

Best Practices – Using ArcCatalog 10 FGDC Metadata Style to Create MGMG Commons-Compatible Metadata

The ArcCatalog metadata toolset can be used to create metadata for the Minnesota Geospatial Commons. You must select the "FGDC-CSDGM" Metadata Style, and export the XML from native ArcGIS to FGDC format. This page describes a method to do this, including best practices for filling in specific metadata elements in the ArcCatalog editor.

Basic Steps

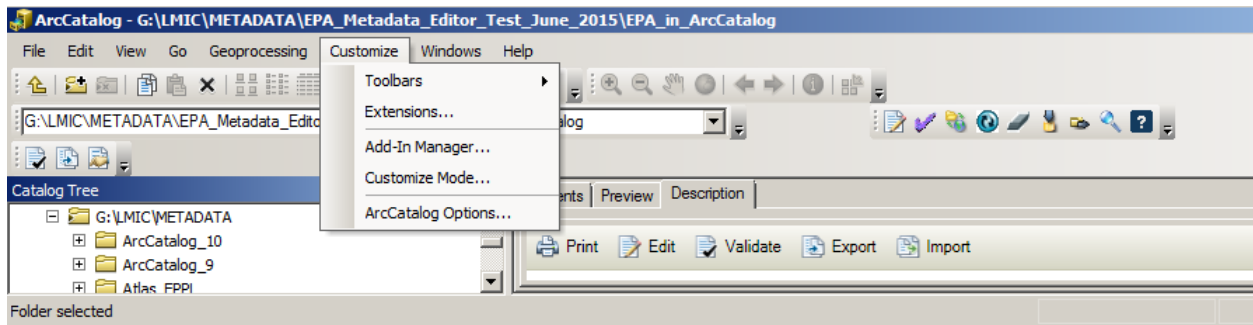
- Choose FGDC Metadata Style:
ArcCatalog>Customize>ArcCatalog Options>Metadata>Metadata Style: Choose from pulldown: "FGDC-CSDGM Metadata"
- Enter metadata elements into the (ISO) Editor form, and save edits
- When all metadata elements have been entered, create an FGDC format XML:
 - Export from the metadata form or toolbox: Export uses translator "ARCGIS2FGDC". (This is the default if you have chosen the FGDC style).
- Validate FGDC XML format for acceptable Commons content by using the Commons Data Resource Validation tool.
 - This is NOT one of the internal ArcCatalog validation tools available in ArcToolbox. The Commons tool is available as an Esri Add-in.
 - From this Commons App Resource <https://gisdata.mn.gov/dataset/mgc-resource-editor> you need the Data Resource Validation Add-in.
- Create an HTML document:
 - In ArcCatalog: An HTML file can be created – using the "FGDC Classic" format, using the ArcToolbox Tool, "USGS MP Metadata Translator":
 - Toolbox>Conversion Tools>Metadata>"USGS MP Metadata Translator". Use your FGDC-format XML file to create this.
 - In Minnesota Metadata Editor: Import XML into MME and create the HTML in MME for the MGMG HTML format.
 - Tools>View Metadata as HTML
- Rename as metadata.xml and metadata.html. As you are creating your metadata it may have a descriptive name such as "eusa.xml" (for Electric Utility Service Areas). When you move it into your final Commons data resource folder configuration it must be renamed, simply, metadata.xml (and .html)

Upgrade Metadata

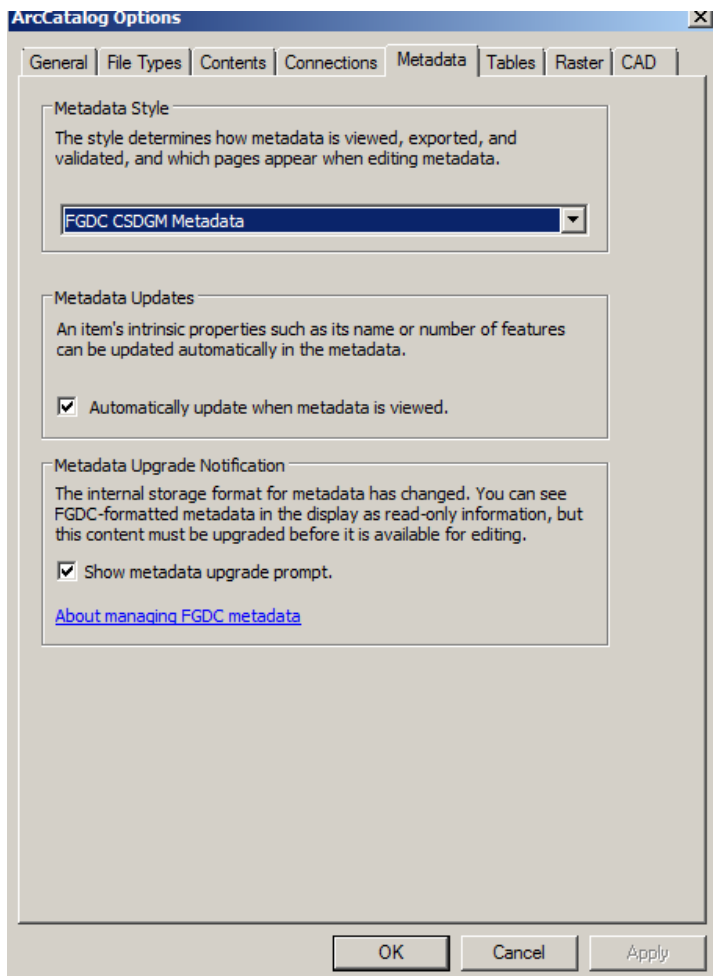
If you are creating metadata from scratch using ArcCatalog you do not need to do this step. If you are importing an xml format metadata record that you produced elsewhere, you will need to use the "Upgrade Metadata" routine to translate the record into ArcGIS's internal metadata XML format.

Set up ArcCatalog Metadata Options to use the FGDC-CSDGM Metadata Style

ArcCatalog>Customize>ArcCatalog Options>Metadata>



Make sure that your Metadata Style is set to "FGDC CSDGM Metadata" (populate from pulldown list)



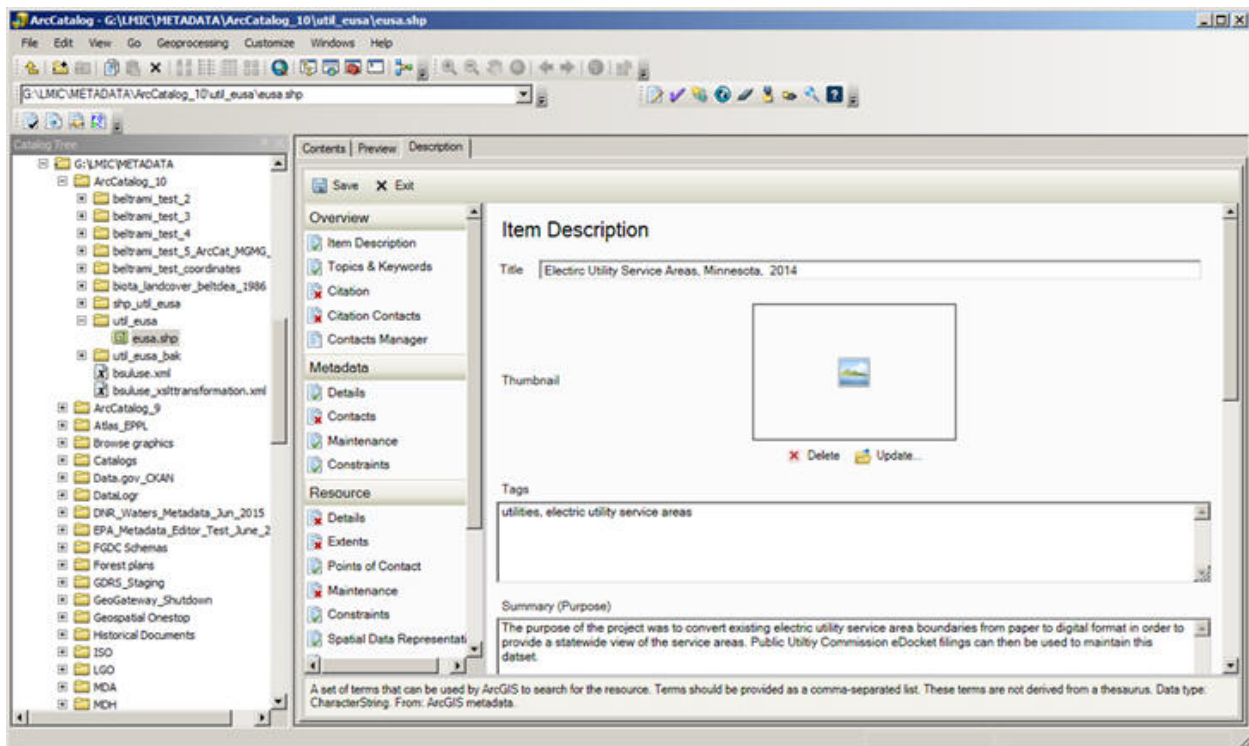
Enter metadata elements into the (ISO) Editor form

If your default metadata style is "FGDC", then the editor that appears when you choose to Edit metadata is the ISO editor. The ISO editor can be used to create full ISO metadata as well as FGDC metadata. Within ArcCatalog, if your metadata style is FGDC, then the ISO editor appears, with hints as to which fields are necessary to populate for full FGDC. For each section, those fields are highlighted in pink, and the top of the page will indicate which fields need to be filled in to support FGDC minimum requirements. As you fill them in, the pink highlights will disappear.

