

ISO Topic Category

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Element Description

The ISO Topic Category element identifies the topic category (or categories) from the EN ISO 19115 Topic Category Code List that pertains to a collection. The ISO Topic Category is a high-level thematic classification to assist in the grouping of and search for available collections. To see the the topic category definitions please see https://wiki.esipfed.org/ISO_19115_and_19115-2_CodeList_Dictionaries and look for MD_TopicCategoryCode.

Best Practices

Since the CMR validates ISO topic categories using the [Keyword Management System \(KMS\)](#), the KMS ISO Topic Category values should be used. The complete list of the ISO 19115 Topic Category keywords in the KMS can be found here: https://gcmd.earthdata.nasa.gov/kms/concepts/concept_scheme/ISOTopicCategory?format=csv.

Providing an ISO Topic Category keyword is optional. The field may be repeated so multiple ISO Topic Category keywords may be provided if applicable. The spacing and case of the terms are controlled and therefore should exactly match the terms as they appear in the KMS.

Examples:

"SOCIETY"

"PLANNING CADASTRE"

"CLIMATOLOGY/METEOROLOGY/ATMOSPHERE"

Note: If using the [Metadata Management Tool \(MMT\)](#) to curate your collections, this field is auto-populated (using a mapping) at ingest based on the [Science Keywords](#) selected.

Element Specification

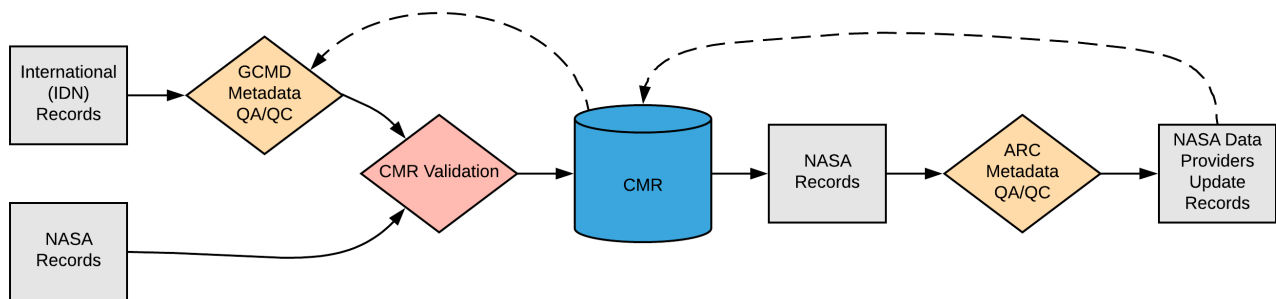
Providing an ISO Topic Category keyword is optional. Multiple ISO Topic Category keywords may be provided (Cardinality: 0..*).

Model	Element	Type	Usable Valid Values	Constraints	Required?	Cardinality
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UMM-C	ISOTopicCategories	String	BIOTA BOUNDARIES CLIMATOLOGY/METEOROLOGY/ATMOSPHERE DISASTER ECONOMY ELEVATION ENVIRONMENT EXTRA TERRESTRIAL FARMING GEOSCIENTIFIC INFORMATION HEALTH IMAGERY/BASE MAPS/EARTH COVER INLAND WATERS INTELLIGENCE/MILITARY LOCATION OCEANS PLANNING CADASTRE SOCIETY STRUCTURE TRANSPORTATION UTILITIES/COMMUNICATIONS	1 - 4,000 characters	No	0..*
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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
 - Identify errors, discrepancies or omissions.
 - Verify that all pertinent keywords have been applied.
 - Verify that the keywords are consistent and suitable for the data.
- Automated Review
 - Check that the field is populated with a valid value from KMS.
- All ISO topic categories must be valid according to the keyword management system. An error is returned if the Cmr-Validate-Keywords HTTP header is set to true.

ARC Priority Matrix

Priority Categorization	Justification
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Red = High Priority Finding	This element is categorized as highest priority when: The ISO Topic Category keyword does not exactly match a valid value: http://wiki.esipfed.org/index.php/ISO_Topic_Categories
Yellow = Medium Priority Finding	This element is categorized as medium priority when: The ISO Topic Category keyword is not appropriate for the dataset.
Blue = Low Priority Finding	Not Applicable
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

Providing an ISO_Topic_Category is optional. Multiple ISO_Topic_Categories may be provided (Cardinality: 0..*).

