

CoMET

Collection Metadata Enterprise Tool

[Proceed to ICAM Login](#)

Select current certificate issued by DOD
ID CA for user authentication.

[How do I get an account?](#)

CoMET User Manual

Valid for production version 1.5.2

Prepared by:

Paul A. Lemieux III - Riverside Technology, Inc.

Raisa Ionin - Riverside Technology, Inc.

Robert P. Partee II - Riverside Technology, Inc.

Amanda Dean - CASE Consultants, Int.



Contact Information

Questions or feedback regarding this manual should be directed to the OneStop Metadata Content Team at Paul.Lemieux@noaa.gov, Amanda.Dean@noaa.gov

If you encounter issues or need to report a bug in CoMET, please send an email to ncei.collection-manager.support@noaa.gov. In the email 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

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Overview

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

Getting Started

Logging In

1. To log on, a user points a web browser to: <https://data.noaa.gov/cedit/>
2. If you do not have an account, please follow these steps:

Send email to ncei.collection-manager.support@noaa.gov with the following details:

1. Subject: 'New User for [CoMET, Docucomp, and/or Metaserver] for *your name*'
2. Your contact information
3. Your associated program or agency
4. Intended usage

Once you are set up, your login name will be your email (without the @noaa.gov) and the password will be the same as your email password.

Note: Login is currently limited to users with a NOAA email, but external access is planned for a future release cycle. Send in a request if you'd like to be informed when this capability is available.

3. The login page instructs the user to proceed to ICAM Login. Click the button to proceed.
4. A warning banner is displayed.
5. Click green "Accept" button to proceed.

For those who were not previously registered with CEdit, only READ-ONLY access is granted and the following message is shown:

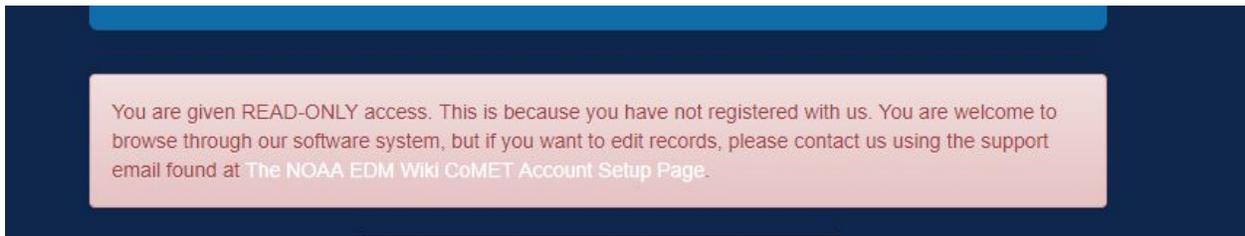


Figure 1.1 The above message is shown when a user logs in with READ-ONLY access.

If you need to edit records in CoMET, please send an email as described in the above message.

Once logged in, click on "Search Records" button to start working with metadata records.

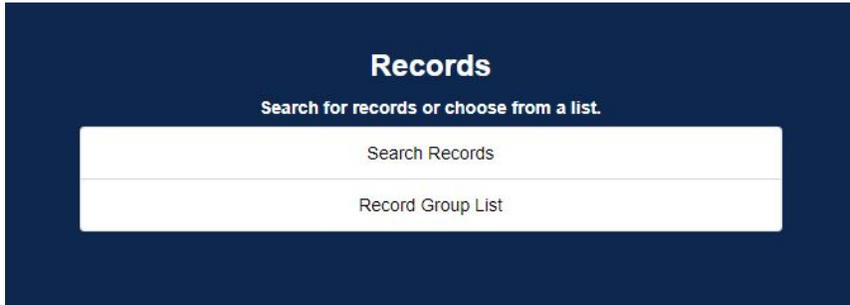


Figure 1.2 The record options on the homepage.

Click on "Search Records", and then select "CoMET Sandbox" from the drop-down list.



Figure 1.3 The drop-down menu for selecting a record group.

First 10 records will be listed. Now you are ready to work with metadata.

Creating Metadata

Creating a New Metadata Record

1. Click the “Create Record” button to create a new metadata record.



Figure 1.4 The Create Record button.

2. Using the “Select a form” drop-down list, click “CoMET ISO Editor”; then click “Next.”

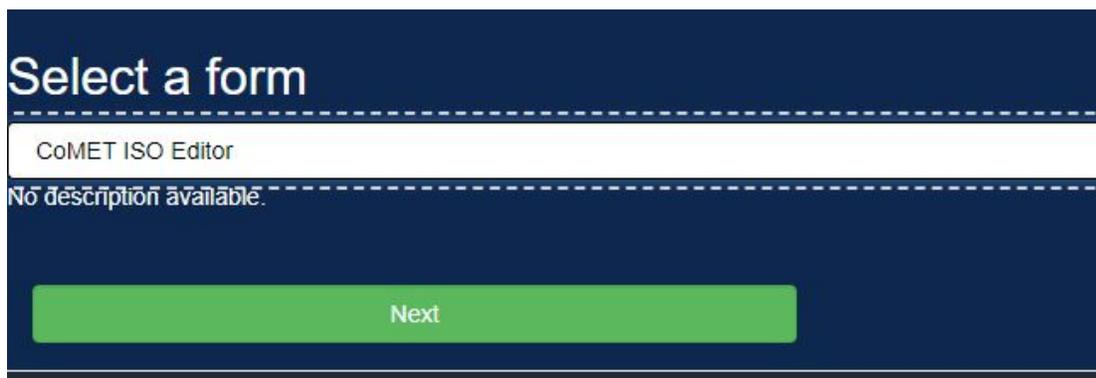


Figure 1.5 The Select a Form menu.

3. Type in a description in the “Record Name” field at the top of the page. You may want to use the dataset title for the description but you are not required to do so.

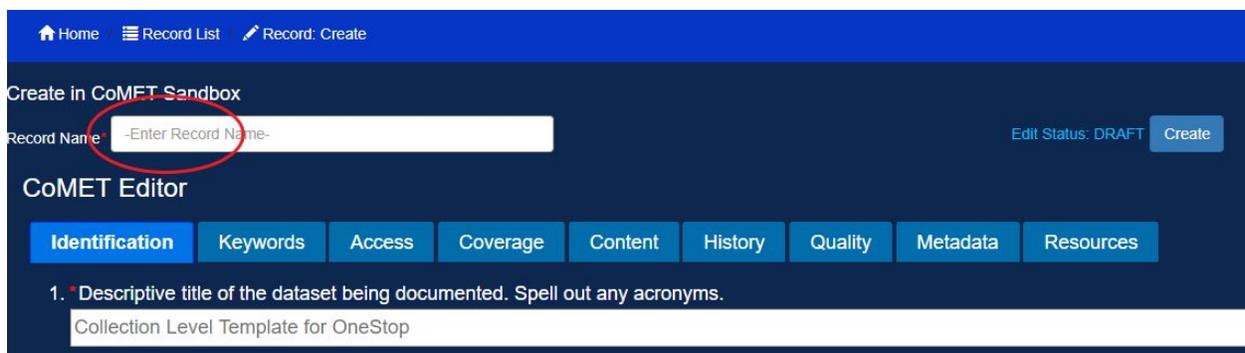


Figure 1.6 The Record Name field.

4. Click the “Create” button on the right. Required fields that are left empty will be highlighted in red until the page is finished processing.



Figure 1.7 The Create button.

5. Your record is automatically saved.

Identification	Keywords	Access	Coverage	Content	History	Quality	Metadata
1. * Descriptive title of the dataset being documented. Spell out any acronyms.							
Collection Level Template for OneStop							
2. An alternative title or short name by which the dataset is known.							
+ Add Alternate Title							
3. The date when the dataset was published or released. See date type definitions.							
Date: 9999-01-01 Date Type: publication							
+ Add Date							
4. Edition or version number of the dataset.							
[VERSION OF RESOURCE]							
5. Unique identifier used to reference the dataset, such as a DOI.							
[DOI OR RESOURCE IDENTIFIER]							
+ Add Identifier							

Figure 1.8 The Warning boxes.

To begin editing your record, click the “Edit” button to display the drop-down menu and select the form that you want to use to edit the record: Data Management Plan, Data Stewardship Maturity Questionnaire (DSMQ), or CoMET ISO Editor.



Figure 1.9 Editing options.

A new window will open displaying the selected editing page. The minimum required fields for a valid ISO metadata record are marked with a red asterisk.

You may toggle among each of the headings while editing the forms.

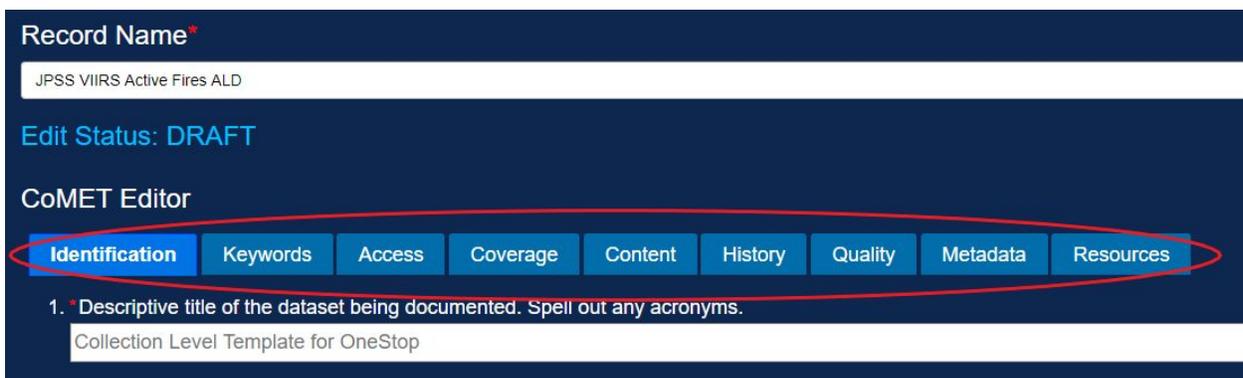


Figure 1.10 Editor tab headings.

Use the tabs to navigate through the form completing as many fields as you can.

Be sure to save frequently because the form will not automatically save your changes.

6. Click "Save" to save your metadata record (located at the top and bottom of page).



Figure 1.11 The Save button.

7. Required fields that are left empty will be highlighted in red until the page is finished processing.
8. Once you are finished with the metadata record, choose "Commit." Commit allows you to save your metadata record with a comment attached. Think of Commit as versioning code changes within a repository.



Figure 1.12 The Commit button.

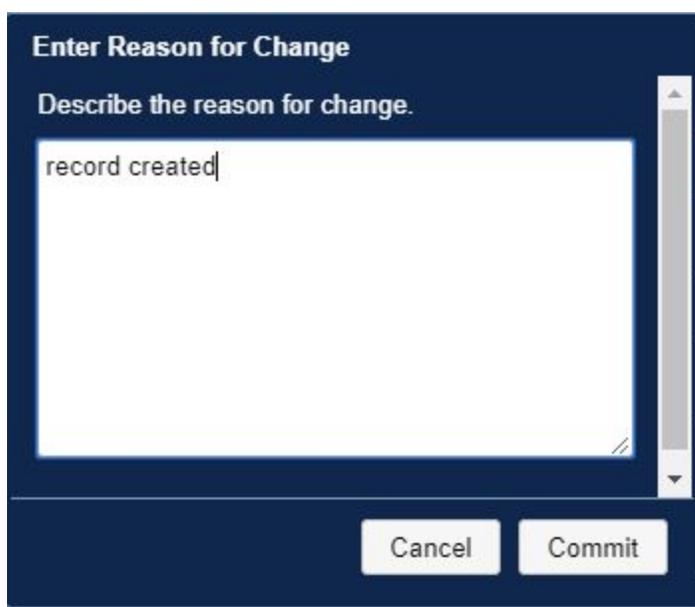


Figure 1.13 The Commit message.

Importing an Existing Metadata Record

Users with metadata editing access can import existing metadata records external to CoMET. Two types of metadata records can be imported. They are ISO 19115-2 and NCML metadata in XML file format. With "CoMET" selected as described at the end of Section 1, locate and click the "Import Record" button on the top middle of the page:



Figure 1.14 The Import Record button.

The web application will present an import screen:

A screenshot of a web application's import interface. At the top, there is a navigation bar with 'Home', 'Record List', and 'Import: CoMET Sandbox'. The main content area has a dark blue background. It starts with the text 'Upload your XML file here:' followed by a file upload control with a 'Choose File' button and 'No file chosen' text. Below that is the text 'Or provide a URL to remote XML file here:' followed by a text input field. Then, it says 'Select the record format for import' with a dropdown menu showing '-- Select Format --'. Next is 'Select a form' with another dropdown menu showing '-- Select Form --'. At the bottom left, there is a green 'Import' button.

