

Guide to Creating and Editing Metadata in ArcGIS for Publishing to the MSDIS GeoPortal...

1). Geoportal publishing requirement...

For the MSDIS GeoPortal to publish your data there is one requirement – that each dataset be accompanied by its own .XML FGDC compliant metadata file.

However, there are several things that you may not be already doing that will help your metadata publish quickly and be more readily discoverable in the GeoPortal and in GOS (see item #5 below). They are not requirements but will help...

2). Creating and managing FGDC metadata in ArcGIS (portions from ESRI website)

[Resource Center](#) » [Professional Library](#) » [Data Management](#) » [Geographic data types](#) » Metadata » [Editing metadata](#) » [Metadata workflows](#)

Complexity: Beginner Data Requirement: Use your own data

The Federal Geographic Data Committee's ([FGDC](#)) *Content Standard for Digital Spatial Metadata* ([CSDGM](#)) is a well-known metadata standard that has been used in North America and around the world for many years. This type of metadata was created by default with ArcGIS Desktop 9.3.1 (see item #3 below).

With ArcGIS Desktop 10.0, the metadata editor was redesigned to accommodate creating content for multiple metadata standards. Although the metadata editing experience is different than in ArcGIS Desktop 9.3.1, you can continue to create, view, edit, import, export, and publish FGDC metadata. This guide describes these workflows and will help you produce and manage FGDC metadata in the current version of ArcGIS Desktop. (See item #4 below).

The MSDIS V10 Geoportal seems to accept the vast majority of metadata generated in 9.3.1 with few or no issues. It seems to have more problems with data generated in ArcGIS 10 but we suspect that can be helped by this document.

3) ArcGIS 9.x (ESRI web site)

By default the ESRI 9.3.1 ArcCatalog software will create metadata in the FGDC ESRI style sheet. The portal will accept this style sheet. But the display of metadata in the portal is best served by utilizing the FGDC Classic style sheet when possible. It is more ascetically pleasing to most users. This may turn out to be something we can tweak (likely) but it ranks low on the priority list for now. Try using the FGDC Classic style sheet – have it loaded to the portal and you'll see the difference.

Creating and updating metadata in ArcCatalog 9.3.1

About creating and updating metadata

By default, [metadata](#) is automatically created or updated when you view it in the Metadata tab. ArcCatalog gets the selected item's properties and records those values in its metadata. This ensures the metadata is kept up-to-date as the data changes over time. For example, the extent and count of a shapefile's features will be current when you look at its metadata, even if new features were recently added.

If you want more control over this process, you can turn off automatic metadata creation or updates. This can be accomplished either for all items by changing the settings in the Options dialog box or for individual items by changing the settings in the Metadata Properties dialog box. You might turn off automatic updates for a single item after work on the item has been completed.

You can manually create or update an item's metadata by clicking the Create/Update Metadata button on the Metadata toolbar. You might do this if automatic metadata creation is turned off or if you modify an item using its Properties dialog box while you are viewing the metadata in the Metadata tab. Even if automatic metadata updates are turned off for an item, you can update its metadata by clicking the Create/Update Metadata button or by changing its [thumbnail](#)—these are both manual processes.

Automatic metadata updates are accomplished using metadata synchronizers. All metadata synchronizers provided with ArcGIS Desktop are turned on by default. If you create metadata using the FGDC metadata editor, the FGDC CSDGM synchronizer and the Geography Network Synchronizer should be turned on; you can turn the ISO Metadata synchronizer off. If you create metadata using the ISO metadata editor, the ISO Metadata synchronizer should be turned on and the FGDC CSDGM synchronizer and the Geography Network Synchronizer should be turned off—otherwise, you may have trouble publishing your metadata to an ArcIMS Metadata Service. Before you can turn off a metadata synchronizer, you need to add the Set Working Synchronizers command to the Metadata toolbar.

[Learn more about automatic metadata updates.](#)

How to create and update metadata

Choosing when metadata is created and updated

1. Click the Tools menu and click Options.
2. Click the Metadata tab.
3. Check the appropriate boxes to have the Catalog automatically create or update metadata.

Uncheck the appropriate boxes if you prefer to manually create or update metadata.

4. Click OK.

Creating and updating metadata manually

1. In the Catalog tree, click the item whose metadata you want to create or update.
2. Click the Metadata tab.
3. Click the Create/Update Metadata button on the Metadata toolbar.

Turning off automatic updates for individual data sources

1. In the Catalog tree, click the item for which metadata should not be updated automatically.
2. Click the Metadata tab.
3. Click the Metadata Properties button on the Metadata toolbar.
4. Click the Options tab.
5. Check Do not automatically update metadata.
6. Click OK.

Choosing how metadata is created and updated

1. [Add the Set Working Synchronizers button to the Metadata toolbar.](#)
2. Click the Set Working Synchronizers button.
3. If you use the ISO metadata editor, check ISO Metadata and uncheck FGDC CSDGM and Geography Network Synchronizer.

If you use the FGDC metadata editor, check FGDC CSDGM and Geography Network Synchronizer and uncheck ISO Metadata.

4. Click OK in the Set Working Synchronizers dialog box.

Adding the Set Working Synchronizers button to the Metadata toolbar

1. Click the Tools menu and click Customize.
2. Click the Toolbars tab.
3. Check Metadata if you can't see the Metadata toolbar.
4. Click the Commands tab.
5. Click Metadata in the Categories list on the left.
6. Click Set Working Synchronizers in the Commands list on the right.
7. Drag the Set Working Synchronizers command from the Commands list and drop it onto the Metadata toolbar.
8. Click Close in the customize dialog box.

4). Configure ArcGIS 10.0 Desktop to create FGDC CSDGM metadata (ESRI web site)

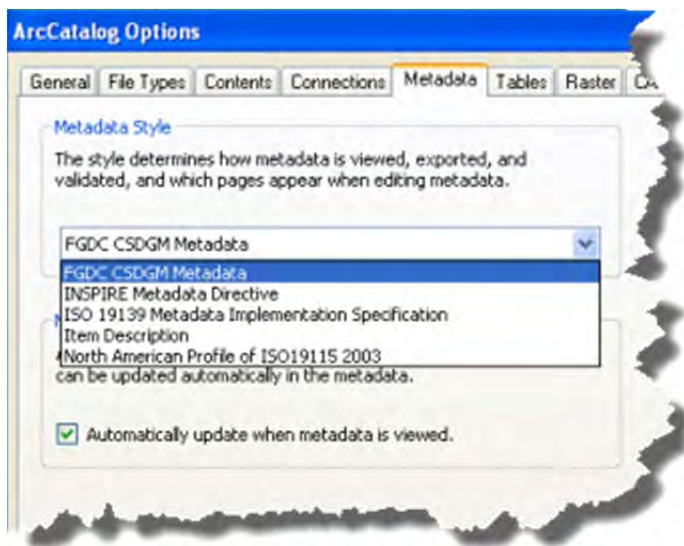
The first step is to configure ArcGIS Desktop for creating FGDC metadata by choosing the appropriate [metadata style](#) in the Options dialog box of any ArcGIS Desktop application.

