# Use Constraints

# Element Description

The Use Constraints element defines how data may or may not be used to assure the protection of privacy or intellectual property. This includes license information, or any special restrictions, legal prerequisites, terms and conditions, and/or limitations on using the data set.

## Best Practices

There are two main uses for the Use Constraints elements. The first is to describe any specific purposes the data should not be used for. This information should be provided in the UseConstraints/Description field. The second is to provide license information about the data set. License information should be provided in either the UseConstraints/LicenseText or the UseConstraints/LicenseURL element. Along with the license information, users can explicitly state whether or not the data is free of charge and open for any use the user sees fit by using the FreeAndOpenData field.

**Use Constraints/ Description**

UseConstraints/Description is a free text field which should include information on any special restrictions, limitations, or terms and conditions for using the data. This should go beyond the terms laid out in the license. For example, a data set may be free and open to the public to use based on the license, but due to the quality of the data there may be limitations on the type of applications it should be used for. These types of special limitations should be stated in the description field. Providing a Use Constraints Description is optional.

**Examples:**

"Due to a sensor anomaly, data collected between October 4, 2007 and October 10, 2007 should not be used to conduct scientific research."

"Validation studies have shown significant error values in data collected over desert land cover types. Therefore, it is recommended that this data not be used to conduct analysis over areas of land containing desert."

### License URL & License Text & Explicit notification of free and open data

License text can be provided directly in the metadata record, or as a URL that links to a web page which holds the license text. It is highly recommended that a License URL be provided if possible. With a License URL, the metadata remains unaffected by changes made to the license. License information can be provided in the License Text field OR as a License URL (you cannot provide both).

Note: **Providing license information is required for all NASA EOSDIS data sets.** It is recommended that the EOSDIS Data Use Policy (https://earth data.nasa.gov/earth-observation-data/data-use-policy) be provided in the LicenseURL/Linkage field in order to meet this requirement.

License URL: The License URL field can be used to link to a web page which describes the license terms for the data set. License information is required for all NASA data sets. Use of the License URL field is strongly recommended. There are several sub-elements for License URL:

License URL/**Linkage**: The link to the license should be provided in this field. If providing a License URL, the Linkage element is required.

License URL/**Protocol**: The protocol is used to identify mechanisms/conventions for communication between different network devices (e.g. https, svn, ftp, etc.). Providing a protocol is optional.

License URL/**Application Profile**: The name of the application that can service the data. For example, if the URL points to a word document, then the application profile is MS-Word. If the URL points to a website, the application profile could be the name of a web browser (e.g. Chrome, Internet Explorer, etc.). Providing an application profile is optional.

License URL/**Name**: A name that identifies the URL, such as "License URL". Providing a name is completely optional.

License URL/**Description**: A description of the URL being provided. Providing a URL description is recommended but not required.

License URL/**Function**: "The function of the online resource. In ISO where this class originated the valid values are: download, information, offlineAccess, order, and search." Providing a function is optional.

License URL/**Mime Type**: MIME stands for "Multipurpose Internet Mail Extensions." Mime types are used to identify the nature and format of files provided on the Internet, and are typically used by internet browsers in order to determine how to properly process or display a document or file. Providing the Mime Type element in the metadata helps ensure that the URL contents will be properly displayed on the Web. Providing a Mime Type for License URL is optional. Mime Type is a controlled vocabulary field and should be chosen from the GCMD Mime Type keyword list.

**Examples:**

Linkage: https://earthdata.nasa.gov/earth-observation-data/data-use-policy

Protocol: https

Name: License URL

Description: The Earth Observing System Data and Information System (EOSDIS) data use policy for NASA data.

MimeType: text/html


Linkage: https://opendatacommons.org/licenses/pddl/1.0/

Description: Link to the full legal text of the license applied to this data set

MimeType: text/html


**License Text:** Use the License Text field to provide the license terms for the data set. The license text should be provided in full. A summary or plain english version of the license text does not count as the actual license text. As shown in the example below, license text is often lengthy and providing the full license text in the metadata should be avoided if possible. Use of the License Text field should be reserved for cases where it is not possible to provide a License URL.