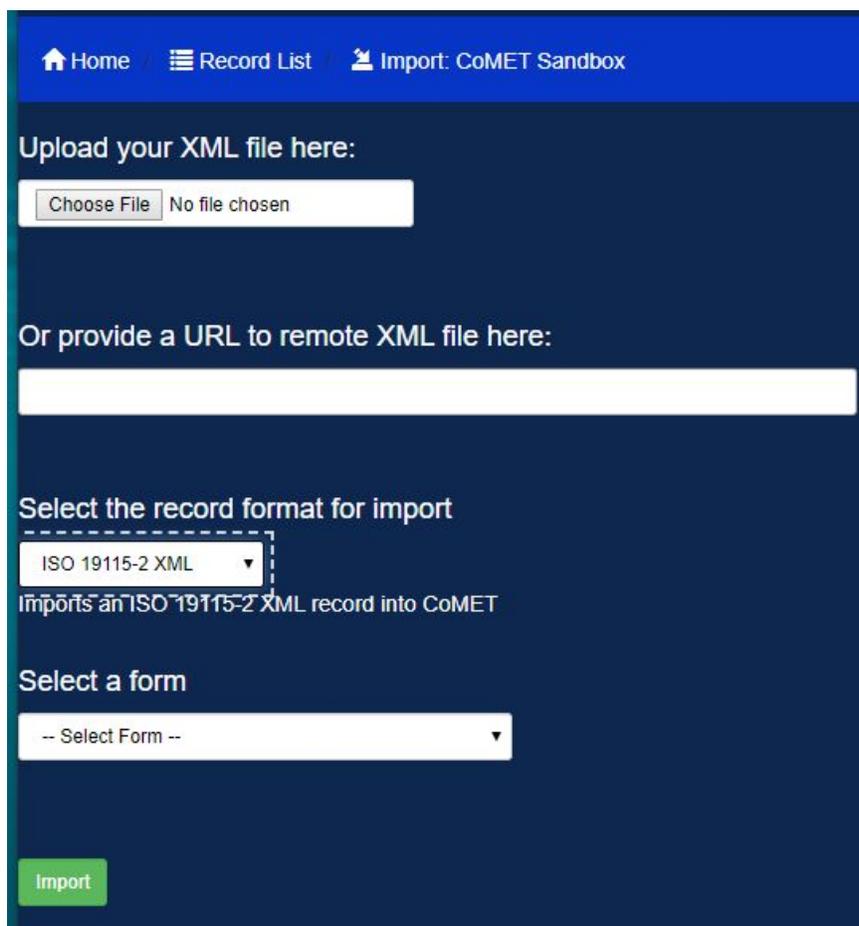
Figure 1.15 The Import user interface. The user uploads a file or provides a URL.

There are two options to specify where the record for import is located. Use the upload function if the record is on your computer disk. If the record is available from a web server, a ftp server, etc., use the input field for a URL. If an upload file and a URL are provided, the application will use the URL only.

Importing Metadata in ISO

CoMET stores a metadata record in a standards-neutral format that is compatible with the ISO 19115-2 format. In order to import an ISO record, a format converter needs to be

selected. Select the format that you have, either “ACDD NCML”, “CoMET Format XML”, or “ISO-19115-2-XML”. When the converter is selected, a description text will appear below the selector:

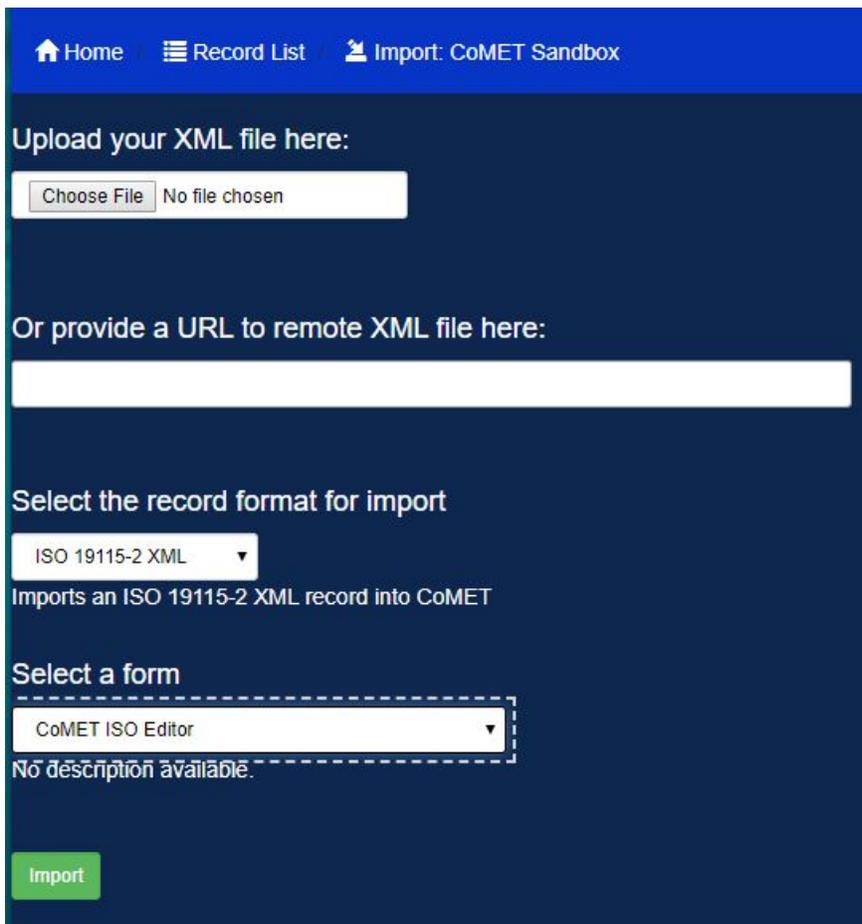


The screenshot shows the 'Import: CoMET Sandbox' interface. At the top, there is a navigation bar with 'Home', 'Record List', and 'Import: CoMET Sandbox'. Below this, the main area is dark blue. It contains the following elements:

- Upload your XML file here:** A file upload button labeled 'Choose File' with the text 'No file chosen' next to it.
- Or provide a URL to remote XML file here:** An empty text input field.
- Select the record format for import:** A dropdown menu currently showing 'ISO 19115-2 XML'. Below this dropdown, the text 'Imports an ISO 19115-2 XML record into CoMET' is displayed.
- Select a form:** A dropdown menu currently showing '-- Select Form --'.
- Import:** A green button at the bottom left.

Figure 1.16 Selection of an import view. The example in the above shows an ISO record is to be imported.

From select a form drop-down menu, choose “CoMET ISO Editor.”



The screenshot shows a web application interface for importing XML records. At the top, there is a navigation bar with three items: a home icon labeled 'Home', a list icon labeled 'Record List', and a document icon labeled 'Import: CoMET Sandbox'. Below the navigation bar, the main content area is dark blue. It starts with the heading 'Upload your XML file here:' followed by a file selection button labeled 'Choose File' and the text 'No file chosen'. Below this is the heading 'Or provide a URL to remote XML file here:' followed by an empty text input field. The next section is titled 'Select the record format for import' and features a dropdown menu currently set to 'ISO 19115-2 XML'. Below the dropdown, it says 'Imports an ISO 19115-2 XML record into CoMET'. The final section is titled 'Select a form' and has a dropdown menu set to 'CoMET ISO Editor'. Below this dropdown, it says 'No description available.'. At the bottom left of the form area is a green 'Import' button.

Figure 1.17 Selection of an import view with CoMET ISO Editor.

Click the “ Import” button. The web application will apply the format converter and convert the ISO record into the standards-neutral format. If the conversion is completed without an error, “Create in CoMET Sandbox” page will be shown. The screen capture below shows a NOAA-JPSS record:

Create in CoMET Sandbox

Record Name: Edit Status: DRAFT Create

CoMET Editor

Identification Keywords Access Coverage Content History Quality Metadata Resources

1. * Descriptive title of the dataset being documented. Spell out any acronyms.

Figure 1.18 The Create in CoMET Sandbox page. The above example shows the completed description and title fields of a NOAA-JPSS dataset.

Enter the title of the record to be imported to the “Record Name” field. If none is entered, the default title of “Enter Description Here” will be used instead.

Input fields are organized by tabs. When CoMET opens a record, the “Identification” tab is shown by default. Explore all tabs and edit the record as necessary. Almost all the features described in “[Updating Metadata](#)” are applicable here. Keyword autocompletion and component selection might prove useful. If everything looks good, click the “Create” button. The program will check if all mandatory input fields are populated. If one or more required input fields are empty or they are not in an expected format, required fields will be highlighted in red while the page is being created. The program will ignore the input validation errors and will create a record. Then a list of metadata records will be shown.

An orange banner will be displayed when the record is created:

Home Record List

Record created.

Select a Record Group

CoMET Sandbox

New Record

Import Record Create Record

Search content

Ex: AMSU, GOES, Grid

Search

Showing 1 to 10 of 74 records

Figure 1.19 The Record created banner.

Importing Metadata in NCML

Importing an NCML record is not much different from bringing in an ISO record. However, it involves one more step. It is necessary to transform an NCML into ISO. The resulting ISO record is imported as described in the previous subsection.

1. Choose import record from the record list page.



Figure 1.20 The Import Record Button.

2. Upload your NCML file to CoMET in the "Upload your XML file here:" field or provide a URL to a remote XML file.
3. You should select the ACDD NCML record format and choose "CoMET ISO Editor" from the "Select a form" drop-down menu.

Figure 1.21 Import NCML Record.

4. Finally, select the green Import button to import your NCML metadata into CoMET. You will be taken to the CoMET ISO editor form so that you can begin editing.

Figure 1.22 The Create in CoMET Sandbox page for an NCML record.

5. Note: Fields populated in the CoMET ISO editor will vary depending on the robustness of your NCML metadata. Less robust NCML will result in only having the content tab populated.

CoMET Editor

1. Identify descriptions of the coverage. An NCML file may be dragged and dropped to a content coverage table below. Attribute details will be automatically populated.

Content Coverage

* General description of the attributes listed below:

* Attribute Category:

Information about an attribute that have a measured value

Unique name or number that identifies the attribute:	BeamLatitude
Type of the attribute identifier:	float
Description of the attribute:	
Unit URL:	https://www.unidata.ucar.edu/software/udunits/

Figure 1.23 Content Tab of an NCML record.

Information about an attribute that have a measured value

Unique name or number that identifies the attribute:	BeamLatitude
Type of the attribute identifier:	float
Description of the attribute:	
Unit URL:	https://www.unidata.ucar.edu/software/udunits/
Unit Name:	
Scale factor:	
Minimum value of data values:	
Maximum value of data values:	
Mean value of data values:	
Number of values used in a thematicClassification resource:	

Figure 1.24 Content Tab Detailed view of an NCML record.

- Once you're finished editing the form, click the "Create" button to create the form and save it.

Copying Existing Metadata

If a new record to be created is similar to an existing one, making a few changes to a copy would be efficient. The "Record List" page shows ten records at a time. Each record has five buttons, namely, "Edit", "Manage", "View", "Assess", and "Validate".



Figure 1.25 The buttons shown for each record on the Record List page.

- Under the "Manage" button drop-down, click the "Copy" button. The application will show the "Select a form" page.

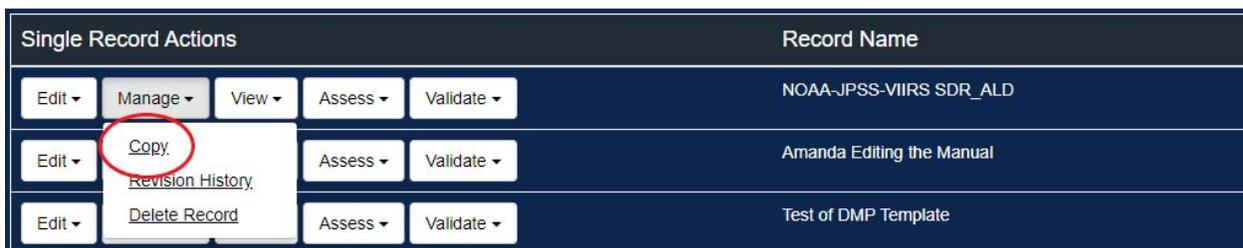


Figure 1.26 The Copy button.

- Select the appropriate form from the drop-down menu.
- Click the green "Next" button.

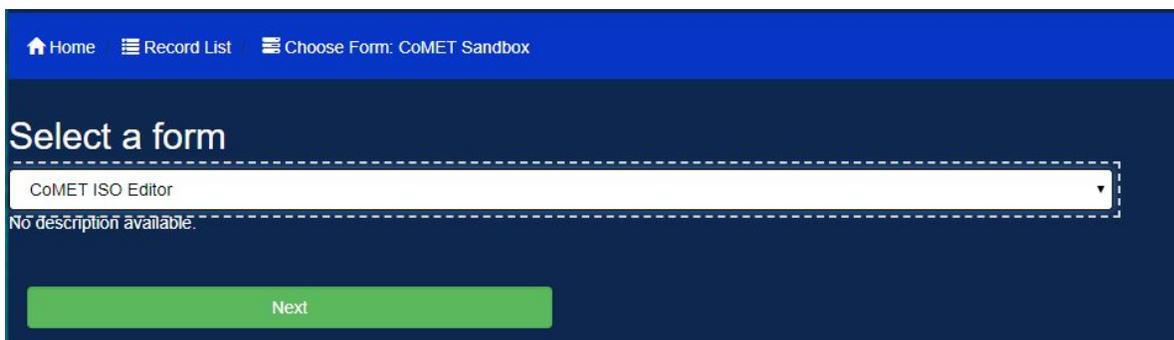


Figure 1.27 Select a form drop-down menu and "Next" button.

