



CoMET User Guide

Edit User Role

Production Version 1.8.2

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Contact Information

Questions or feedback regarding this guide should be directed to the OneStop Metadata Content Team (lori.hager@noaa.gov, catherine.luquire@noaa.gov, paul.lemieux@noaa.gov)

If you encounter issues or need to report a bug in CoMET, please email ncei.collection-manager.support@noaa.gov. Describe the issue or bug and 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 Reeves, and Marty Aubrey for their technical input

Overview

CoMET was created by the National Centers for Environmental Information (NCEI) to be NOAA's comprehensive and easy to use collection metadata creation and editing tool. It allows users to create ISO compliant metadata, can support NCEI collection metadata template, and is a gateway to publishing metadata to OneStop. CoMET includes a Data Stewardship Maturity Questionnaire (DSMQ) and Data Management Plan (DMP) functionality.

This guide was developed to assist users with learning how to use CoMET quickly and efficiently. Upon completing the guide, the user should be familiar with the base functionality of CoMET and be able to create and edit existing metadata, as well as to be able to perform a DSMM assessment with the use of the DSMQ form.

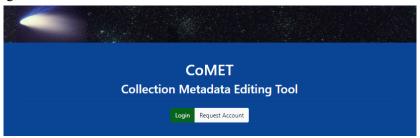
New Users

Note: If a NOAA employee, manager must request access

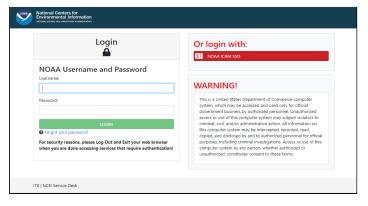
- Email: <u>ncei.collection-manager.support@noaa.gov</u>
- Subject:
 - New User for CoMET for employee name
- Body:
 - Employee's contact information
 - Associated program or agency
 - Records Group(s) to be accessed
 - If Record Group is unknown, user will be assigned to default Record Group 'CoMET Sandbox'
 - User may create/edit record here until appropriate Record Group is determined
 - Intended usage
 - Include if ability to Publish records is required
 - New users will be assigned default user role EDIT

Log In

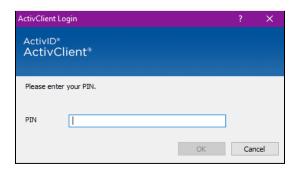
- Access CoMET at https://data.noaa.gov/cedit/
- Select 'Login'



- o If 'Request Account' is selected, email address for collection manager support is revealed
 - If account needed, follow instructions for New Users
- Enter Username (email address without @noaa.gov) and email password OR click 'NOAA ICAM SSO' button



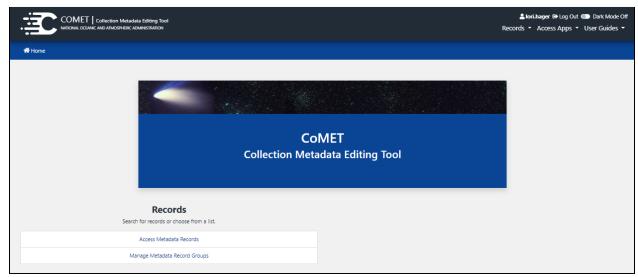
- 'Select a certificate', if prompted
 - Select same certificate used when logging into work computer
- Enter CAC PIN



- After authentication, a Warning page is displayed
 - o Click 'Accept' to proceed

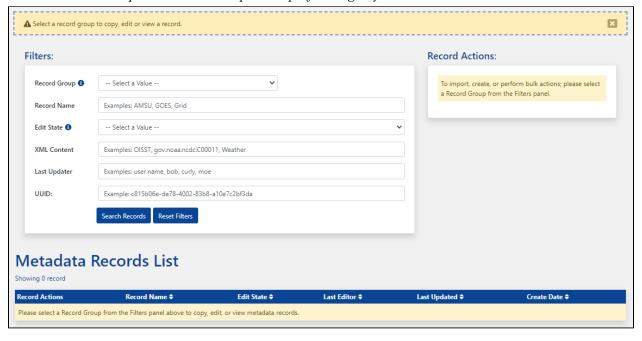


• Select 'Access Metadata Records'

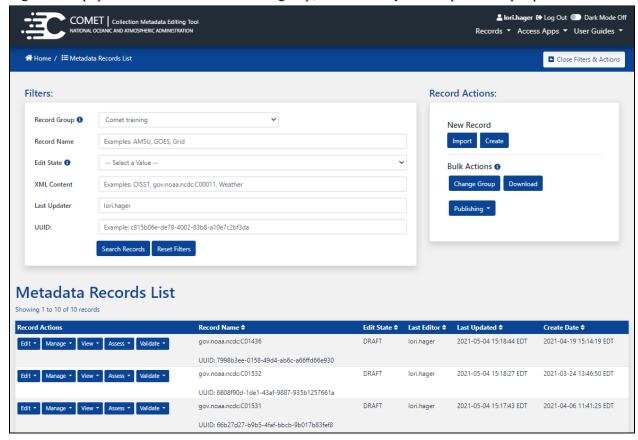


Select team's record group from 'Record Group' drop-down

Note: A Record Group must be selected prior to performing any actions



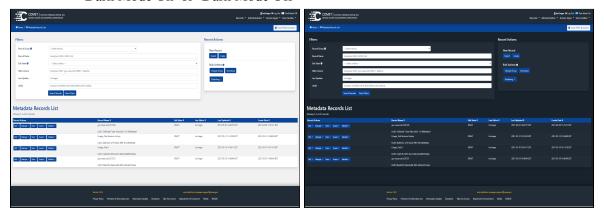
• Page is auto-populated with records from that group, as well as any actions permitted per profil



Viewing Options

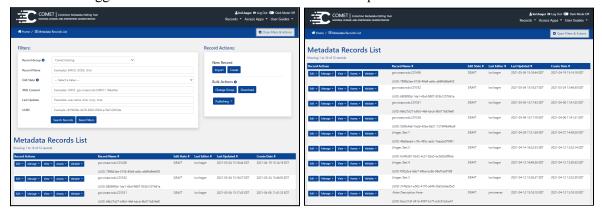
Dark Mode

- Toggle button for 'Dark Mode' at top right corner of screen
 - o 'Dark Mode On' or 'Dark Mode Off'



Streamline Page

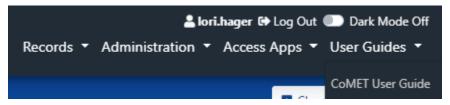
- Click 'Close Filters & Actions'
 - o Toggle between 'Close Filters & Actions' and 'Open Filters & Actions'



Link to CoMET User Guide

Note: Link to be updated

- At top right corner, click 'User Guides' drop-down
 - Select 'CoMET User Guide'

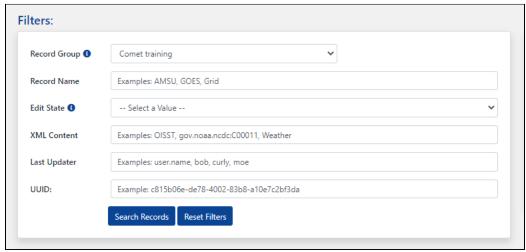


- Metadata site opens in new tab
 - Below RESOURCES, click link CoMET/DSMQ User Guide

RESOURCES CoMET/DSMQ User Guide

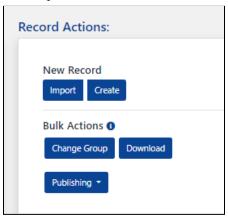
Filters

- Filters panel allows limiting number of records by various criteria
 - o Filter records by:
 - Record Name
 - Edit State
 - XML Content
 - Last Updater
 - UUID
 - Automatically generated or use own from XML
 - Click 'Search Records' to apply filter(s)
 - Click 'Reset Filters' to clear filter(s)