**Examples:**

```
# ODC Attribution License (ODC-By)

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```

**Free And Open Data:** The free and open data field can be used to explicitly state whether or not the data is free of charge and open for any use the user sees fit. There are some assumptions that are made regarding the free and openness of a record if this element is not provided.

- For EOSDIS records that do not include a use constraint or contain a recognized license URL, the default assumption will be they are free and open.
- For EOSDIS records that include a non-recognized license URL or Text, the records will not be considered free and open.
- Only international data that have a recognized License URL or come from a "free and open designated" provider will be considered free and open.

EOSDIS providers can be designated as free and open by default if the provider so choses. Then all of their records will be assumed to be free and open unless the FreeAndOpenData element is used to state otherwise.

**EULAIdentifiers:**  In order for end users to access some types of data, they will need to accept an end user license agreement (EULA). By associating a EULA Identifier with data collections the EULA can be shared across multiple applications.

Example:

EULAIdentifiers: e9f67a66-e5fc-43gc-b720-ae12a2c3d8f2

# Element Specification

| Model | Element | Type | Constraints | Required? | Cardinality |
|-------|---------|------|-------------|-----------|-------------|
| UMM-C | UseConstraints/Description | String | 1 - 4000 characters | No | 0..1 |

| Model | Element | Type | Constraints | Required? | Cardinality |
|---|---|---|---|---|---|
| UMM-C | UseConstraints/FreeAndOpenData | Boolean | None | No | 0..1 |
| UMM-C | UseConstraints/EULAIdentifiers | String | 40 characters | No | 0..* |

**Choice of:**

| Model | Element | Type | Constraints | Required? | Cardinality |
|---|---|---|---|---|---|
| UMM-C | UseConstraints/LicenseURL/Linkage | String | 1 - 1024 characters | Yes, if applicable | 1 |
| UMM-C | UseConstraints/LicenseURL/Protocol | String | 1 - 80 characters | No | 0..1 |
| UMM-C | UseConstraints/LicenseURL/ApplicationProfile | String | 1 - 1024 characters | No | 0..1 |
| UMM-C | UseConstraints/LicenseURL/Name | String | 1 - 80 characters | No | 0..1 |
| UMM-C | UseConstraints/LicenseURL/Description | String | 1 - 1024 characters | No | 0..1 |
| UMM-C | UseConstraints/LicenseURL/Function | String | 1 - 1024 characters | No | 0..1 |
| UMM-C | UseConstraints/LicenseURL/MimeType | String | KMS controlled | No | 0..* |

**or**

| Model | Element | Type | Constraints | Required? | Cardinality |
|---|---|---|---|---|---|
| UMM-C | UseConstraints/LicenseText | String | 1 - 20000 characters | Only required if LicenseURL is not provided | 0..1 |

# Metadata Validation and QA/QC

All metadata entering the CMR goes through the below process to ensure metadata quality requirements are met. All records undergo CMR validation before entering the system. The process of QA/QC is slightly different for NASA and non-NASA data providers. Non-NASA providers include interagency and international data providers and are referred to as the International Directory Network (IDN).