- An identical record will be created and you will be taken to the CoMET ISO Editor to make changes.
- If you want the form to have a different title, change it in the record name field.

Create in CoMET Sandbox

Record Name: NOAA-JPSS-VIIRS SDR_ALD Edit Status: DRAFT Create

CoMET Editor

Identification Keywords Access Coverage Content History Quality Metadata Resources

- Descriptive title of the dataset being documented. Spell out any acronyms.
NOAA JPSS Visible Infrared Imaging Radiometer Suite (VIIRS) Sensor Data Record (SDR) from IDPS
- An alternative title or short name by which the dataset is known.
JPSS-VIIRS-SDR
[+ Add Alternate Title](#)
- The date when the dataset was published or released. See date type definitions.
Date: 2012-02-07 Date Type: publication
[+ Add Date](#)
- Edition or version number of the dataset.
Validated
- Unique identifier used to reference the dataset, such as a DOI.
doi:10.7289/V58G8HSZ

Figure 1.28 The Record Name field.

- Once you are ready to save your changes, click “create” to create your new record and save it.

Viewing Metadata

On the “Record List” page, each metadata record is shown with five action buttons. To view the information about your metadata record, follow these steps.

- Click the “View” button drop-down for the record of interest:

Showing 1 to 10 of 72 records

Single Record Actions	Record Name	Edit State
Edit ▾ Manage ▾ View ▾ Assess ▾ Validate ▾	NOAA-JPSS-VIIRS SDR_ALD2	DRAFT
Edit ▾ Manage ▾ CoMET Format XML ISO 19115-2 XML Landing Page HTML Plain Text HTML	NOAA-JPSS-VIIRS SDR_ALD	DRAFT
Edit ▾ Manage ▾	Amanda Editing the Manual	DRAFT
Edit ▾ Manage ▾	Test of DMP Template	DRAFT
Edit ▾ Manage ▾ View ▾ Assess ▾ Validate ▾	bob test	DRAFT

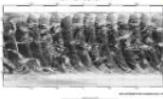
Figure 2.1 The action buttons. They appear on each line for a record in the Record List page.

The application will open a new window with the record format that you chose in the drop-down menu. In the figure below, the “Landing page HTML” was chosen:

Home > Catalog > Dataset Overview

NOAA JPSS Visible Infrared Imaging Radiometer Suite (VIIRS) Sensor Data Record (SDR) from IDPS

JPSS-VIIRS-SDR



Global image of Suomi-NPP VIIRS Single Band M1 from October 27, 2013. Image courtesy of NOAA JPSS LTM system.

Sensor Data Records (SDRs), or Level 1b data, from the Visible Infrared Imaging Radiometer Suite (VIIRS) are the calibrated and geolocated radiance and reflectance data produced from the Raw Data Records. There are 22 VIIRS SDRs: 16 moderate-resolution, narrow-spectral-band products at 750 meter resolution, five imaging-resolution, narrow-spectral-band products at 375 meter resolution and one Day-Night Band imaging broadband product at 750 meter resolution. These SDRs are used as input to produce several Environmental Data Records (EDR) products. A SDR contains the following elements: calibrated sensor radiometric data, geolocation data, quality flags and metadata at both the granule and aggregation levels. By default, VIIRS SDR data obtained from the NOAA Comprehensive Large Array-Data [Show more...](#)

[Dataset Citation](#)

[Dataset Identifiers](#)

[ISO 19115-2 Metadata](#)

Access | **Time & Location** | Documentation | Description | Credit | Keywords | Constraints | Lineage

Download Data	<p>NOAA CLASS FTP Server (download)</p> <p>Access and download data tar files by date and product for the previous 85 days. The directory structure is as follows, date(yyyymmdd)->instrument family->product.</p>
Order Data	<p>NOAA CLASS Data Search and Order (order)</p> <p>Search the data archive and submit an order for the dataset via the interface.</p>
Distribution Formats	<ul style="list-style-type: none"> HDF (Version: 5)
Distributor	<p>Customer Engagement Branch</p> <p>DOC/NOAA/NESDIS/NCEI > National Centers for Environmental Information, NESDIS, NOAA, U.S. Department of Commerce</p> <p>1-828-271-4800</p> <p>ncei.orders@noaa.gov</p>

Figure 2.2 The Landing Page XML. The screen capture shows an example record. The title, abstract, version, etc. are shown.

Proceed to Subsection 3.1 or 3.2.

Viewing Metadata as ISO XML

From the “View” drop-down menu on the selected document, choose the “ISO 19115-2 XML” option.

Home > Catalog > Dataset Overview

NOAA JPSS Visible Infrared Imaging Radiometer Suite (VIIRS) Sensor Data Record (SDR) from IDPS

JPSS-VIIRS-SDR



Global image of Suomi-NPP VIIRS Single Band M1 from October 27, 2013. Image courtesy of NOAA JPSS LTM system.

Sensor Data Records (SDRs), or Level 1b data, from the Visible Infrared Imaging Radiometer Suite (VIIRS) are the calibrated and geolocated radiance and reflectance data produced from the Raw Data Records. There are 22 VIIRS SDRs: 16 moderate-resolution, narrow-spectral-band products at 750 meter resolution, five imaging-resolution, narrow-spectral-band products at 375 meter resolution and one Day-Night Band imaging broadband product at 750 meter resolution. These SDRs are used as input to produce several Environmental Data Records (EDR) products. A SDR contains the following elements: calibrated sensor radiometric data, geolocation data, quality flags and metadata at both the granule and aggregation levels. By default, VIIRS SDR data obtained from the NOAA Comprehensive Large Array-Data [Show more...](#)

[Dataset Citation](#)

[Dataset Identifiers](#)

[ISO 19115-2 Metadata](#)

Access **Time & Location** Documentation Description Credit Keywords Constraints Lineage

Download Data	<p>NOAA CLASS FTP Server (<i>download</i>)</p> <p>Access and download data tar files by date and product for the previous 85 days. The directory structure is as follows, date(yyyymmdd)->instrument family->product.</p>
Order Data	<p>NOAA CLASS Data Search and Order (<i>order</i>)</p> <p>Search the data archive and submit an order for the dataset via the interface.</p>
Distribution Formats	<ul style="list-style-type: none"> HDF (Version: 5)
Distributor	<p>Customer Engagement Branch</p> <p>DOC/NOAA/NESDIS/NCEI > National Centers for Environmental Information, NESDIS, NOAA, U.S. Department of Commerce</p> <p>1-828-271-4800</p> <p>ncei.orders@noaa.gov</p>

Figure 2.5 Landing Page HTML view.

Viewing Metadata in Plain Text HTML View

From the “View” drop-down menu on the selected record, choose the “Plain Text HTML” option.

referenceSystemInfo
 identificationInfo
 contentInfo
 distributionInfo
 dataQualityInfo
 dataQualityInfo
 dataQualityInfo
 metadataMaintenance

NOAA JPSS Visible Infrared Imaging Radiometer Suite (VIIRS) Sensor Data Record (SDR) from IDPS

(MI_Metadata)

fileIdentifier: gov.noaa.ncdc:C00864
language: eng, USA
characterSet: (MD_CharacterSetCode) utf8
hierarchyLevel: (MD_ScopeCode) dataset
contact: (CI_ResponsibleParty)
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
address: (CI_Address)
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://www.ncei.noaa.gov>
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_OnlineFunctionCode) information
hoursOfService: 8:00 - 6:00 Eastern
role: (CI_RoleCode) pointOfContact

Figure 2.6 Plain Text HTML view of the record.

Validating Metadata

ISO Validation

With CoMET, a metadata record can be validated using the XML Schema Definition (XSD) schema. From the “Record List” page, click the “Validate” button associated with the record of interest. Locate the “Validate ISO” button and click it.

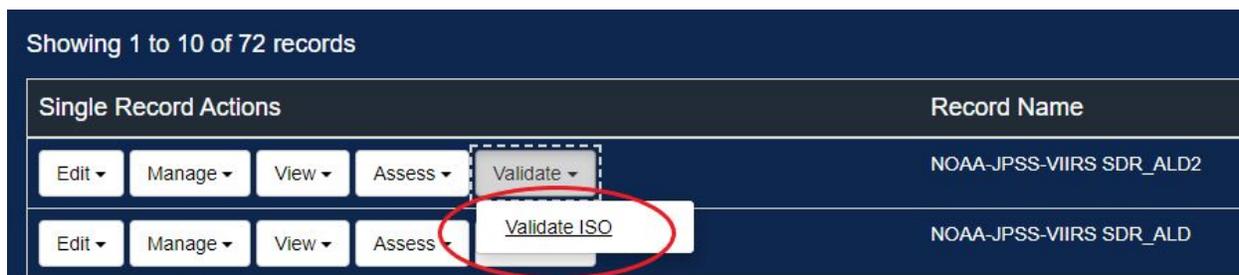


Figure 3.1 Validate button with drop-down menu.

When a validation run finishes, the “Validate” page is shown in a new window. If the record is compliant with the ISO XSD schema and thus no issue is found, the “Validation Result:” field displays “true:”



Figure 3.2 The result of an ISO validation test on a record. The example record shows no validation error and it is fully compliant with ISO.

However, if the record is not compliant with ISO, error messages are shown with line numbers:

The screenshot above is taken after clicking the first error message on line 2758. Notice that line 2758 on the panel showing the ISO record is highlighted with a dashed border. Try to click another error message. The panel will scroll automatically to show the corresponding line if the line is outside the panel view. When you are finished, you may close the window.

ISO Rubric V2 Analysis

Rubric V2 analysis is a tool to see if a record is adherent to NOAA metadata best practices. ISO Rubric V2 analysis is launched from the record “Assess” page drop-down menu of the Record List page.

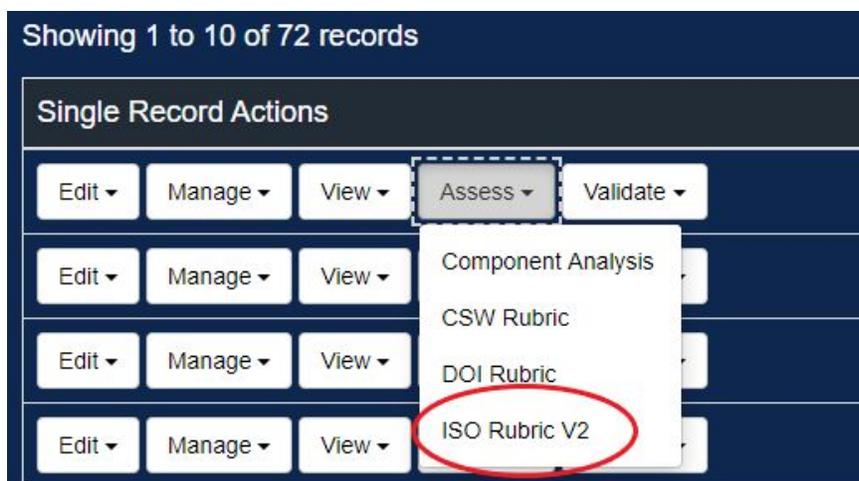


Figure 3.5 “Assess” button with drop-down menu choices.

A new window opens with the Rubric assessment. Once the analysis finishes, the web browser shows the overall completeness score as well as the scores for each category.

Completeness Rubric for: NOAA JPSS Visible Infrared Imaging Radiometer Suite (VIIRS) Sensor Data Record (SDR) from IDPS

Completeness Score: 100% + 23

Resource Hierarchy Level: 'dataset' — Status: 'onGoing'

CATEGORY	SCORE + EXTRA CREDIT	RUBRIC REQUIREMENTS
Identification	100% + 3	Required
Access	100% + 0	Conditional - not required when Resource Hierarchy Level = 'fieldSession' or Status = 'planned'.
Coverage	100% + 3	Required
Content	100% + 0	Conditional - not required when Resource Hierarchy Level = 'fieldSession'.
History	100% + 5	Required
Quality	100% + 1	Conditional - not required when Resource Hierarchy Level = 'fieldSession'.
Connections	97% + 1	Required
Metadata	100% + 1	Required
Associated Resource	+ 4	Highly Recommended
Attribution	+ 5	Highly Recommended

[About Completeness Rubric](#)
[More Information](#)
[Contact](#)

[Identification](#)[Access](#)[Coverage](#)[Content](#)[History](#)[Quality](#)[Connection](#)[Metadata](#)[Resources](#)[Attribution](#)

Identification Category The Identification Category provides content needed for basic discovery of the resource. It includes the title, an abstract, theme keywords, point of contact, status and Resource Hierarchy Level.
 9/9 +3

Figure 3.6 ISO Rubric V2 completeness score page.