Steps:

1. Open the Options dialog box for your ArcGIS Desktop application.
 - o In ArcMap, click Customize > ArcMap Options.
 - o In ArcCatalog, click Customize > ArcCatalog Options.
 - o In ArcGlobe, click Customize > ArcGlobe Options.
 - o In ArcScene, click Customize > ArcScene Options.

The Options dialog box appears.

2. Click the Metadata tab.
3. Click FGDC CSDGM Metadata in the Metadata Style list.



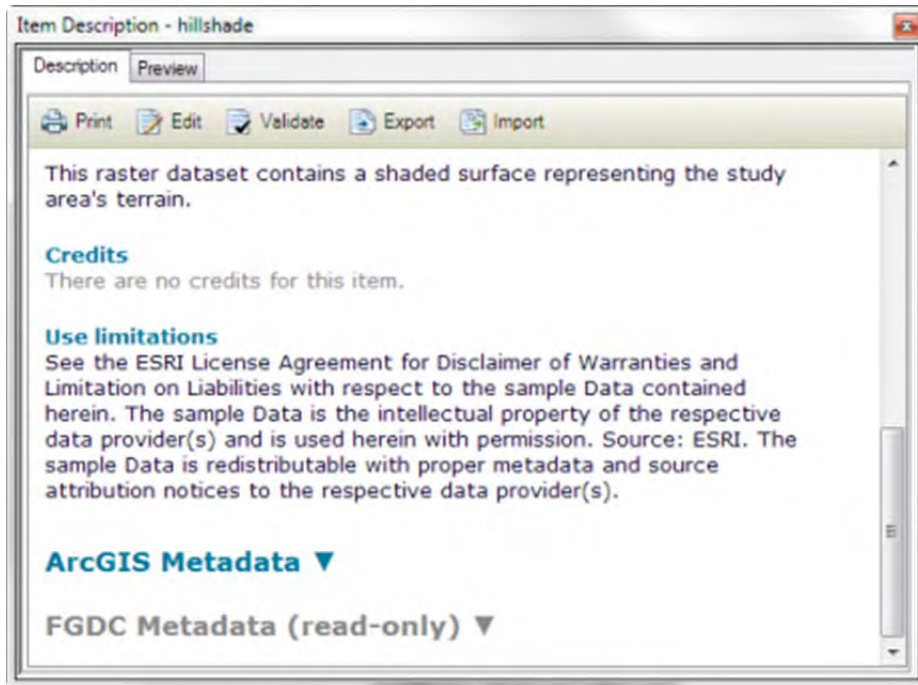
4. Click OK.

 Note:

If you're using the Description tab when you choose a new metadata style, you won't immediately see the results of this change. Click another tab in ArcCatalog or the Item Description window, then click the Description tab again for the new metadata style to take effect.

Viewing an item's complete metadata

When ArcGIS is configured to use the FGDC CSDGM Metadata style, the ArcGIS Metadata heading appears at the bottom of the item's brief description.



Beginning with ArcGIS 10.0, metadata content is stored in a new internal format, known as [ArcGIS Metadata](#). Metadata content created and managed using the Description tab is displayed under the ArcGIS Metadata heading. At first, you won't see much information under the ArcGIS Metadata heading. You will see:

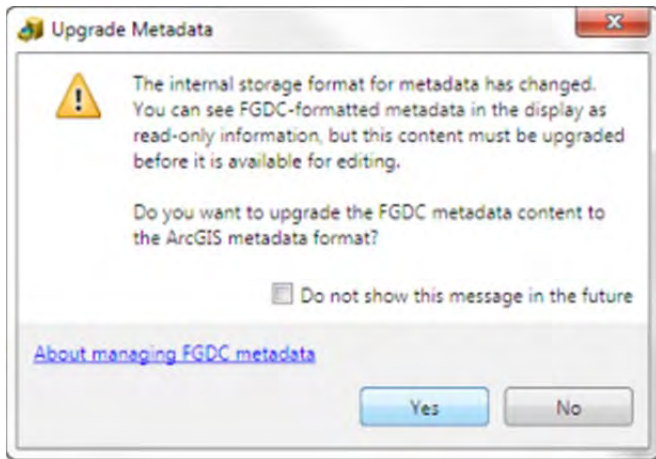
- Any item properties added automatically by ArcGIS
- Any FGDC metadata content that corresponds to the basic item description
- Any attribute descriptions provided using the 9.3.1 FGDC metadata editor; these are shared with ArcGIS Metadata

Any content entered using the ArcGIS 9.3.1 FGDC metadata editor is displayed under the FGDC Metadata (read-only) heading. This includes any content entered using the FGDC Metadata Editor [add-in](#).


Upgrading existing metadata

To manage metadata content that you created using the ArcGIS 9.3.1 FGDC metadata editor in the current version of ArcGIS Desktop, you must first [upgrade](#) the item's metadata using the [Upgrade Metadata](#) tool. This process copies all existing FGDC content to the appropriate ArcGIS Metadata elements.

When you view an item with existing FGDC-format metadata you will be notified immediately that it must be upgraded to the ArcGIS metadata format before it can be used in the Description tab.




Click Yes to upgrade the existing FGDC metadata content right away. The Upgrade Metadata tool opens and the Upgrade Type is automatically set to FGDC_TO_ARCGIS.

If you would rather wait, click No. An Upgrade button  will be available in the Description tab. You can [use it later to upgrade the item's metadata](#). You will not be able to create or manage FGDC metadata content in the Description tab until the item's metadata has been upgraded.

You will see the notification and the Upgrade button  when all of the following are true:

- Some of the item's FGDC-format metadata content was typed into a metadata editor—not added automatically by ArcGIS Desktop 9.3.1.
- No content was typed into a metadata editor that stored information in the ESRI-ISO metadata format—content added automatically by ArcGIS Desktop 9.3.1 in this format is ignored.
- No metadata was typed into the Description tab and saved anywhere except the Item Description page.