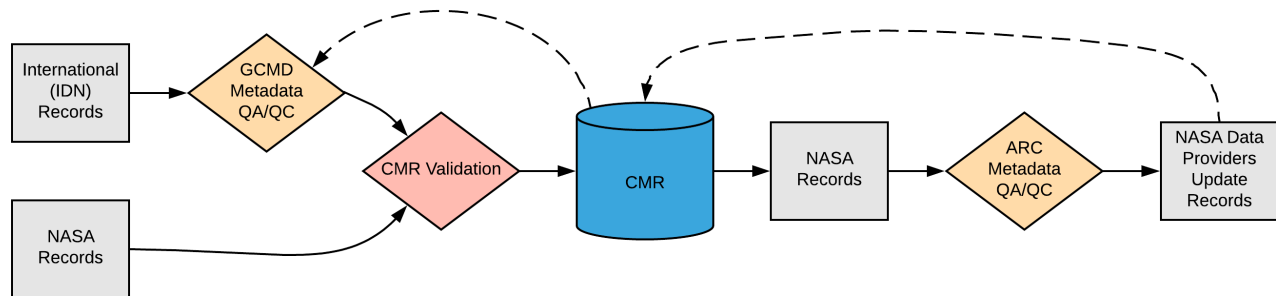


**Please see the expandable sections below for flowchart details.**

- Manual Review
  - Check that there is at least a brief summary of the use constraints.
  - Confirm that any URLs link to the appropriate web pages.
  - Identify errors, discrepancies or omissions.
  - Proof all content for conciseness and readability.
- Automated Review
  - Check that the field length is not greater than 12,000 characters.
  - Check for potential broken links.

<>
**ARC Priority Matrix**

| Priority Categorization | Justification |
|---|---|

| Red = High Priority Finding | This element is categorized as highest priority when: <br><br> • License information is missing for a NASA dataset (License information is required for NASA collections). <br> • The License URL is a broken link. <br> • The Use Constraints/Description or the License Text includes major spelling or grammatical errors. <br> • There is evidence to suggest the license information provided is incorrect for the dataset. <br> • The License information is provided in the incorrect field. |
|---|---|
| Yellow = Medium Priority Finding | This element is categorized as medium priority when: <br><br> • The License Text option is provided when a URL is available. <br> • No FreeAndOpenData value is provided. |
| Blue = Low Priority Finding | This element is categorized as low priority when: <br><br> • The License URL provided is a re-direct link. |
| Green = No Findings/Issues | The element is provided and follows all applicable criteria specified in the best practices section above. |

**ARC Automated Checks**

ARC uses the pyQuARC library for automated metadata checks. Please see the pyQuARC GitHub for more information.

# Dialect Mappings

**DIF 9** **(Note: DIF-9 is being phased out and will no longer be supported after 2018)**

## DIF 10

| UMM-C Element | DIF 10 Path | Type | Constraints | Required in DIF 10? | Cardinality |
|---|---|---|---|---|---|
| UseConstraints/Description | Use_Constraints/Description | String | 1 - 4000 characters | No | 0..1 |
| UseConstraints/FreeAndOpenData | Use_Constraints/Free_And_Open_Data | Boolean | None | No | 0..1 |

**Choice of:**

(a) License_URL

| UMM-C Element | DIF 10 Path | Type | Constraints | Required in DIF 10? | Cardinality | Notes |
|---|---|---|---|---|---|---|
| UseConstraints /LicenseURL/Linkage | Use_Constraints /License_URL/URL | String | 1 - 1024 characters | Yes, if applicable | 1 | Providing a License URL is recommended (versus providing License Text) |
| UseConstraints /LicenseURL/Name | Use_Constraints /License_URL/Title | String | 1 - 100 characters | No | 0..1 | |
| UseConstraints /LicenseURL/Description | Use_Constraints /License_URL/Description | String | 1 - 4000 characters | No | 0..1 | |
| UseConstraints /LicenseURL/MimeType | Use_Constraints /License_URL/Mime_Type | String | KMS controlled | No | 0..* | |

**OR**

(b) License_Text

| UMM-C Element | DIF 10 Path | Type | Constraints | Required in DIF 10? | Cardinality |
|---|---|---|---|---|---|
| UseConstraints/LicenseText | Use_Constraints/License_Text | String | 1 - 20000 characters | Only required if a License_URL is not provided | 0..1 |

**Example Mapping**

DIF 10