Updating Metadata

A metadata record is opened for updating by clicking an “Edit” button:

Showing 1 to 10 of 72 records

Single Record Actions	Record Name
Edit ▾ Manage ▾ View ▾ Assess ▾ Validate ▾	NOAA-JPSS-VIIRS SDR_ALD2
Data Management Plan date ▾ Data Stewardship Maturity Questionnaire (DSMQ) date ▾ CoMET ISO Editor	NOAA-JPSS-VIIRS SDR_ALD
	Amanda Editing the Manual
Edit ▾ Manage ▾ View ▾ Assess ▾ Validate ▾	Test of DMP Template

Figure 4.1 Edit button with drop-down menu.

To edit, find the record to be updated by using the “Search content” input field or by using the page navigation bar appearing at the end of the record list. Click the “Edit” button associated with the record.

From the “Edit” menu, select “CoMET ISO Editor” to be taken to the edit form.

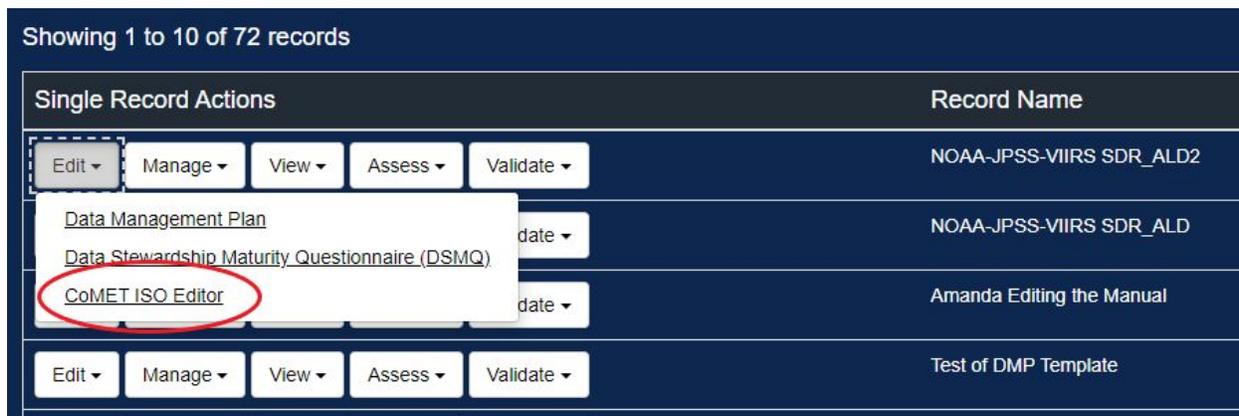


Figure 4.2 Select a form view.

As mentioned in an earlier Section, input fields are organized by tabs. When CoMET opens a record, the “Identification” tab is shown by default.

Home Record List Edit: CoMET Sandbox

Manage ▾ View ▾ Assess ▾ Validate ▾ Save Commit Exit

Record Name*
NOAA-JPSS-VIIRS SDR_ALD2

Edit Status: DRAFT

CoMET Editor

Identification Keywords Access Coverage Content History Quality Metadata Resources

- *Descriptive title of the dataset being documented. Spell out any acronyms.
NOAA JPSS Visible Infrared Imaging Radiometer Suite (VIIRS) Sensor Data Record (SDR) from IDPS
- An alternative title or short name by which the dataset is known.
JPSS-VIIRS-SDR
+ Add Alternate Title
- The date when the dataset was published or released. See date type definitions.
Date: 2012-02-07 Date Type: publication ▾
+ Add Date
- Edition or version number of the dataset.
Validated

Figure 4.3 CoMET Editor record view. Identification tab.

Make necessary changes across all tabs. Once editing is completed, click the “Save” or “Commit” button appearing in the top right corner or near the bottom (but above the footer):



Figure 4.4 The Save and Commit buttons. See text for the difference between the two buttons.

Both buttons would save the record. The difference is that, when a record is committed, a dialogue appears to collect “Reason for Change.” The Reason for Change is saved along with the record and a flag indicating this particular version is committed.

Keyword Autocompletion

Keywords are listed under the “Keywords” tab. To help users to easily enter keywords, CoMET provides the keyword auto completion feature. The GCMD keywords are provided by default. The keyword input field uses light blue for its background color when the autocompletion is enabled. When the autocompletion is not supported for a vocabulary, the background color changes to white. The screenshot below shows a keyword input field with autocompletion enabled. Note that the background color of the input field is light blue:

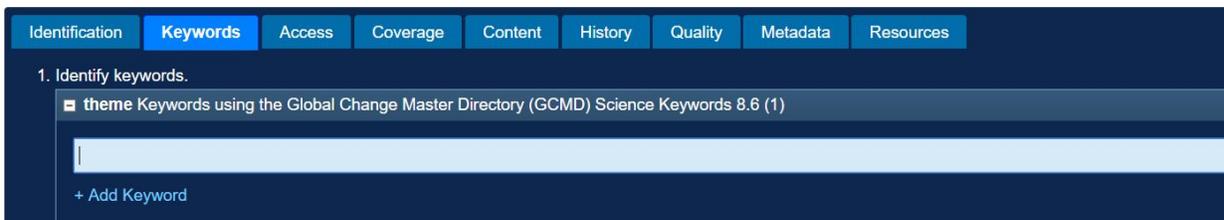


Figure 4.5 An input field for entering a keyword. The background color of the input field is light blue, indicating autocompletion is enabled.

For example, we want to enter the “NITRATE PARTICLES” keyword. Type “NIT” and pause for a few seconds. CoMET searches keywords within the given vocabulary and displays the first 20 keywords containing “NIT.” Continue typing so that the input field contains “NITRATE.” There are only four keywords containing the word:

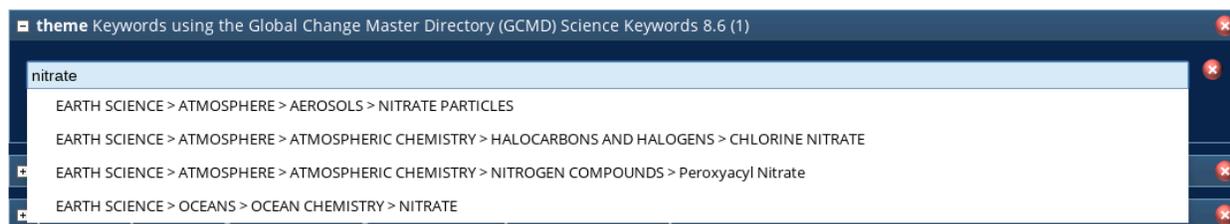


Figure 4.6 Autocompletion feature. When the user enters one or more search terms, the autocomplete feature shows keywords containing the search terms.

At this point, you can place your mouse cursor over the “NITRATE PARTICLES” option and click it. Or add another word to the input field to narrow the search. The input field shows the selected keyword:

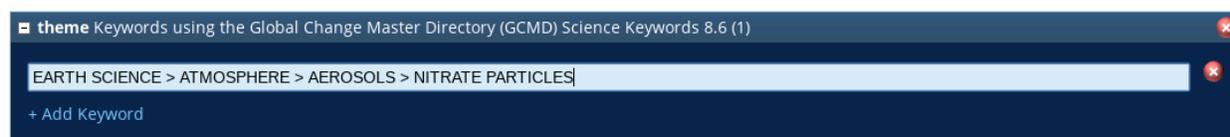


Figure 4.7 Keyword entry with autocompletion. When a keyword is selected from a drop-down menu returned by the autocomplete feature, the keyword is entered to the input field and the drop-down menu disappears.

Using Docucomp Components

Component selection works much like the keyword autocompletion described in Subsection 5.1. In CoMET, there are many clickable links starting with “+ Add External Reference to” One example is where responsible party information is entered. There are three links below:

Figure 4.8 Three possible ways of documenting a responsible party.

The second one is used to enter a Docucomp component. Click the link. It adds a component lookup UI:

Figure 4.9 An input field for entering a reference to a component. Autocompletion is enabled.

Search is done by using the brief column of Docucomp. Enter any combination of words appearing in the brief of a component you want to use. An example search with “bob” responded with a drop-down:

Figure 4.10 drop-down menu with autocomplete matches feature. When one or more search terms are entered, the autocomplete feature makes a query to an external database and shows matches on a drop-down menu.

When an entity from the drop-down is selected, the component lookup UI displays its title and URL:

Figure 4.11 External reference URL automatically entered. When a component is selected from a drop-down menu shown by the autocomplete feature, reference to the selected component is automatically entered.

When and How to specify a “Nil Reason”

ISO metadata format allows to specify a reason when the value of a field is empty. The specification is done by using the “gco:nilReason” attribute. CoMET provides a mechanism to enter a nil reason. For example, let’s say the contact information of a responsible party is not provided because it is withheld (by user request, for example). An empty box for entering a Responsible Party looks like:

Figure 4.12 A blank section for editing a responsible party. Each input field shown here has a clickable icon to specify a nil reason.

At the bottom of the box, there is the “+ Add Reason for Nil Contact Information” link. Click the link. It adds a box within the Responsible Party:

Figure 4.13 The nil reason selector. The drop-down contains a list of predefined values for a nil reason.

The selector lists all options supported by ISO. Use the selector to choose the “withheld” option for this example.

Undo a Change Using Revision History

Whenever a record is updated from the “Edit” page by using the “Save” or “Commit” button, the prior version is saved using the revision history feature. In fact, CoMET keeps all updates. It is possible to recall an earlier version and to make it the current version. For example, let’s say a record has 10 versions. The version numbers would be 1 through 10 with 10 being the latest. If version 9 is recalled, a copy of version 9 becomes version 11. Next time when the record is edited, version 11 will be used.

1. In order to view the revision history of a record, go to the “Manage” page of a record. This is done from the “Form Content: Record List” page by clicking the “Manage” drop-down menu button for the record of interest.

Showing 1 to 10 of 72 records

Single Record Actions	Record Name	Edit State
Edit ▾ Manage ▾ View ▾ Assess ▾ Validate ▾	NOAA-JPSS-VIIRS SDR_ALD2	DRAFT
Edit ▾ Copy Revision History Delete Record	NOAA-JPSS-VIIRS SDR_ALD	DRAFT
Edit ▾ Assess ▾ Validate ▾	Amanda Editing the Manual	DRAFT
Edit ▾ Manage ▾ View ▾ Assess ▾ Validate ▾	Test of DMP Template	DRAFT

Figure 5.1 The Manage button.

- Then click The Revision History button.

Showing 1 to 10 of 72 records

Single Record Actions	Record Name	Edit State
Edit ▾ Manage ▾ View ▾ Assess ▾ Validate ▾	NOAA-JPSS-VIIRS SDR_ALD2	DRAFT
Edit ▾ Copy Revision History Delete Record	NOAA-JPSS-VIIRS SDR_ALD	DRAFT
Edit ▾ Assess ▾ Validate ▾	Amanda Editing the Manual	DRAFT
Edit ▾ Manage ▾ View ▾ Assess ▾ Validate ▾	Test of DMP Template	DRAFT

Figure 5.2 The Revision History button.

- You can select a version or versions by checking a box next to the version number.

Showing 1 to 3 of 3 records

Version	Last Updated	Last Updated by
<input checked="" type="checkbox"/> 3	2019-10-24 12:06:06 EDT	amanda.dean
<input checked="" type="checkbox"/> 2	2019-10-24 12:05:20 EDT	amanda.dean
<input type="checkbox"/> 1	2019-10-24 10:00:51 EDT	amanda.dean

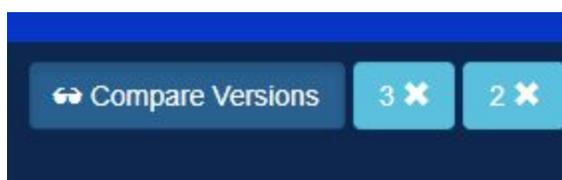


Figure 5.3 Checkboxes to select and compare different versions.

- You can revert to a previous version or compare any 2 versions.



Figure 5.4 The Revert Button.

Publishing Metadata

Once the record is completed, it is ready to be published.

1. From the Record List view, click on “Bulk Record Actions” so that a drop-down menu appears. Select “Request to Publish” shown below:



Figure 6.1 The Request to Publish button.

2. Select the record or records you wish to publish by placing a checkmark next to it, and then click the green “Request to Publish” button on the bottom right of the form list.

Actions	Description	Edit State	Last Updated by
<input type="checkbox"/> View	gov.noaa.ncdc:C01596	DRAFT	paul.lemieux
<input checked="" type="checkbox"/> View	NOAA-JPSS-VIIRS-AF_ALD4	DRAFT	amanda.dean
<input checked="" type="checkbox"/> View	NOAA-JPSS-VIIRS-AF_ALD3	DRAFT	amanda.dean
<input checked="" type="checkbox"/> View	NOAA-JPSS-VIIRS SDR_ALD2	DRAFT	amanda.dean
<input type="checkbox"/> View	NOAA-JPSS-VIIRS SDR_ALD	DRAFT	amanda.dean
<input type="checkbox"/> View	Amanda Editing the Manual	DRAFT	amanda.dean

Figure 6.2 The checkbox next to the View record(s).

