bf:responsibilityStatement>Yi Chi-yun kŭl, kŭrim</bf:responsibilityStatement>
  <bf:responsibilityStatement xml:lang="ko-kore">이 지운 글, 그림</bf:responsibilityStatement>
  <bf:title>
    <bf:Title>
      <bf:mainTitle>Annyŏng haseyo?</bf:mainTitle>
      <bf:mainTitle xml:lang="ko-kore">안녕 하세요?</bf:mainTitle>
    </bf:Title>
  </bf:title>
</bf:Instance>
```

BCP47 Implementation at LC

```
<bf:Instance rdf:about="http://id.loc.gov/resources/instances/19105203">
  <bf:publicationStatement>Sŏul-si: Pombom, 2014</bf:publicationStatement>
  <bf:publicationStatement xml:lang="ko-kore">서울시: 봄봄, 2014</bf:publicationStatement>
  <bf:responsibilityStatement>Yi chi-yun kŭl. kŭrim</bf:responsibilityStatement>
  <bf:responsibilityStatement xml:lang="ko-kore">이 지운 글, 그림</bf:responsibilityStatement>
  <bf:title>
    <bf:Title>
      <bf:mainTitle>Annyŏng haseyo?</bf:mainTitle>
      <bf:mainTitle xml:lang="ko-kore">안녕 하세요?</bf:mainTitle>
    </bf:Title>
  </bf:title>
</bf:Instance>
```

BCP47 Implementation at LC

```
245 10 $6880-03$aAnnyŏng haseyo? /$cYi Chi-yun kŭl. kŭnim.  
880 10 $6245-03/$1$a안녕 하세요? /$c이 지윤 글, 그림.$7(bcp47)ko  
264 1 $6880-22$aSŏul-si :$bPombom,$c2014.  
880 1 $6264-22/$1$a서울시 :$b봄봄,$c2014.$7(bcp47)ko
```

Encoding in Marva

Date
Note
Instance: 23956618 Delete Instance!
Title information
Instance title Non-sort character count
0 ▼
Title
ఓపెరామాలిక
Part number
Part name
Other title information
భారతసంస్కృతికి అన్వయించుకొనుచు అనుసృజించిన ఇటాలియను, ఫ్రెంచి, జర్మను భాషాలందలి తొమ్మిది
Statement of responsibility
Statement of responsibility
రచయిత, శ్రీకళాపూర్ణ డా. తిరుమల కృష్ణదేశికాచార్యులు = ⚡
<u>Operamaalika / Sri kalaprapoorna Dr. Tirumala</u>
Edition statement
Edition statement
Provision activity

```
<rdf:RDF xmlns:bflc="http://id.loc.gov/ontologies/bflc/" x
  <bf:Work>
    <bf:Instance xmlns:bf="http://id.loc.gov/ontologies/bib
      <bf:title>
        <bf:Title>
          <bf:mainTitle>
            ఓపెరామాలిక
          </bf:mainTitle>
          <bf:subtitle>
            భారతసంస్కృతికి అన్వయించుకొనుచు అనుసృజించిన
          </bf:subtitle>
        </bf:Title>
      </bf:title>
      <bf:responsibilityStatement>
        రచయిత, శ్రీకళాపూర్ణ డా. తిరుమల కృష్ణదేశికాచార్యులు = Op
      </bf:responsibilityStatement>
      <bf:provisionActivity>
        <bf:Publication>
          <bf:date rdf:datatype="http://id.loc.gov/datatyp
            2024
          </bf:date>
          <bf:place>
            <bf:Place rdf:about="http://id.loc.gov/vocabu
              <rdfs:label xmlns:rdfs="http://www.w3.org/
                India
              </rdfs:label>
```

Encoding in Marva

Instance: 23956618

Delete Instance!

