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BIBFRAME in Europe

Working with linked data at scale in library workflows

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Sr. Product Manager

Meeting libraries where you are today

- **Create global identifiers** that will be used across workflows by adding to URIs to WorldCat data
- **Release tools that bridge the gap** between traditional records and linked data frameworks to enable seamless creation and curation of data
- **Import and export WorldCat data as BIBFRAME** so librarians can work seamlessly between MARC and BIBFRAME
- **Evaluate and adapt to flavors of BIBFRAME** so librarians can share and exchange data with the highest fidelity possible

Identifiers in workflows

WorldCat Entities in MARC records

| | | | |
|-----|---|---|---|
| 650 | | 0 | Institutional repositories \$z United States \$v Case studies . |
| 650 | | 7 | Institutional repositories . \$2 fast \$0 (OCoLC)fst01740486 |
| 700 | 1 | | Mixer, Jeff , \$e author. \$1 https://id.oclc.org/worldcat/entity/E39PBJtRJykHh8gwxXj3JQ4cyd |
| 700 | 1 | | McMillian, Ciara . |

400M WorldCat Entity URIs

entities.oclc.org

WorldCat Entities data output

Included in MARC records through:

- Export in WorldShare Record Manager
- Export in Connexion
- WorldCat Metadata API
- Z39.50 Cataloging
- Bulk output in WorldShare Collection Manager

Look up WorldCat Entities within WorldShare Record Manager

Insert WorldCat Entity

| Entity Type | Term(s) |
|-------------|-------------|
| Person | Mixer, Jeff |

Search Reset

Results 1 - 1 of 1

| Entity Label | Description |
|----------------------------|-------------------------|
| Jeff Mixer | product manager at OCLC |

Select Entity

Results 1 - 1 of 1

Create WorldCat Entity

The screenshot displays the 'Create WorldCat Entity' dialog box with the following fields and options:

- Language:** English (en)
- Entity label (do not invert names):** Jane Sturmany
- Entity type:** Agent
- Entity subtype:** Person
- Fictional entity
- Description: Include information about the entity:** Author and educator
- Aliases: Add any alternative names that you want to be searchable:** (Empty text box with + and - buttons)
- Dates:**
 - Date of birth: Year (YYYY) 1983
- Buttons:** Create and insert URI, Cancel

The background shows a list of records with the following visible entries:

| Call Number | Language | Entity Label |
|-------------|----------|--|
| 650 | 0 | Institutional repositories. |
| 650 | 0 | Institutional repositories Sz L |
| 650 | 6 | Dépôts institutionnels. |
| 650 | 6 | Dépôts institutionnels Sz Éta |
| 650 | 7 | Institutional repositories. S2 fa |
| 651 | 7 | United States. S2 fast S0 (OC |
| 655 | 7 | Case studies. S2 fast S0 (OC |
| 700 | 1 | Callicott, Burton B. Sd 1968 |
| 700 | 1 | Scherer, David. Sd 1984- Se |
| 700 | 1 | Wesolek, Andrew. Sd 1983- |
| 700 | 1 | Mixer, Jeff S1 https://id.oclc.org/worldcat/ontology/hasWork |
| 700 | 1 | Sturmany, Jane |
| 758 | | Si has work: Sa Making institu |
| 830 | | Charleston insights in library. |
| 938 | | Brodart Sb BROD Sn 114418 |
| 938 | | Baker and Taylor Sb BTCP Sn BK0016507462 |
| 938 | | Coutts Information Services Sb COUT Sn 30968635 |

Dewey Linked Data

Unlocks the power of Dewey numbers via the creation of URIs

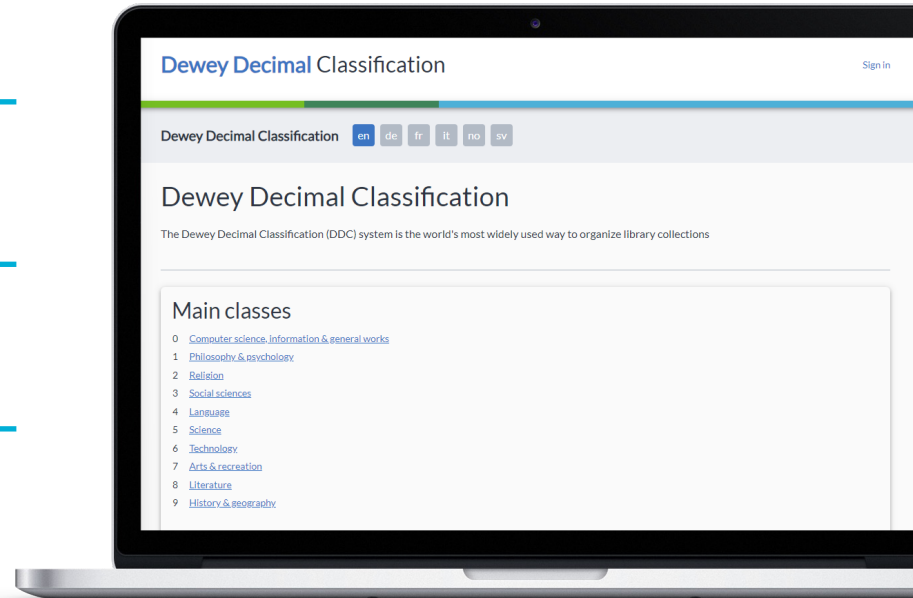
Forms the foundation for “concept” entities

