

Geospatial Metadata

Metadata Standards – RESOURCES

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Essential Metadata Components - RESOURCE

The RESOURCE chapter
contains the following
sections:

Details

Service Details

Extents

Points of Contact

Maintenance

Constraints

Spatial Reference

Spatial Data Representation

Content

Quality

Lineage

Distribution

Fields

References

Geoprocessing History

Essential Metadata Components – RESOURCE

The RESOURCE chapter is the primary section for describing the SPATIAL AND NON-SPATIAL DATA associated to the metadata document.

This chapter includes the sections to identify the data maintenance schedule, the content and quality of the data, the data creation process, and the non-spatial attributes.

The RESOURCE chapter will, almost always, take the most time to complete.

Essential Metadata Components - RESOURCE

Details Section

Status: This field describes the current readiness of the dataset. Generally speaking, if a dataset is complete enough to already have metadata, this field should be set to Completed.

Spatial Representation Type: This dropdown field should describe the format of the dataset. It will usually be set to either Vector or Grid and should be automatically completed by ArcCatalog.

Processing Environment: This field describes the Operating System and Software involved in the creation of the dataset. It will be automatically completed by ArcCatalog.

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Extents Section

Details: This field should briefly describe – in text – the physical and temporal extent of the data.

Bounding Box: This field should list the geographic extents of the dataset. It is automatically completed by ArcCatalog and should exactly match the Bounding Box fields from the OVERVIEW Item Description section.

Temporal Period Extent OR Temporal Instant Extant: One temporal extent must be added and completed in the RESOURCE Extents section. The extent selected – period or instant – should be determined by whether or not the dataset represents a single snapshot in time or a series of dates. In many cases, this field can be set to match the last date that edits were made to the dataset.

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Points of Contact Section

As with the previous contacts sections, the RESOURCE point of contact should, at a minimum, include the name, organization, role, email, and phone number of a point of contact.

It is up to your organization whether or not the RESOURCE point of contact will be the same person as the OVERVIEW and METADATA point of contact.

As previously discussed, there are advantages and disadvantages to identifying a specific individual as the point of contact for this section.

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Maintenance Section

Update Frequency: As with the METADATA Update Frequency field, this dropdown should be set to reflect the expected update schedule for the dataset.

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Spatial Reference

This section is used to describe the type and authority of the spatial reference of the data

Quality Section

For this section to be considered complete, a Conceptual Consistency and a Completeness Omission Report must be added using the New Report button.

The Conceptual Consistency Report should be used to record the logical consistency of the dataset and note any irregularities from what would be considered normal GIS practice. For instance, if there are any known duplicate features, those should be noted here.

The Completeness Omission Report should declare whether or not any real world features that may have been included in the dataset were left out.

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Lineage Section

Depending on the dataset, the Lineage section may require a significant time commitment to complete. This section should describe, in as much detail as possible, how the dataset was created.

Statement: This field should be completed with a general explanation of the history of the dataset's creation. It does not need to be exhaustive or a point-by-point description.

Process Step: The New Process Step button should be used to add a Process Step subsection to the metadata. A Process Step should be added for each MAJOR activity from the dataset's creation. Each Process Step is, itself, composed of many multiple fields, including descriptions for the process step, explanations of the rationale for the process step, and datasets used during the process step. All of these should be filled out as completely as possible, which can be difficult if the metadata author is not the same person as the dataset creator. As such, it is paramount that the dataset creator either fill this section out, or keep thorough notes on the process.

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Distribution Section

The Format Name field should be automatically completed by ArcCatalog.

The Format Version field should be completed by the metadata author. This field should provide a name or identifier to the version of the data that is, or will be, distributed.

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Fields Section

ArcCatalog will add a new Attribute subsection for every attribute in the dataset's attribute table. Several of the fields within each Attribute subsection will be automatically completed by ArcCatalog, such as the attribute Name, Alias, Type, Width, Precision, and Scale.

For every Attribute subsection, the metadata author must complete the Definition and Definition Source fields and must add and complete one of the four Domain fields.

The Definition field should describe what the attribute is a measurement of.

The Definition Source field should describe the agency which developed and populated the field. In most cases, this will simply be the name of whatever agency or organization developed the dataset.

The Domain field(s) explain how the attribute data are recorded. For example, if the attribute field is populated by coded values, each possible code should be listed and defined. If the attribute fields are populated by a finite range of values, that range should be clearly described.

Creating geospatial metadata – Metadata Fields

Ultimately, the single biggest time commitment of completing good geospatial metadata are the non-spatial attributes.

Depending on the dataset, the number of attributes, organizational requirements, the attribute types, and the range of possible values, fully describing the non-spatial attributes may take longer than the rest of the metadata combined.

▶ Questions?