Record Actions

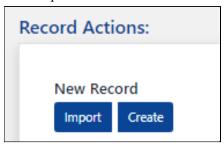
- Record Actions panel includes commonly-used actions
 - New Record
 - Import
 - Import one or multiple valid 19115-2 ISO XML files
 - Create
 - Create new records based on values in NCEI template
 - o Bulk Actions
 - Change Group (action not available for EDIT user role)
 - Allows records to be moved from one group to another
 - Download (action not available for EDIT user role)
 - Allows download of multiple XML files
 - Publishing
 - Request a draft to be published



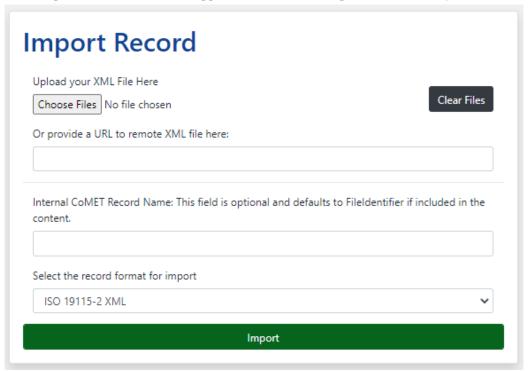
New Record

Import

• In Record Actions panel, click 'Import'

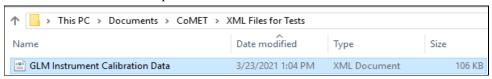


- 'Import Record' dialogue box opens
- Either click 'Choose Files' to upload XML file saved on computer OR enter URL for remote XML file
 - o All XML URLs must have XML extension
 - Multiple/Bulk files may be uploaded from computer
 - Multiple/Bulk URLs are not supported and must be imported individually

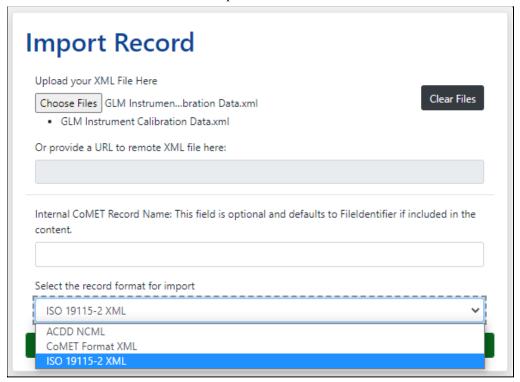


Upload an XML File

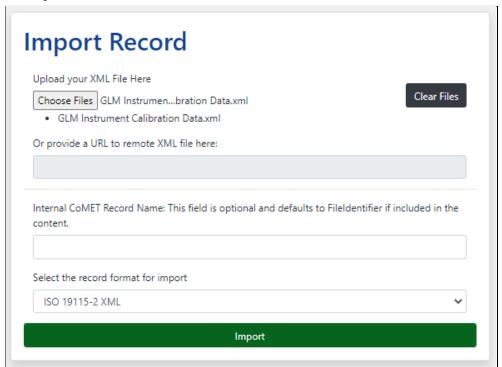
- Click 'Choose Files'
 - Select XML file from computer



- o Optional: CoMET Record Name
 - If record name is not entered, collection metadata ID from FileIdentifier will be used
- Select Record Format from drop-down
 - ISO-19115-2-XML is default option



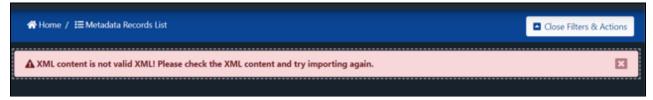
• Click 'Import'



• Get message 'Metadata Record uploaded successfully!'

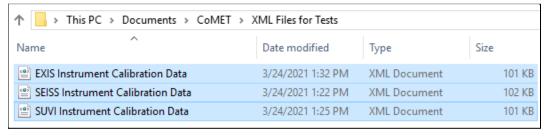


- If XML is not valid, receive error message
 - Check XML and try importing again

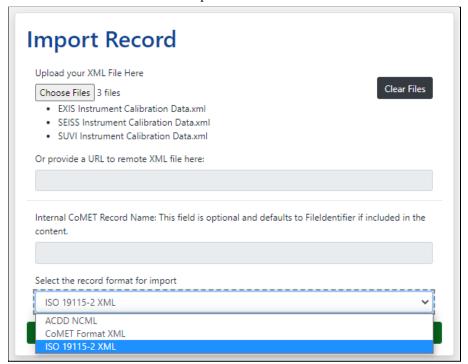


Upload Multiple/Bulk XML Files

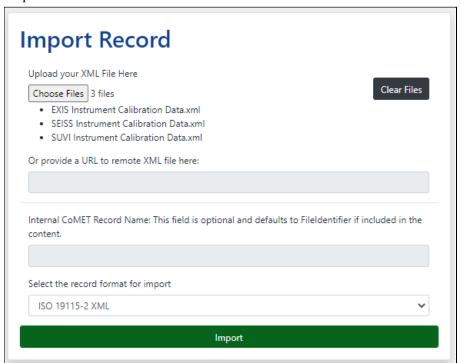
- Click 'Choose Files'
 - Select XML files from computer



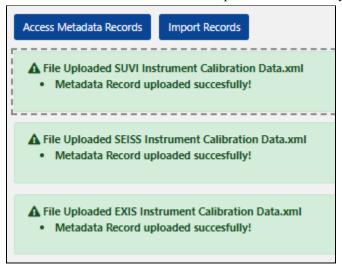
- o Optional: CoMET Record Name
 - If record name is not entered, collection metadata ID (e.g. gov.noaa.ncdc:C01528) from FileIdentifier will be used
- o Select Record Format from drop-down
 - ISO-19115-2-XML is default option



• Click 'Import'

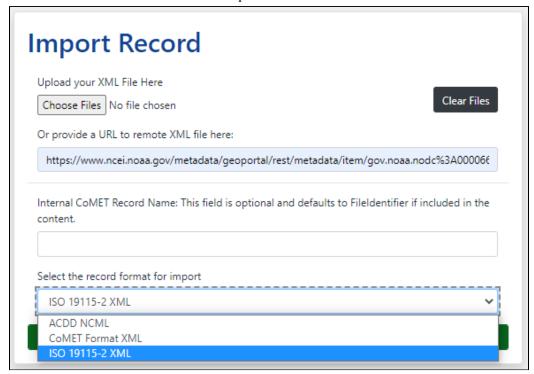


• Receive message for each record: 'Metadata Record uploaded successfully!'

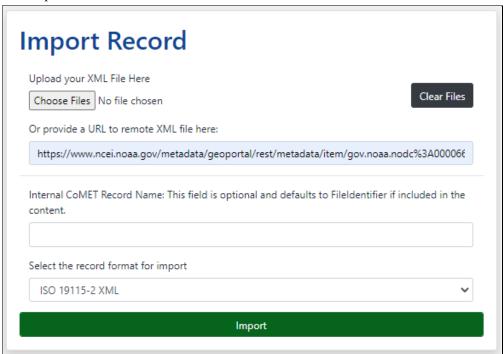


URL To Remote XML File

- Type or paste URL into 'Or provide a URL . . . ' field
 - o Optional: CoMET Record Name
 - If record name is not entered, collection metadata ID (e.g. gov.noaa.ncdc:C01528) from FileIdentifier will be used
 - o Select Record Format from drop-down
 - ISO-19115-2-XML is default option



• Click 'Import'



• Get message 'Metadata Record uploaded successfully!'



