

International Directory Network (GCMD) Version 9.8.2 Release Notes (October 2010)

I. Added Subfields to DIF/SERF Summary field

Discussion

Added two new subfields within the **Summary** field:

Abstract

Purpose

The **Summary**, currently a free-text field, will contain subfields: **Abstract** and **Purpose**. The subfields will permit a 1:1 mapping for the **Abstract** and **Purpose** fields when translating to/from DIF to ISO-19115 and the Federal Geographic Data Committee (FGDC) standards. This will greatly improve the accuracy of translations between standards.

Specifications:

The **Summary** field provides a brief description of the data set, along with why the data were collected. This information will allow potential users to determine if the data set is useful for their needs.

Abstract: A brief description of the data set.

Purpose: Describes the purpose and/or intended use of the data set.

Changes to XML Schema

- The **Summary** field is required.
 - **Abstract** field is required.
 - **Purpose** field is optional.
- The **Summary** field may not be repeated.

- **Abstract** and **Purpose** fields may not be repeated.
- XML Syntax Changes

Previous DIF/SERF Syntax:

```
<Summary>text</Summary>
```

New DIF/SERF Syntax:

```
<Summary>  
<Abstract>text</Abstract>  
<Purpose>text</Purpose>  
</Summary>
```

XML Example:

```
<Summary>  
<Abstract>  
Synoptic Surface Observations (Office of Hydrology Format) is  
historical data set DSI-9659 archived at the National Climatic  
Data Center (NCDC). The Office of Hydrology (O/H) format was  
designed for use in implementing the National Weather Service  
River Forecast Service (NWSRFS) nationwide, and for calibration  
of hydrologic models. Parameters for this synoptic surface  
observations data set include: temperature, cloudiness,  
humidity, water vapor, evaporation, precipitation, sunshine,  
visibility, winds, water temperature, dew point, and  
thunderstorm occurrences. The period of record is 1948-1976.  
</Abstract>  
<Purpose>  
To make a wide range of climatic data available to researchers  
and the public.  
</Purpose>  
</Summary>
```

Changes to docBUILDER to accomodate Subfields:

docBUILDER will offer two fields for editing text: **Abstract** and **Purpose**. See screenshot below:

Summary ⓘ : Enter a brief summary describing the data set.

Summary	<p>NOAA's National Geophysical Data Center (NGDC) is building high-resolution digital elevation models (DEMs) for select U.S. coastal regions. These integrated bathymetric-topographic DEMs are used to support tsunami forecasting and modeling efforts at the NOAA Center for Tsunami Research, Pacific Marine Environmental Laboratory (PMEL). The DEMs are part of the tsunami forecast system SIFT (Short-term Inundation Forecasting for Tsunamis) currently being developed by PMEL for the NOAA Tsunami Warning Centers, and are used in the MOST (Method of Splitting Tsunami) model developed by PMEL to simulate tsunami generation, propagation, and inundation. Bathymetric, topographic, and shoreline data used in DEM compilation are obtained from various sources, including NGDC, the U.S. National Ocean Service (NOS), the U.S. Geological Survey (USGS), the U.S. Army Corps of Engineers (USACE), the Federal Emergency Management Agency (FEMA), and other federal, state, and local government agencies, academic institutions, and private companies. DEMs are referenced to the vertical tidal datum of Mean High Water (MHW) and horizontal datum of World Geodetic System 1984 (WGS84). Grid spacings for the DEMs range from 1/3 arc-second (~10 meters) to 3 arc-seconds (~90 meters).</p> <p>How do I add international characters and special symbols?</p>
Abstract	<p>Developed for the Pacific Marine Environmental Laboratory (PMEL), NOAA Center for Tsunami Research program in support of NOAA's tsunami forecasting and warning efforts.</p> <p>How do I add international characters and special symbols?</p>
Purpose	

Impact:

The text held in the **Summary** fields of the current IDN records will be automatically mapped to the new format. No action is required.