Title information

Instance title

Non-sort character count

0

Title

ఓపెరామాలిక

Part number

Part name

Other title information

భారతసంస్కృతికి అన్వయించుకొనుచు ఇటాలియను, ఫ్రెంచి, జర్మను భాషలందు

Statement of responsibility

Statement of responsibility

రచయిత, శ్రీకళాపూర్ణ డా. తిరుమల కృష్ణ

Edition statement

Edition statement

Operamaalika / Sri kalaprapoorna Dr. Tiru

Provision activity

Publication

EDTF date (to/from 008)

2024

Search place of publication (to/from 008)

India | x

1 Add Another Component

3 Delete Component

4 Send to Work

Send Subtitle to Work Variant

5 Additional Literal

6 Set Language

7 ె Mongolian (Cyrillic) S2R

8 ె Mongolian (Cyrillic) R2S

9 ె Mongolian (Mongol bichig) S2R

ె Mongolian (Mongol bichig) R2S

ె Telugu S2R

ె Telugu R2S

<bf>Title>

<bf:mainTitle>

ఓపెరామాలిక

</bf:mainTitle>

<bf:subtitle>

భారతసంస్కృతికి అన్వయించుకొనుచు అనుసృజించిన

</bf:subtitle>

</bf>Title>

<bf:responsibilityStatement>

త, శ్రీకళాపూర్ణ డా. తిరుమల కృష్ణదేశికాచార్యులు = Op

</bf:responsibilityStatement>

<bf:provisionActivity>

</bf:provisionActivity>

<bf:Publication>

<bf:date rdf:datatype="http://id.loc.gov/datatype

024

</bf:date>

<bf:place>

<bf:Place rdf:about="http://id.loc.gov/vocabu

<rdfs:label xmlns:rdfs="http://www.w3.org/2

India

</rdfs:label>

<bf:code rdf:datatype="http://www.w3.org/20

ii

</bf:code>

</bf:Place>

</bf:place>

Encoding in Marva

Title information	
Instance title	▼
Non-sort character count	
0 ▼	
Title	
→ Ōperāmālika	te-Latn
Title	
→ ఓపెరామాలిక	te-Telu
Part number	
Part name	
Other title information	
→ Bhāratasaṁskṛtiki anvayiṅcukonucu anusrjiṅcina itāliyanu, phreṅci, jarmanu bhāsālaṅdali tommidi saṅgītarūpakamula (ōperāla) samāhāramu	te-Latn
Other title information	
→ భారతసంస్కృతికి అన్వయించుకొనుచు అనుసృజించిన ఇటాలియను, ఫ్రెంచి, జర్మను భాషాలందలి తొమ్మిది సంగీతరూపకముల (ఓపెరాల) సమాహారము	te-Telu
Statement of responsibility	
Statement of responsibility	
→ Racavita, śrīkaḷāpūrṇa ḍā. tirumala kṛṣṇadēśikācāryulu = Operamaalika / Sri kalaprapoorna Dr. Tirumala Krishnadeshikacharyulu.	te-Latn
Statement of responsibility	
→ రచయిత, శ్రీకళాపూర్ణ డా. తిరుమల కృష్ణదేశికాచార్యులు = Operamaalika / Sri kalaprapoorna Dr. Tirumala Krishnadeshikacharyulu	te-Telu

```
<rdf:RDF xmlns:bflc="http://id.loc.gov/ontologies/bflc/" x
  > <bf:Work>
    <bf:Instance xmlns:bf="http://id.loc.gov/ontologies/bib
      > <bf:title>
        <bf:Title>
          <bf:mainTitle xml:lang="te-Latn">
            Ōperāmālika
          </bf:mainTitle>
          <bf:mainTitle xml:lang="te-Telu">
            ఓపెరామాలిక
          </bf:mainTitle>
          <bf:subtitle xml:lang="te-Latn">
            Bhāratasaṁskṛtiki anvayiṅcukonucu anusrjiṅcina
          </bf:subtitle>
          <bf:subtitle xml:lang="te-Telu">
            భారతసంస్కృతికి అన్వయించుకొనుచు అనుసృజించిన
          </bf:subtitle>
        </bf:Title>
      </bf:title>
      <bf:responsibilityStatement xml:lang="te-Latn">
        Racavita, śrīkaḷāpūrṇa ḍā. tirumala kṛṣṇadēśikācāryu
      </bf:responsibilityStatement>
      <bf:responsibilityStatement xml:lang="te-Telu">
        రచయిత, శ్రీకళాపూర్ణ డా. తిరుమల కృష్ణదేశికాచార్యులు = Op
      </bf:responsibilityStatement>
      <bf:provisionActivity>
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          <bf:date rdf:datatype="http://id.loc.gov/dataty
            2024
          </bf:date>
          <bf:place>
            <bf:Place rdf:about="http://id.loc.gov/vocabu
              <rdf:label xml:lang="te-Telu">
                భారతసంస్కృతికి అన్వయించుకొనుచు అనుసృజించిన
```

Encoding in Marva

Title information	
Instance title	▼
Non-sort character count	
0 ▼	
Title	
→ Ōperāmālika	te-Latn
Title	
→ ఓపెరామాలిక	te-Telu