The metadata fields used in the Minnesota Geographic Metadata Guidelines (MGMG) are a subset of the fields used in the full FGDC CSGDM standard. ArcGIS has tutorials on how to use their basic editor to input FGDC data. (See Arc Help Files [What is Metadata](#) and [Creating and Managing FGDC Metadata](#)) Metadata fields need to be filled in in accordance with MGMG Minimum Guidelines. You only need to fill in the subset of FGDC fields that are needed to meet the MGMG Guidelines: *Metadata Requirements for the Minnesota Geospatial Commons* – June, 2015:

http://www.mngeo.state.mn.us/councils/statewide/Commons_MGMG_element_requirements_recommendation.pdf.

The Esri document, *Creating and Managing FGDC Metadata*, does a good job of describing steps to fill out the minimum metadata requirements for FGDC. However, for certain metadata fields there are certain practices that are needed to assure that the metadata you enter will be correctly recognized by MGMG. This is necessary because, in a few cases, MGMG chose to implement just one of multiple options in FGDC, or used FGDC tags in a non-standard way. These fields, and recommended practices for entering the data, are described under "Tips and Tricks" in the next section.



Populating Metadata Fields for the Commons – Tips and Tricks

For certain metadata fields there are certain practices that are needed to assure that the metadata you enter will be correctly recognized by MGMG. This is necessary where MGMG chose to implement just one of multiple options in FGDC, or used FGDC tags in a non-standard way.

Time Period of Content <timeperd> and Currentness Reference <current>

For Time Period of Content, the FGDC standard enables the entry of either a single calendar date or a range of dates. The MGMG standard implements only the single calendar date. If the user enters the range date option instead, MGMG validation will return a warning. Although metadata is still valid enough to be published to the Commons, there will be data presentation issues on the dataset's Data Resource page.

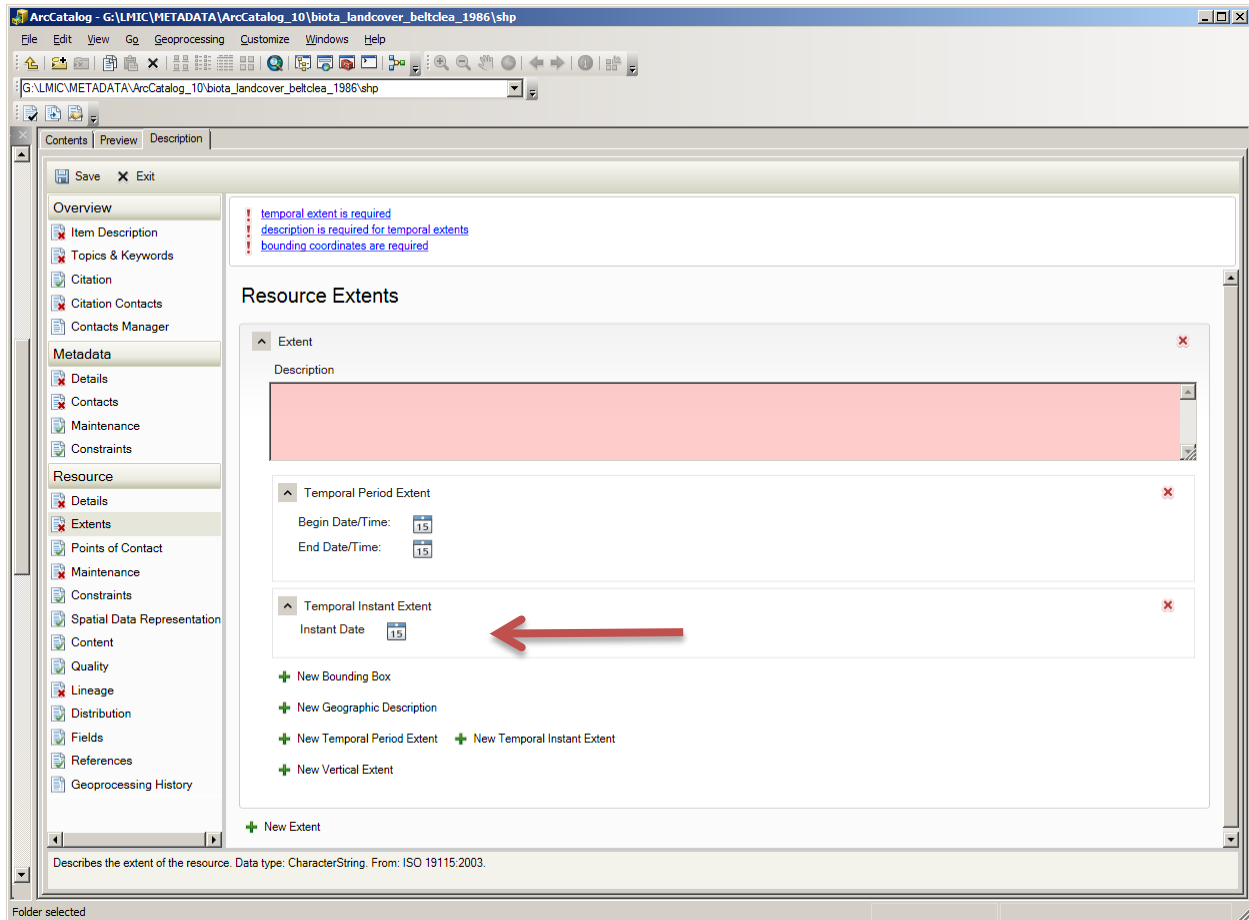
Single Date representation in an XML document:

```
- <timeinfo>
  - <sngdate>
    <caldate>1986</caldate>
  </sngdate>
</timeinfo>
```

Range of Dates representation in an XML document:

```
- <timeinfo>
  - <rngdates>
    <begdate>19950711</begdate>
    <enddate>20140901</enddate>
  </rngdates>
</timeinfo>
```

ArcCatalog/FGDC input form allows input of either date ranges or single calendar date, under the metadata section, "Resource Extents". For a range of dates, use the "Temporal Period Extent". For a single calendar date, use the "Temporal Instant Extent". ***If appropriate to your data set, use the Single date ("Temporal Instant Extent") option since that is what MGMG is looking for.*** There are times when the range of dates option is more appropriate to the data set being described. Since not using the single date generates just a warning, this does not prevent metadata validation in the Commons.



There is a presentation issue in the “Additional Information” section on the Commons Data Resource page, even if not using the single date <caldate> does not cause validation to fail. Under “Additional Information”, on the Commons Data Resource page, if there is no <caldate>, then the currentness reference information <current> is used in place of the non-existent <caldate>. In this case, the metadata editor may have entered something perfectly reasonable, but it makes no sense on the “Additional Information” page.

To prevent that from happening, if you used the range of dates tags instead of the single date tag, re-enter the beginning date and ending date that you entered into the <rngdate> tags into the Currentness Reference <current> tags, then provide any additional text information you want in the Currentness Reference section. Filling in the pink-highlighted “Description” field in the ISO editor, along with one of the temporal date fields, will populate the “Currentness Reference” tags. That way, your publication dates information – and any extra descriptive information - will still appear on the Data Resource Page.

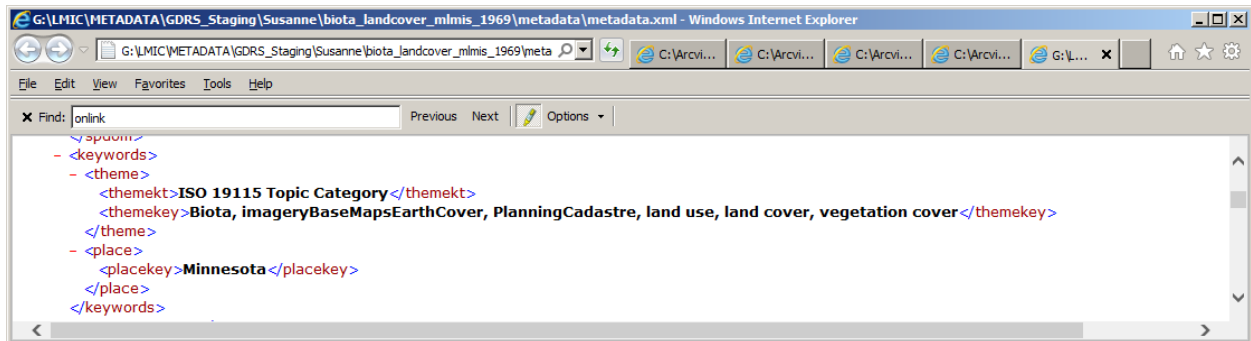
Note that, if you provide a metadata html generated from your full fgdc metadata in “FGDC Classic” format, then the date range information that you provided will also show up there.

Theme Keywords <themekey> and Theme Keyword Thesaurus <themekt>

MGMG records often use the “ISO 19115 Topic Category” as the theme keyword thesaurus, but other theme lists are acceptable. It is not necessary to fill in the Theme Keyword Thesaurus field.

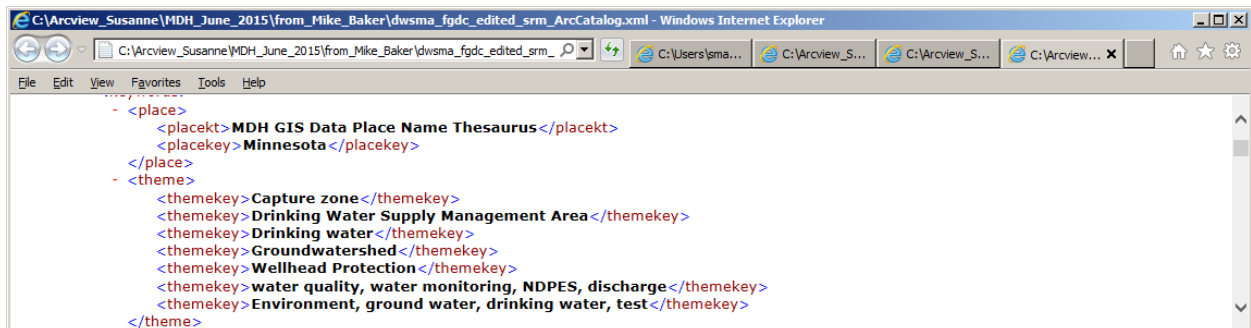
The FGDC standard generally puts each separate theme keyword within its own set of tags. MGMG presents its theme keywords in one entry in a comma-separated list, with the first entry generally being an ISO topic category keyword. It is possible to enter multiple theme keywords into one entry in the ArcCatalog/FGDC form, and this works better for the Commons. If the user enters one per theme keyword tag, only the first entry will appear in the Commons. This will not cause a failure of validation, but will mean that less of the information that you have entered in your metadata will appear in the Commons. This would particularly affect “tags” that appear in the Commons and search functionality. The more keywords recognized by the Commons, the better the search will work.