If you don't see the notification or the Upgrade button  in the Description tab, and the item has FGDC-format metadata that hasn't been upgraded yet, search for the Upgrade Metadata tool, then run it following the steps below. For example, this might occur because of known issues in ArcGIS Desktop 10.0 that were corrected in Service Pack 3. If an item's FGDC-format metadata was upgraded with a previous release of ArcGIS Desktop 10.0, you can upgrade the item's metadata again following the steps below. A second upgrade should be performed only if you have not spent time editing the upgraded metadata in the Description tab—your edits will be discarded by the upgrade process.

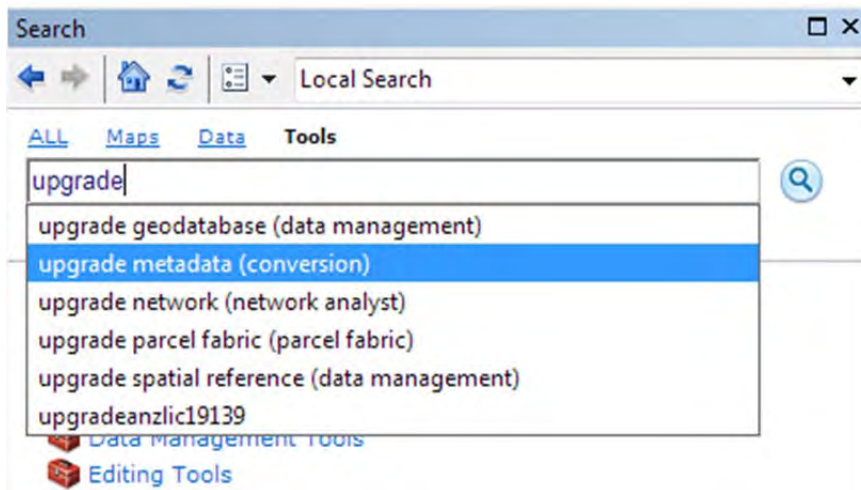
Steps:

1. Click Geoprocessing > Search For Tools.

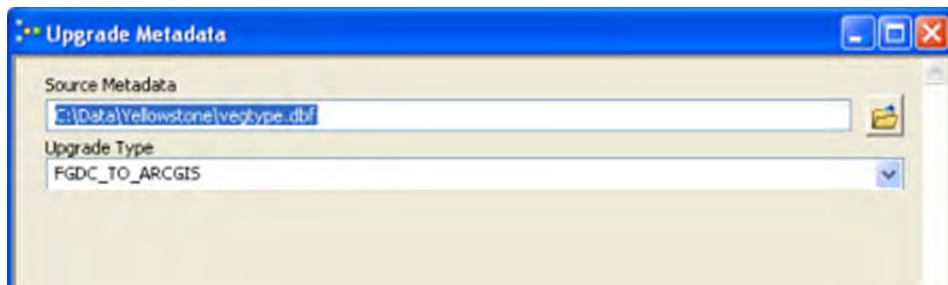
The Search window opens.

2. Start typing upgrade metadata into the Search text box. All tools that start with the word upgrade appear in a list. Click upgrade metadata (conversion) in the list.

The Upgrade Metadata tool is listed in the search results.



3. Click Upgrade Metadata (Conversion) in the search results list to open this tool.
4. Drag and drop the item whose metadata must be upgraded onto the Source Metadata parameter in the tool's dialog box.
5. In the Upgrade Type list, click FGDC_TO_ARCGIS.



6. Click OK.

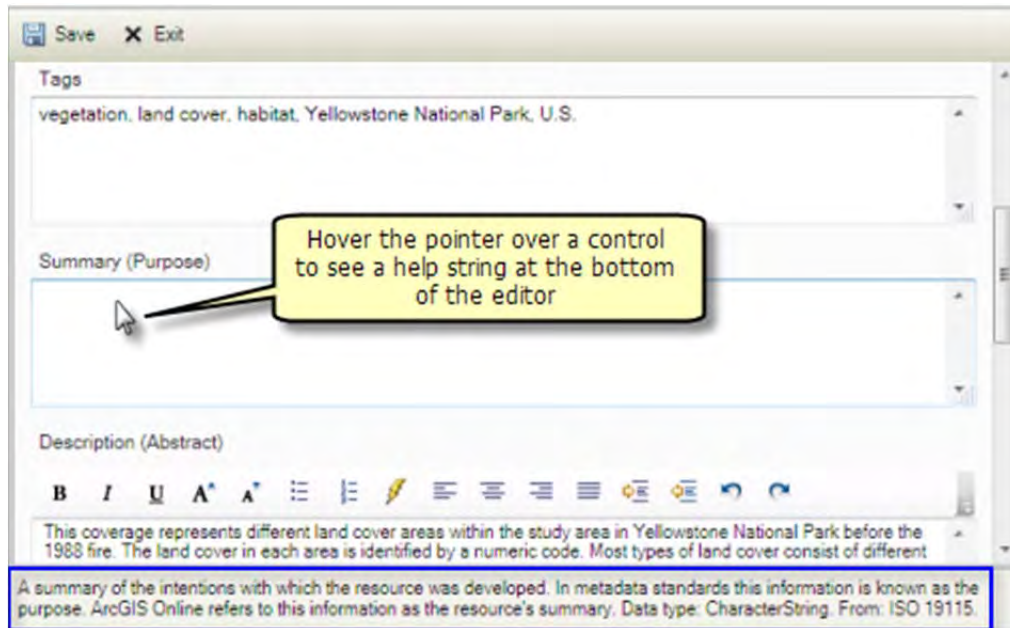
If you have many items whose metadata must be upgraded, you can upgrade all of their metadata at once by running this tool in [batch mode](#) or by writing an appropriate Python script. You can find the Upgrade Metadata tool in the Conversion toolbox in the Metadata toolset.

After upgrading, the old 9.3.1 FGDC metadata content isn't removed, so you'll see the same information under both the ArcGIS Metadata heading and the FGDC Metadata (read-only) heading when you view the item's metadata in the Description tab. However, when you edit your metadata in the Description tab, your changes will only appear under the ArcGIS Metadata heading. The content under the FGDC Metadata (read-only) heading is effectively read-only, except for attribute descriptions.

Editing FGDC metadata content in the Description tab

You can create basic FGDC metadata for an item in the current version of ArcGIS Desktop following the steps below. This information covers the minimum mandatory set of FGDC metadata content.

If you're ever unsure of what information to provide in a metadata element, hover the pointer over its input control. A help string appears at the bottom of the editor explaining what information is expected.