Part number	
Part name	
Other title information	
→ Bhāratasaṁskṛtiki anvayin̄cukonucu anusr̥jiṅcina itāliyanu, phreṅci, jarmanu bhāsālaṅdali tommidi saṅgītarūpakamula (ōperāla) samāhāramu	te-Latn
Other title information	
→ భారతసంస్కృతికి అన్వయించుకొనుచు అనుసృజించిన ఇటాలియను, ఫ్రెంచి, జర్మను భాషాలందలి తొమ్మిది సంగీతరూపకముల (ఓపెరాల) సమాహారము	te-Telu
Statement of responsibility	
Statement of responsibility	
→ Racavita, śrīkaḷāpūrṇa ḍā. tirumala kṛṣṇadēśikācāryulu = Operamaalika / Sri kalaprapoorna Dr. Tirumala Krishnadeshikacharyulu.	te-Latn
Statement of responsibility	
→ రచయిత, శ్రీకళాపూర్ణ డా. తిరుమల కృష్ణదేశికాచార్యులు = Operamaalika / Sri kalaprapoorna Dr. Tirumala Krishnadeshikacharyulu	te-Telu

```
<rdf:RDF xmlns:bflc="http://id.loc.gov/ontologies/bflc/" x
  > <bf:Work>
    <bf:Instance xmlns:bf="http://id.loc.gov/ontologies/bib
      > <bf:title>
        <bf:Title>
          <bf:mainTitle xml:lang="te-Latn">
            Ōperāmālika
          </bf:mainTitle>
          <bf:mainTitle xml:lang="te-Telu">
            ఓపెరామాలిక
          </bf:mainTitle>
          <bf:subtitle xml:lang="te-Latn">
            Bhāratasaṁskṛtiki anvayin̄cukonucu anusr̥jiṅcina
          </bf:subtitle>
          <bf:subtitle xml:lang="te-Telu">
            భారతసంస్కృతికి అన్వయించుకొనుచు అనుసృజించిన
          </bf:subtitle>
        </bf:Title>
      </bf:title>
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      </bf:responsibilityStatement>
      <bf:responsibilityStatement xml:lang="te-Telu">
        రచయిత, శ్రీకళాపూర్ణ డా. తిరుమల కృష్ణదేశికాచార్యులు = Op
      </bf:responsibilityStatement>
      <bf:provisionActivity>
        <bf:Publication>
          <bf:date rdf:datatype="http://id.loc.gov/dataty
            2024
          </bf:date>
          <bf:place>
            <bf:Place rdf:about="http://id.loc.gov/vocabu
              <rdf:label xml:lang="te-Latn">
```

Encoding in Marva

Title information

Parallel title	▼
Parallel title	
Diverse portate di una cultura	it-latn
Part number	
Part name	
Other title information	
la declinazione del cibo nelle letterature romanze europee	it-latn
Date	
Note	

Title information

Parallel title	▼
Parallel title	
Différents "plats" d'une culture	fr-latn
Part number	
Part name	
Other title information	
déclinaisons de la nourriture dans les littératures européennes-romanes	fr-latn
Date	
Note	

Title information

Parallel title	▼
Parallel title	
Verschiedenen "Gerichte" einer Kultur	de-latn
Part number	

```
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  ▼<bf:ParallelTitle>
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    ▼<bf:subtitle xml:lang="it-latn">
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    </bf:subtitle>
  </bf:ParallelTitle>
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    ▼<bf:mainTitle xml:lang="fr-latn">
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    </bf:mainTitle>
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      déclinaisons de la nourriture dans les littératures européennes-romanes
    </bf:subtitle>
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▼<bf:title>
  ▼<bf:ParallelTitle>
    ▼<bf:mainTitle xml:lang="de-latn">
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    </bf:mainTitle>
    ▼<bf:subtitle xml:lang="de-latn">
      die Deklination des Essens in den europäisch-romanischen Literaturen
    </bf:subtitle>
  </bf:ParallelTitle>
</bf:title>
▼<bf:contribution>
```

Encoding in Marva

Title information	
Parallel title	
Parallel title	
Diverse portate di una cultura	it-latn
Part number	
Part name	
Other title information	
la declinazione del cibo nelle letterature romanze europee	it-latn
Date	
Note	

Title information	