```
<Use_Constraints>
  <Description>Due to a sensor anomaly, data
collected between October 4, 2007 and October 10,
2007 should not be used to conduct scientific
research.</Description>
  <License_URL>
    <URL>https://creativecommons.org/publicdomain
/zero/1.0/</URL>
    <Title>License URL</Title>
    <Description>Link to the full legal text of the
Creative Commons license which describe the terms of
use for this this dataset.</Description>
    <Mime_Type>text/html</Mime_Type>
  </License_URL>
  <Free_And_Open_Data>true</Free_And_Open_Data>
</Use_Constraints>
```

UMM

```
"UseConstraints": {
  "Description": "Due to a sensor anomaly, data
collected between October 4, 2007 and October 10,
2007 should not be used to conduct scientific
research.",
  "LicenseURL": {
    "Linkage": "https://creativecommons.org
/publicdomain/zero/1.0/",
    "Protocol": "https",
    "Name": "License URL",
    "Description": "Link to the full legal text of
the Creative Commons license which describe the
terms of use for this this dataset.",
    "MimeType": "text/html"
  },
  "FreeAndOpenData": true
}
```

## ECHO 10

| UMM-C Element | ECHO 10 Path | Type | Constraints | Required in ECHO10? | Cardinality |
|---|---|---|---|---|---|
| UseConstraints/Description | /Collection/UseConstraints/Description | String | 1 - 4000 characters | No | 0..1 |
| UseConstraints/FreeAndOpenData | /Collection/UseConstraints/FreeAndOpenData | Boolean | None | No | 0..1 |

**Choice of:**

(a) LicenseUrl

| UMM-C Element | ECHO 10 Path | Type | Constraints | Required in ECHO10? | Cardinality | Notes |
|---|---|---|---|---|---|---|
| UseConstraints /LicenseURL | /Collection/UseCons traints/LicenseURL /URL | String | 1 - 1024 characters | Yes, if applicable | 0..1 | If a License URL is provided, the URL is required. |
| UseConstraints /LicenseURL /Description | /Collection/UseCons traints/LicenseURL /Description | String | 1 - 4000 characters | No | 0..1 | |
| UseConstraints /LicenseURL /Name | /Collection/UseCons traints/LicenseURL /Type | String | 1 - 100 characters | Yes | 1 | Equivalent to the UMM field UseConstraints/LicenseURL /Name. If the CMR creates an ECHO10 record and the UMM-C Name field is empty the CMR will write License URL into the ECHO 10 required Type field. |
| UseConstraints /LicenseURL /MimeType | /Collection/UseCons traints/LicenseURL /MimeType | String | KMS controlled | No | 0..1 | |

**OR**

(b) LicenseText

| UMM-C Element | ECHO 10 Path | Type | Constraints | Required in ECHO10? | Cardinality |
|---|---|---|---|---|---|
| UseConstraints /LicenseText | /Collection/UseConstraints /LicenseText | String | 1 - 20000 characters | Only required if a License URL is not provided | 0..1 |

**Example Mapping**

ECHO 10

```
<UseConstraints>
  <Description>Due to a sensor anomaly, data
collected between October 4, 2007 and October 10,
2007 should not be used to conduct scientific
research.</Description>
  <LicenseURL>
    <URL>https://earthdata.nasa.gov/earth-
observation-data/data-use-policy</URL>
    <Description>The Earth Observing System Data and
Information System (EOSDIS) data use policy for NASA
data.</Description>
    <Type>License URL</Type>
    <MimeType>text/html</MimeType>
  </LicenseURL>
  <FreeAndOpenData>true</FreeAndOpenData>
</UseConstraints>
```

UMM

