Metaserver User Guide

Production Version 1.9.2
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Contact Information
Send questions, feedback, issues, and bugs regarding this guide to the Collection Manager Support email at ncei.collection-manager.support@noaa.gov. If an issue or bug, include steps required to replicate it. Additionally, provide your name and contact information if you wish to be contacted for issue clarification and/or to receive updates on the status of the issue.

Acknowledgements
Special thanks to Charlie Burris, Jerri Lynn Reeves, and John Relph for their technical input.

Overview
Metaserver provides CoMET-like services without creating a metadata record, resolves xlinks, and translates between different XML standards.

It is responsible for Web Accessible Folders (WAF) configuration and management, storing and tracking metrics, and the frequency of processing those WAFs.

Record services includes validating a metadata record, checking for bad links, resolving, and rubric V2 compliance.

Helpful Quickfacts
1. ISO 19139 XML is the implementation of ISO 19115-2 XML
2. If a user updates an in-use XML Component in Docucomp, user must republish records in CoMET OR run a WAF on demand in Metaserver

New Users
Note: Manager must approve access
- Email: ncei.collection-manager.support@noaa.gov
- Subject:
  - New User for Metaserver for employee name
- Body:
  - Employee’s Contact information
  - Associated program or agency
  - Intended usage
Log In

- Access Metaserver at https://data.noaa.gov/metaserver/
- Select ‘Login’

- Enter Username (email address without @noaa.gov) and email password OR click ‘NOAA ICAM SSO’ button

- ‘Select a certificate’, if prompted
  - Select same certificate used when logging into work computer

- Enter CAC PIN
● After authentication, a Warning page is displayed
  ○ Click ‘Accept’ to proceed
Viewing Option

Dark Mode

- Toggle button for ‘Dark Mode’ at top right corner of screen
  - ‘Dark Mode On’ or ‘Dark Mode Off’

Record Collections

- To view list of Record Collections, click ‘Record’ drop-down menu, select ‘Collections’

  Either ‘Search Collections’ or view list below ‘RecordCollection List’

<table>
<thead>
<tr>
<th>Source Url</th>
<th>Name</th>
<th>Owner</th>
<th>Last Updater</th>
<th>Last Updated</th>
<th>Date Created</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="https://data.noaa.gov/waf/NOAAGEINF/CLASS/">https://data.noaa.gov/waf/NOAAGEINF/CLASS/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="https://data.noaa.gov/waf/NOAAGEINF/NGDC/Collection/">https://data.noaa.gov/waf/NOAAGEINF/NGDC/Collection/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="https://data.noaa.gov/waf/NOAAGEINF/NGDC/Geophysical_Models/">https://data.noaa.gov/waf/NOAAGEINF/NGDC/Geophysical_Models/</a></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="https://data.noaa.gov/waf/NOAAGEINF/NGDC/Geophysical/">https://data.noaa.gov/waf/NOAAGEINF/NGDC/Geophysical/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="https://data.noaa.gov/waf/NOAAGEINF/NGDC/Hazard_Photos/">https://data.noaa.gov/waf/NOAAGEINF/NGDC/Hazard_Photos/</a></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><a href="https://data.noaa.gov/waf/NOAAGEINF/NGDC/Hazards/">https://data.noaa.gov/waf/NOAAGEINF/NGDC/Hazards/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="https://data.noaa.gov/waf/NOAAGEINF/NGDC/MultiStream/">https://data.noaa.gov/waf/NOAAGEINF/NGDC/MultiStream/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="https://data.noaa.gov/waf/NOAAGEINF/NGDC/Wind/">https://data.noaa.gov/waf/NOAAGEINF/NGDC/Wind/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="https://data.noaa.gov/waf/NOAAGEINF/NOG/OS500000-B02000/">https://data.noaa.gov/waf/NOAAGEINF/NOG/OS500000-B02000/</a></td>
<td></td>
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</tr>
<tr>
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<td></td>
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</tr>
</tbody>
</table>
Record Services

