

Spatial Data Metadata Workflow using ArcCatalog - ISO Minimum Requirements

Scope

This document outlines the basic policies and procedures for updating existing metadata or creating new metadata that describe spatial vector and raster data using Esri ArcCatalog version 10.2.2.

The elements included here are mandatory under the ISO 19115 standard.

You can create templates that contain the information common to multiple files. The templates can be imported first, and then only the dataset-specific information needs to be added.

ArcCatalog Checklist

Set ArcCatalog to use the ISO 19139 metadata schema

- Click the 'Customize' tab and select 'ArcCatalog Options'. In the dialog box, select the 'Metadata' tab. Select 'ISO 19139 Metadata Implementation Specification' from the drop-down menu if it is not already selected. Click 'OK'.

Update metadata auto-supplied fields if necessary

- **Does an extent appear in the metadata?** (The extent should be listed under the fifth heading in the Description view.) If no:
This may mean that other auto-supplied information is not up-to-date as well. To update the auto-supplied information, follow these steps:
 - Update (synchronize) the metadata so that all auto-supplied fields are (re)populated. In the 'Geoprocessing' menu, click on 'Search for Tools'. Type in "synchronize metadata" in the text box. Select the 'Synchronize Metadata (Conversion)' tool from the results list. For 'Source Metadata', select the file that you are updating. For 'Synchronize Type', select NOT_CREATED. This will just update the metadata and nothing else (but will overwrite the Title field in the metadata with the file name). When it has finished running, the extents should appear in the metadata.

Overview section

These instructions are written in the order that elements appear in ArcCatalog edit mode for ISO 19115. Click the 'Edit' button to begin editing the metadata. (These instructions are written with the assumption that the user is in Edit mode within a metadata record in ArcCatalog.)

NOTE: If an element in ArcCatalog does not appear here, it is optional.

Item Description

- **Title - mandatory**
 - The title should describe the data's theme, geography, and ground condition/situational date in a human readable form.

- The filename is not an appropriate title.
- Don't use abbreviations. Spell everything out.
- **Description or Abstract - mandatory**
The metadata must include an abstract. Write a brief description of the data, such as what the features represent. Things to include:
 - subject of the dataset and what the features represent
 - geographic extent
 - form of the dataset (examples: polygon shapefile, point feature class, raster, geoTIFF image)
 - time period represented by the features
 - other relevant information

Example

The points in this shapefile represent the locations of soil samples, and were created using a GPS device. The locations are within the Sierra National Forest, California, collected between June 2011 and August 2012.

- **Bounding Box - mandatory**
If the dataset has geospatial coordinates, the extents of the dataset should be automatically shown here. If they are not, see the "Update metadata auto-supplied fields if necessary" section in the tip box above.

Topics and Keywords

- **Topic Categories - mandatory**
Click the boxes next to the appropriate keyword(s).
- **Theme Keywords - mandatory**
Add words that describe the subject of the data, especially beyond what is listed in the title
- **Place Keywords - mandatory**
This is the geographic location of the data.

Citation

- **Collective Title - recommended if applicable**
This field might be used to record the name of the geodatabase or collection from which the dataset comes.
- **Dates - mandatory**
Publication date is required.
Publication date is the date when the data set is published or otherwise made available for release. If the month and/or day are unknown, enter 01. However, if the date is unknown, there is no way to specify that here, so leave the field blank.

Examples:

October 10, 1995 = 1995-10-10
 May, 2010 = 2010-05-01
 2013 = 2013-01-01
 Unknown - leave blank in ArcCatalog

Citation Contacts

The **originator** and **publisher** are **mandatory if applicable**. If either are unknown, enter "Unknown" in the Organization text field.

- **Name or Organization - mandatory**
The personal name and/or organization name of the creator/originator should be entered in the appropriate field.
- **Role - mandatory**
Choose from the drop-down list.

Metadata section

Details

- **Date Stamp - mandatory**
The date should have been generated automatically

Contacts

- **Metadata contact - mandatory**
One metadata contact organization (or person) and role are required.
 - The original metadata creator should be entered as the *Originator*.
 - **Name or Organization - mandatory**
The personal name and/or organization name of the creator/originator should be entered in the appropriate field.
 - **Role - mandatory**
Choose from the drop-down list.

Resource section

Resource Extents

- **Temporal Period Extent - mandatory if applicable**
If it is relevant to record a date range for the situational date of the dataset (especially if the date range is different from the publication date), enter it here. Otherwise, leave it blank.

Resource Constraints

- **Legal Constraints - Use Limitation - mandatory if applicable**
If there are legal constraints, click the green plus next to 'New Use Limitation' to add a text box. Enter text describing any access and/or use constraints that are identified by the drop down boxes below (Access/Use Constraints). Access and use constraints can be combined in the same text box.
- **Legal Constraints - Access Constraints - mandatory if applicable**
This indicates whether the dataset is publicly available or restricted by license. Use the drop-down list to select the appropriate constraint. If "unknown" or "none", select "Empty".
- **Legal Constraints - Use Constraints - recommended**
These are specific rules regarding how the data can be used, such as regarding derivative works or re-publication. Use the drop-down list to select the appropriate constraint. If

"unknown" or "none", select "Empty".

Spatial Reference

- **Spatial Reference System - optional**
This should be auto-supplied by ArcCatalog.

Distribution

- **Format name - mandatory**
This should be auto-supplied by ArcCatalog. An example is "Shapefile".

Fields

The entity and attribute information should be filled out as best as possible.

- **Label - mandatory**
This should be the file name without the extension (i.e. lakes, not lakes.shp). Each time the metadata is refreshed by ArcCatalog (for example when using the "Synchronize Metadata" tool, but not when just saving after edits), this field is replaced with the current file name.
 - Entity type:
 - **Object**
This should be automatically entered by ArcCatalog.
 - **Definition - mandatory**
This defines the entity. (Examples: "Lakes and rivers wide enough to be represented as polygons in the Maya Biosphere Reserve"; "Roads of California")
 - **Definition source - optional**
Optionally, enter the name of the organization creating the definition (such as Facilities)
 - **Attribute labels and definitions - mandatory if applicable**
The labels should be provided by ArcCatalog, but the definitions should come from the data creator.
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