Parallel title	
Parallel title	
Différents "plats" d'une culture	fr-latn
Part number	
Part name	
Other title information	
déclinaisons de la nourriture dans les littératures européennes-romanes	fr-latn
Date	
Note	

Title information	
Parallel title	
Parallel title	
Verschiedenen "Gerichte" einer Kultur	de-latn
Part number	

```
</bf:Title>
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<bf:title>
  <bf:ParallelTitle>
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      Diverse portate di una cultura
    </bf:mainTitle>
    <bf:subtitle xml:lang="it-latn">
      la declinazione del cibo nelle letterature romanze europee
    </bf:subtitle>
  </bf:ParallelTitle>
</bf:title>
<bf:title>
  <bf:ParallelTitle>
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      Différents "plats" d'une culture
    </bf:mainTitle>
    <bf:subtitle xml:lang="fr-latn">
      déclinaisons de la nourriture dans les littératures européennes-romanes
    </bf:subtitle>
  </bf:ParallelTitle>
</bf:title>
<bf:title>
  <bf:ParallelTitle>
    <bf:mainTitle xml:lang="de-latn">
      Verschiedenen "Gerichte" einer Kultur
    </bf:mainTitle>
    <bf:subtitle xml:lang="de-latn">
      die Deklination des Essens in den europäisch-romanischen
    </bf:subtitle>
  </bf:ParallelTitle>
</bf:title>
<bf:contribution>
```

Encoding in Marva

cam a22 8i 4500
001 in00024572756
010 \$a 2026001918

245 13 \$a Le diverse portate di una cultura :\$bla declinazione ... / \$c a cura di Vera Fänger & Maurizio Rebaudengo.

246 31 \$a Diverse portate di una cultura\$bla declinazione del cibo nelle letterature romanze europee \$7 (bcp47)it

246 31 \$a Différents "plats" d'une culture\$bdéclinaisons de la nourriture dans les littératures européennes-romanes \$7 (bcp47)fr

246 31 \$a Verschiedenen "Gerichte" einer Kultur\$bdie Deklination des Essens in den europäisch-romanischen Literaturen \$7 (bcp47)de

Encoding in BIBFRAME

```
<bf:Work>
  <bf:language rdf:resource="http://id.loc.gov/vocabulary/languages/kor" />
  <bf:contribution>
    <bf:Contribution>
      <bf:agent>
        <bf:Agent rdf:about="http://id.loc.gov/rwo/agents/n81047204">
          <rdf:type rdf:resource="http://id.loc.gov/ontologies/bibframe/Person"/>
          <rdfs:label>Sin, Kyöng-nim</rdfs:label>
          <bf:marcKey>1001 $aSin, Kyöng-nim</bf:marcKey>
          <rdfs:label xml:lang="ko-kore">신 경림</rdfs:label>
          <bf:marcKey xml:lang="ko-kore">4001 $a신 경림$7 (bcp47) ko-hang</bf:marcKey>
        </bf:Agent>
      </bf:agent>
      <bf:role rdf:resource="http://id.loc.gov/vocabulary/relators/ctb" />
    </bf:Contribution>
  </bf:contribution>
  <bf:contribution>
    <bf:Contribution>
      <bf:agent>
        <bf:Agent rdf:about="http://id.loc.gov/rwo/agents/n82010480">
          <rdf:type rdf:resource="http://id.loc.gov/ontologies/bibframe/Person"/>
          <rdfs:label>Yi, Si-yöng, 1949-</rdfs:label>
          <bf:marcKey>1001 $aYi, Si-yöng,$d1949-</bf:marcKey>
          <rdfs:label xml:lang="ko-kore">이 시영, 1949-</rdfs:label>
          <bf:marcKey xml:lang="ko-kore">4001 $a이 시영,$d1949-$7 (bcp47) ko-hang</bf:marcKey>
        </bf:Agent>
      </bf:agent>
      <bf:role rdf:resource="http://id.loc.gov/vocabulary/relators/ctb" />
    </bf:Contribution>
  </bf:contribution>
</bf:Work>
```

At all began with MARC, of course

Sept 2024 – BIBFRAME in Production begins

At all began with MARC, of course

Sept 2024 – BIBFRAME in Production begins

Oct 1, 2024 – First non-Latin catalogers added to BIBFRAME in Production

At all began with MARC, of course

Sept 2024 – BIBFRAME in Production begins

Oct 1, 2024 – First non-Latin catalogers added to BIBFRAME in Production

Oct 2, 2024 – We have a problem.

