



Converting FGDC Metadata to ArcGIS Metadata using ArcCatalog 10.x to Enable Data Archiving

January 6, 2013 (Papineau)

Document status: Final

The process below accomplishes three metadata tasks necessary for archiving data at Montana State Library. It offers guidance regarding embedding/managing ArcGIS metadata, removing read-only, outdated FGDC metadata, and removing other outdated metadata that is no longer maintained in the geodatabase.

If you maintain metadata inside ArcCatalog you should only need to go through this process once for each geodatabase. If you maintain metadata outside of ArcCatalog, you will need to repeat some of these steps with each issue of your data.

1. Set up your ArcCatalog instance to display FGDC CSDGM metadata. (Customize>ArcCatalog Options>Metadata tab>Metadata Style). Leave the Metadata Updates and the Metadata Upgrade Notification checkboxes set.
2. Convert your geodatabase's maintained metadata to ArcGIS metadata. If you have complete metadata managed outside of your geodatabase, skip to Step 6. If you've already converted this metadata to ArcGIS, proceed to Step 3. Otherwise, convert your geodatabase embedded FGDC metadata to ArcGIS metadata by either following prompts in ArcCatalog, by using the Upgrade button, or by using the Upgrade Metadata tool in the ArcGIS Toolbox>Conversion Tools>Metadata toolbox.

Once converted, the ArcGIS metadata is accompanied by the original FGDC metadata, grayed out (Read-Only), at the bottom of the metadata record.

3. Modify the ArcGIS metadata using ArcCatalog. If you only maintain one metadata record for a geodatabase with multiple feature classes and tables, ensure that the metadata adequately describes each feature class and table in the geodatabase.

Note: For geodatabase entities with redundant or outdated metadata that you no longer maintain, later steps below advise you on how to remove that metadata to avoid presenting conflicting information.

4. Repeat Steps 2 and 3 for each entity (GDB, dataset, feature class, table) that has metadata you maintain.
5. Copy your geodatabase and set the copy aside.
6. Return to your *master* geodatabase and follow the steps below to import a copy of your complete metadata which will remove the grayed-out, read-only FGDC metadata at every entity that metadata is maintained:
 - a. In ArcCatalog, navigate to the *master* geodatabase, select an entity with maintained metadata and display its Description.

Note: If the metadata in the master geodatabase has not been converted yet (i.e. you skipped to this step from Step 2 because you've been maintaining metadata in a separate XML file), you may be asked if you want to convert the metadata once it's displayed. There is no need to convert the master geodatabase's metadata at this step. The import process below does the conversion at the same time it removes any unwanted FGDC content.

- b. Click Import. Alternatively, you can use the toolbox tool "Import metadata" which offers the same dialog box (ArcToolbox>Conversion Tools>Metadata). Do not use the tool "Metadata Importer." It won't get rid of the undesirable FGDC content.
- c. Choose Source Metadata: Navigate to the *copy* of your geodatabase at the entity with corresponding complete metadata. Alternatively, you can select a Montana Data List-compliant XML metadata file if you've been maintaining metadata outside of ArcCatalog.
- d. Choose Import Type: Choose From_ArcGIS if you're importing from a converted copy of your geodatabase or select From_FGDC if you're importing from an FGDC XML file.

Note: if you're importing from an FGDC XML file, you may find a log file (created from one or more XML files) recording results of your import process.

- e. Choose Target Metadata: Navigate to your *master* geodatabase and to the entity needing this metadata.
- f. Leave the Enable automatic updates checkbox set.

- g. Click OK to run the tool.
 - h. Quality-check the *master* geodatabase entity's imported metadata. In addition to ArcGIS metadata that you'll be maintaining, the grayed-out FGDC section (bottom) should only have Entity and Attribute entries (with raster datasets, it may have Spatial Data Organization and Spatial Reference too). This grayed-out information is tied directly to the corresponding ArcGIS metadata fields and it will update as the data/metadata changes.
 - i. In the *master* geodatabase, check the Citation>Publication Date and the Extent date ensuring these are correct. Know that ArcGIS metadata conversions and imports may not bring forward these dates from the FGDC. ArcCatalog v10.x also changes a simple year citation (or a month/year citation) to become a complete year-month-day citation. It interprets the complete date for you to be the beginning of the year (or the beginning of the month), which may create date information conflicts. For reference, here are the mappings:
 - **FGDC's** Citation>Citation Information>Publication Date = **ArcGIS** Citation>Publication Date
 - **FGDC's** Time Period of Content information = **ArcGIS** Extent date information

If you have an Extent date, and it is identified as a publication date, it must not be different from the Citation>Publication Date. If it is clearer to simply not populate the Extent section with a publication date (FGDCs Time Period of Content publication date), that's fine. The Montana Data List does not require this field to be populated. If your Extent date is a ground condition date, include it in the form: year-month-day.
 - j. Repeat Steps a through i for each entity of your geodatabase where you maintain metadata.
7. (Optional) For *master* geodatabase entities that have metadata, but you no longer maintain it there, clean out that metadata:
- a. With un-maintained metadata displayed, click Import. Alternatively, you can use the toolbox tool "Import metadata" which offers the same dialog box (ArcToolbox>Conversion Tools>Metadata). Do not use the tool "Metadata Importer." It won't convert the metadata to ArcGIS metadata.
 - b. Choose Source Metadata: Navigate to the "Refer to XML" template file and choose that as your source metadata "GeoInfo\Metadata\Tools-Instructions-Standards\MetadataTemplate_v10_forMSLdata\msl_metadataReferToXML_Template.xml". This XML template has very little content and it adds text to refer the user to the FGDC XML metadata file that will accompany the dataset.
 - c. Choose Import Type: Choose From_FGDC.

- d. Choose Target Metadata: Navigate to the *master* geodatabase to the entity needing metadata removal.
 - e. Leave the Enable automatic updates checkbox set.
 - f. Click OK to run the tool.
 - g. Check the geodatabase entity's embedded ArcGIS and FGDC metadata. It should be nearly blank (just ArcGIS automatic updates and FGDC Entity/Attributes) and its Summary will refer to the XML metadata record.
8. When you're certain your *master* geodatabase has the publication- and archive-ready metadata, delete the geodatabase copy you made.
 9. (Optional) If you're publishing the data or submitting it to the MSL Archive, export Montana Data List-ready FGDC XML metadata record(s) from your master geodatabase:
 - a. From ArcCatalog with the metadata you want to export displayed, click Export.
 - b. Choose Source Metadata: Confirm that the source is the metadata you want.
 - c. Choose Translator: Navigate to and select the ArcGIS2Portal XML file ("GeoInfo\Metadata\Tools-Instructions-Standards\MetadataTranslatorFor_v10\ArcGIS2Portal.xml").
 - d. Choose Output File: Navigate to a location where you can find this file, name it well, and add the .xml extension.
 - e. Run the tool.
 - f. Validate the XML file using the Montana Data List.
 - g. Repeat Steps a through f for each entity you are publishing or archiving.