Provides subject classifications to Works entities in WorldCat Entities

Creates a layer of new relationships for knowledge graphs

Connects Dewey classifications to FAST topical headings

[oclc.org/dewey-linked-data](https://oclc.org/oclc/dewey-linked-data)




```
{
  "@context": "https://id.oclc.org/worldcat/ddc/context.json",
  "id": "https://id.oclc.org/worldcat/ddc/E3PRvcKgGchft6DvhYfjPKx7w9",
  "type": "Concept",
  "created": "2000-02-02",
  "modified": "2024-02-26T13:40:49Z",
  "altLabel": [ 6 elements... ],
  "broader": "https://id.oclc.org/worldcat/ddc/E3K49bFD7gbP9pvDKv6Jm7xTj7",
  "inScheme": "https://id.oclc.org/worldcat/ddc/",
  "notation": "025.316",
  "prefLabel": {
    "en": "Machine-readable record formats",
    "sv": "Maskinläsbara postformat",
    "no": "Formater for maskinlesbare kataloger",
    "fr": "Formats d'enregistrement catalographique lisibles par machine",
    "it": "Formati di registrazione leggibili dalla macchina",
    "de": "Maschinenlesbare Katalogdatenformate"
  },
  "related": [
    "https://id.oclc.org/worldcat/ddc/E3gdGPBtR8TkYfRCd9gw7RhKG8",
    "https://id.oclc.org/worldcat/ddc/E477KhygmMFfRpxwPyVbcTMHFY",
    "https://id.oclc.org/worldcat/ddc/E48DxR4DrFWPDDtJGMkMKJhGGp"
  ],
  "relatedMatch": "http://id.worldcat.org/fast/1004492",
  "scopeNote": {
    "sv": [
      "Klassificera här kommunikation och interna format för maskinläsbara katalogposter, för metadata; Machine-Readable Cataloging"
    ]
  }
}
```



WorldCat ontology

[oclc.org/worlcat-ontology](https://oclc.org/oclc/worlcat-ontology)

