

Quality

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Element Description

The Quality metadata element is a free text field which is used to describe the quality of the collection data.

Best Practices

This field may be used to describe any indications of quality of the data. Examples of appropriate element information include: a) a succinct description of the quality of data in the collection; b) quality assurance procedures followed in producing the data in the collection; c) indicators of collection quality or quality flags - both validated or invalidated; d) recognized or potential problems with quality; e) established quality control mechanisms; and f) established quantitative quality measurements. The Quality element is optional.

Examples:

Quality: "Users are advised that ASTER SWIR data acquired from late April 2008 to the present exhibit anomalous saturation of values and anomalous striping. This effect is also present for some prior acquisition periods. Please refer to the ASTER SWIR User Advisory website (<https://asterweb.jpl.nasa.gov/swir-alert.asp>) for more details."

Quality: "This data has been in extensive use in weather forecasting and atmospheric chemistry research for many years, and has thus been subject to independent review by many scientific experts."

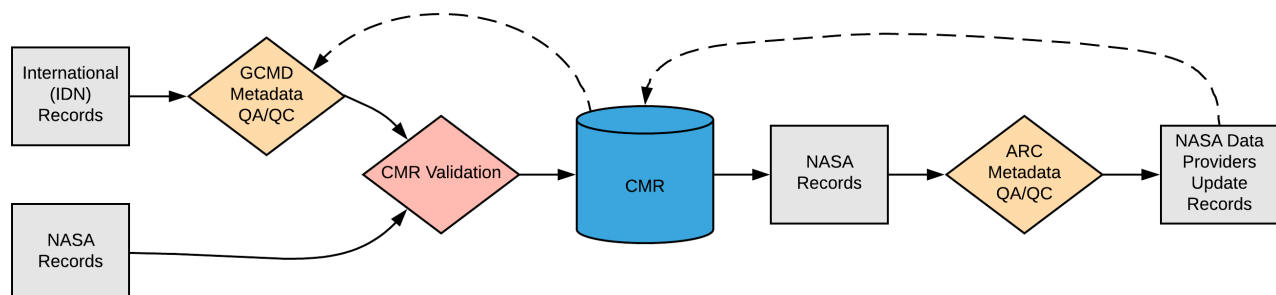
Element Specification

Providing the Quality element is optional (Cardinality: 0..1)

Model	Element	Type	Constraints	Required?	Cardinality
UMM-C	Quality	String	1 - 12000 characters	No	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 the quality description is appropriate for the dataset.
 - Identify errors, discrepancies or omissions.
 - Proof all content for conciseness and readability.
- Automated Review
 - Check for potential broken links.
 - Check that the field length is not greater than 12,000 characters.

<>

ARC Priority Matrix

Priority Categorization	Justification
Red = High Priority Finding	This element is categorized as highest priority when: <ul style="list-style-type: none"> • The Quality description contains a spelling or major grammatical error. • The Quality element is being used incorrectly (i.e. for a purpose other than describing data quality). • A broken URL is provided in the Quality element.
Yellow = Medium Priority Finding	This element is categorized as medium priority when: <ul style="list-style-type: none"> • A recommendation is made to change the syntax or content provided in the Quality element to improve readability.
Blue = Low Priority Finding	This element is categorized as low priority when: <ul style="list-style-type: none"> • A URL provided in the Quality element is a re-direct link (this includes re-directs from "http" to "https").
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
Quality	Quality	String	1 - 12000 characters	No	0..1

Example Mapping

DIF 10

```
<Quality>Users are advised that ASTER SWIR data
acquired from late April 2008 to the present exhibit
anomalous saturation of values and anomalous
striping. This effect is also present for some prior
acquisition periods. Please refer to the ASTER SWIR
User Advisory Document (https://lpdaac.usgs.gov/sites
/default/files/public/aster/docs
/ASTER_SWIR_User_Advisory_July%2018_08.pdf) for more
details.</Quality>
```

UMM

Quality: "Users are advised that ASTER SWIR data acquired from late April 2008 to the present exhibit anomalous saturation of values and anomalous striping. This effect is also present for some prior acquisition periods. Please refer to the ASTER SWIR User Advisory Document (https://lpdaac.usgs.gov/sites/default/files/public/aster/docs/ASTER_SWIR_User_Advisory_July%2018_08.pdf) for more details."

ECHO 10

Quality does not map to ECHO 10.

