Abstract

Element Description

The Abstract provides a brief description of the resource the metadata represents. The abstract is meant to concisely provide a user with the information needed to quickly understand the relevance and usefulness of the described resource.

Best Practices

The abstract should summarize the dataset and mimic a journal abstract that is useful to the science community, but is also approachable for a first time user of the data. The following information should be included (when applicable):

- The temporal range of the dataset
- The names of platforms, instruments, and/or methods used to collect data
- The spatial coverage of the data (including any gaps in coverage)
- A brief explanation of processing applied to the data
- The format the data is provided in and whether proprietary software is required to use it
- Units the data is provided in
- Spatial and temporal resolution of the data
- Similarities and differences of these data to other closely related datasets
- The purpose and/or intended use of the data (especially if the <Purpose> element is not populated)
- If the data were collected as part of a campaign, a brief description of the campaign and how the dataset fits into the picture of the campaign
- Any other pertinent information an user might find helpful

In addition, the abstract should utilize a standard mixed case capitalization scheme. All acronyms should be defined. All sentences should be complete sentences, and proper grammar should be used.

Examples:

"The GPM Ground Validation Iowa X-band Polarimetric Mobile Doppler Weather Radars IFloodS dataset was gathered during the IFloodS campaign from April to June 2013 throughout central and northeastern Iowa. The Iowa Flood Studies (IFloodS) was a ground measurement campaign that took place throughout Iowa from May 1 to June 15, 2013. The main goal of IFloodS was to evaluate how well the GPM satellite rainfall data can be used for flood forecasting. Four X-band Polarimetric (XPOL) Mobile Doppler Weather Radars were used to collect high-resolution observations of precipitation. The data consists of reflectivity, Doppler velocity, spectrum width, differential reflectivity, differential phase, copolar correlation coefficient, and sound-to-noise ratios. These data are available in netCDF, and browse image files are available in .png format."

"This dataset, LBA-ECO LC-39 MODIS Active Fire and Frequency Data for South America: 2000-2007, provides active fire locations and estimates of annual fire frequencies for South America from 2000-2007. Data from the MODerate Resolution Imaging Spectroradiometer (MODIS) sensors aboard the Terra (2000-2007) and Aqua (2003-2007) satellite platforms were analyzed to determine spatial and temporal patterns in satellite fire detections. The analysis considered a high-confidence subset of all MODIS fire detections to reduce the influence of false fire detections over small forest clearings in Amazonia (Schroeder et al., 2008). The number of unique days on which the active fire detections were recorded within a 1 km radius was estimated from the subset of active fire detections and the ArcGIS neighborhood variety algorithm. There are 14 data files with this dataset: 7 GeoTIFF (.tif) files of fire frequency at MODIS 250 m resolution, where each grid cell value represents the number of days in that year on which active fires were detected, and 7 shape files of active fire locations for the years 2001-2007."

Element Specification

Abstract is required. Only one Abstract may be provided (Cardinality: 1)

Model	Element	Type	Constraints	Required?	Cardinality	Notes
UMM-C	Abstract	String	1 - 40000 characters	Yes	1	This element allows lightweight markup language with plain text formatting syntax. Line breaks within the text are preserved. Additional information on markdown can be found at http://en.wikipedia.org/wiki/Markdown.

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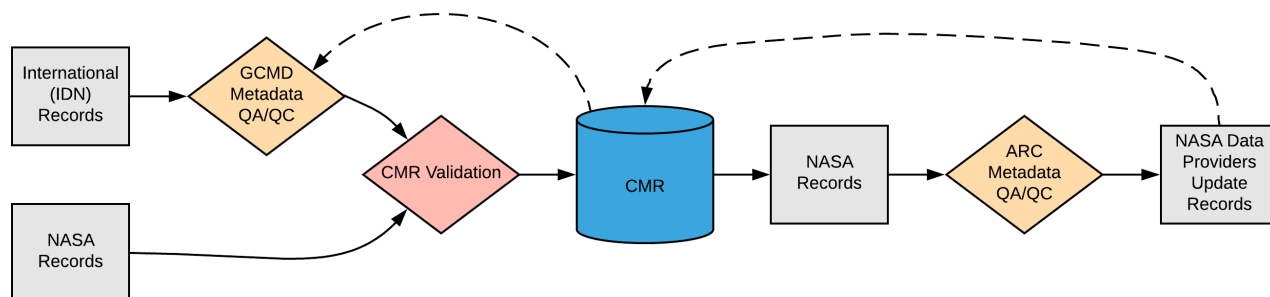
Please see the expandable sections below for flowchart details.

- Manual Review
    - Check that there is at least a brief summary of the data.
    - Confirm that other 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 40,000 characters.
    - Check that the field length is at least 50 characters.
    - Check that the field has been populated.
    - Check for potential broken links.

