Version

Element Description

The Version element indicates the version of the dataset.

Best Practices

The version should be consistent throughout the metadata record. The version in the metadata should be identical to the version specified on the dataset landing page and in dataset documentation. For example, if the dataset landing page specifies the dataset as version 1.1, then the version number in the metadata should also be 1.1 (e.g. not 1.10). If the version in the title is specified as 3.4.2004 then the version in the metadata should also be 3.4.2004 (e.g. not 03.04.2004).

The Data Product Development Guide for Data Producers offers the following information about versioning:

> *"The global attribute product_version is used to distinguish between versions of a given data product (e.g., produced using different processing algorithms or updates to calibration parameters). It is particularly important for users to know if they will acquire the latest version of a data product.*
>
> *It is highly recommended to represent the data product version with an ordinal identifier (e.g., 1, 2, 3, etc.) that expresses its position in a series of data product publications. The data product version can be represented with both a major and minor version identifier (e.g., 2.1, 2.2, etc.). A minor version is used to identify selected files associated with a limited reprocessing of data (e.g., changes around a data anomaly that did not affect the rest of the data product). A change that affects the whole data product (e.g., complete reprocessing) would be considered a major version change. Guidance for setting version numbers should be sought from the DAAC hosting the data. Some guidance by the DIWG regarding version numbers can be found in [26] (Rec. 3.10). Whatever versioning scheme is used, it is understood that all files in a given data product were produced in a consistent manner.*
>
> *Periodic reprocessing of data products can produce new versions with a distinct data product identifier. In general, data that are sufficiently different should be organized into separate data products. When data are reprocessed, the data producer must distinguish between major and minor version changes. Also, the nature of changes and the records to which they apply should be described for every version. In practice, a DAAC may choose to combine different minor versions of data into a single major version of a data product in the archive and only advance to the next major version upon reprocessing of the entire data product.*
> *If possible, it is useful to use the same version for the data product as for the algorithm software used to generate the product (e.g., PGEVersion), to avoid confusing the data product users."*

Examples:

"2.0"

"1"

"007"

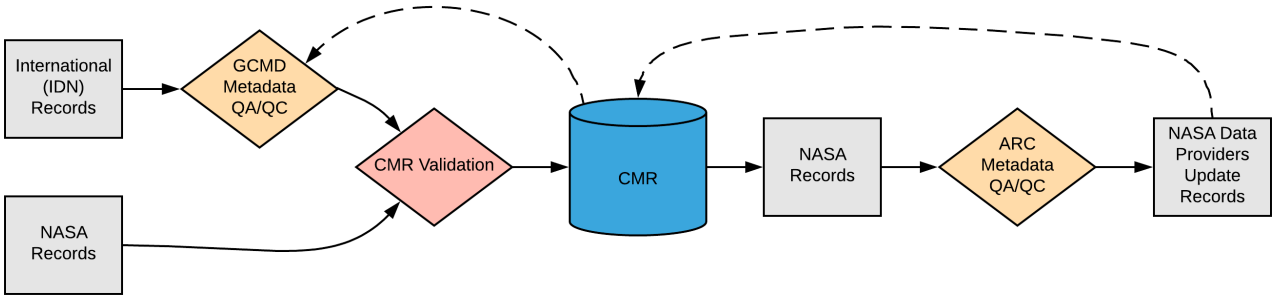
Element Specification

Model	Element	Type	Constraints	Required?	Cardinality
UMM-C	Version	String	1 - 80 characters	Yes	1

Note: The short name and version combination must be unique across the CMR.

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 the version value is appropriate for the dataset.
- Automated Review
  - Check that the field has been populated.
  - Check that the field length is not greater than 80 characters.

- This element is required
- Must contain at least 1 character and be no longer than 80 characters in length
- The ShortName together with the Version must be unique per data provider

ARC Priority Matrix

Priority Categorization	Justification
Red = High Priority Finding	This element is categorized as highest priority when: • No Version is provided. • The Version is incorrect for the dataset.
Yellow = Medium Priority Finding	Not Applicable
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

UMM-C Element	DIF 10 Path	Type	Constraints	Required in DIF 10?	Cardinality	Notes
Version	Entry_ID /Version	String	1 - 80 characters	Yes	1	Version and Short_Name must be unique for a provider.