Metadata authors who use docBUILDER to create new records will be provided with the new extended options. Only metadata authors who develop DIF/SERF metadata externally may populate the **Summary** field in either the version 9.8.1 format or the 9.8.2 format. However, we recommend that partners begin adapting their systems to the 9.8.2 DIF and SERF XML schemas as soon as possible (See Resources).

Resources:

DIF Guide:
<http://gcmd.gsfc.nasa.gov/User/difguide/>

SERF Guide:
<http://gcmd.gsfc.nasa.gov/User/serfguide/>

DIF XML Schema:
http://gcmd.nasa.gov/Aboutus/xml/dif/dif_v9.8.2.xsd

SERF XML Schema:
http://gcmd.nasa.gov/Aboutus/xml/serf/serf_v9.8.2.xsd

II. Added Subfields to DIF/SERF Reference field

Discussion:

The **Reference** field, currently a free-text field, will contain subfields (listed below). The subfields will permit a more accurate mapping between fields when translating metadata between the DIF, ISO-19115 (ISO), and the Federal Geographic Data Committee (FGDC) standards.

The revised **Reference** field will provide metadata authors with the option to input text using subfields when documenting bibliographic references. A free-text field will continue to be available for metadata authors, who wish to copy and paste citations produced outside of docBUILDER into the **Reference** field.

Metadata authors are encouraged, but not required, to utilize the subfields when developing new metadata. When editing pre-existing documents, the free-text box and the subfields will be available simultaneously in docBUILDER for those authors who wish to transfer their citations to the new format. The new format offers many advantages over the free-text format:

- Streamlines translations of metadata to/from DIF to ISO-19115 and Federal Geographic Data Committee (FGDC) standards.
- Provides compliance with ISO standards while serving the directory.

- Enhanced Capabilities
 - Users may submit fielded queries within the **Reference** field (Example: "Display all data set descriptions where author J. Smith is cited in the Reference/Author field").
 - Functionality to display reference information in multiple reference formats (Examples: American Geophysical Union (AGU), American Psychological Association (APA), etc.)

Added 15 new subfields within the **Reference** field:

Author (s)

Publication Date

Title

Series

Edition

Volume

Issue

Report_Number

Publication_Place

Publisher

Pages

ISBN

DOI

Online_Resource

Other_Reference_Details

Specifications:

Reference: Describes key bibliographic citations pertaining to the data set. Bibliographic citations may be provided in styles used by professional scientific journals such as Journal of Geophysical Research (JGR) and the Bulletin of the American Meteorological Society (BAMS).

Author: The name of the individual(s) or organization(s) with primary intellectual responsibility for the cited resource's development.

Publication Date: The publication/reference date for the cited resource. If the Publication Date is not known, please use "Unknown".

Title: The title (name) of the cited resource.

Series: The name of a resource series, or aggregate (collection) resource of which the cited resource is a part.

Edition: The version of a cited resource.

Volume: The order or sequence of a resource in a series or set.

Issue: The issue number of a resource (usually within a volume).

Report_Number: The unique number or code assigned to a resource by the issuing organization(s).

Publication_Place: The name of the city (and state or province and country if needed) where the resource was made available.

Publisher: The name of the individual(s) or organization(s) that made the resource available.

Pages: The range of pages or total number of pages of a cited resource.

ISBN: International Standard Book Number.

DOI: Digital Object Identifier.

Online_Resource: The URL of the online resource containing the cited resource.

Other_Reference_Details: Additional free-text reference information.