- Must contain at least 1 character and be no longer than 4000 characters in length

ARC Priority Matrix

Priority Categorization	Justification
Red = High Priority Finding	This element is categorized as highest priority when: • No Abstract is provided. • The Abstract contains a spelling or grammatical error. • The Abstract is a copy of the Short Name or Entry Title. • The Abstract is comprised of a single incomplete sentence or contains any incomplete sentences. • The information provided in the Abstract is inaccurate or outdated. • The information provided in the Abstract is unclear or difficult to understand. • A broken link is contained in the Abstract. • The Abstract provided is identical to that of another collection.
Yellow = Medium Priority Finding	This element is categorized as medium priority when: • An acronym (or several acronyms) need(s) to be defined in the Abstract. • Information that would make the Abstract more robust or useful for discoverability or usability is missing from the Abstract, such as spatial and temporal coverages.
Blue = Low Priority Finding	This element is categorized as low priority when: • A link needs to be updated from 'http' to 'https' in the Abstract. • A space needs to be added between two words. • Recommend verifying the version description (if inconsistent with the long name). • The title of the dataset is not included in the first sentence of the Abstract. • A hyperlink does not display correctly within the abstract text (i.e. markdown notation appears).
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

Summary is required. Only one Summary may be provided (Cardinality: 1)

UMM-C Element	DIF 10 Path	Type	Constraints	Required in DIF 10?	Cardinality
Abstract	Summary/Abstract	String	1 - 40000 characters	Yes	1

Example Mapping

DIF 10

```
<Summary>
  <Abstract>The Atmospheric Infrared Sounder (AIRS)
is a grating spectrometer (R = 1200) aboard the
second Earth Observing System (EOS) polar-orbiting
platform, EOS Aqua. In combination with the Advanced
Microwave Sounding Unit (AMSU) and the Humidity
Sounder for Brazil (HSB), AIRS constitutes an
innovative atmospheric sounding group of visible,
infrared, and microwave sensors. The AIRS Carbon
Dioxide (CO2) Standard Retrieval Product consists of
retrieved estimates of CO2, plus estimates of the
errors associated with the retrieval. In contrast to
AIRX2RET, the horizontal resolution of this standard
product is about 110 km (1x1 degree). An AIRS
granule has been set as 6 minutes of data, 15
footprints cross track by 22 lines along track.<
/Abstract>
</Summary>
```

UMM

```
"Abstract" : "The Atmospheric Infrared Sounder
(AIRS) is a grating spectrometer (R = 1200) aboard
the second Earth Observing System (EOS) polar-
orbiting platform, EOS Aqua. In combination with the
Advanced Microwave Sounding Unit (AMSU) and the
Humidity Sounder for Brazil (HSB), AIRS constitutes
an innovative atmospheric sounding group of visible,
infrared, and microwave sensors. The AIRS Carbon
Dioxide (CO2) Standard Retrieval Product consists of
retrieved estimates of CO2, plus estimates of the
errors associated with the retrieval. In contrast to
AIRX2RET, the horizontal resolution of this standard
product is about 110 km (1x1 degree). An AIRS
granule has been set as 6 minutes of data, 15
footprints cross track by 22 lines along track.",
```

ECHO 10

Description is required. Only one Description may be provided (Cardinality: 1)

UMM-C Element	ECHO 10 Path	Type	Constraints	Required in ECHO10?	Cardinality

Abstract	Description	String	1 - 40000 characters	Yes	1

Example Mapping

ECHO 10

```
<Description>
The Atmospheric Infrared Sounder (AIRS) is a grating
spectrometer (R = 1200) aboard the second Earth
Observing System (EOS) polar-orbiting platform, EOS
Aqua. In combination with the Advanced Microwave
Sounding Unit (AMSU) and the Humidity Sounder for
Brazil (HSB), AIRS constitutes an innovative
atmospheric sounding group of visible, infrared, and
microwave sensors. The AIRS Carbon Dioxide (CO2)
Standard Retrieval Product consists of retrieved
estimates of CO2, plus estimates of the errors
associated with the retrieval. In contrast to
AIRX2RET, the horizontal resolution of this standard
product is about 110 km (1x1 degree). An AIRS
granule has been set as 6 minutes of data, 15
footprints cross track by 22 lines along track.
</Description>
```

UMM

```
"Abstract" : "The Atmospheric Infrared Sounder
(AIRS) is a grating spectrometer (R = 1200) aboard
the second Earth Observing System (EOS) polar-
orbiting platform, EOS Aqua. In combination with the
Advanced Microwave Sounding Unit (AMSU) and the
Humidity Sounder for Brazil (HSB), AIRS constitutes
an innovative atmospheric sounding group of visible,
infrared, and microwave sensors. The AIRS Carbon
Dioxide (CO2) Standard Retrieval Product consists of
retrieved estimates of CO2, plus estimates of the
errors associated with the retrieval. In contrast to
AIRX2RET, the horizontal resolution of this standard
product is about 110 km (1x1 degree). An AIRS
granule has been set as 6 minutes of data, 15
footprints cross track by 22 lines along track.",
```