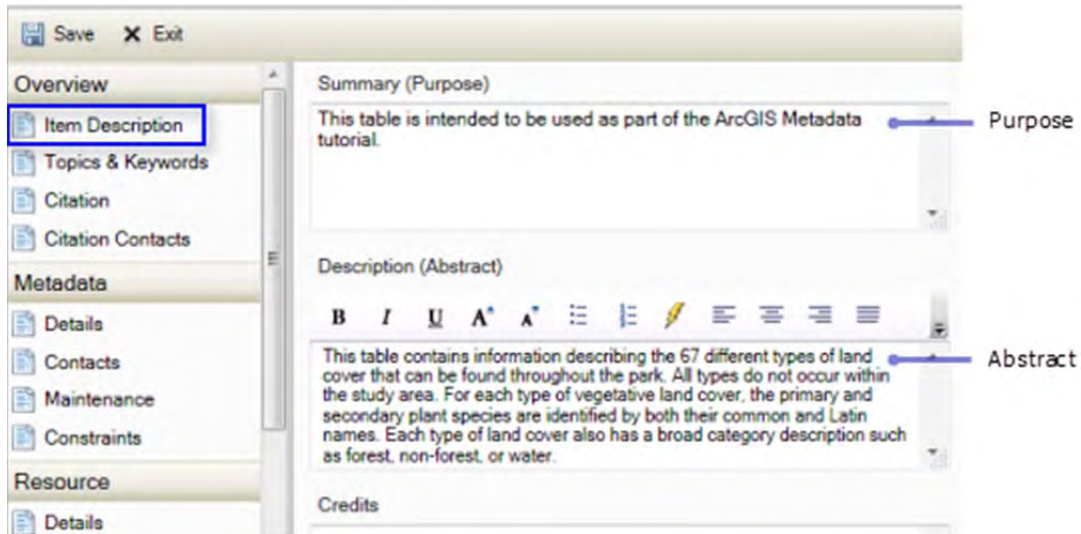
Steps:

1. Click the Edit button  in the Description tab.

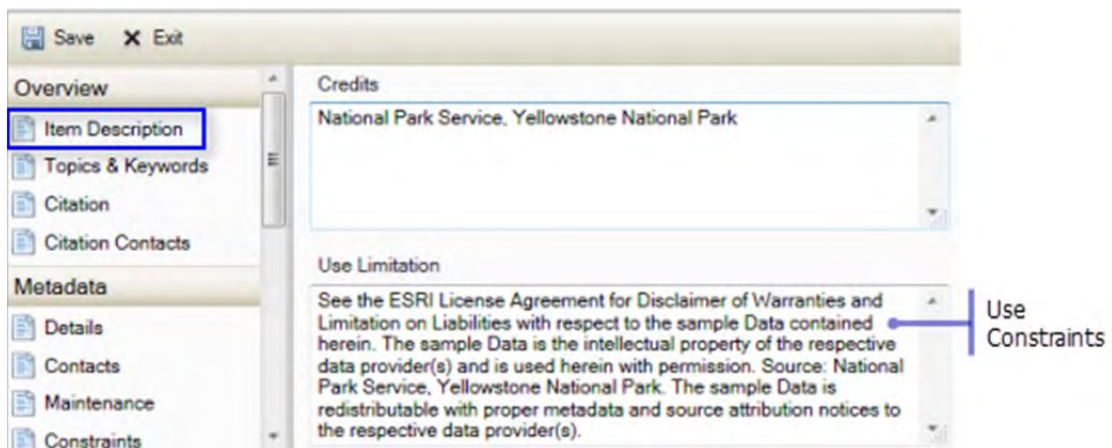
If the Edit button is not visible, you do not have permission to edit metadata for this item, and you won't be able to complete this task. The shared network location or the item's files may be read-only, or you may not have permission to edit the data for this item in the geodatabase.

The metadata editor's table of contents shows a list of pages that can be used to edit metadata content.

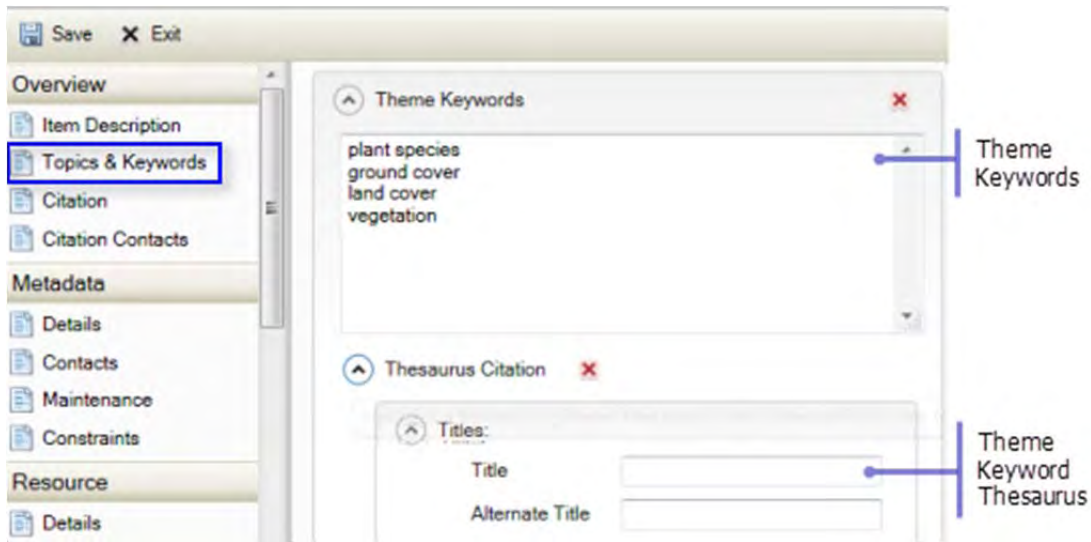
2. On the Item Description page, provide a title, abstract, and purpose for the item, and describe any constraints related to using the item. Provide the title in the Title text box, the abstract in the Description (Abstract) text box, and the purpose in the Summary (Purpose) text box.



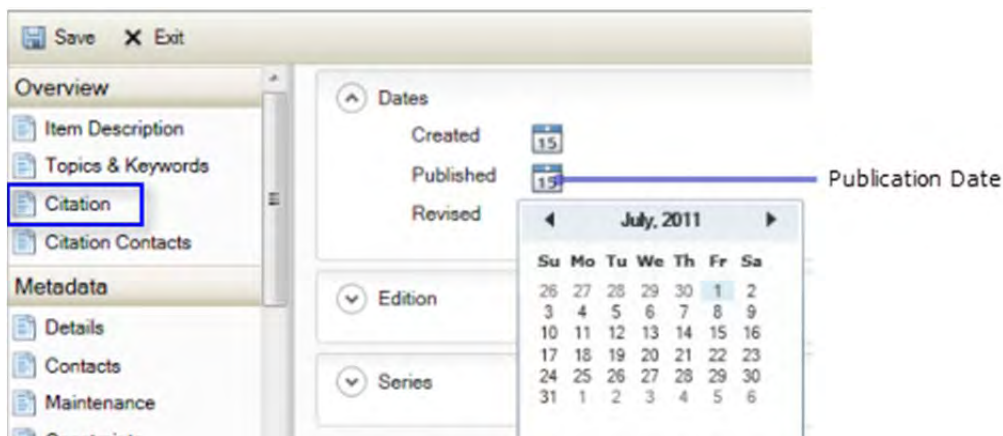
Use constraints may also be provided in the Use Limitation text box. If there are no use constraints associated with this item, leave the Use Limitation text box empty. The text None will be added automatically in the FGDC Use Constraints element when you export metadata to an FGDC-format XML file if use constraints haven't been provided.