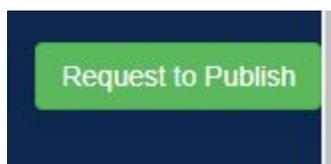


Figure 6.3 The Request to Publish button.

3. A box will pop up requesting information. Provide optional comment (highly recommended) about the publishing request for the reviewer.

Enter Reason for Change

Provide optional text to document this request to publish the record(s).

Figure 6.4 The Provide optional comment text field.

You will be returned to the Record List view where your records that were requested to be published will change to an edit state of "In Review":



Figure 6.5 The record has been submitted and is in review.

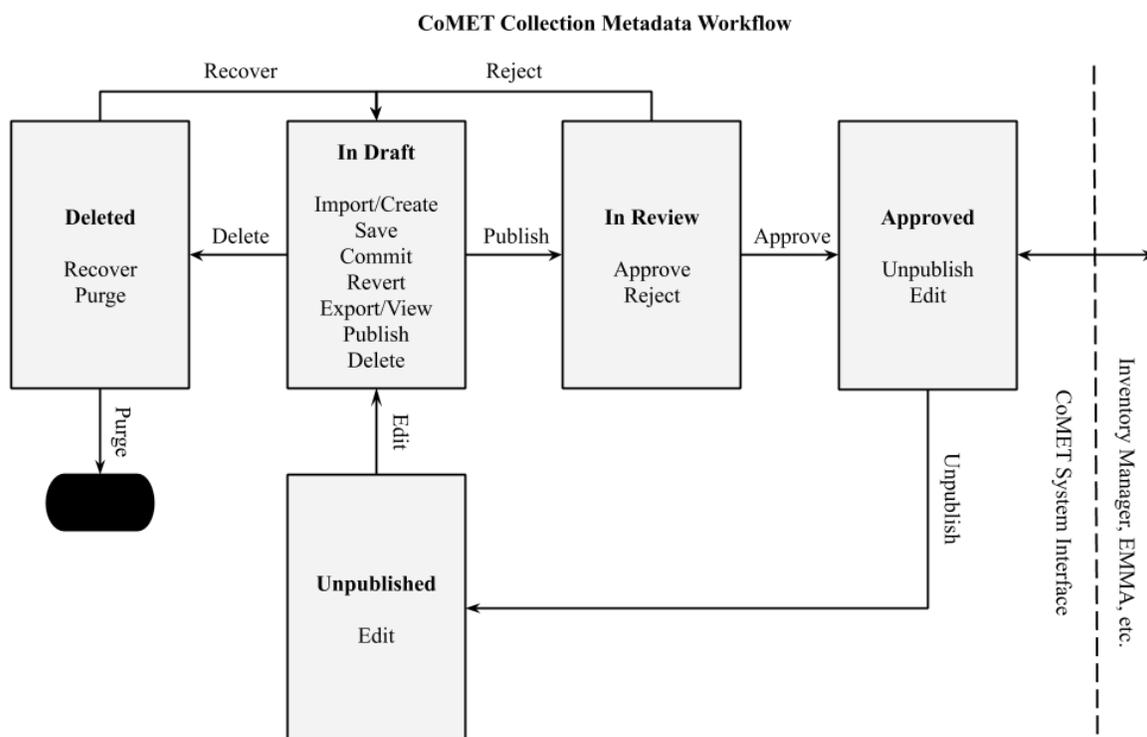


Figure 6.6 CoMET Collection Metadata Workflow showing record states and transitions.

Unpublishing Metadata

There may come a time when you need to delete metadata for various reasons. These steps will walk you through that process.

1. From the Record List view, click the "Bulk Record Actions" drop-down menu towards the right of the screen.

- a. **Note:** You cannot unpublish a record until your original publish request was approved.
- b. **Note:** If you only see “Request to Publish” and “Undelete Records” in the drop-down menu, your current user access does not allow for certain permissions to change records. Please contact ncei.collection-manager.support@noaa.gov for assistance.



Figure 6.7 The Unpublish Records button.

2. On the unpublish list view page, place a checkmark next to the record(s) you wish to unpublish and click the green “Unpublish” button on the bottom right of the page.

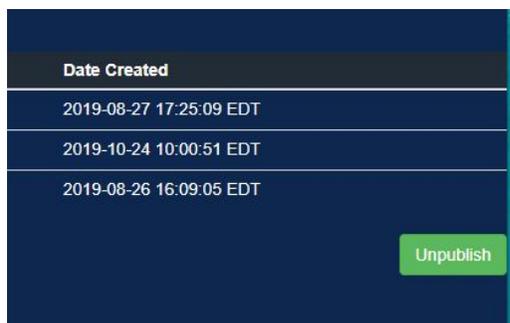
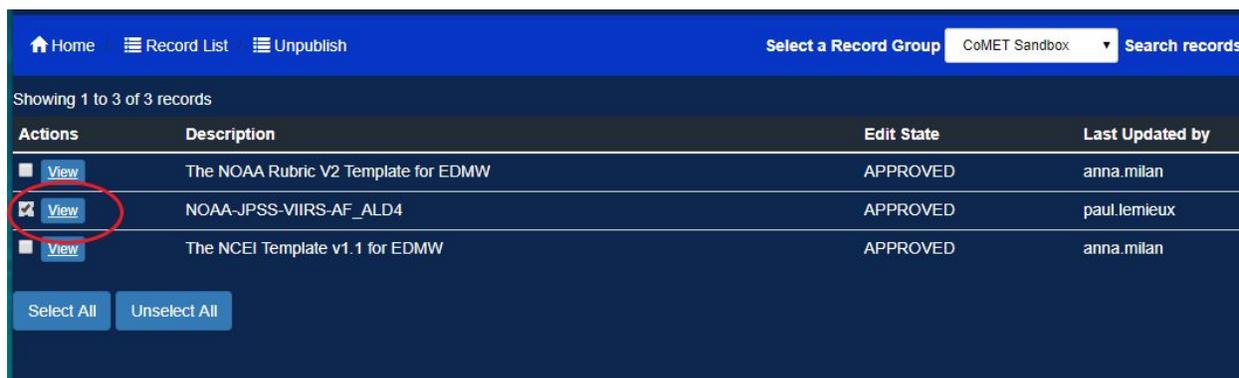


Figure 6.8 Checkmarks to unpublish records and Unpublish button.

3. Type a reason for unpublishing the record in the dialog box that appears (optional) and click OK.

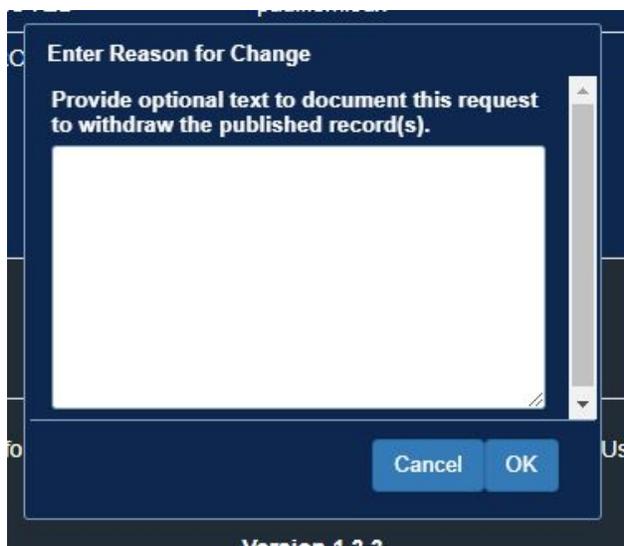


Figure 6.9 Reason for Change optional comment text field.

4. You will be returned to the Record List page.

Deleting & Undeleting Metadata

A metadata record may be deleted from CoMET. A “Delete” button is available from several pages. The obvious choice is the Record List page. From the Record List view click the “Manage” button for the record you wish to delete.

Showing 1 to 10 of 72 records

Single Record Actions	Record Name	Edit State
Edit ▾ Manage ▾ View ▾ Assess ▾ Validate ▾	NOAA-JPSS-VIIRS SDR_ALD2	DRAFT
Edit ▾ Copy Revision History Delete Record	NOAA-JPSS-VIIRS SDR_ALD	DRAFT
Edit ▾ Assess ▾ Validate ▾	Amanda Editing the Manual	DRAFT
Edit ▾ Manage ▾ View ▾ Assess ▾ Validate ▾	Test of DMP Template	DRAFT

Figure 7.1 The Manage button with drop-down menu.

From the Manage option, click the “Delete Record” button.

When the “Delete Record” button is clicked, the application asks for a confirmation with “Cancel” or “OK”:

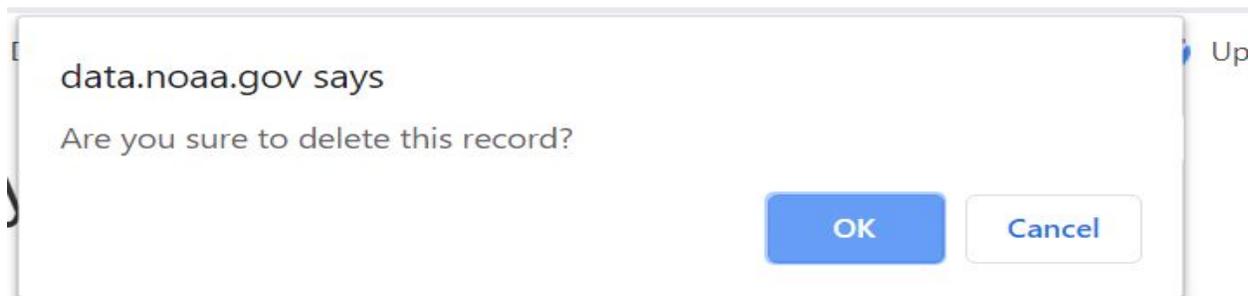


Figure 7.2 The Delete Confirmation dialog.

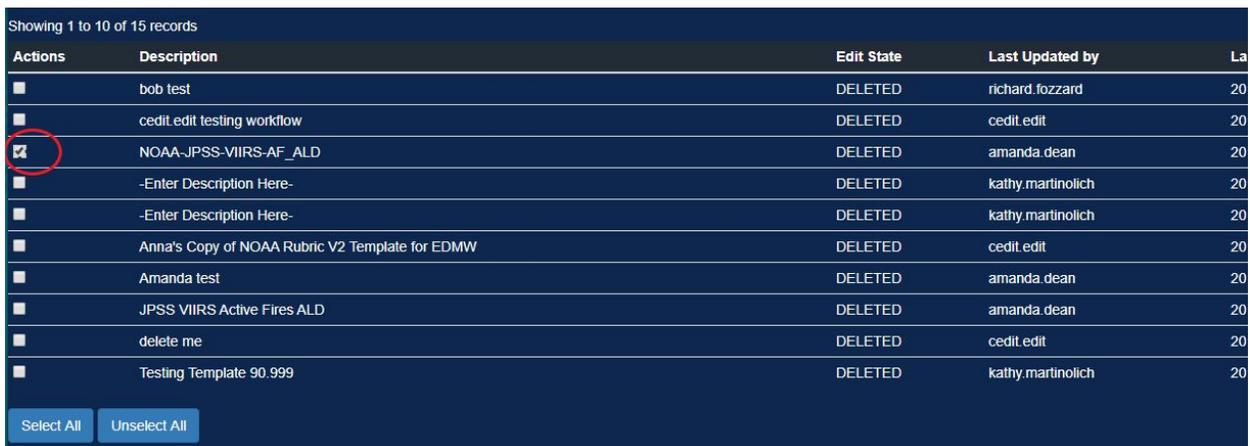
The confirmation dialogue is to prevent a record from being accidentally deleted. When the “OK” button is clicked, the record is deleted and the web browser changes to the “Record List” page.

To undelete a metadata record, from the record list view click the gray “Undelete Records” button.



Figure 7.3 The Undelete Records button.