MGMG MME Example – ISO Theme Keywords first, all keywords in one entry:



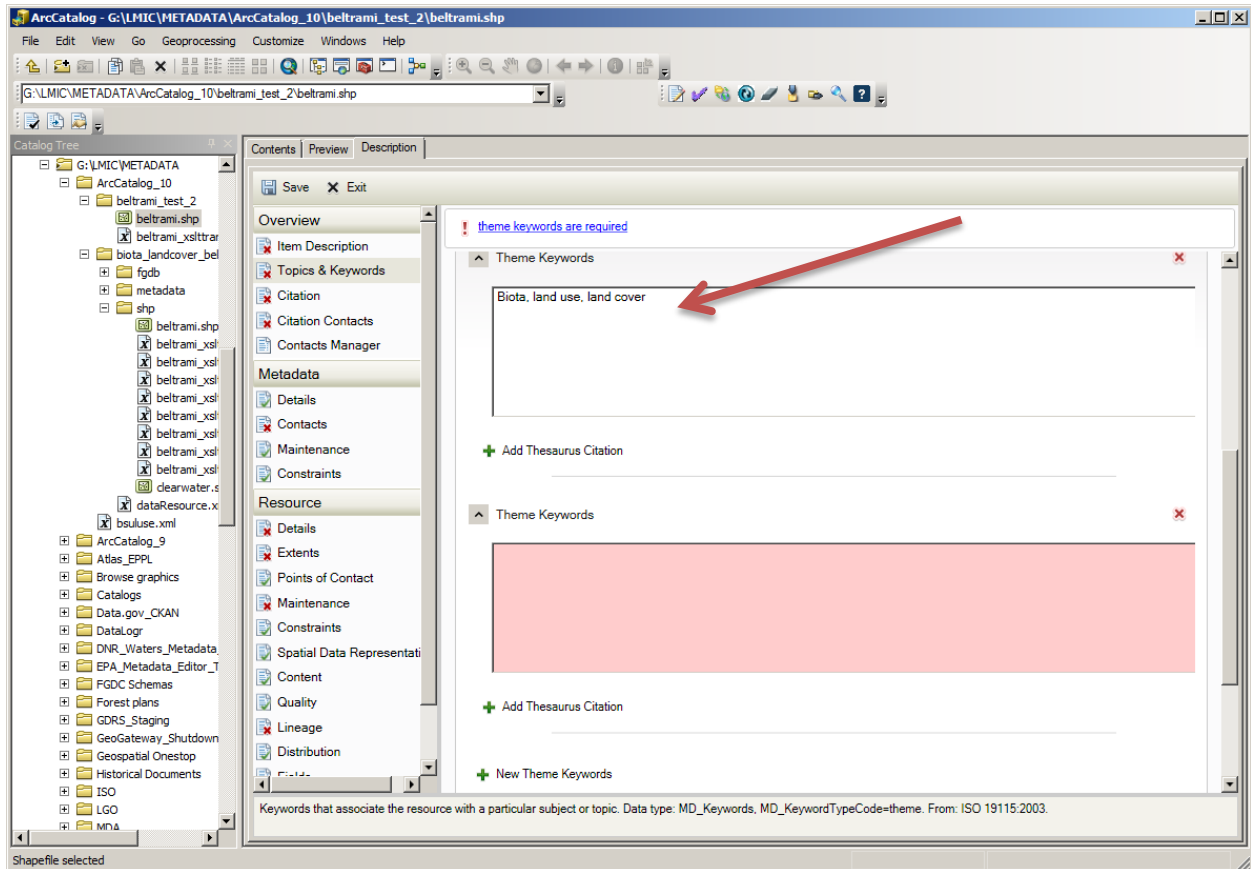
```
<?xml version="1.0" encoding="UTF-8" ?>
<spoon>
  <keywords>
    <theme>
      <themekt>ISO 19115 Topic Category</themekt>
      <themekey>Biota, imageryBaseMapsEarthCover, PlanningCadastre, land use, land cover, vegetation cover</themekey>
    </theme>
    <place>
      <placekey>Minnesota</placekey>
    </place>
  </keywords>
</spoon>
```

ArcCatalog FGDC Editor Example



```
<?xml version="1.0" encoding="UTF-8" ?>
<spoon>
  <place>
    <placekey>MDH GIS Data Place Name Thesaurus</placekey>
    <placekey>Minnesota</placekey>
  </place>
  <theme>
    <themekey>Capture zone</themekey>
    <themekey>Drinking Water Supply Management Area</themekey>
    <themekey>Drinking water</themekey>
    <themekey>Groundwatershed</themekey>
    <themekey>Wellhead Protection</themekey>
    <themekey>water quality, water monitoring, NDPES, discharge</themekey>
    <themekey>Environment, ground water, drinking water, test</themekey>
  </theme>
</spoon>
```

In ArcCatalog, it is possible to enter multiple words into a single tag. See example below: in ArcCatalog, under Theme Keywords, enter multiple keywords into the same box. If you put one theme keyword in each data entry box, then each keyword gets its own set of <themekey> tags.



Place Keywords <placekey>

This is the same situation as for Theme Keyword. Unless you enter multiple place keywords into one entry in the ArcCatalog/FGDC form, only the first place keyword will appear in the Commons. This will not cause a failure of validation, but will mean that less of the information that you have entered in your metadata will appear in the Commons. This would particularly affect “tags” that appear in the Commons and search functionality. The more keywords recognized by the Commons, the better the search will work.

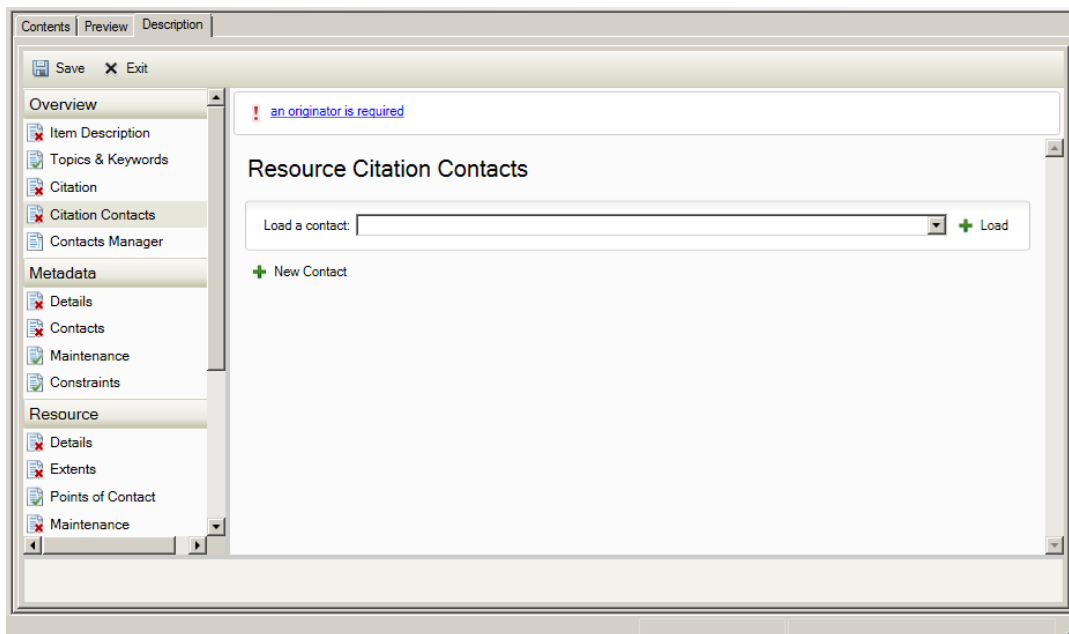
Citation Information: Originator and Publisher

Originator and Publisher fields are filled out in the “Citation” Section of the ISO Editor.