```
"UseConstraints": {
  "Description": "Due to a sensor anomaly, data
collected between October 4, 2007 and October 10,
2007 should not be used to conduct scientific
research.",
  "LicenseURL": {
    "Linkage": "https://earthdata.nasa.gov/earth-
observation-data/data-use-policy",
    "Name": "License URL",
    "Description": "The Earth Observing System Data
and Information System (EOSDIS) data use policy for
NASA data.",
    "MimeType": "text/html"
  },
  "FreeAndOpenData": true
}
```

## ISO 19115-2 MENDS

| UMM-C Element | ISO 19115-2 MENDS Path | Type | Notes |
|---|---|---|---|
| UseConstraints /Description | /gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:resourceConstraints/gmd: MD_LegalConstraints/gmd:useLimitation/gco:CharacterString | String | |

| UseConstraints /FreeAndOpenData | /gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:resourceConstraints/gmd: MD_LegalConstraints/gmd:useConstraints/gmd:MD_RestrictionCode codeList "https://cdn.earthdata. nasa.gov/iso/resources/Codelist/gmxCodelists.xml#MD_RestrictionCode" codeListValue "otherRestrictions" = "otherRestrictions"<br><br>/gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:resourceConstraints/gmd: MD_LegalConstraints/gmd:otherConstraints/gco:CharacterString = "FreeAndOpenData:" | String | Using the codelist value "otherRestrictions" indicates to CMR where to look for the information.<br><br>The value of the FreeAndOpenData should be provided.<br><br>The value of "FreeAndOpenData:" must be provided at the beginning of the string so that CMR can properly parse out the FreeAndOpenData value. |

**Choice of:**

(a) License URL

| UMM-C Element | ISO 19115-2 MENDS Path | Type | Notes |
|---|---|---|---|
| | /gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd: resourceConstraints/gmd:MD_LegalConstraints/gmd:useConstraints/ gmd: MD_RestrictionCode codeList="https://cdn.earthdata.nasa.gov/iso/resources/Codelist /gmxCodelists.xml#MD_RestrictionCode" codeListValue="otherRestrictions"  element value=otherRestrictions | Codelist | Using the codelist value "otherRestrictions" indicates to CMR the following information (in this case a URL) describes the License. If the incorrect codelist value is selected, the license information will not map. |
| UseConstraints /LicenseURL/Linkage | /gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd: resourceConstraints/gmd:MD_LegalConstraints/gmd:otherConstraints/gco:CharacterString = LicenseUrl: | String | Where the License URL should be provided.<br><br>The value of "LicenseUrl:" must be provided at the beginning of the string so that CMR can properly parse out the license link. |

**OR**

(b) License Text

| UMM-C Element | ISO 19115-2 MENDS Path | Type | Notes |
|---|---|---|---|
| | /gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd: resourceConstraints/gmd:MD_LegalConstraints/gmd:useConstraints/ gmd: MD_RestrictionCode codeList="https://cdn.earthdata.nasa.gov/iso/resources/Codelist /gmxCodelists.xml#MD_RestrictionCode" codeListValue="otherRestrictions"  element value=otherRestrictions | Codelist | Using the codelist value "otherRestrictions" indicates to CMR the following information (in this case a block of text) describes the License. If the incorrect codelist value is selected, the license information will not map. |
| UseConstraints /LicenseText | /gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd: resourceConstraints/gmd:MD_LegalConstraints/gmd:otherConstraints/gco: CharacterString = LicenseText: | String | Where the License Text should be provided.<br><br>The value of "LicenseText:" must be provided at the beginning of the string so that CMR can properly parse out the license text. |

**Example Mapping**

ISO 19115-2 MENDS

```
<gmi:MI_Metadata>
  <gmd:identificationInfo>
  <gmd:MD_DataIdentification>
    <gmd:resourceConstraints>
      <gmd:MD_LegalConstraints>
        <gmd:useLimitation>
          <gco:CharacterString>Due to a sensor
anomaly, data collected between October 4, 2007 and
October 10, 2007 should not be used to conduct
scientific research.</CharacterString>
        </gmd:useLimitation>
        <gmd:useConstraints>
          <gmd:MD_RestrictionCode codeList="
https://cdn.earthdata.nasa.gov/iso/resources/Codelist
/gmxCodelists.xml#MD_RestrictionCode" codeListValue="
otherRestrictions">otherRestirctions</gmd:
MD_RestrictionCode>
        </gmd:useConstraints>
        <gmd:otherConstraints>
          <gco:CharacterString>LicenseUrl:
https://earthdata.nasa.gov/earth-observation-data
/data-use-policy</gco:CharacterString>
        </gmd:otherConstraints>
        <gmd:otherConstraints>
          <gco:CharacterString>FreeAndOpenData: true<
/gco:CharacterString>
        </gmd:otherConstraints>
      </gmd:MD_LegalConstraints>
    </gmd:resourceConstraints>
  </gmd:MD_DataIdentification>
  </gmd:identificationInfo>
</gmi:MI_Metadata>
```

UMM