Place a checkmark next to the record(s) that you want to undelete,

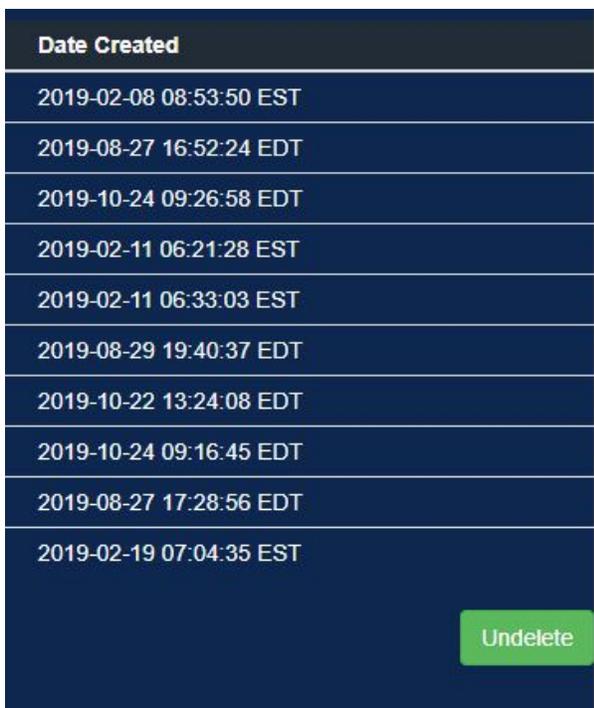


Showing 1 to 10 of 15 records

Actions	Description	Edit State	Last Updated by	La
<input type="checkbox"/>	bob test	DELETED	richard.fozzard	20
<input type="checkbox"/>	cedit.edit testing workflow	DELETED	cedit.edit	20
<input checked="" type="checkbox"/>	NOAA-JPSS-VIIRS-AF_ALD	DELETED	amanda.dean	20
<input type="checkbox"/>	-Enter Description Here-	DELETED	kathy.martinolich	20
<input type="checkbox"/>	-Enter Description Here-	DELETED	kathy.martinolich	20
<input type="checkbox"/>	Anna's Copy of NOAA Rubric V2 Template for EDMW	DELETED	cedit.edit	20
<input type="checkbox"/>	Amanda test	DELETED	amanda.dean	20
<input type="checkbox"/>	JPSS VIIRS Active Fires ALD	DELETED	amanda.dean	20
<input type="checkbox"/>	delete me	DELETED	cedit.edit	20
<input type="checkbox"/>	Testing Template 90.999	DELETED	kathy.martinolich	20

Select All Unselect All

Figure 7.4 The Checkmark box to select a record to undelete.
then click the green, “Undelete” button.



Date Created
2019-02-08 08:53:50 EST
2019-08-27 16:52:24 EDT
2019-10-24 09:26:58 EDT
2019-02-11 06:21:28 EST
2019-02-11 06:33:03 EST
2019-08-29 19:40:37 EDT
2019-10-22 13:24:08 EDT
2019-10-24 09:16:45 EDT
2019-08-27 17:28:56 EDT
2019-02-19 07:04:35 EST

Undelete

Figure 7.5 The Undelete button.

5. Type a reason for undeleting the record in the dialog box that appears (optional) and click OK.

Figure 7.6 Undeleting Record optional comment text field.

Glossary of Terms

1. User Roles

- a. Viewer - default role assigned to external users that provides read only access to forms and records.
- b. Editor - default role assigned to internal users that provides edit capabilities to records.
- c. Group - role assigned to group leaders that allows form editing and adding/removing users from the form group
- d. Publisher - role assigned to specially trained metadata specialists that allow them to approve publish requests from editors and also affords them the ability to unpublish records upon request.
- e. Admin - role saved for developers and product owners that grants additional administrative abilities such as user permissions, form manipulation, thesaurus maintenance, etc.

2. **Record Group** - a collection of records that share the same provenance, structure and content. Record groups can also be created that only certain users can access.

3. **Publish** - saves a metadata record and sends it to the review queue for a reviewer (publisher role) to approve it (or not) for addition to the WAF(s) and discovery portals.

4. Edit States

- a. Draft - The default state once a record is imported or created. It signifies that the record is available for editing.
- b. In Review - After requesting to publish a record, this state designates that the record is awaiting approval by a reviewer.



- c. Approved - Once a reviewer approves a publication request, your record is sent to the WAF for publication and harvest.
- d. Unpublished - A state of limbo that appears once a record has been removed from the WAF and is awaiting editing and republishing. Once a change has been saved, the record will return to draft status.

DMSQ CoMET User Manual

Valid for production version 1.5.2



CoMET

Collection Metadata Enterprise Tool

[Proceed to ICAM Login](#)

Select current certificate issued by DOD ID CA for user authentication.

[How do I get an account?](#)

Prepared by:

Paul A. Lemieux III - Riverside Technology, Inc.

Raisa Ionin - Riverside Technology, Inc.

Robert P. Partee II - Riverside Technology, Inc.

Amanda Dean - CASE Consultants, Int.

Contact Information

Questions or feedback regarding this manual should be directed to the OneStop Metadata Content Team at Paul.Lemieux@noaa.gov and Amanda.Dean@noaa.gov.

If you encounter issues or need to report a bug in CoMET, please send an email to ncei.collection-manager.support@noaa.gov. In the email 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.

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Background

The application of the Data Stewardship Maturity Matrix (DSMM) is an essential part of making NOAA data and metadata *OneStop* ready. It allows for greater transparency and discoverability of data sets. The DSMM assessment can be carried out either by using the [DSMM template](#) or by answering the [Data Stewardship Maturity Questionnaire \(DSMQ\)](#). However, DSMQ offers a more consistent and scalable approach to the DSMM assessment and ratings integration process. To help utilize DSMQ, this guide attempts to shed some



light on commonly used terms in the DSMQ as well as answer some frequently asked questions by early beta testers. Suggestions for improving this document are encouraged and can be sent to the OneStop Metadata Content Editor Team (paul.lemieux@noaa.gov and amanda.dean@noaa.gov)

Workflow

1. Request CoMET account if you do not already have one by following these steps:

Send email to ncei.collection-manager.support@noaa.gov with the following details:

5. Subject: 'New User for [CoMET, Docucomp, and/or Metaserver] for *your name*'
6. Your contact information
7. Your associated program or agency
8. Intended usage

Once you are set up, your login name will be your email (without the @noaa.gov) and the password will be the same as your email password.

Note: Login is currently limited to users with a NOAA email, but external access is planned for a future release cycle. Send in a request if you'd like to be informed when this capability is available.

2. When you login, please select "Records: Search Records"

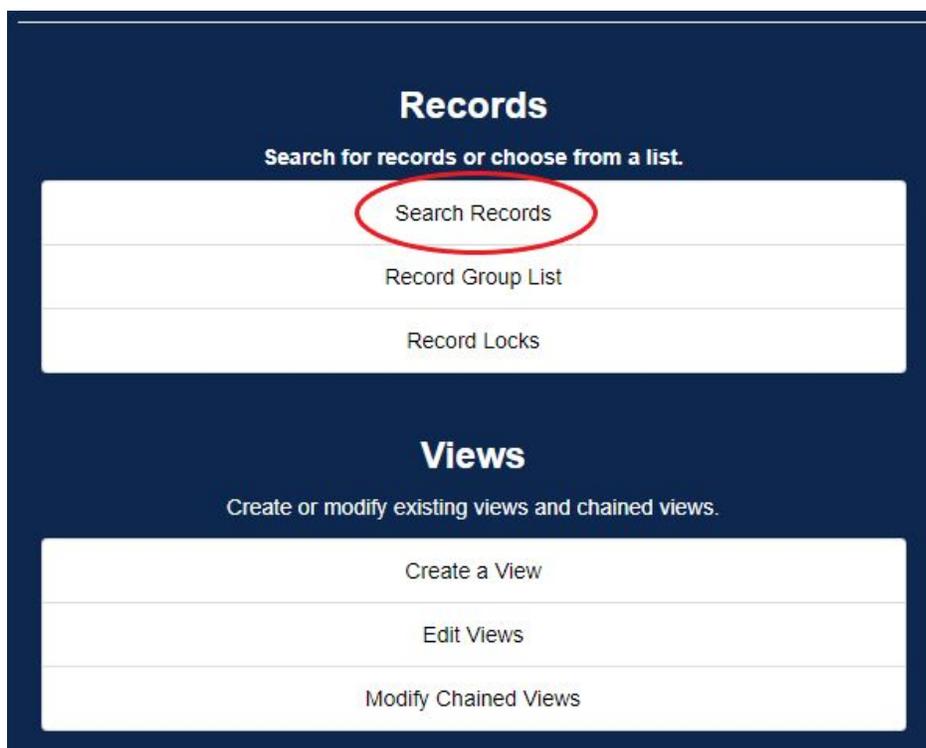


Figure 1.1 Main Menu.

3. From the "Select a Record Group", choose CoMET Sandbox from the drop-down menu.



Figure 1.2 CoMET Sandbox selection from drop-down menu.

4. If you want to create a new DSMQ record, click "Create Record".

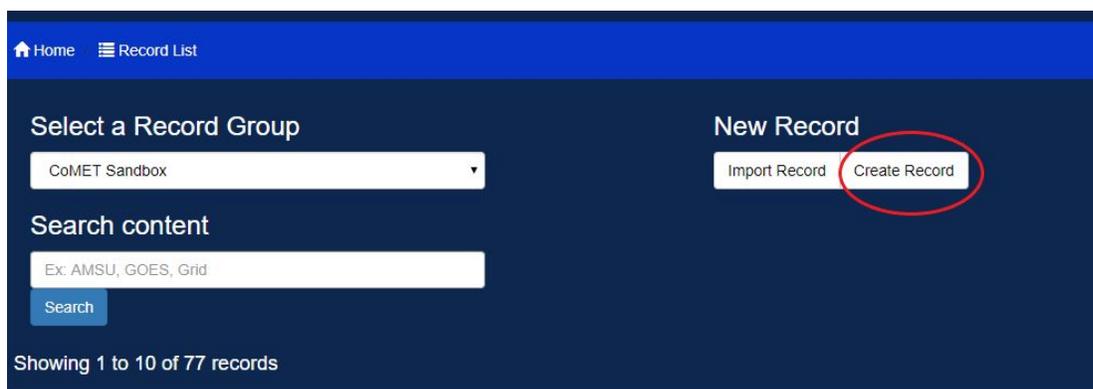


Figure 1.3 The Create Record button.

5. From "Select a form" menu, choose "Data Stewardship Maturity Questionnaire (DSMQ)" and click "Next"

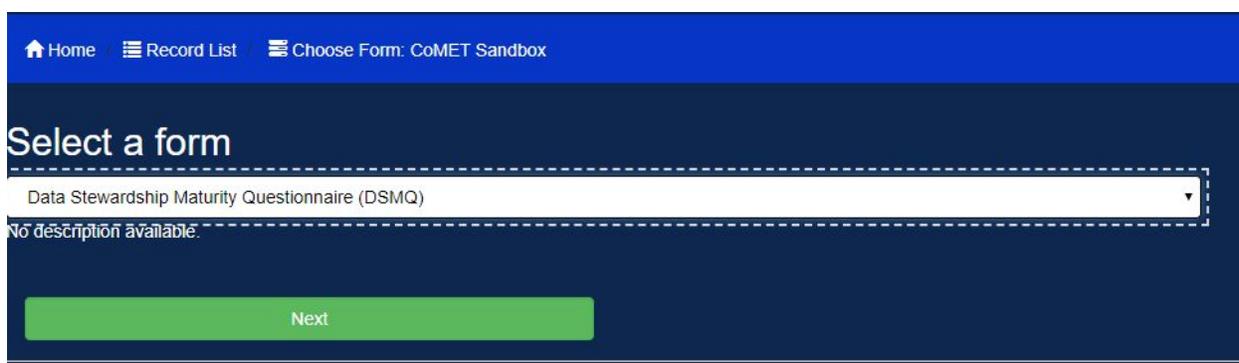


Figure 1.4 Select a form menu.

6. Once the form loads, your default view will show the "General" tab.

Home Record List Record: Create

Create in CoMET Sandbox

Record Name Edit Status: DRAFT Create

DSMM Questionnaire Evaluate Questionnaire

The DSMQ user's guide is available here.

General Preservability (0/5) Accessibility (0/5) Usability (0/5) Production Sustainability (0/5) Data Quality Assurance (0/5) Data Quality Transparency/Traceability (0/5) Data Integrity (0/5)

A. Dataset short name. [A short name that is descriptive of the data product which, preferably, is 30 or less characters of letters, numbers, hyphen(s) and/or underscores. NOAA-NSIDC_PMSIC_CDR-v2. More detailed explanation here: <http://tinyurl.com/DSMMguide>.]

B. Dataset title. [Free text for dataset long name, including product version. For example, NOAA/NSIDC Passive Microwave Sea Ice Concentration Climate Data Collection Level Template for OneStop]

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

+ Add Information URL

Figure 1.5 General Tab of the Questionnaire.

While you are free to complete the tabs in any order you choose, we recommend starting with “General” and working your way to the right through all the tabs in their displayed order.

7. Follow steps 15-26 to complete, save and commit the form.
8. If you have already created a DSMQ, and would like to pick up where you left off previously, then locate the form you want to edit and click “Edit.”

Home Record List

Select a Record Group CoMET Sandbox New Record Import Record Create Record

Search content Ex: AMSU, GOES, Grid Search

Showing 1 to 10 of 77 records

Single Record Actions	Record Name	Edit State
Edit Manage View Assess Validate	NOAA-JPSS-VIIRS-AF_ALD4	DRAFT
Data Management Plan Data Stewardship Maturity Questionnaire (DSMQ) CoMET ISO Editor	SEAMAP_Trawl_Stations	DRAFT
	JPSS VIIRS Active Fires ALD	DRAFT
Edit Manage View Assess Validate	bob test 1,2	DRAFT
Edit Manage View Assess Validate	gov.noaa.ncdc:C01596	DRAFT

Figure 1.6 The Edit button.