Create

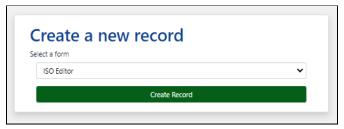
• In Record Actions panel, click 'Create'



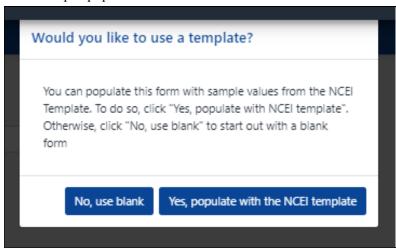
• From 'Select a form' drop-down, select 'ISO Editor'



Click 'Create Record'

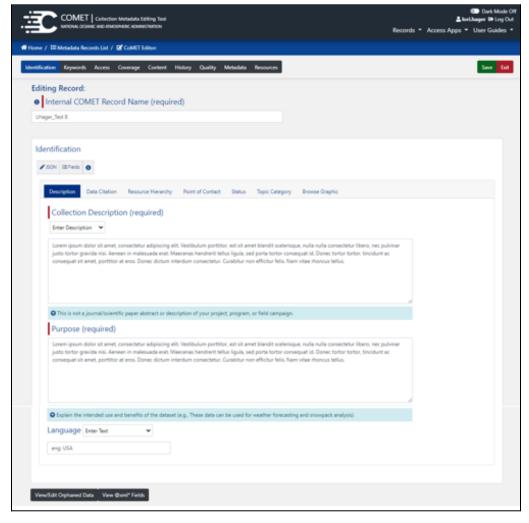


- At 'Would you like to use a template?' prompt
 - Select 'No, use blank' if record will not be submitted to NCEI
 - OR select 'Yes, populate with the NCEI template' if data will be submitted to NCEI
 - Contains pre-populated fields for standard NCEI data



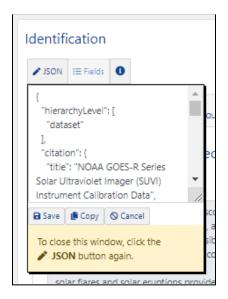
Note: Instructions are same for 'Yes, populate with the NCEI template' as with 'No, use blank' except if NCEI template is used, there is an additional field on Identification tab titled 'Supplemental Information' 'Supplemental Information' is not a required field

- CoMET defaults to Identification tab
 - o Enter data into fields
 - Required fields are indicated by a vertical red bar next to field name, as well as text '(required)' after field name



JSON code can be directly modified or copied

Click JSON button



- o Modify, as desired
- o OR highlight text and click 'Copy'
- o If any changes made, click 'Save' in JSON window
- Click 'JSON' button again to close window

Additional fields may be included by clicking 'Fields' button

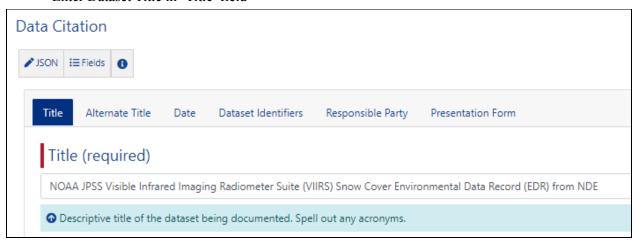
- Place check in box next to field
- If check box is gray, its field is already on page
 - o Field is required and cannot be removed
- Deleting a check removes field and its values
- Language is checked by default



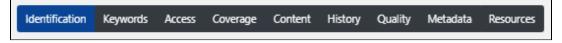
- o After selecting fields, click 'Fields' button again to close window
- Click 'Data Citation' tab (next to 'Description' tab)



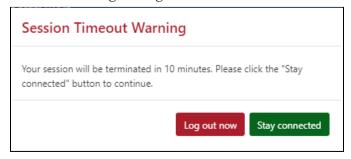
• Enter Dataset Title in 'Title' field



• Use tabs to navigate through form



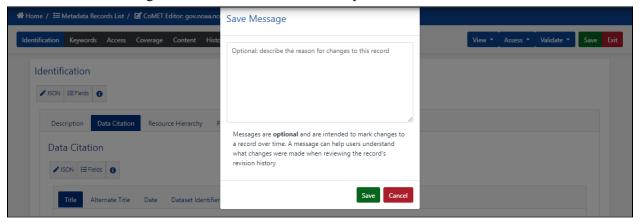
Save periodically as form will not be saved automatically
 Note: If CoMET is left idle too long, session will time out and unsaved data will be lost
 User will receive Timeout Warning message



o Click 'Save' button at top right of page OR Save icon at bottom right of page



- Save Message appears
 - o User has option to add reason for changes made to record
 - Comment is optional but strongly recommended
 - Save Messages are included in Revision History

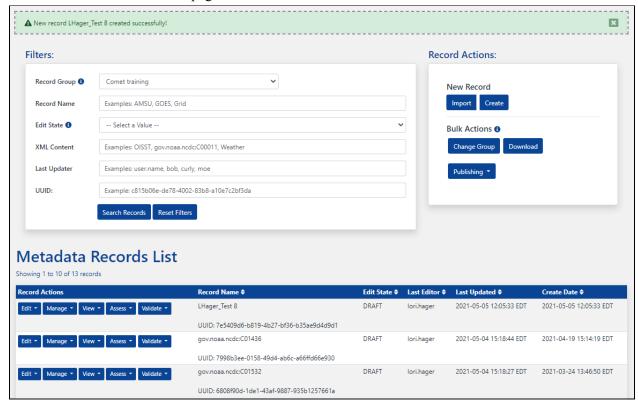


• Message appears 'New record . . . created successfully'



Note: Even if one or more required fields are blank or not in the expected format, CoMET will ignore the validation errors and allow the record to be created

• Metadata Records List page reloads



Bulk Actions

Change Group (action not available for EDIT user role)

Download (action not available for EDIT user role)

Publishing

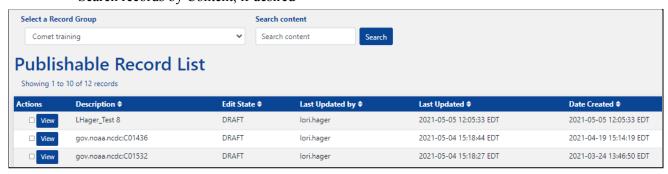
Request to Publish

Once record is complete, submit a request to have it published

• Select 'Request to Publish' from Publishing drop-down

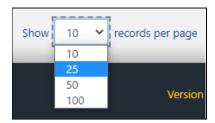


- Publishable Record List is displayed
 - o Search records by Content, if desired

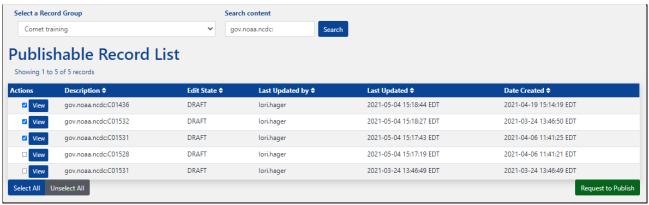


Note: To see all records to be published (if greater than 10 and fewer than 100), user must display number of records per page in an amount greater than number of records to be published

- At bottom left of page, click on drop-down box to change number of records to be displayed
 - Default is 10



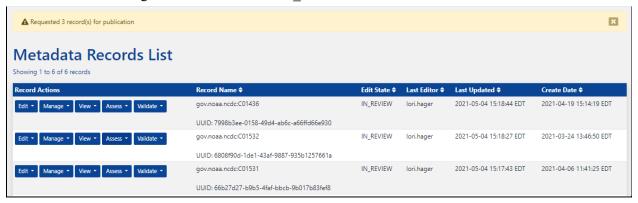
- Check box(es) next to record(s) to be published
- Click 'Request to Publish'



- Pop-up box requests 'Enter Reason for Change'
 - Comment is optional but strongly recommended
- Click 'OK'



- Message appears 'Requested . . . record(s) for publication'
- Metadata Records page reloads
- Edit State changed from 'DRAFT' to 'IN REVIEW'



• Record(s) pushed to Publisher who will review and submit for publishing

Note: User must notify Publisher of record(s) awaiting approval There are no automatic notifications from CoMET

Metadata Records List

 Metadata Records List is a table that meets all filtered requirements and allows various actions to be performed on each record



- o Edit
 - Make changes to record data
- o <u>Manage</u>
 - Create copies of records, review a record's revision history, and delete records
- o <u>View</u>
 - Displays data in various formats
- Assess
 - Confirms ISO and NOAA compliance
- Validate
 - Validates data against ISO standard

Edit

Data Management Plan

• In development

Data Stewardship Maturity Questionnaire (DSMQ)

- DSMQ is an easy to use tool for assessing stewardship quality of digital environmental datasets
 - Based on Data Stewardship Maturity Matrix (DSMM)
- If metadata record will be published in OneStop, completing a DSMQ allows user to take advantage of OneStop's unique relevancy ranking feature
 - It may help metadata appear higher in search results

- Future functionality will allow user to generate a Data Stewardship Maturity Report (DSMR) based on answers provided in DSMQ
 - Report may be published under DSMR Technical Information Series with NOAA Central Library's Institutional Repository (IR)
 - Reports submitted to IR receive a Digital Object Identifier (DOI) that can be used for citability and tracking purposes by author
- See **DSMO** instructions

ISO Editor

Note: When Editing a record, if 'No, use blank' was selected when the record was initially created, and the user did not enter data into all of the Required fields, the user receives a 'Validation Failure' message and cannot Save the record again until the missing required data is entered.