ISO 19115-2 MENDS

Abstract is required is ISO. Only one Abstract may be provided (Cardinality: 1)

UMM-C Element	ISO Path	Type	Notes
Abstract	/gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:abstract/gco:CharacterString	String	Maps to the UMM element "Abstract"

Example Mapping

ISO 19115-2 MENDS

```
<gmi:MI_Metadata>
 ...
 <gmd:identificationInfo>
   <gmd:MD_DataIdentification>
    ...
    <gmd:abstract>
      <gco:CharacterString>The Atmospheric Infrared
Sounder (AIRS) is a grating spectrometer (R = 1200)
aboard the second Earth Observing System (EOS) polar-
orbiting platform, EOS Aqua. In combination with the
Advanced Microwave Sounding Unit (AMSU) and the
Humidity Sounder for Brazil (HSB), AIRS constitutes
an innovative atmospheric sounding group of visible,
infrared, and microwave sensors. The AIRS Carbon
Dioxide (CO2) Standard Retrieval Product consists of
retrieved estimates of CO2, plus estimates of the
errors associated with the retrieval. In contrast to
AIRX2RET, the horizontal resolution of this standard
product is about 110 km (1x1 degree). An AIRS
granule has been set as 6 minutes of data, 15
footprints cross track by 22 lines along track.
      </gco:CharacterString>
    </gmd:abstract>
    ...
```

UMM

```
"Abstract" : "The Atmospheric Infrared Sounder
(AIRS) is a grating spectrometer (R = 1200) aboard
the second Earth Observing System (EOS) polar-
orbiting platform, EOS Aqua. In combination with the
Advanced Microwave Sounding Unit (AMSU) and the
Humidity Sounder for Brazil (HSB), AIRS constitutes
an innovative atmospheric sounding group of visible,
infrared, and microwave sensors. The AIRS Carbon
Dioxide (CO2) Standard Retrieval Product consists of
retrieved estimates of CO2, plus estimates of the
errors associated with the retrieval. In contrast to
AIRX2RET, the horizontal resolution of this standard
product is about 110 km (1x1 degree). An AIRS
granule has been set as 6 minutes of data, 15
footprints cross track by 22 lines along track.",
```

ISO 19115-2 SMAP

Abstract is required in ISO. Only one Abstract may be provided (Cardinality: 1)

UMM-C Element	ISO Path	Type	Notes
Abstract	/gmd:DS_Series/gmd:seriesMetadata/gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/ gmd:abstract/gco:CharacterString with /gmd:DS_Series/gmd:seriesMetadata/gmi:MI_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification[gmd:citation/ gmd:CI_Citation/gmd:identifier/gmd:MD_Identifier/gmd:description/gco:CharacterString="The ECS Short Name"	String	Maps to the UMM element "Abstract"

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:description>
                   <gco:CharacterString>The ECS
Short Name</gco:CharacterString>
                 </gmd:description>
               </gmd:MD_Identifier>
             </gmd:identifier>
             ...
           </gmd:CI_Citation>
         </gmd:citation>
         ...
         <gmd:abstract>
           <gco:CharacterString>The Atmospheric
Infrared Sounder (AIRS) is a grating spectrometer (R
= 1200) aboard the second Earth Observing System
(EOS) polar-orbiting platform, EOS Aqua. In
combination with the Advanced Microwave Sounding
Unit (AMSU) and the Humidity Sounder for Brazil
(HSB), AIRS constitutes an innovative atmospheric
sounding group of visible, infrared, and microwave
sensors. The AIRS Carbon Dioxide (CO2) Standard
Retrieval Product consists of retrieved estimates of
CO2, plus estimates of the errors associated with
the retrieval. In contrast to AIRX2RET, the
horizontal resolution of this standard product is
about 110 km (1x1 degree). An AIRS granule has been
set as 6 minutes of data, 15 footprints cross track
by 22 lines along track.</gco:CharacterString>
         </gmd:abstract>
         ...
       </gmd:MD_DataIdentification>
     </gmd:identificationInfo>
     ...
   <gmi:MI_Metadata>
 </gmd:seriesMetadata>
</gmd:DS_Series>
```

UMM

```
"Abstract" : "The Atmospheric Infrared Sounder
(AIRS) is a grating spectrometer (R = 1200) aboard
the second Earth Observing System (EOS) polar-
orbiting platform, EOS Aqua. In combination with the
Advanced Microwave Sounding Unit (AMSU) and the
Humidity Sounder for Brazil (HSB), AIRS constitutes
an innovative atmospheric sounding group of visible,
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retrieved estimates of CO2, plus estimates of the
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AIRX2RET, the horizontal resolution of this standard
product is about 110 km (1x1 degree). An AIRS
granule has been set as 6 minutes of data, 15
footprints cross track by 22 lines along track.",
```

UMM Migration

None

History

UMM Versioning

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

ARC Documentation

Version	Date	What Changed	Author
1.0	04/10/18	Recommendations/priority matrix transferred from internal ARC documentation to wiki space	Jeanne' le Roux