Expectations in MARC

100 1 \$6880-01\$aLian, Xisheng,\$eauthor
880 1 \$6100-01/\$1\$a廉希聖,\$eauthor.
245 10 \$6880-02\$aYi zi qian jin :\$bLian Xisheng yi Xianggang ji ben fa qi cao /\$cLian Xisheng
kou shu ; Liang Meifen zong ce hua; Liu Linbo, Wang Liu zheng li.
880 10 \$6245-02/\$1\$a一字千金 :\$b廉希聖憶香港基本法起草/\$c廉希聖口述 ; 梁美芬總策劃; 劉
林波, 王柳整理.
246 30 \$6880-03\$aLian Xisheng yi Xianggang ji ben fa qi cao
880 30 \$6246-03/\$1\$a廉希聖憶香港基本法起草
250 \$6880-04\$aXianggang di yi ban.
880 \$6250-04/\$1\$a香港第一版.
264 1 \$6880-05\$aXianggang :\$bSan lian shu dian (Xianggang) you xian gong si,\$c2023.
880 1 \$6264-05/\$1\$a香港 :\$b三聯書店(香港)有限公司,\$c2023.
700 1 \$6880-06\$aLeung, Priscilla Mei-fun.
880 1 \$6700-06/\$1\$a梁美芬.
700 1 \$6880-07\$aLiu, Linbo,\$etranscriber.
880 1 \$6700-07/\$1\$a劉林波,\$etranscriber.
700 1 \$6880-08\$aWang, Liu,\$etranscriber.
880 1 \$6700-08/\$1\$a王柳,\$etranscriber.

Expectations in MARC

245 10 \$6880-02\$aYi zi qian jin :\$bLian Xisheng yi Xianggang ji ben fa qi cao /\$cLian Xisheng kou shu ; Liang Meifen zong ce hua; Liu Linbo, Wang Liu zheng li.

880 10 \$6245-02/\$1\$a一字千金 :\$b廉希聖憶香港基本法起草/\$c廉希聖口述 ; 梁美芬總策劃; 劉林波, 王柳整理.

246 30 \$6880-03\$aLian Xisheng yi Xianggang ji ben fa qi cao

880 30 \$6246-03/\$1\$a廉希聖憶香港基本法起草

250 \$6880-04\$aXianggang di yi ban.

880 \$6250-04/\$1\$a香港第一版.

264 1 \$6880-05\$aXianggang :\$bSan lian shu dian (Xianggang) you xian gong si,\$c2023.

880 1 \$6264-05/\$1\$a香港 :\$b三聯書店(香港)有限公司,\$c2023.

Expectations in MARC

100 1 \$6880-01\$aLian, Xisheng,\$eauthor
880 1 \$6100-01/\$1\$a廉希聖,\$eauthor.

700 1 \$6880-06\$aLeung, Priscilla Mei-fun.
880 1 \$6700-06/\$1\$a梁美芬.

700 1 \$6880-07\$aLiu, Linbo,\$etranscriber.
880 1 \$6700-07/\$1\$a劉林波,\$etranscriber.

700 1 \$6880-08\$aWang, Liu,\$etranscriber.
880 1 \$6700-08/\$1\$a王柳,\$etranscriber.

Exceptions in MARC, or not

PCC Guidelines for Creating Bibliographic Records in Multiple Character Sets

Revised for RDA, June 28, 2016; last revised: September 7, 2017

21 formats, refer to the particular MARC and PCC standards. The “optional” column in the table below is not meant to be exhaustive, but lists commonly used fields.

Mandatory (if applicable) (MA)	Optional
245 (Title/statement of responsibility)	100-111 (Creator/Author authorized access point)
246 (Varying form of title)	130/240 (Work/Expression authorized access point)
247 (Former title)	362 (Dates of publication and/or sequential designation)
250 (Edition statement)	5XX (Notes)
264 (Publication, distribution, etc.)	600-630, 651 (Subject access fields)
490 (Series statements)	700-730 (Additional authorized access points)
740 (Related work/ expression/manifestation)	76X-78X (Related work, expression, manifestation)
	8XX (Authorized access point for series)

We're doing linked data...