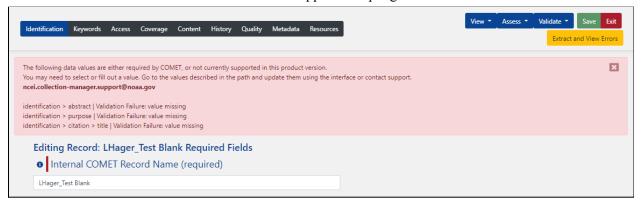
If '<u>Yes, populate with the NCEI template</u>' was selected when the record was initially created, the user does not receive a 'Validation Failure' message, at all. The user must still add the missing data but they are not reminded of that by the program.

- On Metadata Records List panel, locate record to be edited and select 'Edit' drop-down from its row
 - Select 'ISO Editor'



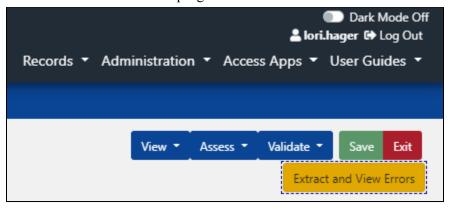
- Record opens in new tab
- Edit metadata as desired
 - Insert <u>Docucomp components</u>, as needed

- If 'No, use blank' was selected when record initially created, and data is missing from Description tab, 'Collection Description' or 'Purpose' OR data is missing from Data Citation tab, 'Title'
 - o Receive 'Validation Failure: value missing' message
 - 'Extract and View Errors' button will appear in top right corner

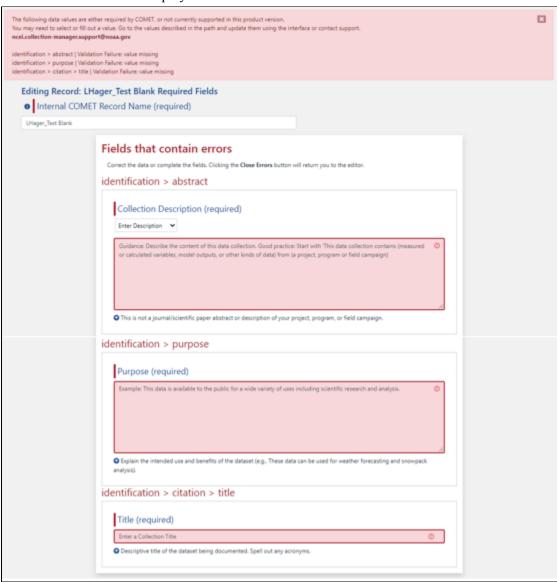


Extract and View Errors

• Click 'Extract and View Errors' in top right corner

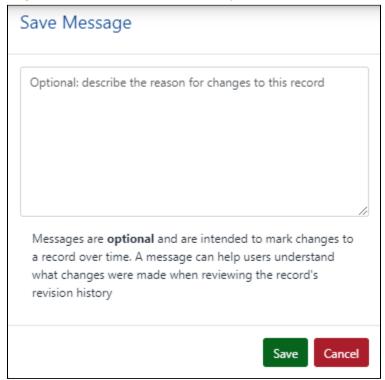


• Fields with errors are displayed



- Enter missing data
- Click 'Save'

- Save Message appears
 - User has option to add reason for changes made to record
 - Comment is optional but strongly recommended
 - o Save Messages are included in Revision History



• Message appears 'Document updated successfully'

Document updated successfully!

- Editing Record page reloads
- If 'Yes, populate with the NCEI template' was selected when record initially created, and data is missing from Description tab, 'Collection Description' or 'Purpose' OR data is missing from Data Citation tab, 'Title'
 - Will not receive 'Validation Failure: value missing' message and 'Extract and View Errors' button will not appear

Note: No error messages or alerts are given if required data is not present in record User must confirm all data has been entered

Collaborative Editing

- Editors can edit only records within Record Groups to which they belong
- Records cannot be accessed by more than one editor at a time
- For 30 minutes after a record is saved, it becomes locked and cannot be accessed by another user
 - User who saved record may access it again without having to wait 30 minute time limit

Docucomp Components

Docucomp manages reusable components (pieces of ISO XML) referenced by URLs within collection records, enabling many collections to use the same component, thereby increasing consistency and decreasing maintenance effort; also supports vocabulary services

Docucomp User Guide: Xlinks section

Manage

Copy

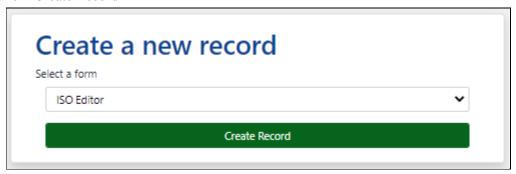
- If a new record is similar to an existing record, it may be more efficient to make a few changes to a copy
- Can use record in any Edit State DRAFT, IN REVIEW, or PUBLISH
- Edit State for copy will be DRAFT, regardless of original's Edit State
- On Metadata Records List panel, locate record to be copied and select 'Manage' drop-down from its row
 - Select 'Copy'



- New tab opens
- From 'Select Form' drop-down, select 'ISO Editor'



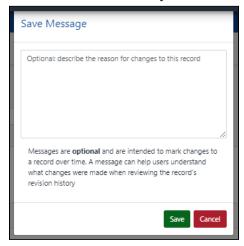
• Click 'Create Record'



- Identical record created
- Editing page for copy opens
- If form is to have a different title, change it in 'Internal COMET Record Name' field
- Once changes to record are complete, click 'Save'



- Save Message appears
 - User has option to add reason for changes made to record
 - Comment is optional but strongly recommended
 - Save Messages are included in Revision History



- Message appears 'New record . . . created successfully!'
- Metadata Records List page reloads



Revision History

- On Metadata Records List panel, locate record and select 'Manage' drop-down from its row
 - o Select 'Revision History'

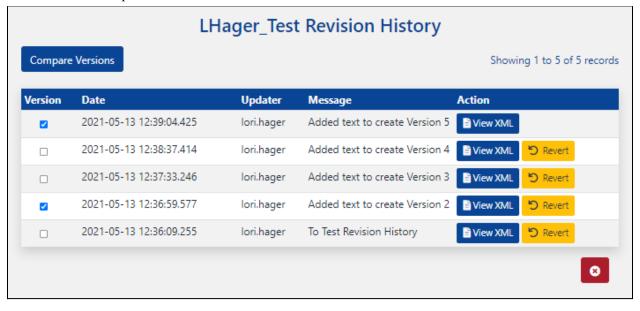


- Each time a record is saved, Date and Updater are noted
 - o If a Message was saved, it is also displayed



Compare Versions

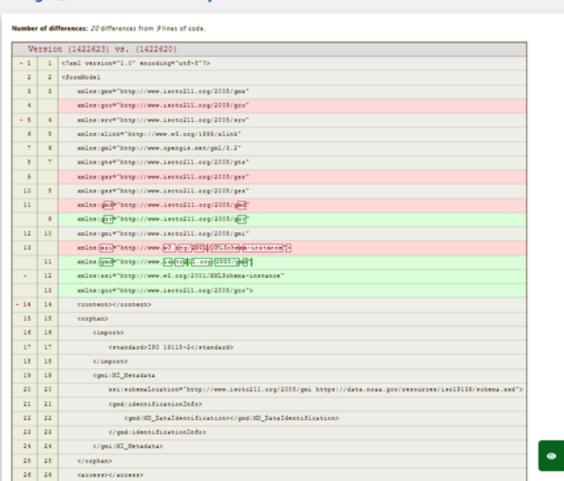
- Check Version boxes of records to be compared
 - Clicking red 'X' in bottom right corner will deselect Version box
- Click 'Compare Versions'