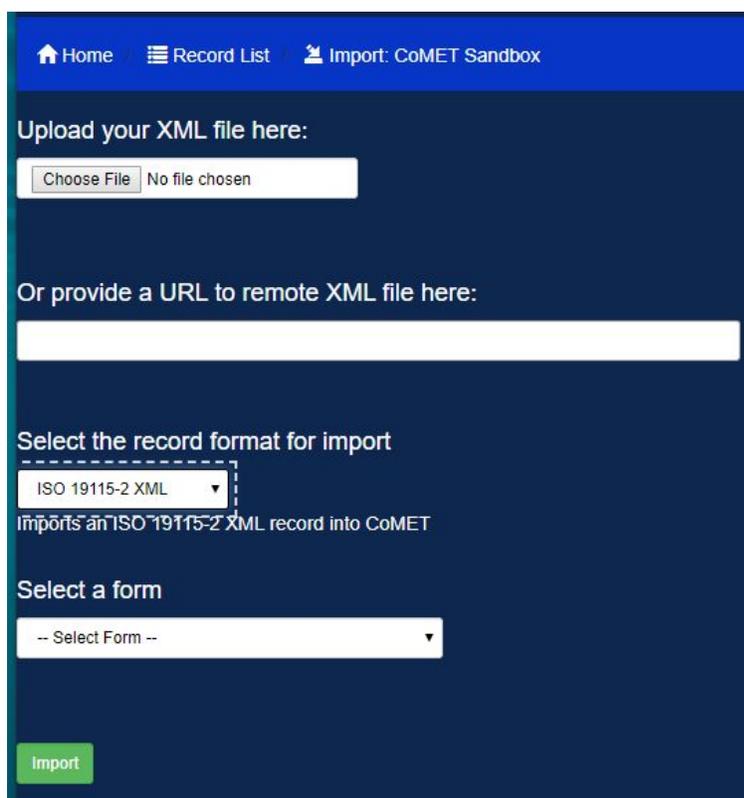
9. From "Edit" menu, choose "Data Stewardship Maturity Questionnaire (DSMQ) and a new window will open.
10. Follow steps 15-26 to complete, save and commit the form.
11. If you would like to create a new DSMQ by importing an already existing metadata record to pre-populate certain fields then click "Import Record."



The screenshot shows a dark blue interface with two main sections. On the left, under 'Select a Record Group', there is a dropdown menu showing 'CoMET Sandbox'. Below it is a 'Search content' section with a text input field containing 'Ex: AMSU, GOES, Grid' and a blue 'Search' button. On the right, under 'New Record', there are two buttons: 'Import Record' and 'Create Record'. The 'Import Record' button is circled in red.

Figure 1.7 The Import Record Button

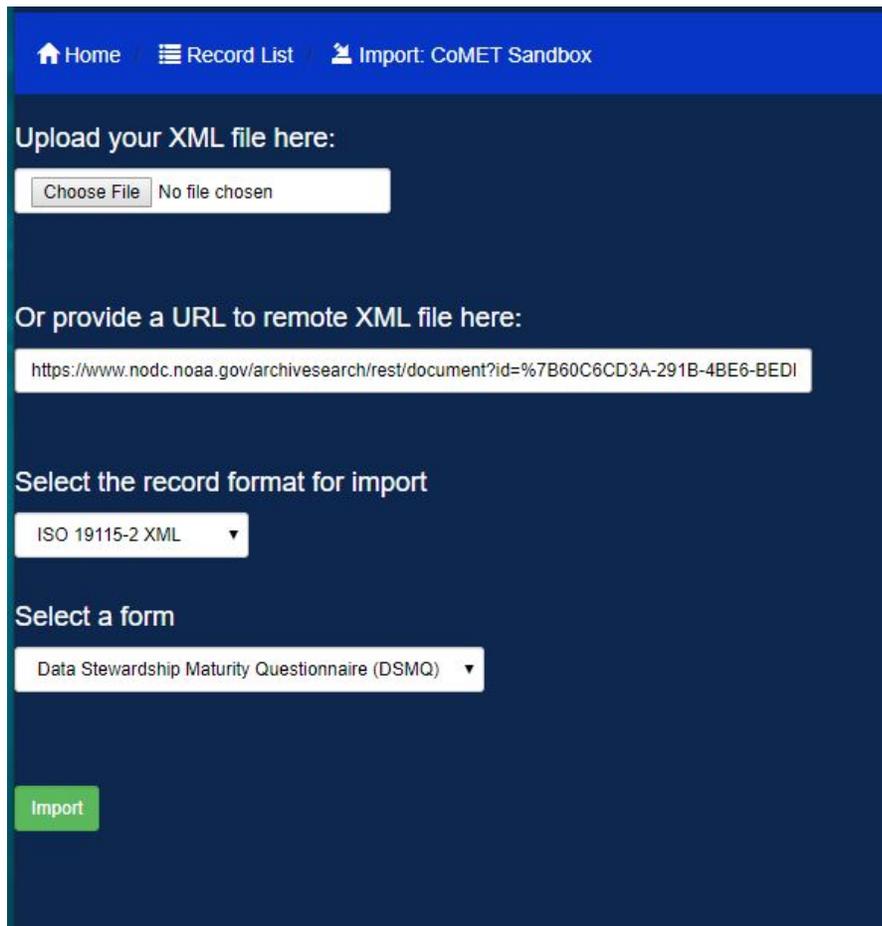
12. You will be taken to the next form where you can either upload your existing metadata XML file or provide a URL to remote XML.



The screenshot shows a dark blue interface for uploading metadata. At the top, there is a navigation bar with 'Home', 'Record List', and 'Import: CoMET Sandbox'. Below this, the main content area has three sections: 1. 'Upload your XML file here:' with a 'Choose File' button and 'No file chosen' text. 2. 'Or provide a URL to remote XML file here:' with an empty text input field. 3. 'Select the record format for import' with a dropdown menu showing 'ISO 19115-2 XML'. Below this dropdown is a small text box that says 'Imports an ISO 19115-2 XML record into CoMET'. At the bottom, there is a 'Select a form' dropdown menu showing '-- Select Form --' and a green 'Import' button.

Figure 1.8 Upload Metadata XML File View.

We will be using a remote URL example where you need to insert your remote XML URL into the box.



The screenshot shows a web interface for importing XML metadata. At the top, there is a navigation bar with 'Home', 'Record List', and 'Import: CoMET Sandbox'. Below this, the main heading is 'Upload your XML file here:'. There is a file selection area with a 'Choose File' button and the text 'No file chosen'. Below that, there is a section 'Or provide a URL to remote XML file here:' with a text input field containing the URL 'https://www.nodc.noaa.gov/archivesearch/rest/document?id=%7B60C6CD3A-291B-4BE6-BEDI'. Underneath, there is a section 'Select the record format for import' with a dropdown menu showing 'ISO 19115-2 XML'. Below that, there is a section 'Select a form' with a dropdown menu showing 'Data Stewardship Maturity Questionnaire (DSMQ)'. At the bottom left, there is a green 'Import' button.

Figure 1.9 Upload Metadata XML File View with selections.

13. After inserting your remote URL into the text box, select “ISO-19115-2 XML” from “Select the record format to import”, and then finally select “Data Stewardship Maturity Matrix (DSMQ)” from the “Select a form” menu.
14. After all the selections have been made, press the green “Import” button.
15. Once the form loads, your default view will show the “General” tab.

Create in CoMET Sandbox

Record Name Edit Status: DRAFT Create

DSMM Questionnaire

The DSMO user's guide is available here. Evaluate Questionnaire

General Preservability (0/5) Accessibility (0/5) Usability (0/5) Production Sustainability (0/5) Data Quality Assurance (0/5) Data Quality Control/Maintenance (0/5) Transparency/Traceability (0/5) Data Integrity (0/5)

A. Dataset short name. [A short name that is descriptive of the data product which, preferably, is 30 or less characters of letters, numbers, hyphen(s) and/or underscore(s) with no spaces. For example, NOAA-NSIDC_PMSIC_CDR-v2. More detailed explanation here: <http://tinyurl.com/DSMMguide>.]

B. Dataset title. [Free text for dataset long name, including product version. For example, NOAA/NSIDC Passive Microwave Sea Ice Concentration Climate Data Record (CDR) from NDE]

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

+ Add Information URL

Figure 1.10 General Tab View.

DSMM Questionnaire

The DSMO user's guide is available here. Evaluate Questionnaire

General Preservability (0/5) Accessibility (0/5) Usability (0/5) Production Sustainability (0/5) Data Quality Assurance (0/5) Data Quality Control/Maintenance (0/5) Transparency/Traceability (0/5) Data Integrity (0/5)

A. Dataset short name. [A short name that is descriptive of the data product which, preferably, is 30 or less characters of letters, numbers, hyphen(s) and/or underscore(s) with no spaces. For example, NOAA-NSIDC_PMSIC_CDR-v2. More detailed explanation here: <http://tinyurl.com/DSMMguide>.]

B. Dataset title. [Free text for dataset long name, including product version. For example, NOAA/NSIDC Passive Microwave Sea Ice Concentration Climate Data Record (CDR) from NDE]

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

+ Add Information URL

D. Dataset abstract. (A short and general description of the data collection as that in the collection-level metadata record.)

This dataset contains a high quality operational Environmental Data Record (EDR) that contains pinpoint locations of active fires (AF) as identified by an algorithm based on MODIS Fires and Thermal Anomalies Collection 6 product, but improved upon and adapted for use by the Visible Infrared Imaging Radiometer Suite (VIIRS) instrument sensor data from the 4 micron and 11 micron spectral bands (M13 and M15) to deliver locations and fire radiative properties of active fires on the earth's surface. In addition, it delivers an improved fire mask and fire radiative power retrievals (FRP). VIIRS infrared bands have a spatial resolution of 750 meters at nadir, and 375 meters at nadir for enough to detect fires at sea which is an improvement over the previous Active Fires product produced by the Interface Data Processing Segment (IDPS). AF data obtained from the Stewardship System (CLASS) are distributed as single 86-second granules in netCDF-4 format with metadata attributes included.

Figure 1.11 Extended General Tab View.

While you are free to complete the tabs in any order you choose, we recommend starting with "General" and working your way to the right through all the tabs in their displayed order.

16. Complete the tabs. Please insert both Dataset short and fill names as shown below:

Create in CoMET Sandbox

Record Name: NOAA-JPSS-AF-EDR_ALD5 Edit Status: DRAFT Create

DSMM Questionnaire Evaluate Questionnaire

The DSMQ user's guide is available here.

General Preservability (0/5) Accessibility (0/5) Usability (0/5) Production Sustainability (0/5) Data Quality Assurance (0/5) Data Quality Cont
 Transparency/Traceability (0/5) Data Integrity (0/5)

A. Dataset short name. [A short name that is descriptive of the data product which, preferably, is 30 or less characters of letters, numbers, hyphen(s) and/or underscore
 NOAA-NSIDC_PMSIC_CDR-v2. More detailed explanation here: <http://tinyurl.com/DSMMguide>.]
 NOAA-JPSS-AF-EDR_ALD5

B. Dataset title. [Free text for dataset long name, including product version. For example, NOAA/NSIDC Passive Microwave Sea Ice Concentration Climate Data Record
 NOAA JPSS Visible Infrared Imaging Radiometer Suite (VIIRS) Active Fires Environmental Data Record (EDR) from NDE

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

Figure 1.12 Completed Fields View, General Tab.

17. Click "Create" button.

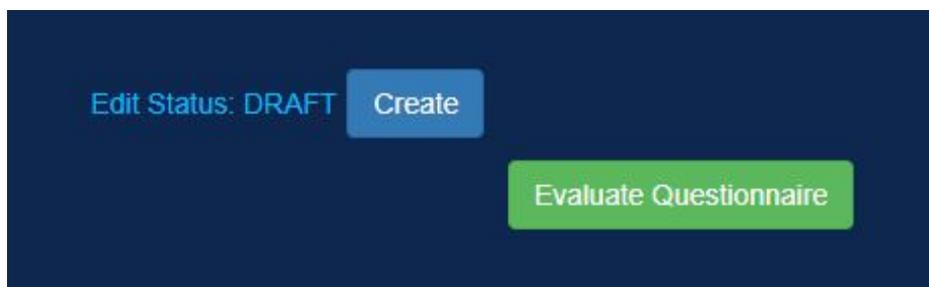


Figure 1.13 The Create Button.

18. Required fields that are empty will turn red while the record is being created.

19. Once a tab is completed to your satisfaction, you may advance to the next tab by simply selecting the tab or by clicking the "Next" button at the bottom of the page.

DSMM Questionnaire

The DSMQ user's guide is available here.

General **Preservability (0/5)** Accessibility (0/5) Usability (0/5) Production Sustainability (0/5) Data Quality Assessment (0/5) Transparency/Traceability (0/5) Data Integrity (0/5)

Preservability: The state of the dataset being preservable.

1.1 How is this dataset stored?

- a) These data reside on an individual's hard drive or other ad hoc storage method.
- b) These data reside in an institutional repository or other non-designated repository.
- c) These data reside in a designated archive compliant to national or international standards. (e.g., NARA or similar.)