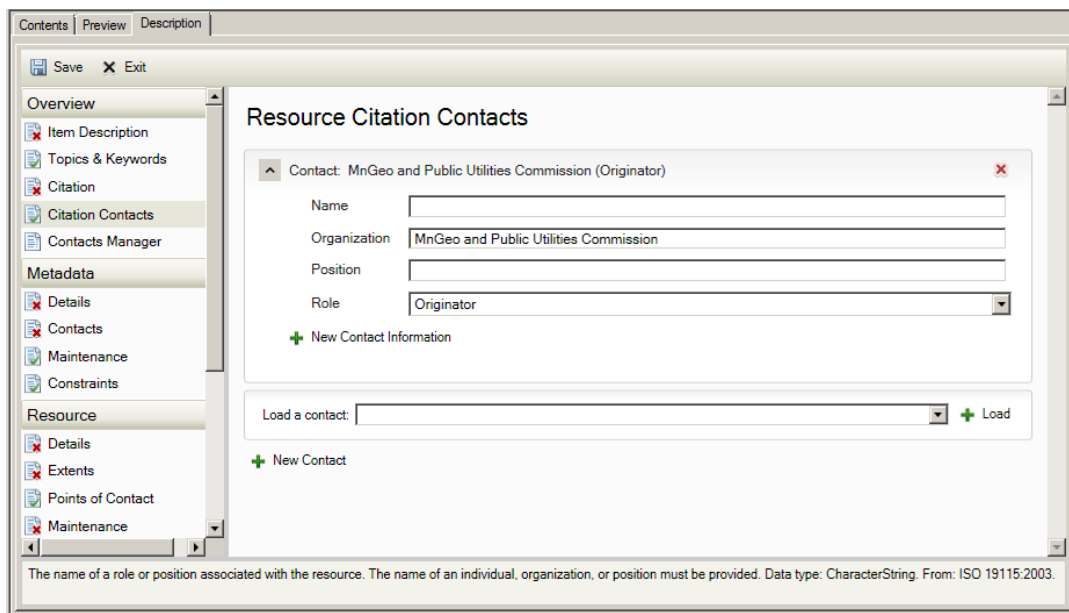
Filling in Originator - Summary:

- **Overview Section>Citation Contacts>+New Contact (opens new contact window)**
- **Fill in Organization and fill in Role = “Originator” using pulldown list.**

Overview Section>Citation Contacts>



Add New Contact (at + sign): Fill in Organization Name and assign Role = "Originator".



This fills in the Origin tag in the citation portion of the xml like this:

```

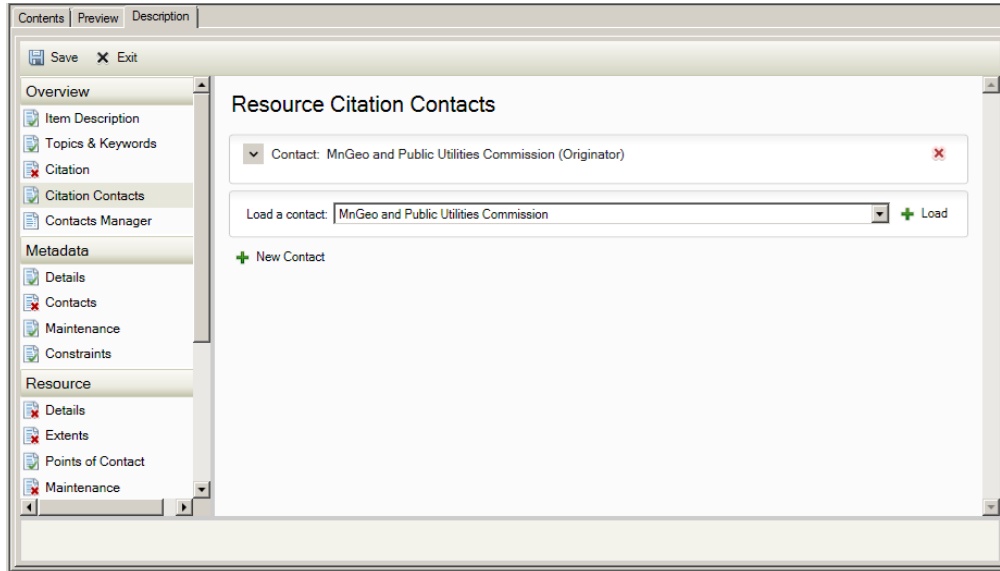
- <idinfo>
- <citation>
- <citeinfo>
  <origin>MnGeo and Public Utilities Commission</origin>
  <title>Electric utility Service Areas, Minnesota, 2014</title>
  <geoform>vector digital data</geoform>
</citeinfo>
</citation>

```

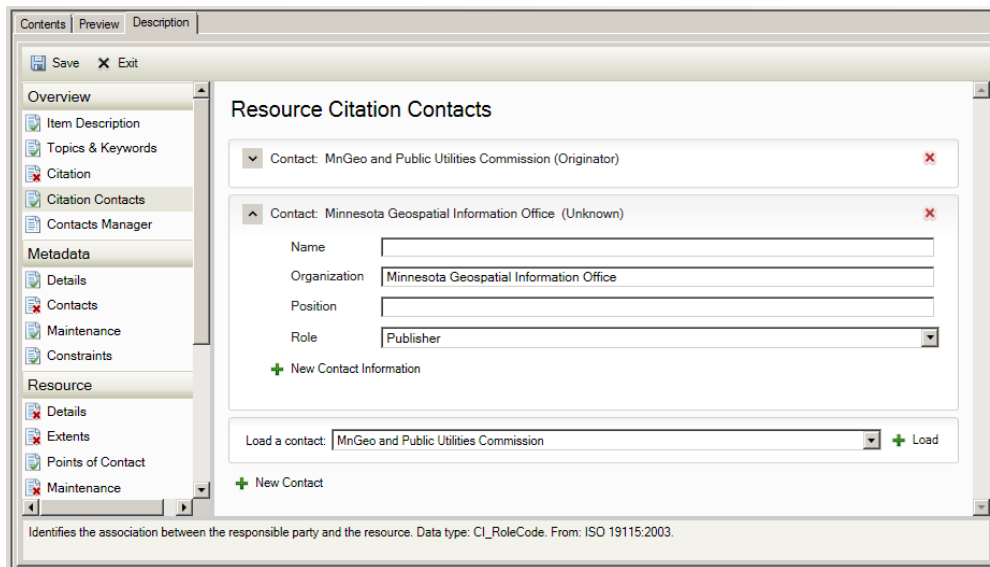

Filling in Publisher - Summary:

- **Overview Section>Citation Contacts>+New Contact (opens new contact window)**
- **Fill in Organization and fill in Role = “Publisher” using pulldown list.**

Overview Section>Citation Contacts>



Add New Contact (at + sign): Fill in Organization Name and assign Role = “Publisher”.



This fills in the Publisher tag in the citation portion of the xml like this:

```
- <pubinfo>  
  <publish>Minnesota Geospatial Information Office</publish>  
</pubinfo>
```

Contact Information (Resource Information Contact, Distribution Contact, Metadata Contact)

Contact information appears in three places in the metadata: Data Set Contact, Distribution Contact, and Metadata Contact. These contacts may all be the same person/organization or different persons/organizations. For full validation, MGMG requires that the contact organization, contact phone, and contact email be filled in for each set of contacts. Contact person name and position are desirable, but not mandatory.

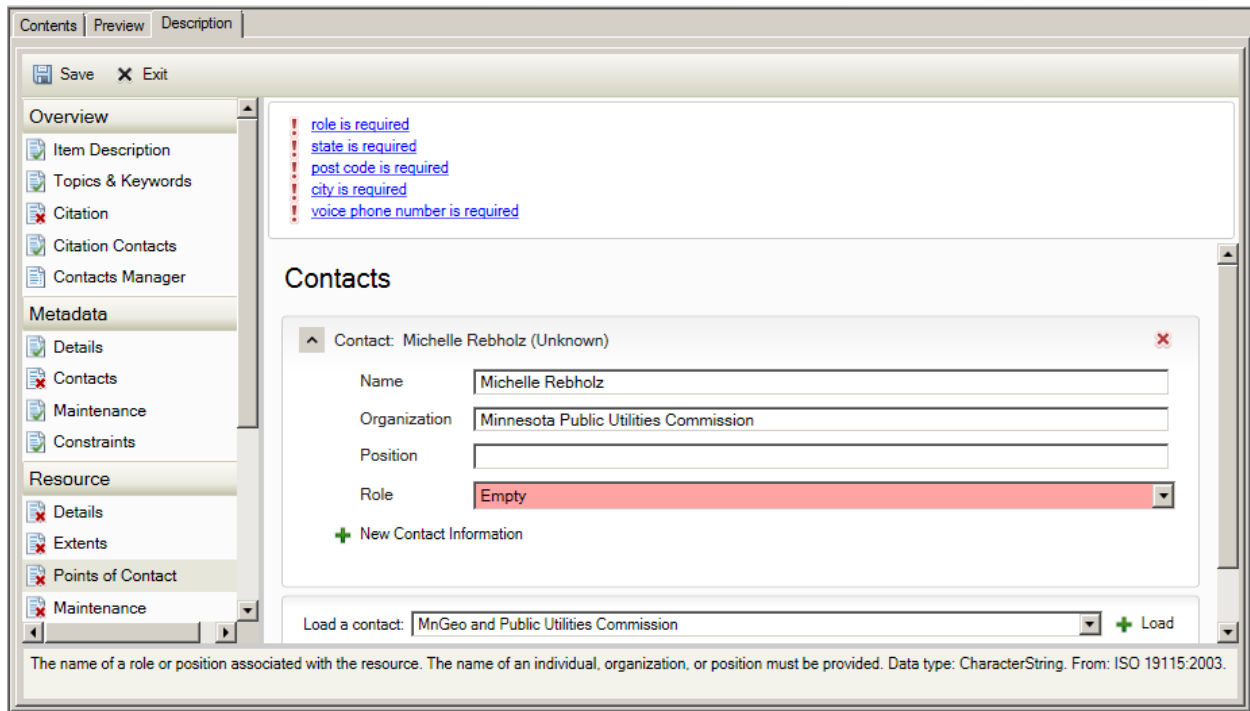
Filling in Section 1 Contact - Summary:

- **Resource Section>Points of Contact>**
 - **An empty Contact window is already open.**
- **Fill in Name and Organization (Position is Optional). Role is not required in MGMG.**
 - **When you leave Role blank, XML for MGMG is fine**
 - **Don't think Role is required here for FGDC either even though the field is highlighted in pink, which usually indicates an FGDC requirement.**

Resource Section>Points of Contact>

The screenshot shows the MGMG software interface. The main window has tabs for 'Contents', 'Preview', and 'Description'. Below the tabs is a menu bar with 'Save' and 'Exit'. The left sidebar contains a navigation tree with sections: 'Overview' (Item Description, Topics & Keywords, Citation, Citation Contacts, Contacts Manager), 'Metadata' (Details, Contacts, Maintenance, Constraints), and 'Resource' (Details, Extents, Points of Contact, Maintenance). The 'Points of Contact' section is selected. The main area displays a 'Contacts' panel with a form for a contact named '(Unknown)'. The form fields are: Name (pink), Organization (pink), Position (white), and Role (dropdown menu with 'Empty' selected, pink). A '+ New Contact Information' button is visible below the form. The top of the main area shows a list of required fields: name or organization is required, role is required, state is required, post code is required, city is required, and voice phone number is required.