- Click ‘Record’ drop-down menu, select ‘Services’

Choose Input

- Either select ‘File’ and then click ‘Choose File’ to upload XML file saved on computer OR select ‘URL’ to enter URL for remote XML file
Choose Service

- Resolve
- ISO Validate
- Link Check (slow)
- NCEI Landing Page
- ISO to Rubric V2
- ISO to Rubric V1
- NCML to Rubric V1
- NCML to ISO
- FGDC To ISO
  - Click ‘Submit’

If XML is not valid, red error message appears

Correct XML content and resubmit
Resolve

Resolve URL references to components. Input: 19139 schema valid XML file. Resolving records with Docucomp Components (Xlinks) allows users to see how the record will look published. This feature will not resolve a component with errors, it is a method to allow users to check that components are correct.

- XML opens in new tab

**Note:** Six highlighted ‘resourceConstraint’ tags are populated with XML

- Same XML file, but unresolved

**Note:** Four highlighted ‘resourceConstraint’ tags are populated with Xlinks
ISO Validate

Validate metadata with 19139 Schema. Input: 19139 XML file

- 19139 Schema-valid ISO

- Example: failed XML schema validation
  - Report displays all errors
Link Check (slow)

Verify CI_OnlineResource URLs are valid. Input: 19139 schema valid XML file. This service is noted as slow as it does not run as fast as the others.

- Checks for broken CI_OnlineResource links
  - No broken links

- Broken links examples
  - Lists broken link(s) and number of times links appear within XML
  - Lists Unique Bad URLs and Total URL hits

NCEI Landing Page

Generate the NCEI Landing page view

- Input: 19139 schema valid XML file
ISO to Rubric V2

Generate V2 completeness assessment report

- Input: 19139 schema valid XML file

ISO to Rubric V1

Generate a V1 completeness assessment report

- Input: 19139 schema valid XML file
NCML to Rubric V1

Generate a completeness assessment report

- Input: NetCDF XML

**NetCDF Attribute Convention for Dataset Discovery Report**

<table>
<thead>
<tr>
<th>Title: AP FOR</th>
<th>Total Score: 22/44</th>
</tr>
</thead>
<tbody>
<tr>
<td>General File Characteristics</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Is</th>
<th>Total</th>
<th>2.5%</th>
<th>5%</th>
<th>10%</th>
<th>15%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is</td>
<td>Total</td>
<td>2.5%</td>
<td>5%</td>
<td>10%</td>
<td>15%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Identifications: Metadata Reference Score: 4/4

Text Search Score: 8/7

NCML to ISO

Translate from NCML to ISO 19115-2

- Input: ACDD compliant NetCDF XML
FGDC To ISO
Translate from FGDC to ISO 19115-2

Collection Sources

*Note: Only applicable to users whose record source is external*

- On Home page click ‘Collection’ drop-down menu, select ‘Sources’
- Either search by ‘Record Collection’ name (Filters optional) or view list below ‘Collection Source List’

**Collection Source List**

Showing 1 to 10 of 106 records  Show Columns: Collection □ Source Type □ Status □ Source Url □ Frequency □ Processing Status □ Last Processed □ Notes □ Email