```
—<bf:contribution>
  —<bf:Contribution>
    <rdf:type rdf:resource="http://id.loc.gov/ontologies/bibframe/PrimaryContribution"/>
    <bf:agent rdf:resource="http://id.loc.gov/rwo/agents/n89203086"/>
    <bf:role rdf:resource="http://id.loc.gov/vocabulary/relators/aut"/>
  </bf:Contribution>
</bf:contribution>
—<bf:title>
  —<bf>Title>
    —<bf:mainTitle>
      Ōperāmālika : Bhāratasaṃskṛtiki anvayiñcukonucu anusṛjñcina Iṭāliyanu, Phreñci, Jarmanu
    </bf:mainTitle>
    —<bf:mainTitle xml:lang="te-telu">
      ఓపరామాలిక : భారతసంస్కృతికి అన్వయించుకొనుచు అనుసృజించిన ఇటాలియను, ఫ్రెంచి, జర్మను భాషా
    </bf:mainTitle>
  </bf>Title>
</bf:title>
```

MARC is doing strings...

100 1 \$aTwain, Mark,\$d1835-1910

400 1 \$aتواین، مارک

400 1 \$aتوین، مارک,\$d1835-1910

400 1 \$aטוין, מרק,\$d1835-1910

400 1 \$aטוויין, מארק,\$d1835-1910

400 1 \$aטוויין, מרק,\$d1835-1910

400 1 \$aטוין, מארק,\$d1835-1910

400 1 \$aטוין, מרק,\$d1835-1910

400 1 \$aטווען, מארק,\$d1835-1910

Tag non-Latin variants, choose winner

```
-<madsrdf:PersonalName rdf:about="http://id.loc.gov/authorities/names/n79021164">
  <rdf:type rdf:resource="http://www.loc.gov/mads/rdf/v1#Authority"/>
  <madsrdf:authoritativeLabel>Twain, Mark, 1835-1910</madsrdf:authoritativeLabel>
  <madsrdf:authoritativeLabel xml:lang="ko-hang">트웨인, 마크, 1835-1910</madsrdf:authoritativeLabel>
  <bflc:marcKey xml:lang="ko-hang">4001 $a트웨인, 마크,$d1835-1910$7(bcp47)ko-hang</bflc:marcKey>
  <madsrdf:authoritativeLabel xml:lang="und-hebr">1835-1910 , מרק , טוויין</madsrdf:authoritativeLabel>
  <bflc:marcKey xml:lang="und-hebr">4001 $aמרק , טוויין,$d1835-1910$7(bcp47)und-hebr</bflc:marcKey>
  <madsrdf:authoritativeLabel xml:lang="und-arab">تواين، مارك</madsrdf:authoritativeLabel>
  <bflc:marcKey xml:lang="und-arab">4001 $a7$مارك، تواين(bcp47)und-arab</bflc:marcKey>
  <madsrdf:authoritativeLabel xml:lang="und-beng">টোয়েন, মার্ক, 1835-1910</madsrdf:authoritativeLabel>
  <bflc:marcKey xml:lang="und-beng">4001 $aটোয়েন, মার্ক,$d1835-1910$7(bcp47)und-beng</bflc:marcKey>
  <madsrdf:authoritativeLabel xml:lang="und-hani">馬克吐溫, 1835-1910</madsrdf:authoritativeLabel>
  <bflc:marcKey xml:lang="und-hani">4001 $a馬克吐溫,$d1835-1910$7(bcp47)und-hani</bflc:marcKey>
  <madsrdf:authoritativeLabel xml:lang="und-cyrl">Твен, Марк, 1835-1910</madsrdf:authoritativeLabel>
  <bflc:marcKey xml:lang="und-cyrl">4001 $aТвен, Марк,$d1835-1910$7(bcp47)und-cyrl</bflc:marcKey>
```

Tag non-Latin variants, choose winner

```
-<madsrdf:PersonalName rdf:about="http://id.loc.gov/authorities/names/n79021164">
  <rdf:type rdf:resource="http://www.loc.gov/mads/rdf/v1#Authority"/>
  <madsrdf:authoritativeLabel>Twain, Mark, 1835-1910</madsrdf:authoritativeLabel>
  <madsrdf:authoritativeLabel xml:lang="ko-hang">트웨인, 마크, 1835-1910</madsrdf:authoritativeLabel>
  <bflc:marcKey xml:lang="ko-hang">4001 $a트웨인, 마크,$d1835-1910$7(bcp47)ko-hang</bflc:marcKey>
  <madsrdf:authoritativeLabel xml:lang="und-hebr">1835-1910 , מרק , טוויין</madsrdf:authoritativeLabel>
  <bflc:marcKey xml:lang="und-hebr">4001 $aמרק , טוויין,$d1835-1910$7(bcp47)und-hebr</bflc:marcKey>
  <madsrdf:authoritativeLabel xml:lang="und-arab">مارك ، توانين</madsrdf:authoritativeLabel>
  <bflc:marcKey xml:lang="und-arab">4001 $a7$مارك ، توانين(bcp47)und-arab</bflc:marcKey>