In the window that is already open, fill in Name and Organization (Position is Optional). Role is not required for MGMG.



To fill in the contact phone, contact email, and address, etc., open up the “+New Contact Information” section with the green plus-sign:

- ! [role is required](#)
- ! [voice phone number is required](#)

Contacts

^ Contact: Michelle Rebholz (Unknown) ✕

Name

Organization

Position

Role

^ Contact Information

Email ✕ +

+ New Online Resource

Address Type

Address ✕ +

City

State

Postal Code

Country

Phone TDD/TTY ✕ +

Fax ✕ +

This fills in the Section 1 Point of Contact in the xml like this:

```

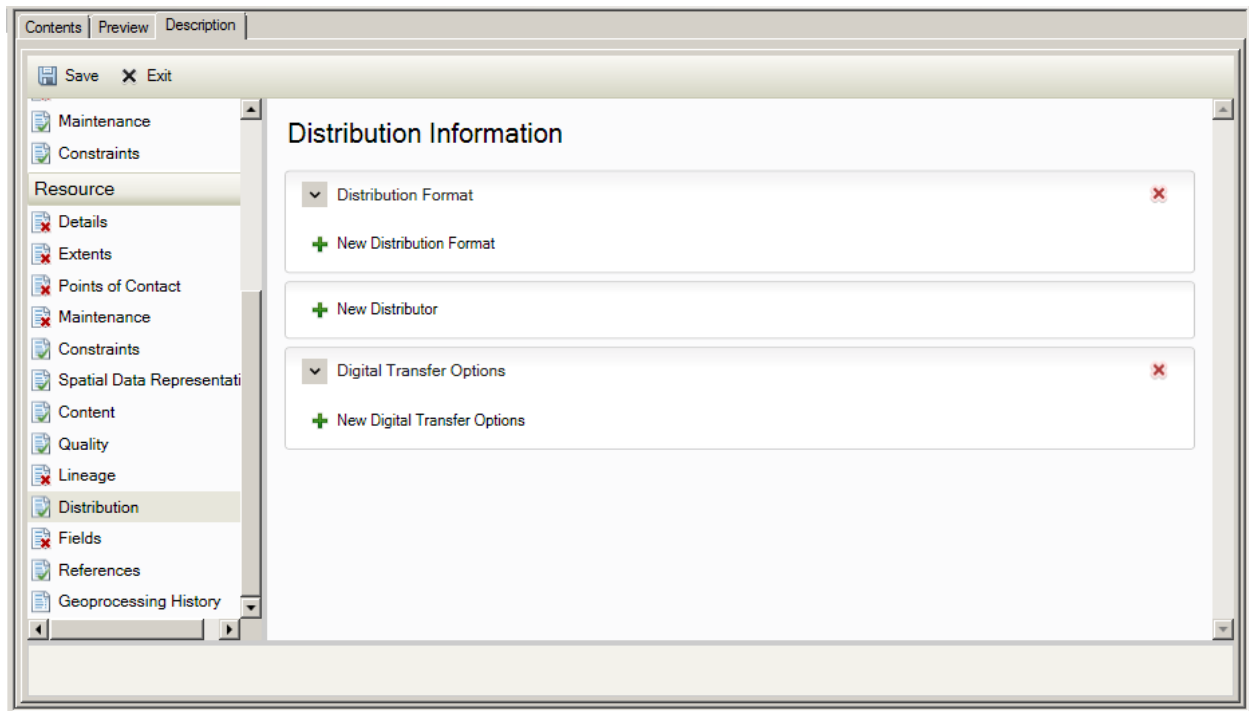
- <ptcontac>
- <cntinfo>
- <cntorgp>
  <cntorg>Minnesota Public Utilities Commission</cntorg>
  <cntper>Michelle Rebholz</cntper>
</cntorgp>
- <cntaddr>
  <addrtype>mailing and physical</addrtype>
  <address>121 E 7th Place East, Suite 350</address>
  <city>St. Paul</city>
  <state>Minnesota</state>
  <postal>55101</postal>
</cntaddr>
</cntinfo>
</ptcontac>

```

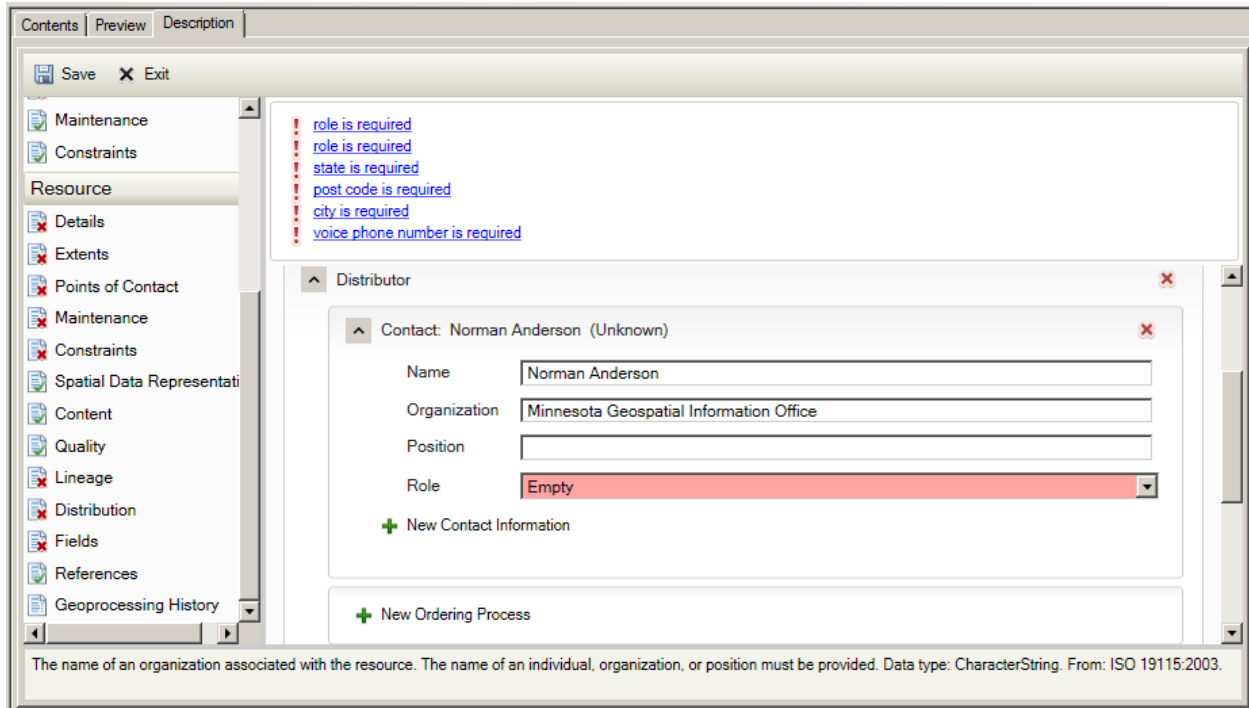
Filling in Distribution Contact - Summary:

- Resource Section>Distribution>
- +New Distributor +New Contact (opens a new contact window under Distributor)

Resource Section>Distribution – window looks like this:



+New Distributor +New Contact – Window looks like this – fill in distributor name, distributor organization, other fields are optional. Role is not required to be filled in for MGMG.



This fills in the Distribution Point of Contact in the xml like this:

```

- <distinfo>
- <distrib>
- <cntinfo>
- <cntorgp>
  <cntorg>Minnesota Geospatial Information Office</cntorg>
  <cntper>Norman Anderson</cntper>
</cntorgp>
</cntinfo>
</distrib>

```

Open the +New Contact Information section to add address, phone, email, etc. – see first contact example.

Filling in Metadata Contact - Summary:

- **Metadata>Contacts>**
- **+New Contact and fill in Name, Organization, other fields optional. Role not required for MGMG.**

Metadata>Contacts>

The screenshot shows a software window with a menu bar (Contents, Preview, Description) and a toolbar (Save, Exit). A left sidebar contains a tree view with categories: Overview, Metadata, and Resource. The main area displays a warning message: "at least one metadata contact is required". Below the warning is the title "Metadata Contacts" and a search field "Load a contact:" with the value "Norman Anderson" and a "+ Load" button. A "+ New Contact" button is also visible.

+New Contact and fill in Name, Organization, other fields are optional. Role not required for MGMG.

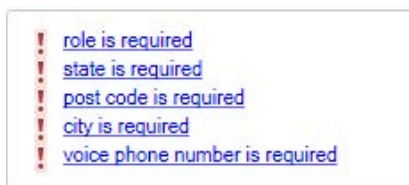
The screenshot shows the same software window as above, but with the "New Contact" form open. The form title is "Contact: Nancy Rader (Unknown)". It contains several input fields: "Name" (filled with "Nancy Rader"), "Organization" (filled with "Minnesota Geospatial Information Office"), "Position" (empty), and "Role" (a dropdown menu with "Empty" selected). A "+ New Contact Information" button is located below the form. At the bottom of the main area, there is a search field "Load a contact:" with the value "Norman Anderson" and a "+ Load" button. A footer message reads: "The name of an organization associated with the resource. The name of an individual, organization, or position must be provided. Data type: CharacterString. From: ISO 19115:2003." Above the form, a list of required fields is shown with red exclamation marks: "role is required", "state is required", "post code is required", "city is required", and "voice phone number is required".