• Below 'Version', numbers in left column refer to more recent version and numbers in right column refer to older version

Compare Versions

LHager_Test Revision History



 To see Record Details of most recent version, click green View Record button at bottom right of page

o Most recent version may or may not be one of versions compared above

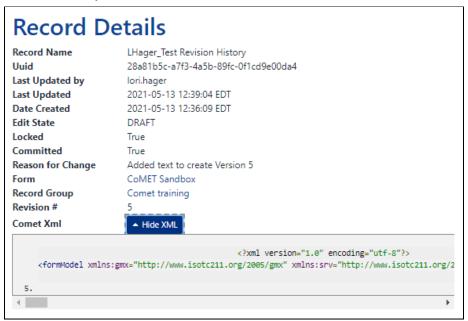
• Record Details page opens for most recent version

Record Details Record Name LHager_Test Revision History Uuid 28a81b5c-a7f3-4a5b-89fc-0f1cd9e00da4 Last Updated by lori.hager Last Updated 2021-05-13 12:39:04 EDT **Date Created** 2021-05-13 12:36:09 EDT **Edit State** DRAFT Locked True Committed True Added text to create Version 5 Reason for Change CoMET Sandbox Form Record Group Comet training Revision

Show XML

• To see record's XML, click 'Show XML'

Comet Xml



- XML may also be viewed from Revision History page
 - o Below Action, click 'View XML'



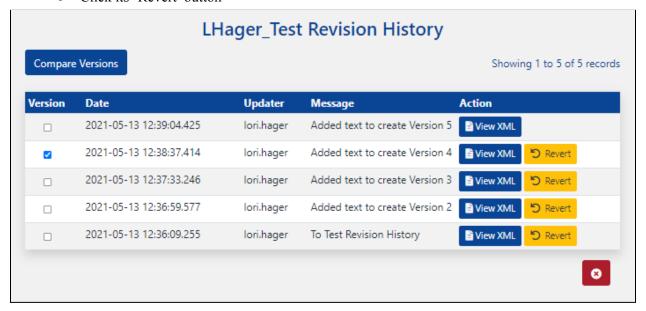
- XML for selected record appears
 - Click Back arrow button to return to Revision History page

```
This XML file does not appear to have any style information associated with it. The document tree is shown below.

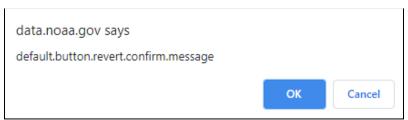
VeformModel xmlns:gmx="http://www.isotc211.org/2005/gmx" xmlns:srv="http://www.isotc211.org/2005/srv" xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:gmi="http://www.isotc211.org/2005/gmx" xmlns:gml="http://www.isotc211.org/2005/gms" xmlns:gss="http://www.isotc211.org/2005/gms" xmlns:gss="http://www.isotc211.org/2005/gms" xmlns:gss="http://www.isotc211.org/2005/gms" xmlns:gmd="http://www.isotc211.org/2005/gmd" xmlns:gs="http://www.isotc211.org/2005/gms" xmlns:gmd="http://www.isotc211.org/2005/gmd" xmlns:gs="http://www.isotc211.org/2005/gms" xmlns:gmd="http://www.isotc211.org/2005/gmd" xmlns:gmd="http://www.isotc211.or
```

Undo a Change By Reverting To Prior Version

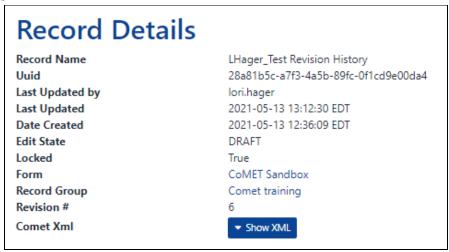
- Recall an earlier version and make it current version
 - o On Revision History page check appropriate Version box
 - Clicking red 'X' in bottom right corner will deselect Version box
 - Click its 'Revert' button



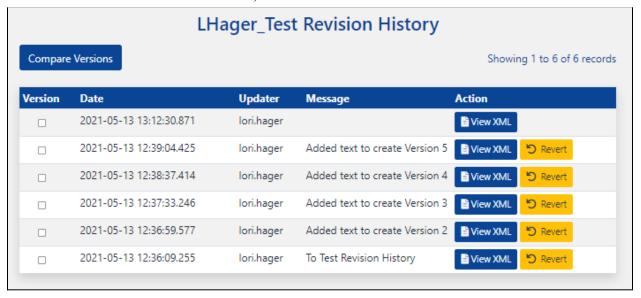
Click 'OK'



• Page opens with Record Details



- Revision # is 6
 - Record had 5 versions
 - Version numbers were 1 through 5, with 5 being most recent (counting from bottom up)
 - Version 4 was recalled
 - Copy of version 4 became version 6
 - Next time record is edited, version 6 will be used



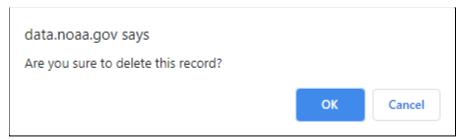
Delete Record

- On Metadata Records List panel, locate record to be copied and select 'Manage' drop-down from its row
 - Select 'Delete Record'

Note: Delete Record is not an option for records with Edit State of 'Publish' Published records cannot be deleted



- Confirmation message appears
 - Click 'OK'



• Message appears 'Record was removed successfully'



• Metadata Records List page reloads

View

Contents of record may be viewed in various ways

• On Metadata Records List panel, locate record to be viewed and select 'View' drop-down from its row



New tab opens

CoMET Format XML

Internal format-neutral representation of descriptive information about the collection, includes related DMP and DSMQ information

Example:

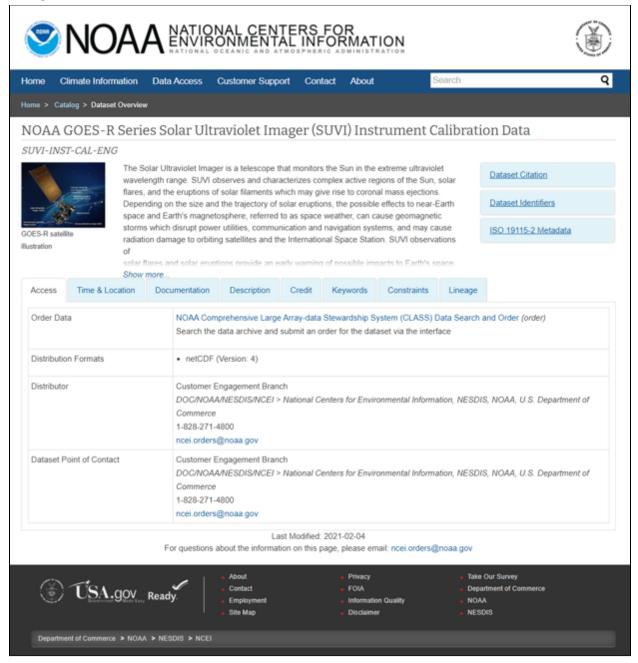
```
This XV.M. file does not appear to have any style information associated with it. The document tree is shown below.

**oforwhood and singua**Pitty://www.isotcili.org/2000/gov* selects.pdw.isotcili.org/2000/gov* and singua**Pitty://www.isotcili.org/2000/gov* an
```

Landing Page HTML

HTML rendering of unresolved metadata content and how it will look on website Xlinks are not resolved in this view

Example:



Plain Text HTML

Plain text rendering of unresolved metadata content, which may include elements not presented on Landing Page HTML