3. On the Topics & Keywords page, click New Theme Keywords if a Theme Keywords heading doesn't already exist. Provide a list of keywords with each keyword on a separate line in the Theme Keywords text box. If they came from a thesaurus, type its name into the Title text box under Thesaurus Citation. If the keywords did not come from a thesaurus, leave the Thesaurus Citation section empty. The text None will be added automatically in the FGDC Theme Keyword Thesaurus element when you export metadata to an FGDC-format XML file if a thesaurus citation hasn't been provided.



4. On the Citation page, the title you already provided appears at the top of the page. Click Dates. Click the calendar icon next to Published to select an appropriate publication date.



In the calendar, you can scroll through the months using the arrows or click the month and year at the top to pick from a list. Click the year at the top of the calendar again to pick from a list of years.

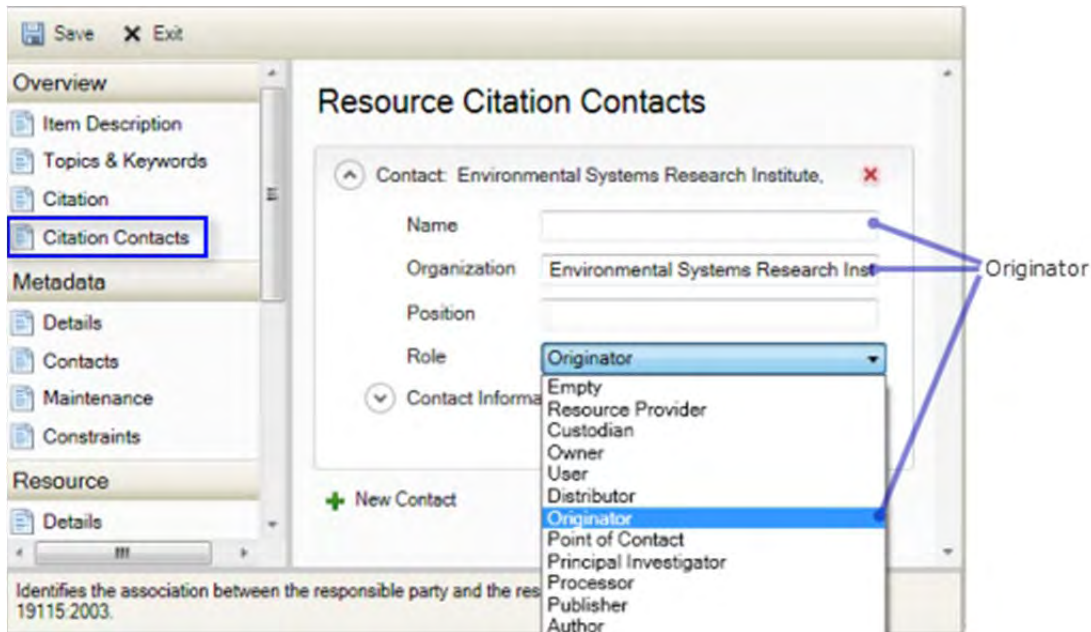


The selected date appears on the page. If the information is significant, you can also identify the time the item was published. Click the up and down arrows to set the hour, or

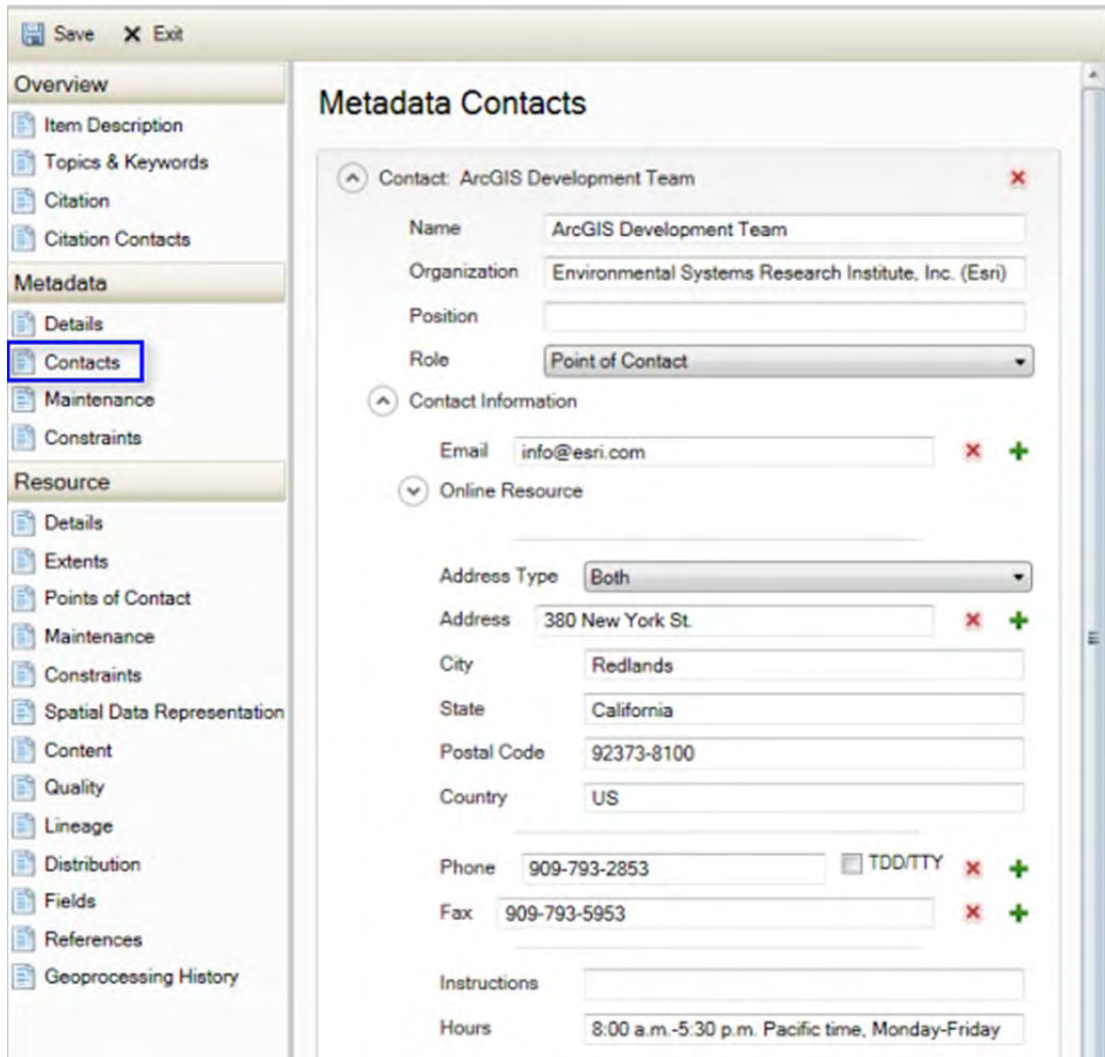
click the hour and type the appropriate number. To set the minutes and seconds, click that portion of the time and type the appropriate number.