This fills in the Metadata Point of Contact in the xml like this:

```
- <metc>
  - <cntinfo>
    - <cntorgp>
      <cntorg>Minnesota Geospatial Information Office</cntorg>
      <cntper>Nancy Rader</cntper>
    </cntorgp>
  </cntinfo>
</metc>
```

Open the +New Contact Information section to add address, phone, email, etc. – see first contact example.

Note that, when you are using the FGDC Metadata Style, the ISO Editor tells you which fields are required to make valid FGDC metadata. These fields are not all necessary for MGMG metadata. For example, under ‘metadata contacts’, the fields mentioned below may be desirable, but only voice phone number and email address are required for MGMG.



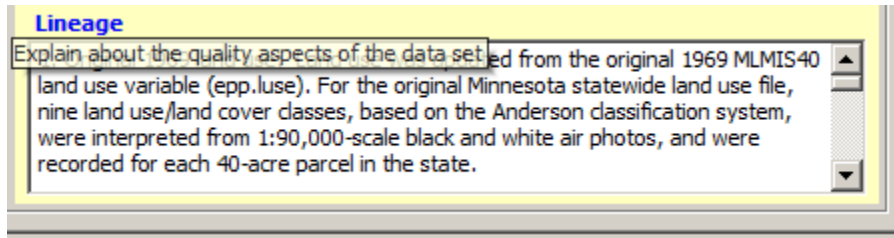
Also note that, In the case of “Role” for the three Contact fields (Resource Contact, Distribution Contact, and Metadata Contact), the pink highlighting of fields in ArcCatalog makes it appear that it is necessary to fill in the Role to make valid FGDC metadata. We don’t think this is true – when we tested this – the role information was not transmitted to the FGDC XML file. Role is required for the Citation Contacts section that produces the “Originator” and “Publisher” information.

Lineage section <lineage><procstep><procdesc>xxxxxxx</procdesc></procstep></lineage>

FGDC describes lineage in terms of a series of process steps with process dates and process descriptions. MGMG chose to put all lineage information into a single process step. When using the ArcCatalog FGDC metadata editor, just put all process step information into the very first process date/process description set of tags. If you use multiple process step/description tags to describe your data lineage, only the first set of tags will be brought into the Commons.

Minnesota Metadata Editor MGMT Example:

In the MME, "Lineage" is a single box, into which you can enter extensive process information.

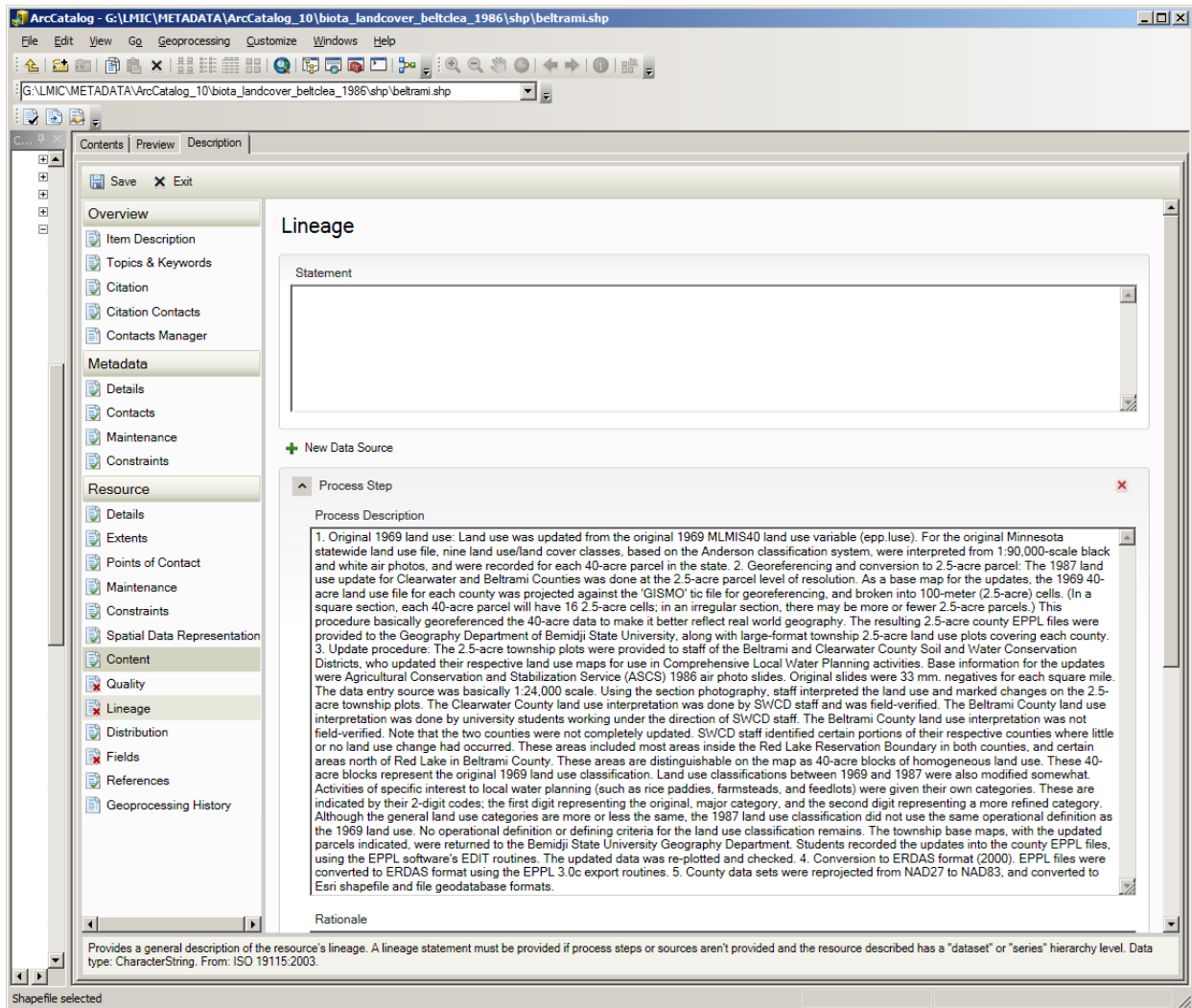


The information entered into the above box is saved as follows:

```
- <lineage>
- <srcinfo>
  <srcscale>24000</srcscale>
</srcinfo>
- <procstep>
  <procdesc>1. Original 1969 land use: Land use was updated from the original 1969 MLMIS40 land use variable (epp.luse). For the original Minnesota statewide land use file, nine land use/land cover classes, based on the Anderson classification system, were interpreted from 1:90,000-scale black and white air photos, and were recorded for each 40-acre parcel in the state. 2. Georeferencing and conversion to 2.5-acre parcel: The 1987 land use update for Clearwater and Beltrami Counties was done at the 2.5-acre parcel level of resolution. As a base map for the updates, the 1969 40-acre land use file for each county was projected against the 'GISMO' tic file for georeferencing, and broken into 100-meter (2.5-acre) cells. (In a square section, each 40-acre parcel will have 16 2.5-acre cells; in an irregular section, there may be more or fewer 2.5-acre parcels.) This procedure basically georeferenced the 40-acre data to make it better reflect real world geography. The resulting 2.5-acre county EPPL files were provided to the Geography Department of Bemidji State University, along with large-format township 2.5-acre land use plots covering each county. 3. Update procedure: The 2.5-acre township plots were provided to staff of the Beltrami and Clearwater County Soil and Water Conservation Districts, who updated their respective land use maps for use in Comprehensive Local Water Planning activities. Base information for the updates were Agricultural Conservation and Stabilization Service (ASCS) 1986 air photo slides. Original slides were 33 mm. negatives for each square mile. The data entry source was basically 1:24,000 scale. Using the section photography, staff interpreted the land use and marked changes on the 2.5-acre township plots. The Clearwater County land use interpretation was done by SWCD staff and was field-verified. The Beltrami County land use interpretation was done by university students working under the direction of SWCD staff. The Beltrami County land use interpretation was not field-verified. Note that the two counties were not completely updated. SWCD staff identified certain portions of their respective counties where little or no land use change had occurred. These areas included most areas inside the Red Lake Reservation Boundary in both counties, and certain areas north of Red Lake in Beltrami County. These areas are distinguishable on the map as 40-acre blocks of homogeneous land use. These 40-acre blocks represent the original 1969 land use classification. Land use classifications between 1969 and 1987 were also modified somewhat. Activities of specific interest to local water planning (such as rice paddies, farmsteads, and feedlots) were given their own categories. These are indicated by their 2-digit codes; the first digit representing the original, major category, and the second digit representing a more refined category. Although the general land use categories are more or less the same, the 1987 land use classification did not use the same operational definition as the 1969 land use. No operational definition or defining criteria for the land use classification remains. The township base maps, with the updated parcels indicated, were returned to the Bemidji State University Geography Department. Students recorded the updates into the county EPPL files, using the EPPL software's EDIT routines. The updated data was re-plotted and checked. 4. Conversion to ERDAS format (2000). EPPL files were converted to ERDAS format using the EPPL 3.0c export routines. 5. County data sets were reprojected from NAD27 to NAD83, and converted to Esri shapefile and file geodatabase formats.</procdesc>
</procstep>
</lineage>
```

ArcCatalog FGDC Example:

In ArcCatalog, you can put entire lineage description in first Process Step, and it will work. A process date is also required. Putting things into multiple process steps will not work as MGMT just looks at a single process step. Putting the lineage description into the "Lineage Statement" field, which looks like a logical location, will not bring it forward into the FGDC-format XML.