Changes to XML Schema:

- The **Reference** field may be repeated.
- Individual subfields may not be repeated within a single "reference".
- DIF/SERF Syntax Changes

```
<Reference>
  <Author>Text up to 500 characters</Author>
  <Publication Date>Text up to 31 characters, yyyy-
mm-dd format suggested</Publication Date>
  <Title>Text up to 220 characters</Title>
  <Series>Text up to 220 characters</Series>
  <Edition>Text up to 31 characters</Edition>
  <Volume>Text up to 80 characters</Volume>
  <Issue>Text up to 80 characters</Issue>
  <Report_Number>Text up to 80
characters</Report_Number>
  <Publication_Place>Text up to 80
characters</Publication_Place>
  <Publisher>Text up to 500 characters</Publisher>
  <Pages>Text up to 31 characters</Pages>
  <ISBN>Text up to 220 characters</ISBN>
  <DOI>Digital Object Identifier (DOI) up to 220
characters</DOI>
  <Online_Resource>Uniform Resource Locator (URL)
up to 600 characters</Online_Resource>
  <Other_Reference_Details>Text up to 220
characters</Other_Reference_Details>
</Reference>
```

XML Examples:

Reference with subfields:

```
<Reference>
<Author>J. B. Blair, D. L. Rabine, and M. A.
Hofton</Author>
<Publication_Date>1999</Publication_Date>
<Title>The Laser Vegetation Imaging Sensor (LVIS): A
medium altitude, digitization-only, airborne laser altimeter
for mapping vegetation and topography.</Title>
<Series>Journal of Photogrammetry and Remote Sensing
</Series>
<Issue>54, 115-122</Issue>
<Other_Reference_Details>Instrument Citation
</Other_Reference_Details
</Reference>
```

Reference without subfields:

```
<Reference>
Ahmad, S. P., P. F. Levelt, P. K. Bhartia, E. Hilsenrath, G.
W. Leppelmeier, and J. E. Johnson, Atmospheric Products
from the Ozone Monitoring Instrument (OMI), Proceedings
of SPIE conference on Earth Observing Systems VIII, San
Diego, California, Aug 3-8, 2003.
http://disc.sci.gsfc.nasa.gov/acdisc/ozone/docs/omi-spie-
2003.doc
</Reference>
```

Changes to docBUILDER to accomodate Subfields:

docBUILDER will offer the option to edit text within a free-text field or within subfields. See screenshot below:

The following screen capture displays a single Publication/Reference in docBUILDER's edit mode:

Publication/Reference

View Edits

Free-Text

Enter/Edit free-text

[How do I add international characters and special symbols?](#)

OR

Enter/Edit subfields (for improved search and interoperability with other metadata standards.)

Click to close

Author(s) (required)	Mooley, D. A., Parthasarathy, B., Sontakke, N. A., and M	
Publication Date (required)	1981	YYYY (Four digit year)
Title (required)	Annual rain-water over India, its variability and impact i	
Series	J. Climatol	Journal/Book/Proceedings
Edition		
Volume		
Issue	1	
Report Number		
Publication Place		
Publisher		
Pages	167-186	
ISBN		
Publication DOI		
Online Resource		

Other Reference Details

[How do I add international characters and special symbols?](#)

Sub-Fields

Impact:

Metadata authors who do **not** wish to take advantage of the new subfields do not need to take any further action.

The variety of reference formats held in the legacy metadata records make automated mapping impossible. Therefore the **Reference** field information held in the current GCMD/IDN metadata collection **cannot** be automatically mapped to the new format. As a result, authors who maintain their metadata in the GCMD/IDN and wish to leverage the new subfields should manually transfer their bibliographic citations to the new fields through docBUILDER. Metadata providers who produce and maintain their documents externally should use the DIF and SERF XML schemas for validation and the DIF/SERF guides as a reference (See Resources).

Resources:

DIF Guide:

<http://gcmd.gsfc.nasa.gov/User/difguide/>

SERF Guide:

<http://gcmd.gsfc.nasa.gov/User/serfguide/>

DIF XML Schema:

http://gcmd.nasa.gov/Aboutus/xml/dif/dif_v9.8.2.xsd

SERF XML Schema:

http://gcmd.nasa.gov/Aboutus/xml/serf/serf_v9.8.2.xsd

III. Implemented "caching" feature to reduce Google Map latency

Discussion:

This feature was implemented to decrease the potential for latency in loading the Google map in the metadata display during peak Internet usage times. By caching Google maps on the server side, the browser does not access Google maps directly to view the map. Because the cached map is not interactive, users who wish to initiate the interactive map must initially click on the static map.