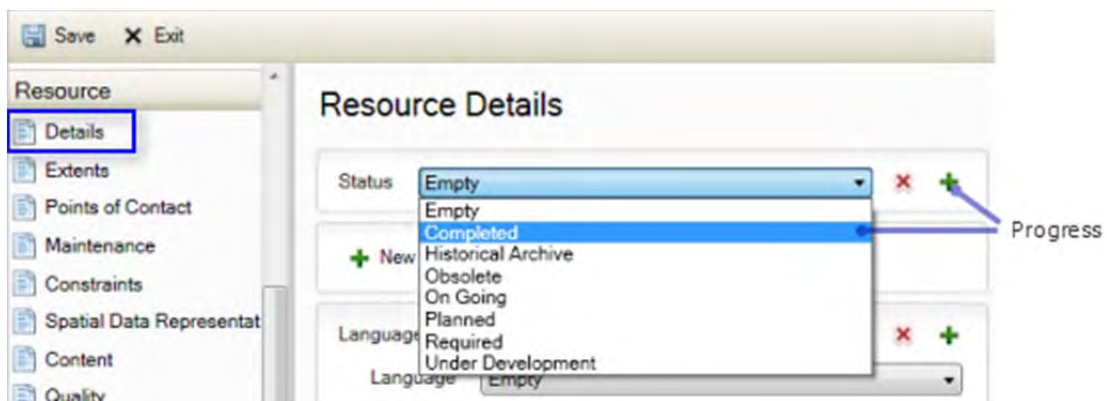
5. On the Citation Contacts page, click New Contact, then click Originator in the Role list. Identify the individual who or organization that is the originator of the item by typing an appropriate value into the Name or Organization text box. If originator contacts were created when your metadata was upgraded, an individual's name may have been placed in the Organization text box; you may want to correct this.



6. On the Contacts page under the Metadata heading, click New Contact if a contact doesn't already exist. Identify the point of contact for the item's metadata, including all relevant contact information. If an organization has been identified, this will be considered the primary contact when information is exported to an FGDC-format XML file.

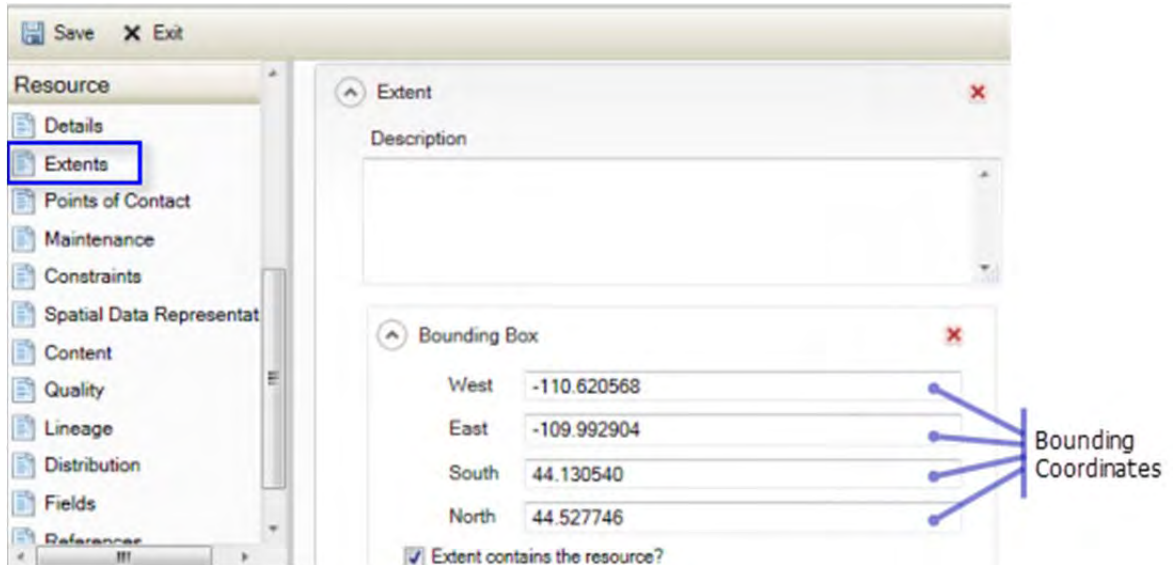


7. On the Details page under the Resource heading, click New Status if a status doesn't already exist. Select the appropriate value in the Status list to identify the item's progress.