```
"UseConstraints": {
  "Description": "Due to a sensor anomaly, data
collected between October 4, 2007 and October 10,
2007 should not be used to conduct scientific
research.",
  "LicenseURL": {
    "Linkage": "https://earthdata.nasa.gov/earth-
observation-data/data-use-policy",
  },
  "FreeAndOpenData": true
}
```

## ISO 19115-2 SMAP

| UMM-C Element | ISO 19115-2 SMAP Path | Type | Notes |
|---|---|---|---|
| UseConstraints /Description | /gmd:DS_Series/gmd:seriesMetadata/gmi:MI_Metadata/gmd:identificationInfo/gmd: MD_DataIdentification/gmd:resourceConstraints/gmd:MD_LegalConstraints/gmd:useLimitation/gco: CharacterString | String | |
| UseConstraints /FreeAndO penData | /gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:resourceConstraints/gmd: MD_LegalConstraints/gmd:useConstraints/gmd:MD_RestrictionCode codeList "https://cdn.earthdata. nasa.gov/iso/resources/Codelist/gmxCodelists.xml#MD_RestrictionCode" codeListValue "otherRestrictions" = "otherRestrictions"<br><br>/gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:resourceConstraints/gmd: MD_LegalConstraints/gmd:otherConstraints/gco:CharacterString = "FreeAndOpenData:" | String | Using the codelist value "otherRestrictions" indicates to CMR where to look for the information.<br><br>The value of the FreeAndOpenData should be provided.<br><br>The value of "FreeAndOpenData:" must be provided at the beginning of the string so that CMR can properly parse out the FreeAndOpenData value. |

**Choice of:**

(a) License URL

| UMM-C Element | ISO 19115-2 SMAP Path | Type | Notes |
|---|---|---|---|
| | /gmd:DS_Series/gmd:seriesMetadata/gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:resourceConstraints/gmd:MD_LegalConstraints/gmd:useConstraints/ gmd:MD_RestrictionCode codeList="https://cdn.earthdata.nasa.gov/iso/resources/Codelist/gmxCodelists.xml#MD_RestrictionCode" codeListValue="otherRestrictions" element value=otherRestrictions | Codelist | Using the codelist value "otherRestrictions" indicates to CMR the following information (in this case a URL) describes the License. If the incorrect codelist value is selected, the license information will not map. |
| UseConstraints /LicenseURL/Linkage | /gmd:DS_Series/gmd:seriesMetadata/gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:resourceConstraints/gmd:MD_LegalConstraints/gmd:otherConstraints/gco:CharacterString = LicenseUrl: | String | Where the License URL should be provided.<br><br>The value of "LicenseUrl:" must be provided at the beginning of the string so that CMR can properly parse out the license link. |

**OR**

(b) License Text

| UMM-C Element | ISO 19115-2 SMAP Path | Type | Notes |
|---|---|---|---|
| | /gmd:DS_Series/gmd:seriesMetadata/gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:resourceConstraints/gmd:MD_LegalConstraints/gmd:useConstraints/ gmd:MD_RestrictionCode codeList="https://cdn.earthdata.nasa.gov/iso/resources/Codelist/gmxCodelists.xml#MD_RestrictionCode" codeListValue="otherRestrictions" element value=otherRestrictions | Codelist | Using the codelist value "otherRestrictions" indicates to CMR the following information (in this case a block of text) describes the License. If the incorrect codelist value is selected, the license information will not map. |
| UseConstraints /LicenseURL/Linkage | /gmd:DS_Series/gmd:seriesMetadata/gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:resourceConstraints/gmd:MD_LegalConstraints/gmd:otherConstraints/gco:CharacterString = LicenseText: | String | Where the License Text should be provided.<br><br>The value of "LicenseText:" must be provided at the beginning of the string so that CMR can properly parse out the license text. |

**Example Mapping**

ISO 19115-2 SMAP