UMM-C Element	DIF 10 Path	Type	Constraints	Required in DIF 10?	Cardinality	Notes
ISOTopicCategory	/DIF/ISO_Topic_Category	String	KMS controlled	No	0..*	The ISO_Topic_Category keyword must match a value from the following list: https://gcmd.earthdata.nasa.gov/kms/concepts/concept_scheme/ISOTopiccategory?format=csv

Example Mapping

DIF 10

```
<ISO_Topic_Category>CLIMATOLOGY/METEOROLOGY
/ATMOSPHERE</ISO_Topic_Category>
<ISO_Topic_Category>OCEANS</ISO_Topic_Category>
```

UMM

```
ISOTopicCategories: [
  "CLIMATOLOGY/METEOROLOGY/ATMOSPHERE",
  "OCEANS"
],
```

ECHO 10

ISO Topic Category element does not map to ECHO 10.

UMM-C Element	ECHO 10 Path	Type	Notes
ISOTopicCategories	N/A	N/A	ISO Topic Category element does not map to ECHO 10.

ISO 19115-2 MENDS

Providing an ISO Topic Category keyword is optional. Multiple ISO Topic Category keywords may be provided (Cardinality: 0..*).

UMM-C Element	ISO 19115-2 MENDS Path	Type	Notes
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ISOTopicCategories	/gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:topicCategory/gmd:MD_TopicCategoryCode codeList="https://cdn.earthdata.nasa.gov/iso/resources/Codelist/gmxCodelists.xml#MD_TopicCategoryCode" codeListValue="<insert topic category here>"= <insert topic category here>	String	The ISO_Topic_Category keyword must match a value from the following list: http://wiki.esipfed.org/index.php/ISO_Topic_Categories
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Example Mapping

ISO 19115-2 MENDS

```
<gmi:MI_Metadata>
  ...
  <gmd:identificationInfo>
    <gmd:MD_DataIdentification>
      ...
      <gmd:topicCategory>
        <gmd:MD_TopicCategoryCode codeList="
https://cdn.earthdata.nasa.gov/iso/resources/Codelist
/gmxCodelists.xml#MD_TopicCategoryCode"
codeListValue="climatologyMeteorologyAtmosphere"
>climatologyMeteorologyAtmosphere</gmd:
MD_TopicCategoryCode>
        </gmd:topicCategory>
        <gmd:topicCategory>
          <gmd:MD_TopicCategoryCode codeList="
https://cdn.earthdata.nasa.gov/iso/resources/Codelist
/gmxCodelists.xml#MD_TopicCategoryCode"
codeListValue="oceans">oceans</gmd:
MD_TopicCategoryCode>
          </gmd:topicCategory>
        ...
      </gmd:MD_DataIdentification>
    ...
  </gmd:identificationInfo>
</gmi:MI_Metadata>
```

UMM

```
ISOTopicCategories: [
  "CLIMATOLOGY/METEOROLOGY/ATMOSPHERE",
  "OCEANS"
],
```

ISO 19115-2 SMAP

Providing an ISO Topic Category keyword is optional. Multiple ISO Topic Category keywords may be provided (Cardinality: 0..*).

UMM-C Elements	ISO 19115-2 SMAP Path	Type	Notes
ISOTopicCategories	/gmd:DS_Series/gmd:seriesMetadata/gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:topicCategory/gmd:MD_TopicCategoryCode codeList="https://cdn.earthdata.nasa.gov/iso/resources/Codelist/gmxCodelists.xml#MD_TopicCategoryCode" codeListValue="<insert topic category here>"= <insert topic category here>	String	The ISO_Topic_Category keyword must match a value from the following list: http://wiki.esipfed.org/index.php/ISO_Topic_Categories