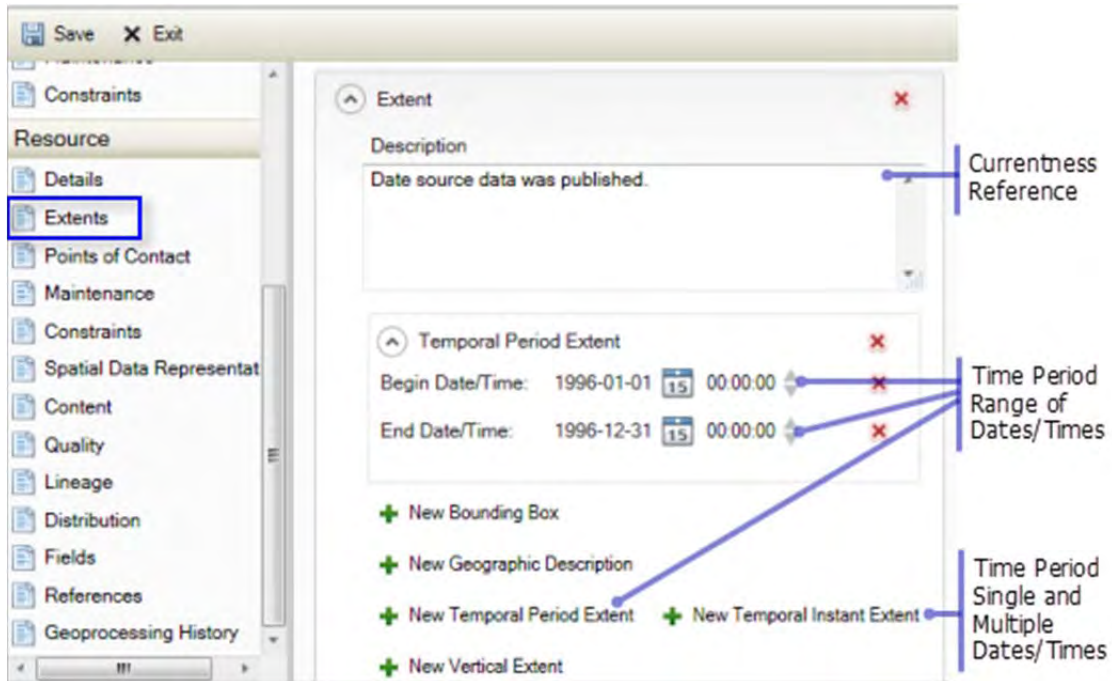


8. On the Extents page, if the item contains spatial data, a bounding box describing its extent will have been added automatically to the metadata. A bounding box that was

provided manually in ArcGIS Desktop 9.3.1 may also have been upgraded. If the item's metadata doesn't already include a spatial extent, click New Extent, then click New Bounding Box under the Extent heading. Provide the appropriate coordinates for the item's bounding rectangle.

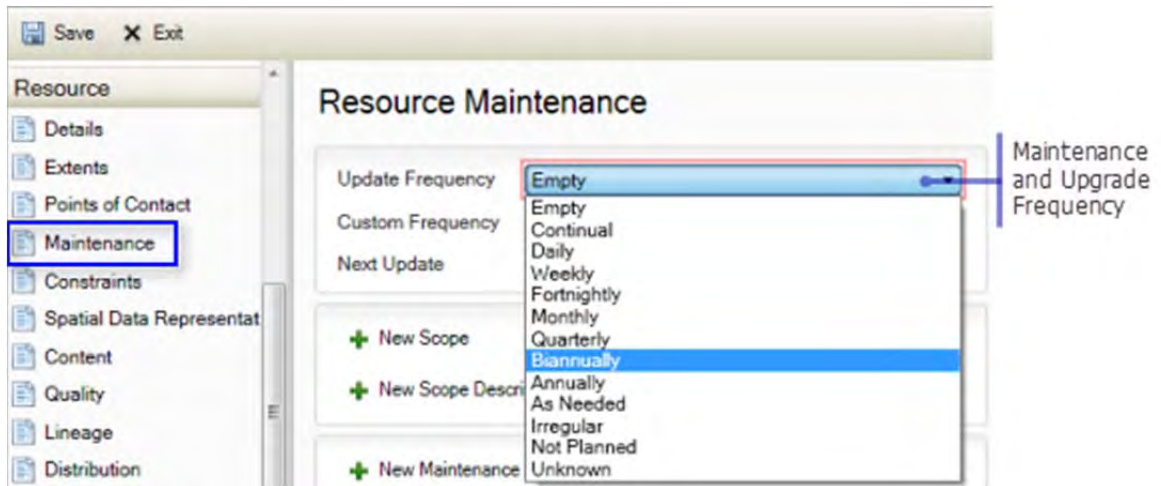


When FGDC-format metadata is upgraded, Time Period of Content information is stored in a separate extent section that contains only temporal extent information; temporal and spatial extents can be combined in one section when you create new metadata for an item in the current version of ArcGIS Desktop. Describe how recent the item's spatial data is in the Description text box, and provide the appropriate date or date range for the resource by clicking either the New Temporal Period Extent or the New Temporal Instant Extent under the Extent heading. Many individual dates can be provided, if desired; the event that occurred at each date should be explained.

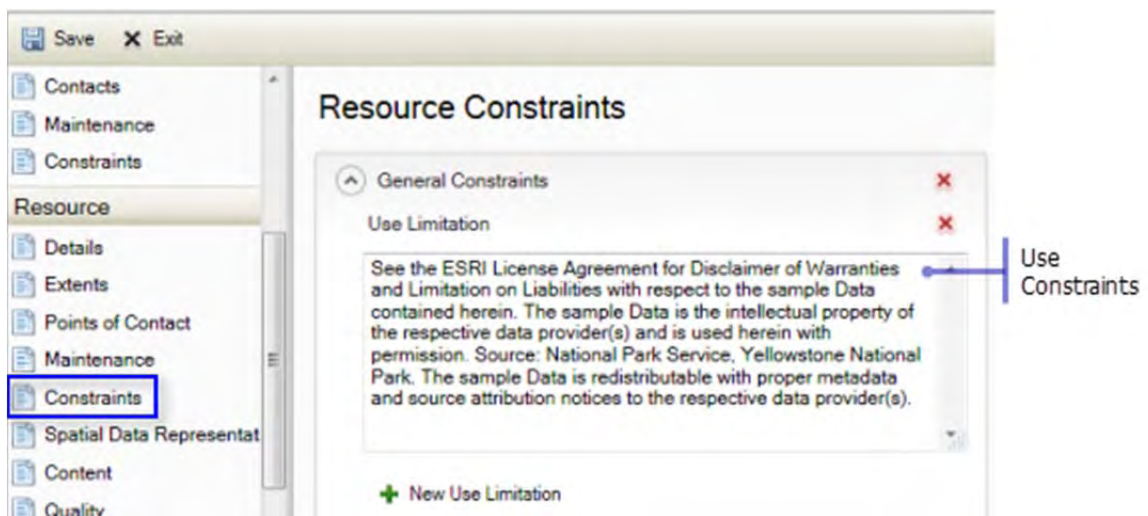


For each date, click the calendar control and select the appropriate date, then provide a time, if appropriate. A year, month, and day must be provided. If your FGDC-format metadata contains only a year, the value stored in ArcGIS metadata will be January first of that year. If the existing metadata contained only a year and a month, the value stored in ArcGIS metadata will be the first day of that month. If the item's data was collected during the month of June, describe this by providing a time period where the beginning and ending dates are the beginning and ending days in that month. If you only know the item was published in 1998, provide a time period where the beginning and ending dates are the beginning and ending days in that year. You can describe uncertainties about the data's time period in either the extent's Description or on the Quality page in an appropriate data quality Report.