  <madsrdf:authoritativeLabel xml:lang="und-beng">টোয়েন, মার্ক, 1835-1910</madsrdf:authoritativeLabel>
  <bflc:marcKey xml:lang="und-beng">4001 $aটোয়েন, মার্ক,$d1835-1910$7(bcp47)und-beng</bflc:marcKey>
  <madsrdf:authoritativeLabel xml:lang="und-hani">馬克吐溫, 1835-1910</madsrdf:authoritativeLabel>
  <bflc:marcKey xml:lang="und-hani">4001 $a馬克吐溫,$d1835-1910$7(bcp47)und-hani</bflc:marcKey>
  <madsrdf:authoritativeLabel xml:lang="und-cyrl">Твен, Марк, 1835-1910</madsrdf:authoritativeLabel>
  <bflc:marcKey xml:lang="und-cyrl">4001 $aТвен, Марк,$d1835-1910$7(bcp47)und-cyrl</bflc:marcKey>
```

Before multiscript MARC records

01145cam a2200313 a 4500

001 3325583

005 19950601150005.4

008 840905s1984 nyu 000 0 korr

010 \$a 84210216

100 1 \$aKim, Hyŏng-uk,\$d1925-

245 10 \$aPak Chŏng-hŭi wangjo ŭi pihwa /\$c[chŏja Kim Hyŏng-uk, Pak Sa-wŏl].

260 \$aNew York, N.Y. :\$bTongnip Sinmunsa,\$c1984.

300 \$a351 p. ;\$c21 cm.

490 1 \$aKim Hyŏng-uk chŭngŏn ;\$vche 3-pu

651 0 \$aKorea (South)\$xPolitics and government\$y1960-1988.

700 1 \$aPark, Chung Hee,\$d1917-1979.

700 1 \$aKim, Kyŏng-jae,\$d1942-

Magic in BIBFRAME

Bibframe Work

Title

Pak Chǒng-hŭi wangjo ŭi pihwa

Type

- Text
- Monograph

Contribution

- Kim, Hyǒng-uk, 1925- / 김형욱, 1925- (author)
- Park, Chung Hee, 1917-1979 / 박 정희, 1917-1979 (contributor)
- Kim, Kyǒng-jae, 1942- / 김 경재, 1942- (contributor)

Magic in BIBFRAME

```
<bf:Work>
  <bflc:aap>Mach'imnae siin iyö : 17-in sinjak sijip</bflc:aap>
  <bf:language rdf:resource="http://id.loc.gov/vocabulary/languages/kor" />
  <bf:contribution>
    <bf:Contribution>
      <bf:agent>
        <bf:Agent rdf:about="http://id.loc.gov/rwo/agents/n81047204">
          <rdf:type rdf:resource="http://id.loc.gov/ontologies/bibframe/Person"/>
          <rdfs:label>Sin, Kyöng-nim</rdfs:label>
          <bflc:marcKey>1001 $aSin, Kyöng-nim</bflc:marcKey>
          <rdfs:label xml:lang="ko-kore">신 경림</rdfs:label>
          <bflc:marcKey xml:lang="ko-kore">4001 $a신 경림$7 (bcp47) ko-hang</bflc:marcKey>
        </bf:Agent>
      </bf:agent>
      <bf:role rdf:resource="http://id.loc.gov/vocabulary/relators/ctb" />
    </bf:Contribution>
  </bf:contribution>
  <bf:contribution>
    <bf:Contribution>
      <bf:agent>
        <bf:Agent rdf:about="http://id.loc.gov/rwo/agents/n82010480">
          <rdf:type rdf:resource="http://id.loc.gov/ontologies/bibframe/Person"/>
          <rdfs:label>Yi, Si-yöng, 1949-</rdfs:label>
          <bflc:marcKey>1001 $aYi, Si-yöng,$d1949-</bflc:marcKey>
          <rdfs:label xml:lang="ko-kore">이 시영, 1949-</rdfs:label>
          <bflc:marcKey xml:lang="ko-kore">4001 $a이 시영,$d1949-$7 (bcp47) ko-hang</bflc:marcKey>
        </bf:Agent>
      </bf:agent>
      <bf:role rdf:resource="http://id.loc.gov/vocabulary/relators/ctb" />
    </bf:Contribution>
  </bf:contribution>
</bf:Work>
```

Magic in BIBFRAME-to-MARC

cam a22 i 4500
001 3325583
005 20260505193320.0
008 840905s1984 nyu 000 0 kor
010 \$a 84210216

100 1 \$6880-01 \$aKim, Hyŏng-uk,\$d1925- \$eauthor\$4aut\$4<http://...>
\$1<http://id.loc.gov/rwo/agents/n81061526>

880 1 \$6100-01/\$1 \$a김형욱,\$d1925- \$eauthor ... \$7(bcp47)ko

245 10 \$aPak Chŏng-hŭi wangjo ŭi pihwa /\$c[chŏja Kim Hyŏng-uk, Pak Sa-wŏl].