Enumeration Mapping

N/A

Example Mapping

DIF 10

```
<Entry_ID>
  <Version>2.0</Version>
</Entry_ID>
```

UMM

```
"Version" : "2.0",
```

ECHO 10

UMM-C Element	ECHO 10 Path	Type	Constraints	Required in ECHO10?	Cardinality	Notes
Version	/Collection/VersionId	String		Yes	1	

Enumeration Mapping

N/A

Example Mapping

ECHO 10

```
<VersionId>2.0</VersionId>
```

UMM

```
"Version" : "2.0",
```

ISO 19115-2 MENDS

UMM-C Element	ISO 19115-2 MENDS Path	Type	Notes
Version	/gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:citation/gmd:CI_Citation/gmd:edition/gco:CharacterString	String	This field is not required by the ISO schema, however, it is required in the CMR.

Enumeration/Code List Mapping

N/A

Example Mapping

ISO 19115-2 MENDS

```
<gmi:MI_Metadata>
  ...
  <gmd:identificationInfo>
    <gmd:MD_DataIdentification>
      <gmd:citation>
        <gmd:CI_Citation>
          ...
          <gmd:edition>
            <gco:CharacterString>2.0</gco:
CharacterString>
          </gmd:edition>
          ...
        </gmd:CI_Citation>
      </gmd:citation>
     ...
    </gmd:MD_DataIdentification>
  </gmd:identificationInfo>
  ...
</gmi:MI_Metadata>
```

UMM

```
"Version" : "2.0",
```

ISO 19115-2 SMAP

UMM-C Element	ISO 19115-2 SMAP Path	Type	Notes
Version	/gmd:DS_Series/gmd:seriesMetadata/gmi:MI_Metadata/gmd:identificationInfo /gmd:MD_DataIdentification/ gmd:citation/gmd:CI_Citation/gmd:identifier/gmd:MD_Identifier/ [=> [=>gmd:code/gco:CharacterString with [=>gmd:description/gco:CharacterString="The ECS Version ID"	String	This field is not required by the ISO schema, however, it is required in the CMR.

Enumeration/Code List Mapping

N/A

Example Mapping

ISO 19115-2 SMAP

```
<gmd:DS_Series>
  <gmd:seriesMetadata>
    <gmi:MI_Metadata>
      ...
      <gmd:identificationInfo>
        <gmd:MD_DataIdentification>
          <gmd:citation>
            <gmd:CI_Citation>
              ...
              <gmd:identifier>
                <gmd:MD_Identifier>
                  <gmd:code>
                    <gco:CharacterString>2.0</gco:
CharacterString>
                  </gmd:code>
                  <gmd:description>
                    <gco:CharacterString>The ECS
Version ID</gco:CharacterString>
                  </gmd:description>
                </gmd:MD_Identifier>
              </gmd:identifier>
              ...
            </gmd:CI_Citation>
          </gmd:citation>
          ...
        </gmd:MD_DataIdentification>
      </gmd:identificationInfo>
      ...
    </gmi:MI_Metadata>
  </gmd:seriesMetadata>
</gmd:DS_Series>
```

UMM

```
"Version" : "2.0",
```

UMM Migration

None

Future Mappings

ISO 19115-1

UMM-C Element	ISO 19115-1 Path	Type	Notes
Version	/mdb:MD_Metadata/mdb:identificationInfo/mri:MD_DataIdentification/mri:citation/cit:CI_Citation/cit:edition/gco:CharacterString	String	This field is not required by the ISO schema, however, it is required in the CMR.

Example Mapping

ISO 19115-1

```
<mdb:MD_Metadata>
  ...
  <mdb:identificationInfo>
    <mri:MD_DataIdentification>
      <mri:citation>
        <cit:CI_Citation>
          ...
          <cit:edition>
            <gco:CharacterString>2.0</gco:
CharacterString>
          </cit:edition>
          ...
        </cit:CI_Citation>
      </mri:citation>
      ...
    </mri:MD_DataIdentification>
  </mdb:identificationInfo>
  ...
</mdb:MD_Metadata>
```

UMM

```
"Version" : "2.0",
```

History

UMM Versioning

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

ARC Documentation

Version	Date	What Changed	Author
1.0	04/18/2018	Recommendations/priority matrix transferred from internal ARC documentation to wiki space	Jeanne' le Roux