1.2 Do backups exist for this dataset?

- a) These data are not backed up in any way.
- b) These data are redundant and have at least one backup copy on a different system.
- c) These data have multiple backups in different physical locations.

1.3 What type(s) of archiving metadata conventions and standards are utilized?

- a) These data have no archiving metadata.
- b) These data have a few elements of archiving metadata and/or have limited archiving metadata.
- c) These data have archiving metadata that follows local/domain/community-standard metadata conventions. (e.g., EML.)
- d) These data have archiving metadata that is compliant to national/international standards (e.g., ISO 19115, CSDGM, etc.)

Figure 1.14 The Preservability Tab View.

Optional comments [Please, include any additional information available about this category that was not covered in the questions above. Information may include: descriptions as well as comments from data providers and/or Subject Matter Experts (SMEs).]

Save Commit Exit

Previous Next

Figure 1.15 The Optional Comments Text Box View.

20. If at any time you need to quit and return later, be sure to select “Save” at the top of the page. Clicking “Exit” will exit the editor without saving, so be sure to save before you exit.

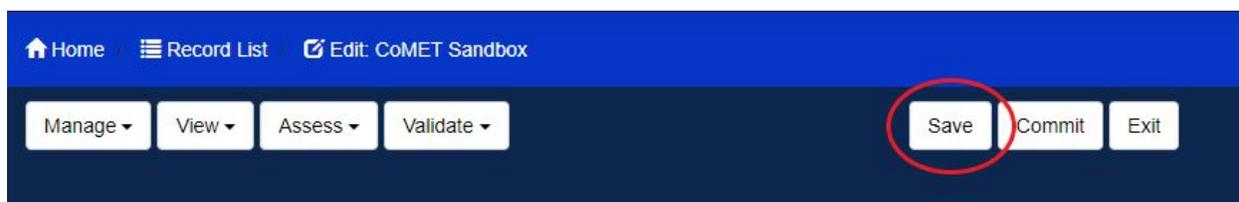


Figure 1.16 The Save Button.

21. Once the form is finished, click the "Commit" button.

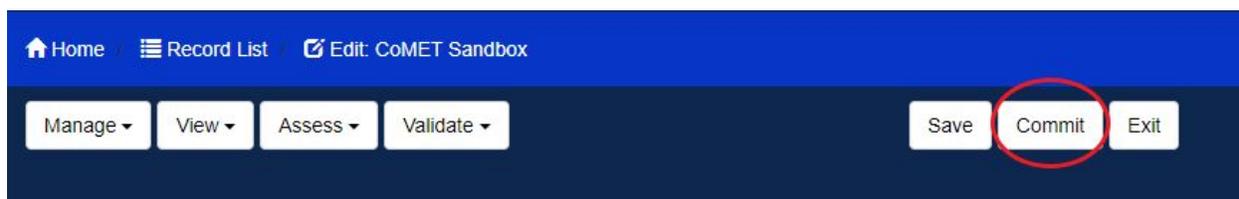


Figure 1.17 The Commit Button.

22. Enter a reason for a change in the pop-up window.



Figure 1.18 The Commit message.

23. Click "Commit" button. This will save your form, baseline it, and return you to your record DSMQ form view.

24. Click "Save" button.

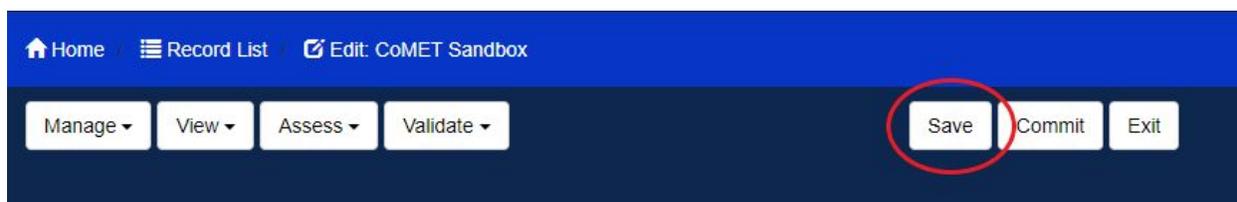


Figure 1.19 The Save Button.

25. Click "Record List" link to return to your Record List View.



Figure 1.20 The Record List Menu Link

26. Once you complete filling in the information in all the tabs and you want to see the score of your dataset, press "Evaluate Questionnaire" button.

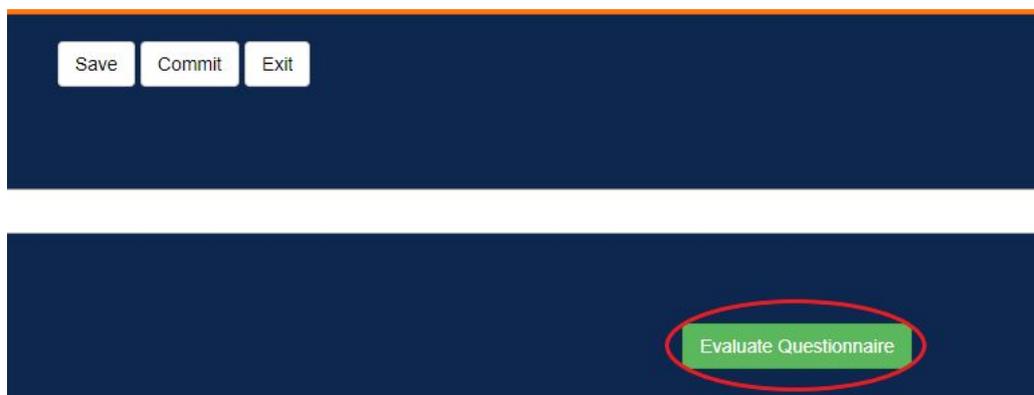


Figure 1.21 The Evaluate Questionnaire Button.

References

Li, Y., Milan, A., and Jones, P., (2017). Light under ISOLite. 2017 NOAA Environmental Data Management Workshop, 9–10 January 2017, Bethesda, MD. [Available online at: https://nosc.noaa.gov/EDMW_2017/2017-EDMW-presentations/3B/3B.3%20EDMW-2017-NC-EI-1.pptx]

Peng, G., Privette, J. L., Kearns, E. J., Ritchey, N. A., & Ansari, S. (2015). A unified framework for measuring stewardship practices applied to digital environmental datasets. *Data Science Journal*, 13, 231-253. DOI: <https://doi.org/10.2481/dsj.14-049>

Glossary of Terms

- **Checksum Technology** - Checksum technology verifies data fixation and confirms that those data are not corrupted during data ingest, storage, and dissemination procedures. Checksum files created using the MD5 algorithm usually have .md5 extension. It implies that any user receives this checksum file electronically, runs it and generates the same string of characters. If the generated checksum string is identical to that in the original file, then it meets the integrity check standards.
- **Citability** - Within the context of the DSMM, citability refers to whether or not a persistent identifier (i.e., DOI) is assigned to the dataset. Note however, that the existence of a DOI is not the sole determining factor of a dataset's citability. A fully formed reference is necessary in order to track and monitor dataset use across other research spectrums.
- **Collection** - A collection is a grouping of environmental data or products that share common characteristics, is represented by a single metadata record, and consists of one or more granules. Collections are also referred to as datasets. *OneStop* refers to a data collection as the minimum citable unit of data (Li et al, 2017).
- **Configuration Management** - A technical and management process applying appropriate resources, processes, and tools to establish and maintain consistency between the product requirements, the product, and associated product configuration information.
- **Cross-Validation of Temporal and Spatial Characteristics** - Refers to data being validated across different periods of time (temporal) or across different areas (spatial) or both areas (Information can be located in documentation and publications).
- **Data Characterization** - Characterization denotes spatial and temporal characteristics such as global or regional means; seasonal or annual means; decadal trends. May include power spectral density distributions of time series. May be captured in the metadata.
- **Data Customization** - Customization revolves around being able to search data by temporal and/or spatial distributions, the ability to aggregate or disaggregate granules, and to be able to download data in multiple formats. The more customization options are available to the user the more mature the data set is considered to be.
- **Data Integrity** - Maintenance of, and the assurance of the accuracy and consistency of, data over its entire life-cycle, and is a critical aspect to the design, implementation and usage of any system which stores, processes, or retrieves data. Checksum technology is applied to verify Data Integrity. Data integrity also refers to how the file is fixed, what proves that it is unchanged over time, and that the file is not corrupt during its transfer.

- **Data Quality Assessment** - Refers to the availability of data set assessment results online. For example, scholarly publications describing the algorithm theoretical basis, the research product and/or the operational product.
- **Data Quality Assurance** - A set of activities or procedures focused on defect prevention to be followed in order to ensure product quality during development (Peng et al, 2015).
- **Data Quality Assurance (DQA) Procedures** - Information on error, error budget, quality flags and/or validation and the procedures to identify/quantify them. Usually found in Algorithm documents, user manuals, technical manuals, handbooks and other related documents.
- **Data Quality Control/Monitoring** - Monitoring for updates and generating reports in order to alert users about quality issues when those arise. (Could include issues with the quality flags). The same documentation is used for Data Quality Control/Monitoring as for Data Quality Assurance. (Algorithm documents, user manuals, technical manuals, handbooks). In addition, quality monitor information could be found on other websites.
- **Data Provenance** - Provenance refers to data's origin and history of entities, as well as people involved in producing a piece of data; and also refers to where they have moved over time to reach their current state; data lineage is one of the entities in the ISO 19115 metadata that can be used for this purpose.
- **Digital Object Identifier (DOI)** - Persistent unique identifier assigned by an external organization and standardized by the International Organization for Standardization (ISO).
- **Dissemination Report** - An analysis of weblogs from ftp and web servers. These reports or logs document the number of times a given file or product was downloaded. Data dissemination information captures the statistics about the distribution or transmitting data to end users. For example, data file download counts from ftp servers. These reports may also contain information on data download volume and/or unique data users.
- **External Audit/Ranking** - Ranking performed by outside organizations. It ranks data for being complete or useful. External ranking must rank the stewardship of the dataset and not just the usefulness of the dataset. No known NCEI data sets have any external ranking applied.
- **Granule** - A granule is the smallest aggregation of data that can be independently managed (described, inventoried, and retrieved) in the *OneStop* system. Granules are often referred to as inventory or file level metadata though granules can actually be pieces of files. Granules cannot exist without being associated with a collection. Granules may have a different metadata model than the parent collection in order to support values for additional attributes as needed for those granules.
- **Limited Quality Assurance Metadata** - This special type of metadata may include but is not limited to, file level quality flags, and any other information included in the ISO 19115 data quality section that allows the user to recognize unreliable data in the collection.

- **Limited Quality Monitoring Metadata** - Information in the metadata record specifically about the methods and/or results associated with the quality control/monitoring as it applies to the dataset. Usually found in ISO 19115 metadata or in an auxiliary text file.
- **National/International Monitoring Metrics** - Statistical methods employed to identify defects according to national/international standards. (Peng et al, 2015).
- **Open Archival Information System Reference Model (OAIS RM)** - The OAIS is an archive consisting of an organization of people and systems, that has accepted the responsibility to preserve information and make it available for a designated community. NCEI follows the OAIS conceptual framework outlined by the OAIS Reference Model.
- **Operational Assessment** - The difference between a research and an operational product lies in the maturity of the product (Peng et al, 2015). An operational product also underlines a managed and reliable process associated with its production. Common ways of assessing operational products are through technical reports or other scholarly literature that assesses the operational readiness of the product.
- **Physical Consistency Checks** - Internal consistency tests to identify values in the data that appear atypical when compared to values from the entire data set. Also compares current data with historical data to verify consistency over time.
- **Preservability** - In the context of the DSMQ the focus of preservability is on assessing the practices associated with data storage requirements and compliance to community-accepted archive practices and metadata standards (Peng et al, 2015).
- **Production Sustainability** - Describes the various degrees of commitment for and associated requirements on the product (Peng et al, 2015).
- **Quality Metadata for Data Quality Assessment** - Data quality assessment metadata capture and provide information on methods or procedures used for evaluating and validating data products and the results from those analyses (Peng et al, 2015).
- **Quality Flag** - Information that is used to help identify non-nominal data as a result of poor-calibration, pixel saturation, and other data artifacts. Commonly found in NetCDF variables and can also be identified in ISO 19115 metadata in the <contentInfo> section.
- **Standard-Based Metrics for Data Quality Control** - Data quality checks that employ statistical tools with well-established standard-based (e.g., AIMQ, SAS, etc...) metrics (e.g., accuracy, consistency, completeness, integrity, timeliness, etc...) for the user community.
- **Traceability** - Synonymous with provenance. Data provenance can be used to form assessment about its quality, reliability, or trustworthiness.
- **Trackability** - Data sets with OID's and/or DOI's are considered to have better overall trackability than data sets that do not have those unique identifiers.
- **Unique Object Identifier (OID)** - OID's are usually non-DOI numbers that are unique to an organization that are used to identify the data set in some way. DSI



numbers are examples of OID's used by NCEI. They are used to identify the location of the dataset within the archive.