UMM-C Element	ECHO 10 Path	Type	Constraints	Required in ECHO10?	Cardinality	Notes
Quality	N/A	N/A	N/A	N/A	N/A	Quality does not map to ECHO 10.

ISO 19115-2 MENDS

Providing the Quality element is optional (Cardinality: 0..1)

UMM-C Element	ISO 19115-2 MENDS Path	Type
Quality	/gmi:MI_Metadata/gmd:dataQualityInfo/gmd:DQ_DataQuality/gmd:report/gmd:DQ_QuantitativeAttributeAccuracy/gmd:evaluationMethodDescription/gco:CharacterString	String

Example Mapping

ISO 19115-2 MENDS

```
<gmi:MI_Metadata>
  <gmd:dataQualityInfo>
    <gmd:DQ_DataQuality>
      <gmd:report>
        <gmd:DQ_QuantitativeAttributeAccuracy>
          <gmd:evaluationMethodDescription>
            <gco:CharacterString>Users are advised
that ASTER SWIR data acquired from late April 2008
to the present exhibit anomalous saturation of
values and anomalous striping. This effect is also
present for some prior acquisition periods. Please
refer to the ASTER SWIR User Advisory Document
(https://lpdaac.usgs.gov/sites/default/files/public/aster/docs/ASTER\_SWIR\_User\_Advisory\_July%2018\_08.pdf) for more details.
          </gco:CharacterString>
        </gmd:evaluationMethodDescription>
      </gmd:DQ_QuantitativeAttributeAccuracy>
    </gmd:report>
  </gmd:DQ_DataQuality>
</gmd:dataQualityInfo>
</gmi:MI_Metadata>
```

UMM

Quality: "Users are advised that ASTER SWIR data acquired from late April 2008 to the present exhibit anomalous saturation of values and anomalous striping. This effect is also present for some prior acquisition periods. Please refer to the ASTER SWIR User Advisory Document (https://lpdaac.usgs.gov/sites/default/files/public/aster/docs/ASTER_SWIR_User_Advisory_July%2018_08.pdf) for more details."

ISO 19115-2 SMAP

Providing the Quality element is optional. (Cardinality: 0..1)

UMM-C Element	ISO 19115-2 SMAP Path	Type
Quality	/gmd:DS_Series/gmd:seriesMetadata/gmi:MI_Metadata/gmd:dataQualityInfo/gmd:DQ_DataQuality/gmd:report/gmd:DQ_QuantitativeAttributeAccuracy/gmd:evaluationMethodDescription/gco:CharacterString	String

Example Mapping

ISO 19115-2 SMAP

```
<gmd:DS_Series>
<gmd:seriesMetadata>
<gmi:MI_Metadata>
  <gmd:dataQualityInfo>
    <gmd:DQ_DataQuality>
      <gmd:report>
        <gmd:DQ_QuantitativeAttributeAccuracy>
          <gmd:evaluationMethodDescription>
            <gco:CharacterString>Users are advised
that ASTER SWIR data acquired from late April 2008
to the present exhibit anomalous saturation of
values and anomalous striping. This effect is also
present for some prior acquisition periods. Please
refer to the ASTER SWIR User Advisory Document
(https://lpdaac.usgs.gov/sites/default/files/public/aster/docs/ASTER\_SWIR\_User\_Advisory\_July%2018\_08.pdf) for more details.
            </gco:CharacterString>
          </gmd:evaluationMethodDescription>
        </gmd:DQ_QuantitativeAttributeAccuracy>
      </gmd:report>
    </gmd:DQ_DataQuality>
  </gmd:dataQualityInfo>
</gmi:MI_Metadata>
</gmd:DS_Series>
</gmd:seriesMetadata>
```

UMM

Quality: "Users are advised that ASTER SWIR data acquired from late April 2008 to the present exhibit anomalous saturation of values and anomalous striping. This effect is also present for some prior acquisition periods. Please refer to the ASTER SWIR User Advisory Document (https://lpdaac.usgs.gov/sites/default/files/public/aster/docs/ASTER_SWIR_User_Advisory_July%2018_08.pdf) for more details."

UMM Migration

UMM Version 1.9.0	Translation Direction	UMM Version 1.10.0

History

UMM Versioning

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

ARC Documentation

Version	Date	What Changed	Author
1.0	11/02/2018	Recommendations/priority matrix transferred from internal ARC documentation to wiki space	Jeanne' le Roux