New tools for new data

OCLC Meridian

Create, curate, and connect linked data in WorldCat Entities

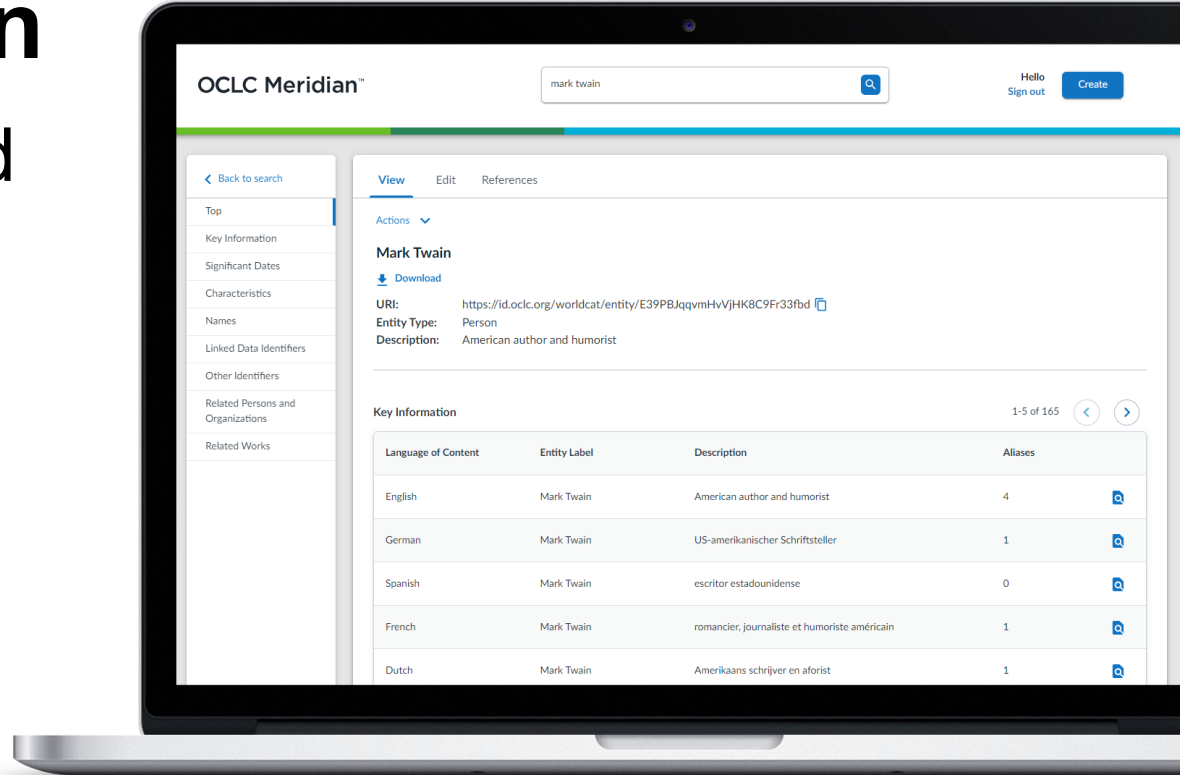
oc.lc/meridian

 WorldCat[®]
Entities



OCLC Meridian

Intuitive, web-based
user interface



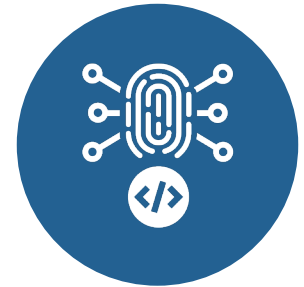
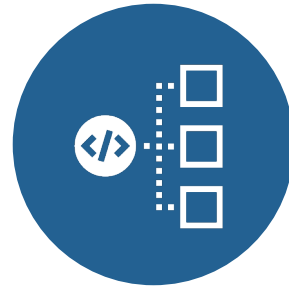
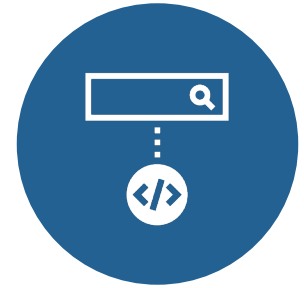
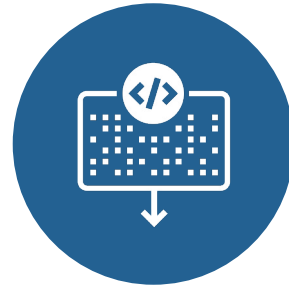
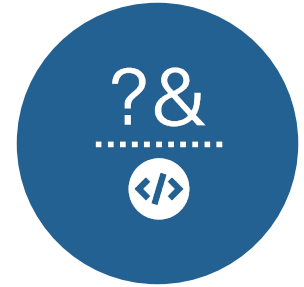
OCLC Meridian

Suite of WorldCat Entities APIs

- Entity Management API
- Entity Search API
- PID Lookup API
- Entity Changes API

Available add-on APIs:

- Entity Connections API
- Entity Query API



BIBFRAME

Ingest

Completed ingest mappings in alignment with LOC 2.6 conversion specifications

- Currently working on 2.7 conversion specifications

Tested ingest from both Library of Congress as well as Sinopia (Alma)

- Expanded Mappings based on differences in BIBFRAME structure and data across different providers/services
- Shared feedback with libraries and library vendors

Export

Evaluated MARC fields not accounted for in LOC MARC > BIBFRAM conversion

- Aggregation of MARC data from around the world to evaluate and analyze
- Expanded mapping to account most frequently used fields/subfields
- Addressed variety of identifiers found across MARC

At scale testing to evaluate quality of exported BIBFRAME and to compare to BIBFRAME contributed directly to WorldCat

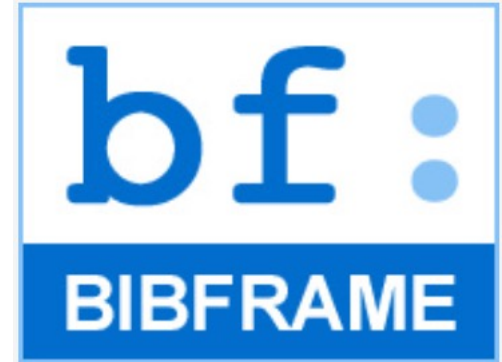
BIBFRAME Editor

Seamless work in MARC or BIBFRAME

2nd round of user testing

Development partner testing in 2025

Integration with OCLC Meridian



BIBFRAME Data

Our work with the PCC BIG group and evaluating BIBFRAME at scale across WorldCat has found:

- Idiosyncrasies in MARC = Large idiosyncrasies in BIBFRAME
- Differing flavors of BIBFRAME and BIBFRAME exported via different BIBFRAME editors can be significantly diverse

This decreases the reusability of the data at scale and compromises the interoperability of the data across libraries

BIBFRAME Data

OCLC is working towards creating a **highly reliable**, **consistent**, and **developer friendly** set of BIBFRAME data:

- Normalizing patterns across the data
- Adopting best practices for publishing linked data
- Working closely with LOC to ensure our ingest and export mappings are up-to-date with LOC specifications

Next steps

Data enrichment

- Add WorldCat Organization Entity links to WorldCat records
- Add Dewey linked data links to WorldCat records and WorldCat Work Entities
- Continually update WorldCat Entity data
 - +86 Million additions added since May 2024
- Continual BIBFRAME data analysis and refinement

Tools and Services

- Integrate WorldCat Entities data into discovery services
- Continue UI/UX research for BIBFRAME Editor
- Development partner testing for OCLC BIBFRAME Editor

Want to participate in UI/UX testing?

Complete the form at oc.lc/bf-testing



**Because
what is
known must
be shared.®**

Thanks!

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