

# Temporal Keywords

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## Element Description

The Temporal Keywords element specifies a word or phrase which serves to summarize the temporal characteristics of a dataset.

### Best Practices

Temporal Keywords is an optional element. There is not a controlled vocabulary for temporal keywords. If this element is utilized it is recommended that a consistent naming convention be developed for related records or for records from the same data center.

#### Examples:

TemporalKeywords: "Weekly"

TemporalKeywords: "Subannual"

TemporalKeywords: "Annual Climatology"

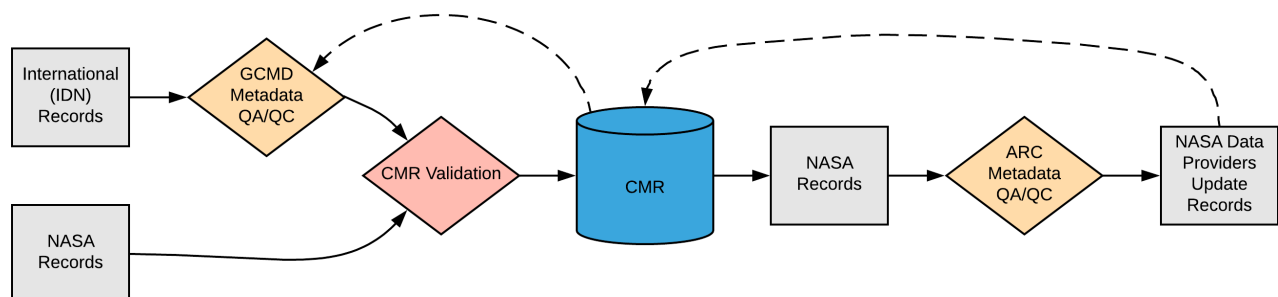
## Element Specification

Providing the Temporal Keyword element is optional. Multiple Temporal Keywords may be provided (Cardinality: 0..\*).

| Model | Element          | Type   | Constraints       | Required? | Cardinality |
|-------|------------------|--------|-------------------|-----------|-------------|
| UMM-C | TemporalKeywords | String | 1 - 80 Characters | No        | 0..*        |

## 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 existing facets and other controlled keyword values are consistent and suitable for the data.
- Automated Review
  - Check that the field has been populated.
  - Check that the field is populated with a valid value from KMS.
  - Check that the field value is not a duplicate.
  - Check that the 'Detailed\_Variable' field length is not greater than 80 characters.

TBD

#### ARC Priority Matrix

| Priority Categorization          | Justification                                                                                                                                                                                                                    |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Red = High Priority Finding      | This element is categorized as highest priority when: <ul style="list-style-type: none"> <li>• The Temporal Keywords is not appropriate for the dataset.</li> </ul>                                                              |
| Yellow = Medium Priority Finding | This element is categorized as medium priority when: <ul style="list-style-type: none"> <li>• A recommendation is made to change a Temporal Keywords to be more accurate or more consistent with related collections.</li> </ul> |
| Blue = Low Priority Finding      | This element is categorized as low priority when: <ul style="list-style-type: none"> <li>• A recommendation is made to add a relevant Temporal Keywords to the metadata.</li> </ul>                                              |
| 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 Ancillary\_Temporal\_Keyword is optional. Multiple Ancillary\_Temporal\_Keywords may be provided (Cardinality: 0..\*).

| UMM-C Element    | DIF 10 Path                                                | Type   | Constraints | Required in DIF 10? | Cardinality |
|------------------|------------------------------------------------------------|--------|-------------|---------------------|-------------|
| TemporalKeywords | Temporal_Coverage/Temporal_Info/Ancillary_Temporal_Keyword | String |             | No                  | 0..*        |

#### Example Mapping

DIF 10

```
<Temporal_Coverage>
  <Temporal_Info>
    <Ancillary_Temporal_Keywords>Daily Climatology<
  /Ancillary_Temporal_Keywords>
</Temporal_Info>
</Temporal_Coverage>
```

UMM

```
TemporalKeywords: [
  "Daily Climatology",
],
```

### ECHO 10

Providing a Temporal Keyword is optional. Multiple Temporal Keywords may be provided (Cardinality: 0..\*).

| UMM-C Element    | ECHO 10 Path             | Type   | Constraints       | Required in ECHO10? | Cardinality |
|------------------|--------------------------|--------|-------------------|---------------------|-------------|
| TemporalKeywords | TemporalKeywords/Keyword | String | 1 - 80 Characters | No                  | 0..*        |

#### Example Mapping

ECHO 10

```
<Temporal_Coverage>
  <Keyword>Daily Climatology</Keyword>
</Temporal_Coverage>
```

UMM

```
TemporalKeywords: [
  "Daily Climatology",
],
```

## ISO 19115-2 MENDS

Providing a Temporal Keyword is optional. Multiple Temporal Keywords may be provided (Cardinality: 0..\*).

| UMM-C Element    | ISO 19115-2 MENDS Path                                                                                                                                                                                                                                                                                                                                                                                                                                   | Type   |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| TemporalKeywords | /gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:descriptiveKeywords/gmd:MD_Keywords/gmd:keyword/gco:CharacterString<br><br>with<br><br>/gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:descriptiveKeywords/gmd:MD_Keywords/gmd:type/gmd:MD_KeywordTypeCode<br><br>codeList="https://cdn.earthdata.nasa.gov/iso/resources/Codelist/gmxCodetlists.xml#MD_KeywordTypeCode"<br>codeListValue="temporal"=temporal | String |