Example:

```
reference System Info
identificationInfo
contentInfo
distributionInfo
dataQualityInfo
dataQualityInfo
dataQualityInfo
metadataMaintenance
 NOAA JPSS Visible Infrared Imaging Radiometer Suite (VIIRS) Snow Cover Environmental Data Record (EDR) from NDE
    fileIdentifier: gov.noaa.ncdc:C01436
    language: eng; USA
characterSet: (MD_CharacterSetCode) utf8
    hierarchyLevel: (MD_ScopeCode) dataset
       organisationName: DOC/NOAA/NESDIS/NCEI > National Centers for Environmental Information, NESDIS, NOAA, U.S. Department of Commerce
       positionName: ISO 19115 Metadata Contact
       contactInfo: (CI_Contact)
phone: (CI_Telephone)
voice: 1-828-271-4800
           facsimile: 1-828-271-4876
           deliveryPoint: 151 Patton Avenue
deliveryPoint: Veach-Baley Federal Building, Room 468
            city: Asheville
            administrativeArea: NC
           postalCode: 28801-5001
country: USA
           electronicMailAddress: ncei.orders@noaa.gov
         onlineResource: (CI_OnlineResource)
           linkage: https://ww
protocol: HTTPS
            applicationProfile: Web Browser
            name: NOAA National Centers for Environmental Information (NCEI)
            description: NCEI home page with information, data access and contact information.
           function: (CI OnLineFu
                                            nCode) information
         hoursOfService: 8:00 - 6:00 Eastern
    role: (CI_RoleCode) pointOfContact
dateStamp: 2019-05-29
    metadata Standard Name: ISO 19115-2 Geographic Information - Metadata - Part 2: Extensions for Imagery and Gridded Data metadata Standard Version: ISO 19115-2:2009(E)
    referenceSystemInfo: (MD ReferenceSystem)
       referenceSystemIdentifier: (RS_Identifier)
         authority: (CI Citation)
           title: EPSG Geodetic Parameter Dataset Registry
            date: (CI_Date)
date: 2008-11-12
              dateType: (CI_DateTypeCode) publication
            citedResponsibleParty: (CI_ResponsibleParty)
organisationName: International Association of Oil and Gas Producers (OGP) Geomatics Committee
              contactInfo: (CI_Contact)
                 onlineResource: (CI_OnlineResource)
                   linkage: http://www.epsg-registry.org/
applicationProfile: Data Search Application
                    name: EPSG Geodetic Parameter Dataset Registry Application
```

Unresolved ISO 19115-2 XML

Representation of unresolved ISO 19115-2 metadata content represented in ISO 19139-2, which is XML implementation of ISO 19115-2 content standard

Example:

```
This NAML file does not appear to have any type information successed with it. The document tree is shown below

**egriff_Principles** acting report for the principles** and the principles** acting report for the principles**
```

Assess

Contents of record may be assessed against various rubrics

• On Metadata Records List panel, locate record to be assessed and select 'Assess' drop-down from its row

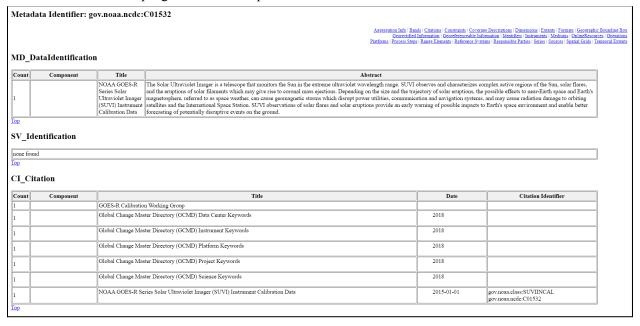


• New tab opens

Component Analysis

Shows information based on ISO XML tag

- Select 'Component Analysis'
- Click link in top right corner to skip to its data



CSW Rubric

Identifies ISO metadata elements that support the Open Geospatial Consortium Catalog Services for the Web (CSW) Specification

ISO 19115 Catalog Services for the Web Report

This report identifies ISO metadata elements that support the Open Geospatial Consortium Catalog Services for the Web (CSW) Specification. The elements are listed in three groups: Core Queryables, Core Returnables, and Additional Queryables. The Rubric at the top of the report summarizes the results. Each spiral is represented by a row in the rubric. The columns show the % of the elements in that spiral that exist in the record. Click the spiral name for more details. This report is produced using this <u>stylesheet</u>. Please contact <u>Ted Habermann</u> if you have questions or suggestions.

Title: NOAA GOES-R Series Extreme Ultraviolet and X-ray Irradiance Sensors (EXIS) Instrument Calibration Data

Total Spiral Score: 29/36

Spiral	None	1-33%	34-66%	67-99%	All
Core Queryables					
Core Returnables					
Additional Queryables					

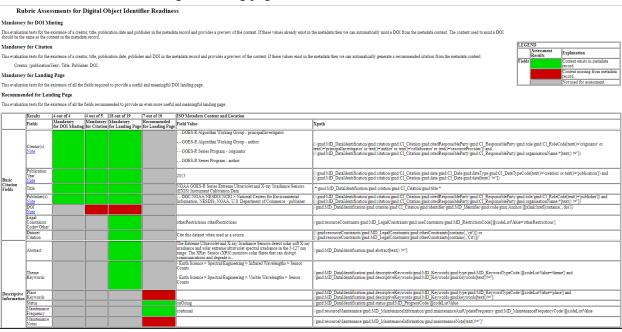
Core Queryables Score: 10/12

The Open Geospatial Consortium Catalog Services for the Web (CSW) standard defines 12 "Core Queryables" that must be supported in any compliant implementation. Profiles of CSW map these queryables to concepts and xPaths for particular metadata dialects.

Score	Attribute (Count)	Description	Path
1	Subject	Keywords, usually from a shared vocabulary, that describe the topic or theme of the resource. <u>More</u>	/*/gmd:identificationInfo/*/gmd:descriptiveKeywords/gmd:MD_Keywords[gmd:type='theme']/gmd:keyword/gco:CharacterString
1	Subject Thesaurus	A citation to the source for the subject (theme) keywords. This field is not included in the CSW Specification but it is important when keywords from a shared vocabulary are used.	
1	Title	A short description of the resource. The title should be descriptive enough so that when a user is presented with a list of titles the general content of the data set can be determined. More	** gmd.identificationInfo/*/gmd:citation/gmd:CI_Citation/gmd:title/gco:CharacterString
1	Abstract	A summary of the content of the resource.]** gmd.identificationInfo * gmd:abstract/gco:CharacterString
1	AnyText	A target for full-text search of character data types in a catalogue.	Many text paths

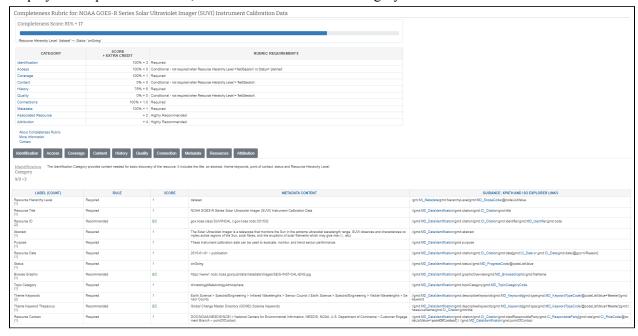
DOI Rubric

- Mandatory for DOI Minting
 - This evaluation tests for the existence of a creator, title, publication date, and publisher in the metadata record and provides a preview of the content
- Mandatory for Citation
 - This evaluation tests for the existence of a creator, title, publication date, publisher and DOI in the metadata record and provides a preview of the content
- Mandatory for Landing Page
 - This evaluation tests for the existence of all the fields required to provide a useful and meaningful DOI landing page
- Recommended for Landing Page
 - This evaluation tests for the existence of all the fields recommended to provide an even more useful and meaningful landing page



ISO Rubric V2

Tool to confirm if a record adheres to NOAA metadata best practices Displays 'Completeness Score', as well as scores for each category



Validate

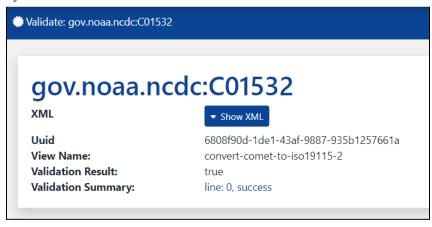
Validate ISO

A metadata record can be validated using the XML Schema Definition (XSD)