Example Mapping

ISO 19115-2 SMAP

```

<gmd:DS_Series>
<gmd:seriesMetadata>
<gmi:MI_Metadata>
...
  <gmd:identificationInfo>
    <gmd:MD_DataIdentification>
      ...
        <gmd:topicCategory>
          <gmd:MD_TopicCategoryCode codeList="
https://cdn.earthdata.nasa.gov/iso/resources/CodeList
/gmxCodeLists.xml#MD_TopicCategoryCode"
codeListValue="climatologyMeteorologyAtmosphere"
>climatologyMeteorologyAtmosphere</gmd:
MD_TopicCategoryCode>
          </gmd:topicCategory>
          <gmd:topicCategory>
            <gmd:MD_TopicCategoryCode codeList="
https://cdn.earthdata.nasa.gov/iso/resources/CodeList
/gmxCodeLists.xml#MD_TopicCategoryCode"
codeListValue="oceans">oceans</gmd:
MD_TopicCategoryCode>
            </gmd:topicCategory>
            ...
          </gmd:MD_DataIdentification>
          ...
        </gmd:identificationInfo>
      </gmi:MI_Metadata>
    </gmd:seriesMetadata>
  </gmd:DS_Series>

```

UMM

```

ISOTopicCategories: [
  "CLIMATOLOGY/METEOROLOGY/ATMOSPHERE",
  "OCEANS"
],

```

UMM Migration

None

Future Mappings

ISO 19115-1

Providing an ISO Topic Category keyword is optional. Multiple ISO Topic Category keywords may be provided (Cardinality: 0..*).

UMM-C Elements	ISO 19115-1 Path	Type	Notes
ISOTopicCategories	/mdb:MD_Metadata/mdb:identificationInfo/mri:MD_DataIdentification/mri:topicCategory/mri:MD_TopicCategoryCode codeList=" https://cdn.earthdata.nasa.gov/iso/resources/CodeList/gmxCodeLists.xml#MD_TopicCategoryCode " codeListValue=" insert topic category here "=< insert topic category here >	String	The ISO_Topic_Category keyword must match a value from the following list: http://wiki.esipfed.org/index.php/ISO_Topic_Categories

Example Mapping

ISO 19115-1

```

<mdb:MD_Metadata>
  ...
  <mdb:identificationInfo>
    <mri:MD_DataIdentification>
      ...
      <mri:topicCategory>
        <mri:MD_TopicCategoryCode codeList="
https://cdn.earthdata.nasa.gov/iso/resources/Codelist
/gmxCodeLists.xml#MD_TopicCategoryCode"
codeListValue="climatologyMeteorologyAtmosphere"
>climatologyMeteorologyAtmosphere</mri:
MD_TopicCategoryCode>
        </mri:topicCategory>
      <mri:topicCategory>
        <mri:MD_TopicCategoryCode codeList="
https://cdn.earthdata.nasa.gov/iso/resources/Codelist
/gmxCodeLists.xml#MD_TopicCategoryCode"
codeListValue="oceans">oceans</mri:
MD_TopicCategoryCode>
        </mri:topicCategory>
      ...
    </mri:MD_DataIdentification>
  </mdb:identificationInfo>
  ...
</mdb:MD_Metadata>

```

UMM

```

ISOTopicCategories: [
  "CLIMATOLOGY/METEOROLOGY/ATMOSPHERE",
  "OCEANS"
],

```

History

UMM Versioning

Version	Date	What Changed
1.15.5	12/3/2020	The description of this element now includes text about the controlled vocabulary for this field coming from KMS.
1.15.4	9/18/2020	No changes were made for ISO Topic Category during the transition from version 1.15.3 to 1.15.4
1.15.3	7/1/2020	No changes were made for ISO Topic Category during the transition from version 1.15.2 to 1.15.3
1.15.2	5/20/2020	No changes were made for ISO Topic Category during the transition from version 1.15.1 to 1.15.2
1.15.1	3/25/2020	No changes were made for ISO Topic Category during the transition from version 1.15.0 to 1.15.1
1.15.0	2/26/2020	No changes were made for ISO Topic Category during the transition from version 1.14.0 to 1.15.0
1.14.0	10/21/2019	No changes were made for ISO Topic Category during the transition from version 1.13.0 to 1.14.0
1.13.0	04/11/2019	No changes were made for ISO Topic Category during the transition from version 1.12.0 to 1.13.0
1.12.0	01/22/2018	No changes were made for ISO Topic Category during the transition from version 1.11.0 to 1.12.0.
1.11.0	11/28/2018	No changes were made for ISO Topic Category during the transition from version 1.10.0 to 1.11.0.
1.10.0	05/02/2018	No changes were made for ISO Topic Category during the transition from version 1.9.0 to 1.10.0.

ARC Documentation

Version	Date	What Changed	Author
1.0	01/15/2019	Recommendations/priority matrix transferred from internal ARC documentation to wiki space	Jeanne' le Roux