If the entire lineage description is entered into a single Process Step box, it is exported as follows, which is valid MGMT, harvestable by the Commons:

```

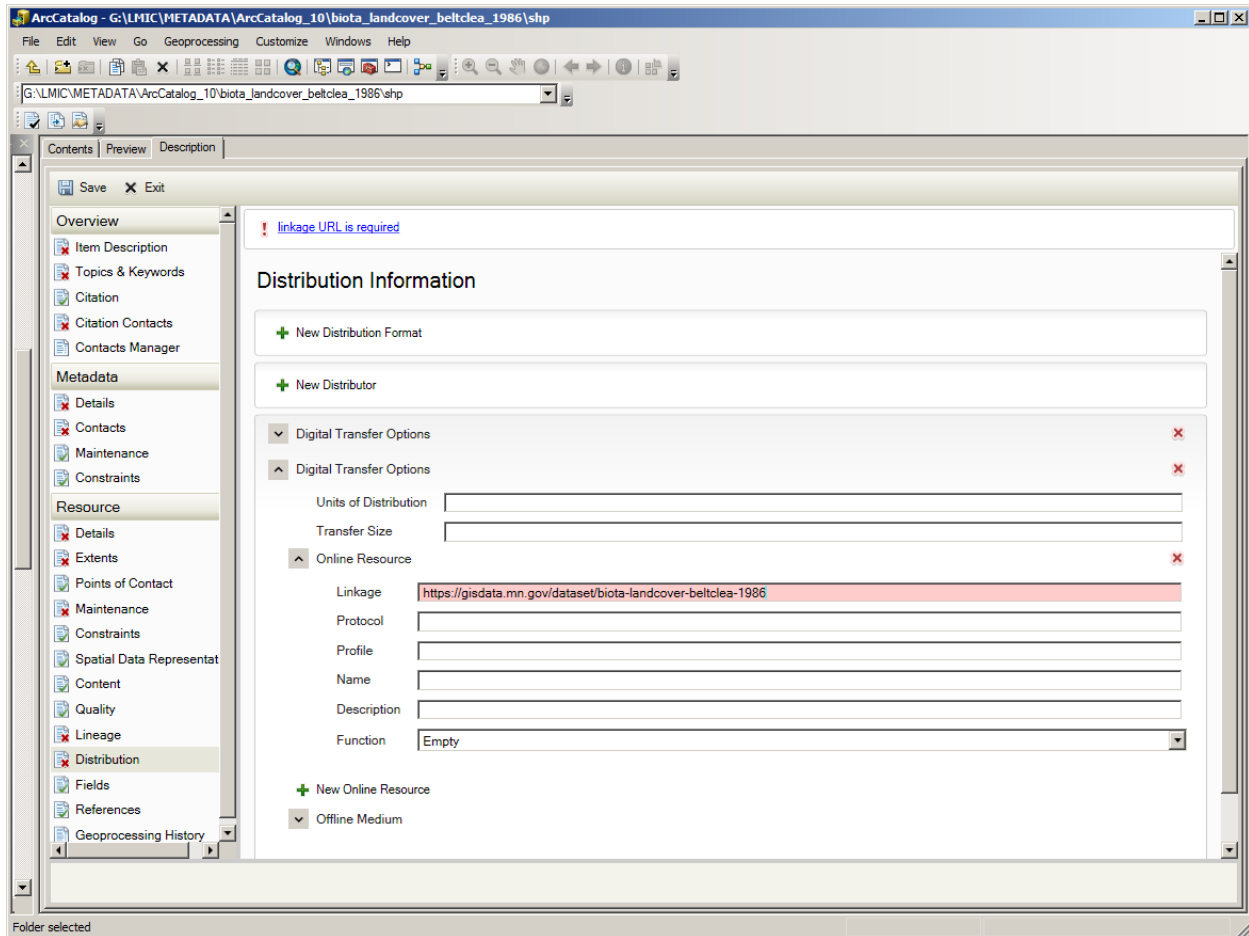
- <lineage>
- <procstep>
  <procdesc>1. Original 1969 land use: Land use was updated from the original 1969 MLMIS40 land use variable (epp.luse). For the original Minnesota statewide land use file, nine land use/land cover classes, based on the Anderson classification system, were interpreted from 1:90,000-scale black and white air photos, and were recorded for each 40-acre parcel in the state. 2. Georeferencing and conversion to 2.5-acre parcel: The 1987 land use update for Clearwater and Beltrami Counties was done at the 2.5-acre parcel level of resolution. As a base map for the updates, the 1969 40-acre land use file for each county was projected against the 'GISMO' tic file for georeferencing, and broken into 100-meter (2.5-acre) cells. (In a square section, each 40-acre parcel will have 16 2.5-acre cells; in an irregular section, there may be more or fewer 2.5-acre parcels.) This procedure basically georeferenced the 40-acre data to make it better reflect real world geography. The resulting 2.5-acre county EPPL files were provided to the Geography Department of Bemidji State University, along with large-format township 2.5-acre land use plots covering each county. 3. Update procedure: The 2.5-acre township plots were provided to staff of the Beltrami and Clearwater County Soil and Water Conservation Districts, who updated their respective land use maps for use in Comprehensive Local Water Planning activities. Base information for the updates were Agricultural Conservation and Stabilization Service (ASCS) 1986 air photo slides. Original slides were 33 mm. negatives for each square mile. The data entry source was basically 1:24,000 scale. Using the section photography, staff interpreted the land use and marked changes on the 2.5-acre township plots. The Clearwater County land use interpretation was done by SWCD staff and was field-verified. The Beltrami County land use interpretation was done by university students working under the direction of SWCD staff. The Beltrami County land use interpretation was not field-verified. Note that the two counties were not completely updated. SWCD staff identified certain portions of their respective counties where little or no land use change had occurred. These areas included most areas inside the Red Lake Reservation Boundary in both counties, and certain areas north of Red Lake in Beltrami County. These areas are distinguishable on the map as 40-acre blocks of homogeneous land use. These 40-acre blocks represent the original 1969 land use classification. Land use classifications between 1969 and 1987 were also modified somewhat. Activities of specific interest to local water planning (such as rice paddies, farmsteads, and feedlots) were given their own categories. These are indicated by their 2-digit codes; the first digit representing the original, major category, and the second digit representing a more refined category. Although the general land use categories are more or less the same, the 1987 land use classification did not use the same operational definition as the 1969 land use. No operational definition or defining criteria for the land use classification remains. The township base maps, with the updated parcels indicated, were returned to the Bemidji State University Geography Department. Students recorded the updates into the county EPPL files, using the EPPL software's EDIT routines. The updated data was re-plotted and checked. 4. Conversion to ERDAS format (2000). EPPL files were converted to ERDAS format using the EPPL 3.0c export routines. 5. County data sets were reprojected from NAD27 to NAD83, and converted to Esri shapefile and file geodatabase formats.</procdesc>
  <procdate>19860901</procdate>
</procstep>
</lineage>

```

Note: if you are planning to make your metadata HTML using the FGDC Classic HTML view, it won't matter if you use multiple process steps because they all will appear in the metadata HTML. Since the entire 'lineage' set of tags is never actually imported into other parts of the Commons, it may not matter so much if you have multiple process steps. But if you were going to bring an ArcCatalog FGDC record into the Minnesota Metadata Editor at some point - either to edit further or to create an MGMG-style HTML view - then you would need to keep all of your lineage information in the first process step. Any information entered into subsequent processing steps will be lost in the conversion.

Online Linkage <onlink>

If online linkage is not populated, this will generate a warning in the Commons but will not cause validation to fail. Use the following input in the ArcCatalog FGDC Metadata Editor to populate the online linkage tags that MGMG expects:

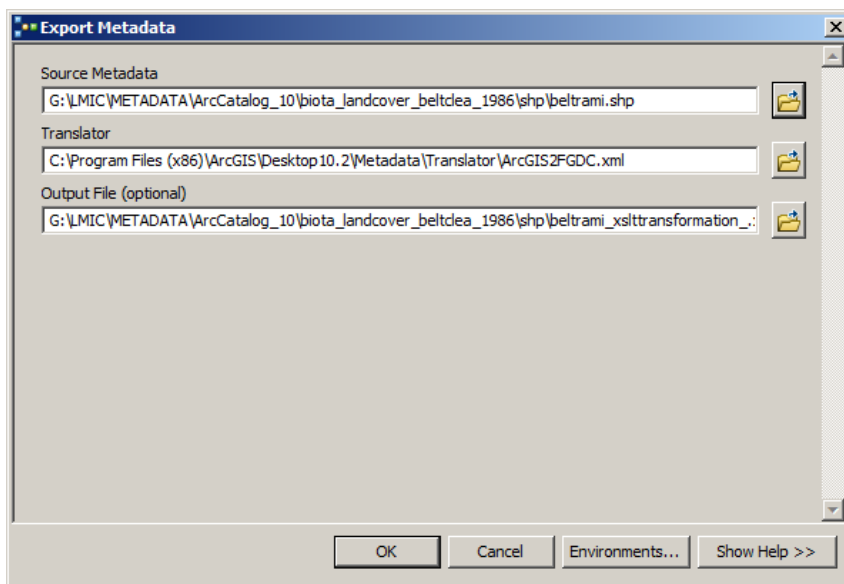
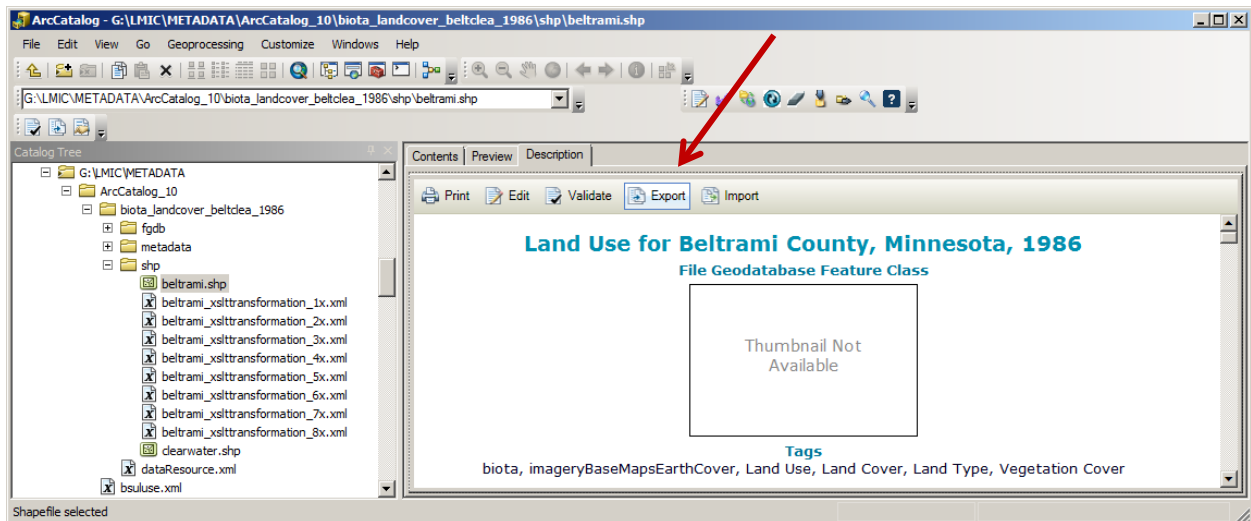