<table>
<thead>
<tr>
<th>Collection</th>
<th>Source Type</th>
<th>Status</th>
<th>Source Url</th>
<th>Frequency</th>
<th>Processing Status</th>
<th>Last Processed</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOAA/NESDIS/NISD/MGS/Multibeam/</td>
<td>ISOWAF</td>
<td>APPROVED</td>
<td><a href="https://data.noaa.gov/waf/NOAA/NESDIS/NISD/MGS/Multibeam/iso_u/xml/">https://data.noaa.gov/waf/NOAA/NESDIS/NISD/MGS/Multibeam/iso_u/xml/</a></td>
<td>DAILY</td>
<td>IDLE</td>
<td>2023-04-14 00:56:08 EDT</td>
</tr>
<tr>
<td>NOAA/NESDIS/NISD/MGS/DART/</td>
<td>ISOWAF</td>
<td>APPROVED</td>
<td><a href="https://data.noaa.gov/waf/NOAA/NESDIS/NISD/MGS/DART/iso_u/xml/">https://data.noaa.gov/waf/NOAA/NESDIS/NISD/MGS/DART/iso_u/xml/</a></td>
<td>DAILY</td>
<td>IDLE</td>
<td>2023-04-14 00:47:00 EDT</td>
</tr>
<tr>
<td>NOAA/NESDIS/STAR/sardap/coastwatch/</td>
<td>RESVERIR</td>
<td>APPROVED</td>
<td><a href="http://coastwatch.noaa.gov/sardap/metadata/iso/1913/xml/">http://coastwatch.noaa.gov/sardap/metadata/iso/1913/xml/</a></td>
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<td>2023-04-14 00:46:40 EDT</td>
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<td>NOAA/NESDIS/NISD/MGS/Tides/</td>
<td>ISOWAF</td>
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<td><a href="https://data.noaa.gov/waf/NOAA/NESDIS/NISD/MGS/Tides/iso_u/xml/">https://data.noaa.gov/waf/NOAA/NESDIS/NISD/MGS/Tides/iso_u/xml/</a></td>
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<td>DAILY</td>
<td>IDLE</td>
<td>2023-04-14 00:28:42 EDT</td>
</tr>
</tbody>
</table>

- Collection Source List is a table that meets all filtered requirements
- User may select which columns to display
  - Column titles list is to right of ‘Show Columns’
  - Titles with blue buttons are displayed and titles with gray buttons are not
  - User clicks buttons to change columns to be displayed
Download List

- Collection Source List may be downloaded into a csv file
  - Click ‘Download List’

- Select location to save file
  - Click ‘Save’
WAF OnDemand

Web Accessible Folder (WAFs) are configured to be refreshed on a recurring basis. Frequency is determined at set-up but can be adjusted as needed by contacting ncei.collection-manager.support@noaa.gov

WAF OnDemand is available to users who need to refresh an entire WAF immediately. WAF OnDemand resolves Xlink components, generates rubric and diagnostic reports, and Table of Contents for a public WAF. This service is for legacy customers and it is recommended that new customers publish records through CoMET.

- Click ‘Collection’ drop-down menu, select ‘Services (WAF ON-DEMAND)’

- From ‘WAF NAME’ dropdown menu, select a WAF
Click ‘Submit OnDemand’

Message appears ‘On Demand has been requested for [WAF NAME]’

API (Application Programming Interface)

Metaserver API is a software interface that allows connection between computers or computer programs. It gives users the ability to write programs (scripts) to provide CoMET-like services without creating a metadata record, resolve xlinks, and translate between different XML standards.

Note:

- *Metaserver APIs are intended for users with computer programming experience*
- *To view the complete API documentation, along with code samples, go to Metaserver API (v1)*
## Change Log

<table>
<thead>
<tr>
<th>Revision Number</th>
<th>Description of Change</th>
<th>Author</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>NR</td>
<td>New Release</td>
<td>C Luquire, L Hager</td>
<td>6/28/2021</td>
</tr>
<tr>
<td>A</td>
<td>Updated version number on title page and footer; standardized formatting; fixed broken links; updated screenshots</td>
<td>L Hager, C Luquire</td>
<td>9/02/2021</td>
</tr>
<tr>
<td>B</td>
<td>Updated version number on title page; added version number and page number in footer; in Contact Info, replaced OSMC team with collection manager support email; revised Overview; updated screenshots; deleted # 3 quickfact about wiki page; added viewing in Dark Mode; added Record Collections section; deleted ‘Check XML Format’ section; replaced invalid XML error message note with screenshot of error message; described ‘FGDC to ISO’ record service; added Collection Sources section; added link to Metaserver API (v1)</td>
<td>L Hager</td>
<td>4/21/2023</td>
</tr>
</tbody>
</table>