```
<gmd:DS_Series>
<gmd:seriesMetadata>
<gmi:MI_Metadata>
  <gmd:identificationInfo>
  <gmd:MD_DataIdentification>
    <gmd:resourceConstraints>
      <gmd:MD_LegalConstraints>
        <gmd:useLimitation>
          <gco:CharacterString>Due to a sensor
anomaly, data collected between October 4, 2007 and
October 10, 2007 should not be used to conduct
scientific research.</CharacterString>
        </gmd:useLimitation>
        <gmd:useConstraints>
          <gmd:MD_RestrictionCode codeList="
https://cdn.earthdata.nasa.gov/iso/resources/Codelist
/gmxCodelists.xml#MD_RestrictionCode" codeListValue="
otherRestrictions">otherRestirctions</gmd:
MD_RestrictionCode>
        </gmd:useConstraints>
        <gmd:otherConstraints>
          <gco:CharacterString>LicenseUrl:
https://earthdata.nasa.gov/earth-observation-data
/data-use-policy</gco:CharacterString>
        </gmd:otherConstraints>
        <gmd:otherConstraints>
          <gco:CharacterString>FreeAndOpenData: true<
/gco:CharacterString>
        </gmd:otherConstraints>
      </gmd:MD_LegalConstraints>
    </gmd:resourceConstraints>
  </gmd:MD_DataIdentification>
  </gmd:identificationInfo>
</gmi:MI_Metadata>
</gmd:seriesMetadata>
</gmd:DS_Series>
```

UMM

```
"UseConstraints": {
  "Description": "Due to a sensor anomaly, data
collected between October 4, 2007 and October 10,
2007 should not be used to conduct scientific
research.",
  "LicenseURL": {
    "Linkage": "https://earthdata.nasa.gov/earth-
observation-data/data-use-policy",
  },
  "FreeAndOpenData": true
}
```

## UMM Migration

| UMM Version 1.9.0 | Translation Direction | UMM Version 1.10.0 |
|---|---|---|
| UseConstraints | | UseConstraints/Description |
| | n/a (new metadata element) | UseConstraints/LicenseURL/Linkage |
| | n/a (new metadata element) | UseConstraints/LicenseURL/Protocol |
| | n/a (new metadata element) | UseConstraints/LicenseURL/ApplicationProfile |
| | n/a (new metadata element) | UseConstraints/LicenseURL/Name |

| | n/a (new metadata element) | UseConstraints/LicenseURL/Description |
|---|---|---|
| | n/a (new metadata element) | UseConstraints/LicenseURL/Function |
| | n/a (new metadata element) | UseConstraints/LicenseURL/MimeType |
| | n/a (new metadata element) | UseConstraints/LicenseText |

# Future Mappings

## ISO 19115-1

| UMM-C Element | ISO 19115-1 Path | Type | Notes |
|---|---|---|---|
| UseConstraints/Description | *TBD* | String | |
| UseConstraints/FreeAndOpenData | | | |

**Choice of:**

(a) License URL

| UMM-C Element | ISO 19115-1 Path | Type | Notes |
|---|---|---|---|
| | *TBD* | Codelist | Using the codelist value "otherRestrictions" indicates to CMR the following information (in this case a URL) describes the License. If the incorrect codelist value is selected, the license information will not map. |
| UseConstraints /LicenseURL /Linkage | *TBD* | String | Where the License URL should be provided. The value of "License URL:" must be provided at the beginning of the string so that CMR can properly parse out the license link. |

**OR**

(b) License Text

| UMM-C Element | ISO 19115-1 Path | Type | Notes |
|---|---|---|---|
| | *TBD* | Codelist | Using the codelist value "otherRestrictions" indicates to CMR the following information (in this case a block of text) describes the License. If the incorrect codelist value is selected, the license information will not map. |
| UseConstraints /LicenseURL /Linkage | *TBD* | String | Where the License URL should be provided. The value of "License Text:" must be provided at the beginning of the string so that CMR can properly parse out the license text. |

**Example Mapping**

ISO 19115-1