Specifications:

In the DIF display the Google Map is static. Users click on the map to reveal the interactive map as an in-line image.

Changes to XML Schema:

Not Applicable

Example:

The following screen capture displays the interactive map after the static map was chosen in the DIF display.

Summary
Abstract: The Atmospheric Infrared Sounder (AIRS) is a facility instrument aboard the second Earth Observing System (EOS) polar-orbiting platform, EOS Aqua. In addition to the AIRS, the Aqua satellite also carries the Advanced Very High Resolution Radiometer (AVHRR), the Advanced Microwave Scanning Radiometer 2 (AMSR2), the Humidity Sounder for Brazil (HSB), and the Cloud Profiling Radar (CPR). AIRS consists of a group of visible, infrared, and microwave sensors. AIRS provides global coverage of atmospheric temperature, water vapor, and cloud properties.

Related URL
Link: [GET DATA > MIRADOR](#)
Description: Access the AIRS Level 2 AIRS/Aqua Level 2 Products (AIRS+AMSU) using Mirador.
[Click to view more](#)

Geographic Coverage



(Click for Interactive Map)

Spatial coordinates
N: 90.0 S: -90.0 E: 180.0 W: -180.0

Interactive Map



Impact:

No impact

IV. Provided support for short link to view individual Climate Diagnostic (CD) Visualization Records

Discussion:

Provides a direct link to view individual climate diagnostic records.

Specifications:

Added support for a direct link to access Climate Diagnostic visualization records.

Syntax: http://gcmd.gsfc.nasa.gov/getcd.html?Entry_ID

Changes to XML Schema:

Not Applicable

Example:

The following screen capture shows a Climate Diagnostic record view upon following a direct link.

The screenshot displays a web interface for a Climate Diagnostic record. The header includes the GEOS Climate Diagnostics logo, the title "Aqua/AIRS Carbon Dioxide with Mauna Loa Carbon Dioxide Overlaid 2002-2008", and the entry ID "SVS_AquaAIRS_CO2_MaunaLoa2002-2008". A "Beta" badge is visible in the top right corner. Navigation links include "View Full Record", "View Text Only Format", "View Visualization", "Update this Record", and "Contact Us".

The main content area is divided into two columns. The left column contains metadata:

- Visualization Information:**
 - [Visualization URL](#)
 - [Visualization Thumbnail](#)
 - Visualization Type:
 - 2-D Visualization > Time Series
 - 3-D Visualization > 3-D Time Series
 - 3-D Visualization > Trend Surface Analysis
 - Analysis Type:
 - Statistical Method/Geostatistics > Trend Analysis
 - Format: MPEG
 - Visualization Duration: 39 Seconds
- Visualization Citation:**

Visualization Creator: Chahine, M. T., L. Chen, P. Dimotakis, X. Jiang, Q. Li, E. T. Olsen, T. Pagano, J. Randerson, Y. L. Yung, S. Uninnayar, L. Perkins and G. Shirah
Visualization Title: Aqua/AIRS Carbon Dioxide with Mauna Loa Carbon Dioxide Overlaid
Visualization Release Date: 2009-11-17
Visualization Publisher: Geophysical Research Letter
Issue Identification: 35
[Online Resource](#)
- ▶ Summary
- ▶ References
- ▶ Visualization Provider
- ▶ [View Full Record](#)

The right column features a visualization titled "AIRS Mid-Tropospheric Carbon Dioxide". It shows a global map with a color scale for CO2 concentration (ppmv) ranging from 364 to 386. A line graph is overlaid on the map, showing the Mauna Loa CO2 concentration (MLO CO2) from 2002 to 2008. The graph shows a clear upward trend, with a label "Mar 2005" indicating a specific point in time. A playback control bar is visible at the bottom of the visualization.

Impact:

No impact