This field is the correct place to put online linkage for MGMG validation. Where appropriate, use the Commons data resource name as the Online Linkage location. (There may be times you wish to link somewhere else).

```
- <citation>
- <citeinfo>
  <title>Land Use for Beltrami County, Minnesota, 1986</title>
  <onlink>https://gisdata.mn.gov/dataset/biota-landcover-beltclea-1986</onlink>
</citeinfo>
</citation>
```

Exporting internal ArcGIS metadata xml format to FGDC format

ArcCatalog creates an XML in its own internal format. This format cannot be read by the Commons validator. When your metadata is complete and you want to convert it into the FGDC format that the validator can read, export the XML to the FGDC format. To do this, in ArcCatalog Description tag, activate the "Export" icon. Use the Translator option of "ArcGIS2FGDC.xml" – This creates an FGDC-format metadata xml that should meet most of the MGMG Commons requirements if populated correctly. (If you have already chosen "FGDC CSDGM Metadata" as your default metadata style, then the ArcGIS2FGDC Translator will be the default translator). The transformed file will have a new name. The Internal ArcGIS metadata name stays the same. In this example, if the file you are documenting is "beltrami.shp", the internal Esri metadata name is "beltrami.shp.xml".



As you are creating your metadata in ArcCatalog, if you want to see how well you are doing, you can periodically export out an FGDC xml, run it against the Commons validator, keep editing to add the fields that are needed, export again, validate again, etc., until your final exported XML validates. Then your metadata XML is ready for the Commons. At that point, create the HTML document also.

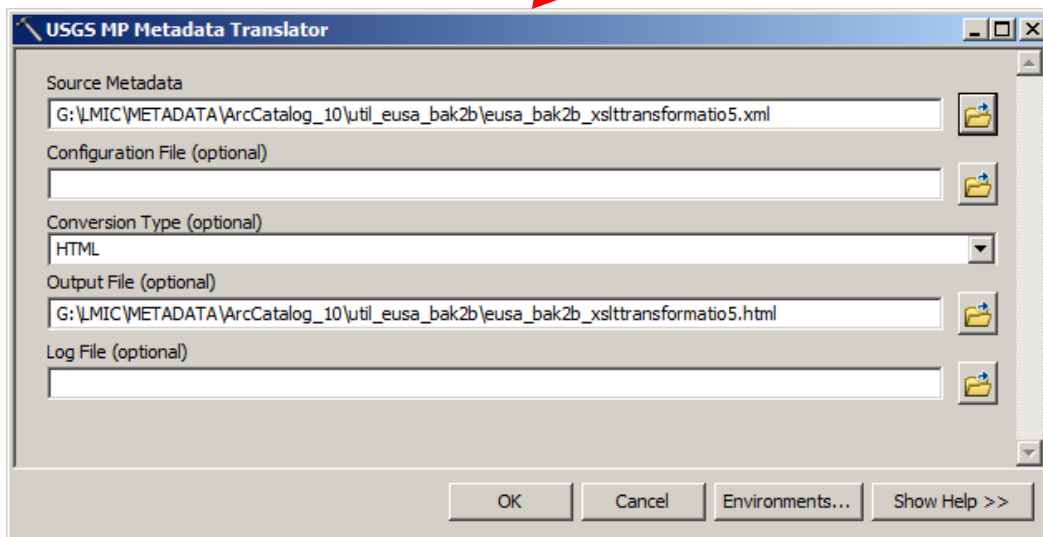
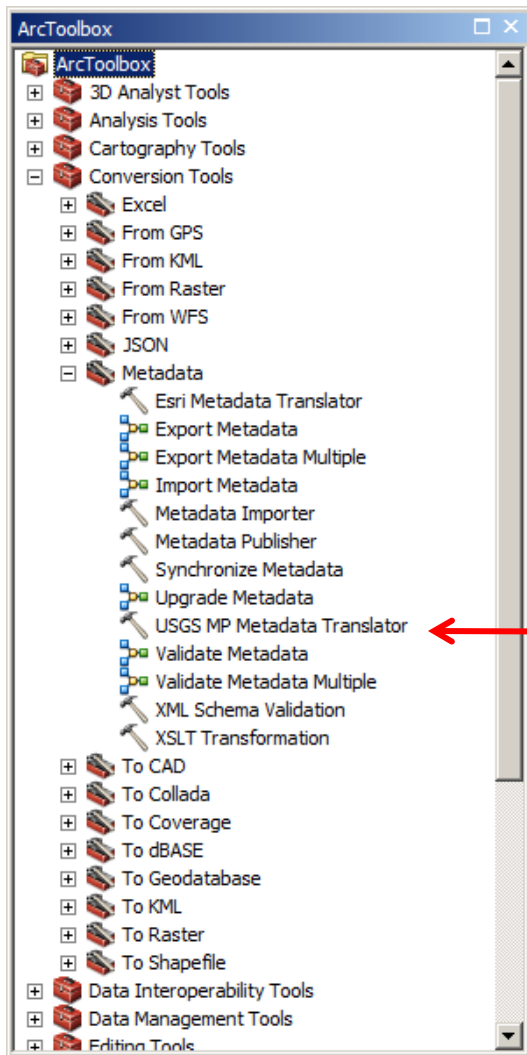
Note that there are some metadata validation tools available in ArcToolbox (Toolbox>Conversion Tools>Metadata>). Do not use these. Use the Validator associated with the Commons. From this Commons App Resource <https://gisdata.mn.gov/dataset/mgc-resource-editor> you need the **Data Resource Validation Add-in**.

Create HTML

- Use ArcToolbox to create the “FGDC Classic” HTML (**Toolbox>Conversion Tools>Metadata>“USGS MP Metadata Translator”**)

OR

- Bring into the Minnesota Metadata Editor to create an MGMG HTML. To do this, import the FGDC exported version of the XML into MME, then use **Tools>ViewMetadata as HTML**.



Example of "FGDC Classic" HTML

Road Centerlines, Dakota County, Minnesota

Metadata also available as

Metadata:

- [Identification Information](#)
- [Data Quality Information](#)
- [Spatial Data Organization Information](#)
- [Spatial Reference Information](#)
- [Entry and Attribute Information](#)
- [Distribution Information](#)
- [Metadata Reference Information](#)

Identification Information:

Citation:

Citation Information:

Originator: Dakota County GIS, Dakota County GIS, Staff
Publication Date: 20150924
Title: Road Centerlines, Dakota County, Minnesota
Edition: 1
Geospatial Data Presentation Form: vector digital data

Publication Information:

Publication Place: 14955 Galaxie Ave, Apple Valley, Minnesota, 55124, US
Publisher: Dakota County GIS

Online Linkage:
<https://gisdata.mn.gov/dataset/us-mn-co-dakota-trans-trans-streets>

Description:

Abstract:
This layer contains lines showing all public (and many private) roads in Dakota County, Minnesota. The lines are generally collected from plats and aerial photography.

Example of MGMG HTML

Electric Utility Service Areas, Minnesota, 2014

This page last updated: 07/29/2014
Metadata created using [Minnesota Geographic Metadata Guidelines](#)

Go to Section:

1. [Overview](#)
2. [Data Quality](#)
3. [Data Organization](#)
4. [Coordinate System](#)
5. [Attributes](#)
6. [Distribution - Get Data](#)
7. [Metadata Reference](#)

Section 1 Overview

Originator	Minnesota Geospatial Information Office (MnGeo)
Title	Electric Utility Service Areas, Minnesota, 2014
Abstract	This dataset shows electric utility service area boundaries for the State of Minnesota. The original source data were lines hand-drawn on county highway maps. The maps were scanned and georeferenced to serve as a background for on-screen digitizing. The utilities were then given an opportunity to review and correct the service areas. Changes filed with the Public Utilities Commission (eDockets) were also reviewed to update the areas.
Purpose	The purpose of the project was to convert existing electric utility service area boundaries from paper to digital format in order to provide a statewide view of the service areas. Public Utility Commission eDocket filings can then be used to maintain this dataset.