```
TBD
```

UMM

```
"UseConstraints": {
  "Description": "Due to a sensor anomaly, data
collected between October 4, 2007 and October 10,
2007 should not be used to conduct scientific
research.",
  "LicenseURL": {
    "Linkage": "https://earthdata.nasa.gov/earth-
observation-data/data-use-policy",
  },
  "FreeAndOpenData": true
}
```

# History

## UMM Versioning

**1.16.2 is the current UMM-C version. No changes were made to this element since the last documented changes below.**

| Version | Date | What Changed |
|---------|------|--------------|
| 1.17.2 | 1/18 /2023 | Added the EULAIdentifiers element under UseConstraints |
| 1.17.1 | 8/10 /2022 | No changes were made for Use Constraints during the transition from version 1.17.0 to 1.17.1 |
| 1.17.0 | 5/11 /2022 | No changes were made for Use Constraints during the transition from version 1.16.7 to 1.17.0 |
| 1.16.7 | 1/27 /2022 | No changes were made for Use Constraints during the transition from version 1.16.6 to 1.16.7 |
| 1.16.6 | 12/1 /2021 | FreeAndOpenData element was added. |
| 1.16.2 | 4/7 /2021 | LicenseUrl was changed to LicenseURL. Description was change to a String. Use Constraints was added to ECHO 10, Use Constraints was changed in DIF 10 to allow for License_URL and License_Text. |
| 1.16.1 | 4/7 /2021 | No changes were made for Use Constraints during the transition from version 1.16.0 to 1.16.1 |
| 1.16.0 | 3/24 /2021 | No changes were made for Use Constraints during the transition from version 1.15.5 to 1.16.0 |
| 1.15.5 | 12/3 /2020 | No changes were made for Use Constraints during the transition from version 1.15.4 to 1.15.5 |
| 1.15.4 | 9/18 /2020 | No changes were made for Use Constraints during the transition from version 1.15.3 to 1.15.4 |
| 1.15.3 | 7/1 /2020 | No changes were made for Use Constraints during the transition from version 1.15.2 to 1.15.3 |
| 1.15.2 | 5/20 /2020 | No changes were made for Use Constraints during the transition from version 1.15.1 to 1.15.2 |
| 1.15.1 | 3/25 /2020 | No changes were made for Use Constraints during the transition from version 1.15.0 to 1.15.1 |
| 1.15.0 | 2/26 /2020 | No changes were made for Use Constraints during the transition from version 1.14.0 to 1.15.0 |
| 1.14.0 | 10/21 /2019 | No changes were made for Use Constraints during the transition from version 1.13.0 to 1.14.0 |
| 1.13.0 | 04/11 /2019 | No changes were made for Use Constraints during the transition from version 1.12.0 to 1.13.0 |
| 1.12.0 | 01/22 /2019 | No changes were made for Use Constraints during the transition from version 1.11.0 to 1.12.0. |

| 1.11.0 | 11/28 /2018 | No changes were made for Use Constraints during the transition from version 1.10.0 to 1.11.0. |
|---|---|---|
| 1.10.0 | 05/02 /2018 | <ul><li>In UMM-C version 1.9.0, there was only a single "UseConstraints" element, which was a free text field (containing up to 20000 characters)</li><li>NASA management requested that License information be provided in all collection level metadata</li><li>Since there was no designated metadata element for license in the UMM, it was decided that the 'Use Constraints' element would be expanded to include license</li><li>In UMM-C version 1.10.0 the 'UseConstraints' element was expanded to include a 'Description' element (used to provide disclaimers on limitations to how the data may be used); a License URL element (to provide a link to the license applicable to the data); and a License Text element (to provide the license text in the metadata if a URL is not available)<ul><li>The DIF 10 and ECHO 10 schemas were also updated to support license</li><li>ISO mappings were identified for the new Use Constraints elements (ISO MENDS, ISO SMAP and ISO 19115-1)</li></ul></li></ul> |
| 1.0 - 1.9 | 2015 | Initial version |

## ARC Documentation

| Version | Date | What Changed | Author |
|---|---|---|---|
| 1.0 | 09/28/2018 | Recommendations/priority matrix transferred from internal ARC documentation to wiki space | Jeanne' le Roux |