#### Example Mapping

ISO 19115-2 MENDS

```
<gmi:MI_Metadata>
  <gmd:identificationInfo>
    <gmd:MD_DataIdentification>
      <gmd:descriptiveKeywords>
        <gmd:MD_Keywords>
          <gmd:keyword>
            <gco:CharacterString>Daily Climatology</gco:CharacterString>
          </gmd:keyword>
          <gmd:type>
            <gmd:MD_KeywordTypeCode codeList="https://cdn.earthdata.nasa.gov/iso/resources/Codelist/gmxCodetlists.xml#MD_KeywordTypeCode" codeListValue="temporal"=temporal</gmd:MD_KeywordTypeCode>
          </gmd:type>
          <gmd:thesaurusName gco:nilReason="unknown">
            </gmd:thesaurusName>
          </gmd:MD_Keywords>
        </gmd:descriptiveKeywords>
      </gmd:MD_DataIdentification>
    </gmd:identificationInfo>
  </gmi:MI_Metadata>
```

UMM

```
TemporalKeywords: [  
  "Daily Climatology",  
],
```

## ISO 19115-2 SMAP

Providing a Temporal Keyword is optional. Multiple Temporal Keywords may be provided (Cardinality: 0..\*).

| UMM-C Element     | ISO 19115-2 SMAP Path                                                                                                                                                                                                                                                                                                                                                                                              | Type   |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Temporal Keywords | <p>/gmd:DS_Series/gmd:seriesMetadata/gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:descriptiveKeywords/gmd:MD_Keywords/gmd:keyword/gco:CharacterString</p> <p>with</p> <p>/gmd:DS_Series/gmd:seriesMetadata/gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:descriptiveKeywords/gmd:MD_Keywords/gmd:keyword/gmd:type/MD_KeywordTypeCode[@codeListValue="temporal"]</p> | String |

### Example Mapping

ISO 19115-2 SMAP

```
<gmd:DS_Series>  
<gmd:seriesMetadata>  
<gmi:MI_Metadata>  
  <gmd:identificationInfo>  
    <gmd:MD_DataIdentification>  
      <gmd:descriptiveKeywords>  
        <gmd:MD_Keywords>  
          <gmd:keyword>  
            <gco:CharacterString>Daily Climatology<  
/gco:CharacterString>  
          </gmd:keyword>  
          <gmd:type>  
            <gmd:MD_KeywordTypeCode codeList="  
https://cdn.earthdata.nasa.gov/iso/resources/Codelist  
/gmxCodelists.xml#MD_KeywordTypeCode" codeListValue="  
temporal"=temporal</gmd:MD_KeywordTypeCode>  
            </gmd:type>  
            <gmd:thesaurusName gco:nilReason="unknown"  
/>  
          </gmd:MD_Keywords>  
        </gmd:descriptiveKeywords>  
      </gmd:MD_DataIdentification>  
    </gmd:identificationInfo>  
  </gmi:MI_Metadata>  
</gmd:seriesMetadata>  
</gmd:DS_Series>
```

UMM

```
TemporalKeywords: [  
  "Daily Climatology",  
],
```

## UMM Migration

None

## History

### UMM Versioning

| Version | Date       | What Changed                                                                                   |
|---------|------------|------------------------------------------------------------------------------------------------|
| 1.15.5  | 12/3/2020  | No changes were made for Temporal Keywords during the transition from version 1.15.4 to 1.15.5 |
| 1.15.4  | 9/18/2020  | No changes were made for Temporal Keywords during the transition from version 1.15.3 to 1.15.4 |
| 1.15.3  | 7/1/2020   | No changes were made for Temporal Keywords during the transition from version 1.15.2 to 1.15.3 |
| 1.15.2  | 5/20/2020  | No changes were made for Temporal Keywords during the transition from version 1.15.1 to 1.15.2 |
| 1.15.1  | 3/25/2020  | No changes were made for Temporal Keywords during the transition from version 1.15.0 to 1.15.1 |
| 1.15.0  | 2/26/2020  | No changes were made for Temporal Keywords during the transition from version 1.14.0 to 1.15.0 |
| 1.14.0  | 10/21/2019 | No changes were made for Temporal Keywords during the transition from version 1.13.0 to 1.14.0 |
| 1.13.0  | 04/11/2019 | No changes were made for Temporal Keywords during the transition from version 1.12.0 to 1.13.0 |
| 1.12.0  | 01/22/2019 | No changes were made for Temporal Keywords during the transition from version 1.11.0 to 1.12.0 |
| 1.11.0  | 11/28/2018 | No changes were made for Temporal Keywords during the transition from version 1.10.0 to 1.11.0 |
| 1.10.0  | 05/02/2018 | No changes were made for Temporal Keywords during the transition from version 1.9.0 to 1.10.0  |

### ARC Documentation

| Version | Date       | What Changed                                                                              | Author                                                                  |
|---------|------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| 1.0     | 01/16/2019 | Recommendations/priority matrix transferred from internal ARC documentation to wiki space | <a href="#">Ingrid Garcia-Solera</a><br><a href="#">Jeanne' le Roux</a> |