- On Metadata Records List panel, locate record to be validated and select 'Validate' drop-down
 - Select 'Validate ISO'



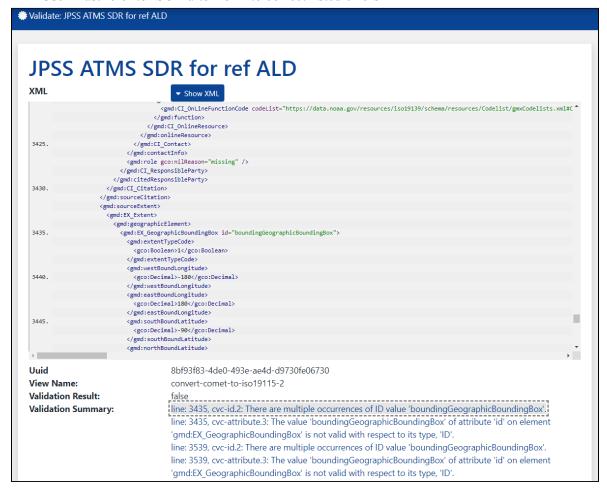
- When validation run finishes, 'Validate ISO' page opens in new tab
 - If record is compliant with ISO XSD schema (no issue is found) 'Validation Result:' field displays 'true'



- If record is not compliant with ISO, error messages are shown with line numbers
 - Error message lines are links



- At 'XML', click 'Show XML' to view all XML code
- At 'Validation Summary', click line link to view XML code for error
 - XML code appears above text
- User must refer to ISO Editor form to correct listed errors



Data Stewardship Maturity Questionnaire (DSMQ)

New Record

New DSMQ records are created one at a time using 'Create' button

Create

- In Record Actions panel, click 'Create'
- From 'Select a From' dropdown, select Select "Data Stewardship Maturity Questionnaire (DSMQ)"



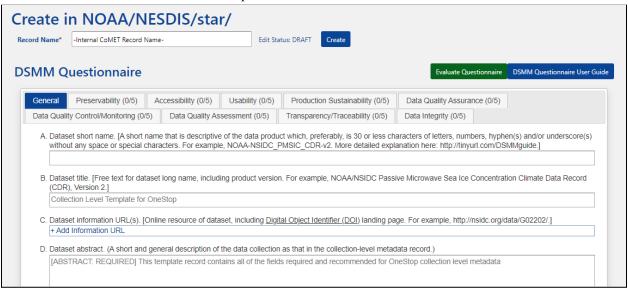
• Click 'Create Record'



• CoMET/DSMQ defaults to General tab

Note: User may select blue 'Create' button at top center of page or bottom center of page at any point after entering a 'Record Name'

• All fields in all tabs must be completed



- At C., click 'Add Information URL'
 - Enter URL in field
 - Click red trashcan to delete URL

C. Dataset information URL(s). [Online resource of dataset, including <u>Digital Object Identifier (DOI)</u> landing page. For example, http://nsidc.org/data/G02202/.]

+ Add Information URL

• Click 'Next' at bottom of page to move to next tab



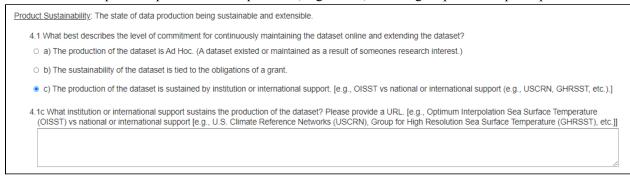
• OR go back to top of page and select desired tab



Tooltips with additional information will appear when user hovers cursor over underlined text



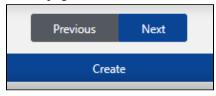
• Some responses open additional questions, e.g. at 4.1, selecting response 'c'opens question 4.1c



• To save initial data, click 'Create' at top of page

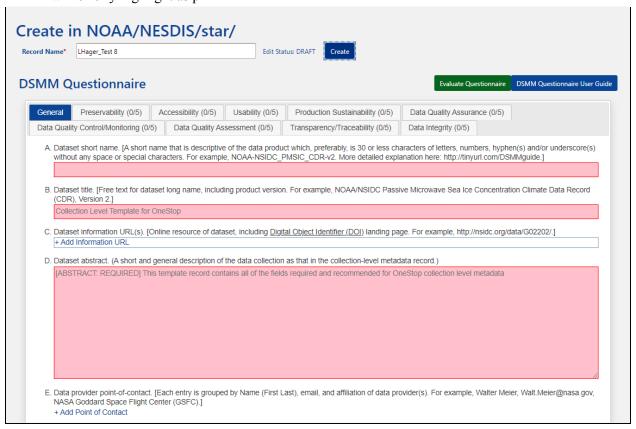


Or click 'Create' at bottom of page



User may go back later to edit record

• If data is missing from 'Dataset Short Name', 'Dataset Title' or 'Dataset Abstract' fields, fields will briefly highlight as pink



- Message appears 'Record created successfully'
- Metadata Records List page reloads



Edit

- On Metadata Records List panel, locate record to be edited and select 'Edit' drop-down from its row
 - Select 'Data Stewardship Maturity Questionnaire (DSMQ)'



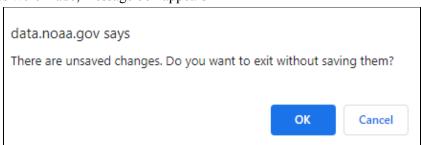
- Record opens in new tab
- Edit Metadata as desired
- Click 'Save' at top right of page or bottom of page



- Message appears 'Record updated'
- Editing Record Page Reloads



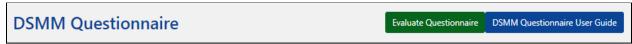
- If 'Exit' was selected and no changes made to record, page reloads to Metadata Records List
- If changes were made, message box appears



- To exit without saving changes, click OK
- To save changes, click Cancel, then Save

Evaluate Questionnaire

- User may utilize 'Evaluate Questionnaire' functionality at any point in Editing process to receive a maturity score for each section of questionnaire
 - o Click 'Evaluate Questionnaire'



- Each tab displays its Evaluation score
 - All questions in a tab must be answered to produce a score



• If record originally created in ISO Editor Record Name, Dataset Title and Dataset Abstract are automatically entered in DSMQ record

API

• Log In to CoMET

Note: A cookie will be created and used while interacting with the COMET API as long as the session stays alive

• Login example:

```
#!/usr/bin/env bash
#export
COMET_LOGIN_URL="http://localhost:8080/cedit/login/wsLogin"
COMET_LOGIN_URL="https://data.noaa.gov/cedit/login/wsLogin"
export COMET_URL="https://data.noaa.gov/cedit/"
DEFAULT_USERNAME="firstname.lastname"
echo -n "Enter username [$DEFAULT_USERNAME]:"
read USERNAME
if [ "$USERNAME" == "" ]; then
 USERNAME=$DEFAULT_USERNAME;
fi
echo -n "Enter password for $USERNAME: "
read -s PASSWORD
echo ""
CREDENTIALS="username=$USERNAME&password=$PASSWORD"
curl --data "$CREDENTIALS" \
  -X "POST" \
  -k \
  "$COMET_LOGIN_URL" \
  --cookie-jar cookies.txt \
```

Basic CRUD Operations

- User must be part of recordGroup with which they are trying to interact
- To be added to a recordGroup, email ncei.collection-manager.support@noaa.gov

Operations Supported by API:

- Create
 - o Create a metadata record via an HTTP POST request
- Read
 - View or Export a metadata record via an HTTP GET request (Export API)
- Update
 - Change an existing record via an HTTP PUT request
- Delete
 - Remove an existing record via an HTTP DELETE request

Create — **API** endpoint - **HTTP POST**

Operation URL: https://data.noaa.gov/cedit/metadata/import

Optional Query Parameters:

- recordGroup
 - String value representing record group in CoMET that records will be imported into
- description
 - String value of title of record in CoMET database
- transform
 - String value (typically 'convert-iso19115-2-to-comet') which converts ISO metadata into an internal format
- format
 - String value
 - Options are: xml, json, text
- uuid
 - String value
 - Only provide this if you want to generate your own unid value for this record.
- editState
 - String value
 - Only provide this if you want your metadata published automatically. (&editState=APPROVED)

Create Example

```
#!/bin/bash
export COMET_URL="http://localhost:8080/cedit/"
RECORD_GROUP="CoMET"
IMPORT_FILE="$1"
IMPORT_TITLE=$2
TRANSFORM="convert-iso19115-2-to-comet"
UUID="$3"
EDIT_STATE="APPROVED"
curl --cookie cookies.txt \
  -X "POST" \
  -H "Content-Type: application/xml" \
  --data-binary @"$IMPORT_FILE" \
$COMET_URL/metadata/import?recordGroup=$RECORD_GROUP&descripti
on=$IMPORT_TITLE&transform=$TRANSFORM&format=&uuid=$UUID&editSt
ate=APPROVED"
echo
"$COMET_URL/metadata/import?recordGroup=$RECORD_GROUP&descripti
on=$IMPORT_TITLE&transform=$TRANSFORM&editState=$EDIT_STATE"
```

Update — API endpoint - HTTP PUT

Operation URL: https://data.noaa.gov/cedit/metadata/\$uuid

URL Path Parameter:

- \$uuid
 - o String value
 - Only provide to generate own unid value for record
 - Example uuid: 94306b70-1441-458f-83bf-9a338dda4dab

Optional Query Parameter:

- editState
 - String value
 - Only provide for metadata to be published automatically
 - &editState=APPROVED

Update Example:

```
#!/bin/bash
# update
export COMET_URL="https://data.noaa.gov/cedit/"
if [ $# -ne 3 ]; then
 echo "usage: $0 ISO_XML TITLE UUID"
  exit 2
fi
XML_FILE="$1"
DESCRIPTION="$2"
UUID="$3"
TRANSFORM="convert-iso19115-2-to-comet"
curl --cookie cookies.txt \
  -X "PUT" \
  -H "Content-Type: application/xml" \
  --data-binary @"$XML_FILE" \
"$COMET_URL/metadata/$UUID?description=$DESCRIPTION&transform=$
TRANSFORM&editState=DRAFT"
```

Export — API endpoint - HTTP GET

Operation URL: https://data.noaa.gov/cedit/metadata/\$uuid

URL Path parameter:

- \$uuid
 - o String value
 - Only provide to generate uuid value for record
 - Example uuid: 94306b70-1441-458f-83bf-9a338dda4dab

Optional Query Parameter:

- transform
 - o String value
 - Typically 'transform=convert-comet-to-iso19115-2'
 - Converts metadata record from CoMET internal format to ISO 19115-2

Export Example:

```
#!/bin/bash

export COMET_URL="https://data.noaa.gov/cedit/"

if [ $# -ne 2 ]; then
    echo "Exporting with UUID as Filename."
    FILENAME=$1
    echo -e "\n"

else
    echo "Exporting with $2 as Filename."
    FILENAME=$2

fi

curl --cookie cookies.txt \
    -X "GET" \
    -k\

"$COMET_URL/metadata/$1?transform=convert-comet-to-iso19115-2"
> ${FILENAME}.xml
```

Delete — API endpoint - HTTP DELETE

Operation URL: https://data.noaa.gov/cedit/metadata/\$uuid

URL Path Parameter:

- \$uuid
 - o String value
 - Only provide to generate uuid value for record
 - Example uuid: 94306b70-1441-458f-83bf-9a338dda4dab

Delete Example:

```
#!/bin/bash

export COMET_URL="https://data.noaa.gov/cedit/"

if [ $# -lt 1 ]; then
    echo "usage: $0 UUID [UUID ...]"
    exit 2

fi

for uuid in $@; do
    curl --cookie cookies.txt \
    -X "DELETE" -k \
        "$COMET_URL/metadata/$uuid?format=text"

done
```

Search — API endpoint - HTTP GET

Operation URL: https://data.noaa.gov/cedit/metadata/search Optional Query Parameters:

- recordGroup
 - String value representing record group in CoMET
- since
 - String value representing a date value (2016-03-01T09:10:00)
- max
 - String value representing maximum results returned
- format
 - String value
 - options are: xml, json, text

Search Example:

```
#!/bin/bash
export COMET_URL="https://data.noaa.gov/cedit/"

TIME_SINCE="2016-03-01T09:10:00"
EDIT_STATE="COMPLETED"
MAX_RECORDS="1000"
OUTPUT="xm1"

output=$(curl --cookie cookies.txt \
    -X "GET" \
    -k \
"$COMET_URL/metadata/search?recordGroup=CoMET&max=$MAX_RECORDS&format=text")

echo $output
```

More Code Examples

- Email noaa.gov to request access to a code repository used for testing CoMET APIs
- Available to NCEI employees only

Appendix

Glossary of Terms

- 1. **Collection** group of environmental data or products that share common characteristics, is represented by a single metadata record, and consists of one or more granules
 - a. Also referred to as datasets
- 2. **Data Group -** a superset of collections
- 3. **Data Management Plan** plan to ensure that data are properly documented, made accessible, and preserved for future use
- 4. **Data Stewardship Maturity Matrix (DSMM)** a unified framework for measuring stewardship maturity of environmental datasets
- 5. Data Stewardship Maturity Questionnaire (DSMQ) method to create a DSMM assessment
 - a. DSMQ is a more consistent and scalable approach than manual DSMM assessments
- 6. **Data Stewardship Maturity Report (DSMR) -** ISO standard-based dataset-level quality metadata and data stewardship maturity report generated from DSMM assessment
- 7. **Docucomp** tool to create and edit reusable ISO XML components
- 8. Edit States
 - a. DRAFT default state assigned to record after being imported or created
 - i. Record is available for editing
 - b. IN REVIEW state of record once it has been requested to be published
 - i. Designates record is awaiting approval by Publisher
 - c. APPROVED state of record once Publisher approves publication request and record is sent to a WAF for publication and harvest
 - d. PUBLISH if XML passes validation, CoMET automatically changes record's state from APPROVED to PUBLISH
 - e. INVALID If XML does not pass validation, CoMET automatically changes record's state from APPROVED to INVALID
 - i. User must correct metadata and resubmit
- 9. Form Validation ISO Editor's validation that ensures required content is present
- 10. **ISO Editor** a metadata creation and editing tool within CoMET. Provides form validation to ensure required information is present
- 11. ISO Validation Validates against ISO XML schema
- 12. JSON (Javascript Object Notation) lightweight data-exchange format
- 13. **Publish** sends metadata record to review queue for a Publisher to approve or reject
 - a. Once published, record is accessible on its associated WAF and OneStop
- 14. Record Group related or associated metadata records managed by a team or project
- 15. **Record Name -** record title for CoMET
 - a. Record Name is not inserted into ISO XML
 - b. Recommended to use record fileIdentifier as Record Name
 - c. CoMET automatically assigns fileIdentifier as Record Name when ISO XML record is imported

- 16. **Relevancy Ranking** process of sorting search results so that files which are most likely to be relevant to query are shown at top
- 17. Universal Unique Identifier (UUID) required unique character string used to identify records
 - a. UUIDs are manually assigned or auto-generated, written into XML within UUID attribute in MI_Metadata root element, and required for managing records via CoMET API

18. User Roles

- a. READONLY default role assigned to external users that provides read only access to forms and records
- b. EDIT default role assigned to internal users that allows creation and editing of records
- c. GROUP in addition to abilities assigned to EDIT user role, GROUP users may edit forms and add or remove users from form group
- d. PUBLISHER in addition to abilities assigned to EDIT and GROUP user roles, Publishers can move records between groups, download XML files, and approve publish requests from editors
- e. ADMIN in addition to abilities assigned to EDIT, GROUP, and PUBLISH user roles, Admin includes additional administrative abilities such as creating user accounts, assigning user permissions, editing forms, thesaurus maintenance, etc
- 19. WAF Web Accessible Folder