264 1 \$aNew York, N.Y. :\$bTongnip Sinmunsa,\$c1984.

700 1 \$6880-70 \$aPark, Chung Hee,\$d1917-1979 \$econtributor\$0<http://...>
\$1<http://id.loc.gov/rwo/agents/n79058355>

880 1 \$6700-70/\$1 \$a박 정희,\$d1917-1979 \$econtributor ... \$7(bcp47)ko

700 1 \$6880-71 \$aKim, Kyŏng-jae,\$d1942- \$econtributor\$0<http://...>
\$1<http://id.loc.gov/rwo/agents/n88177433>

880 1 \$6700-71/\$1 \$a김경재,\$d1942- \$econtributor ... \$7(bcp47)ko

PCC Non-Latin Preferred Variant Project

Evaluate variant name headings and:

- 1) Assign language/script information as appropriate
- 2) Choose one as a preferred variant per language/script

Slightly smarter MARC strings...

100 1 \$aPavlov, I. N.\$q(Ivan Nikolaevich),\$d1872-1951

400 1 \$aPavlov, Ivan Nikolaevich,\$d1872-1951

400 1 \$aPawloff, Iwan Nikolajewitsch,\$d1872-1951

400 11 \$aПавлов, И. Н.\$q(Иван Николаевич),\$d1872-1951\$7(вср47)ru

400 1 \$aПавлов, Иван Николаевич,\$d1872-1951\$7(вср47)ru

Better magic in BIBFRAME

Bibframe Work

Title

Staraĩa`Moskva

Other Titles (e.g. Variant)

At head of title Graviũry na dereve

Iskusstvo ksilografii i masterstvo Pavlova. Vstupitel'naia`stat'ia. L.R. Varshavskii

Type

- Text
- Monograph

Contribution

- Pavlov, I. N. (Ivan Nikolaevich), 1872-1951 / Павлов, И. Н. (Иван Николаевич), 1872-1951 (author)

Better magic in BIBFRAME

```
—<bf:contribution>
  —<bf:Contribution>
    <rdf:type rdf:resource="http://id.loc.gov/ontologies/bibframe/PrimaryContribution"/>
    —<bf:agent>
      —<bf:Agent rdf:about="http://id.loc.gov/rwo/agents/nr91002746">
        <rdf:type rdf:resource="http://id.loc.gov/ontologies/bibframe/Person"/>
        <rdfs:label>Pavlov, I. N. (Ivan Nikolaevich), 1872-1951</rdfs:label>
        —<bf:lc:marcKey>
          1001 $aPavlov, I. N.$q(Ivan Nikolaevich),$d1872-1951
        </bf:lc:marcKey>
        <rdfs:label xml:lang="ru-cyrl">Павлов, И. Н. (Иван Николаевич), 1872-1951</rdfs:label>
        —<bf:lc:marcKey xml:lang="ru-cyrl">
          40011$aПавлов, И. Н.$q(Иван Николаевич),$d1872-1951$7(bcp47)ru-cyrl
        </bf:lc:marcKey>
      </bf:Agent>
    </bf:agent>
  —<bf:role>
    —<bf:Role rdf:about="http://id.loc.gov/vocabulary/relators/aut">
      <rdfs:label>author</rdfs:label>
      <bf:code>aut</bf:code>
    </bf:Role>
  </bf:role>
</bf:Contribution>
</bf:contribution>
```

Looking ahead

Migrate from MARC Authority

Revise MADS/RDF

Native Linked Data without reliance on MARC

Thank You

kevinford@loc.gov