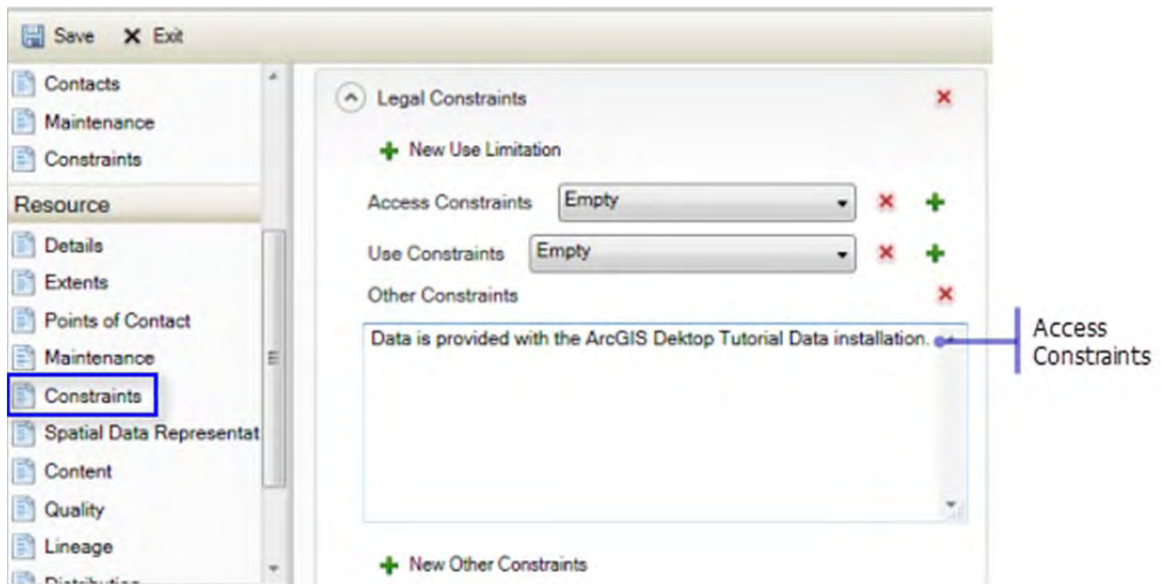
9. On the Maintenance page under the Resource heading, click the appropriate value in the Update Frequency list to describe how often the item is updated.



10. The same use constraints that are provided on the Item Description page are also available on the Constraints page in the General Constraints section in the Use Limitation text box. If you didn't provide this information on the Item Description page, you can do so here by clicking New General Constraints, then clicking New Use Limitation. If there are no use constraints associated with this item, leave the Use Limitation text box empty. The text None will be added automatically in the FGDC Use Constraints element when you export metadata to an FGDC-format XML file if use constraints haven't been provided.



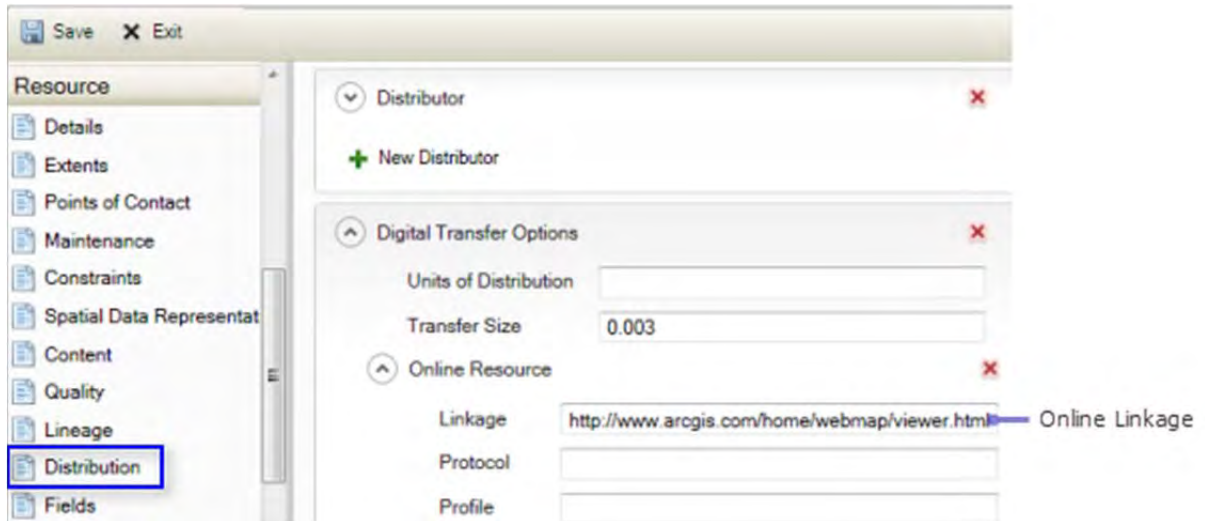
Any access constraints associated with the item can also be provided on this page in the Other Constraints text box. If a Legal Constraints section doesn't already exist on this page, click New Legal Constraints, then click New Other Constraints. If there are no access constraints associated with this item, leave the Other Constraints text box empty. The text None will be added automatically in the FGDC Access Constraints element when you export metadata to an FGDC-format XML file if access constraints haven't been provided.



 Note:

If you upgraded the item's existing 9.3.1 metadata with ArcGIS Desktop 10.0 Service Pack 2 or earlier, the upgrade may have upgraded the use and access constraints differently. The upgraded content may be left as is. However, the use constraints won't be available to the current version of ArcGIS Desktop for publishing and searching unless the content is arranged as described above. Any phrases such as Access constraints: or Use constraints: that were added to the values can be removed.

11. If the item can be accessed on the Internet, provide a link to this online location on the Distribution page. For example, you might create a layer or map package and share it on the ArcGIS website. After doing so, update metadata for your local copy of the item to reference the URL from which the package is available. At the top level of the Distribution page, click New Digital Transfer Options if this heading doesn't already exist. Under the Digital Transfer Options heading, click New Online Resource. Type an appropriate URL in the Linkage text box.



12. Click Save to save your changes.

The date of the metadata will be automatically updated for you at this time. You can see all of your changes in the Description tab under the ArcGIS Metadata heading.

Some mandatory FGDC metadata elements, such as the Metadata Standard Name, are not available to be edited in the Description tab because this information is handled for you automatically according to your ArcGIS metadata style.

The information above only covers the minimum set of required FGDC metadata content. However, you can create complete FGDC metadata content using the current version of ArcGIS by following the [Illustrated guide to complete FGDC metadata](#).

Exporting ArcGIS metadata to an FGDC-format XML file

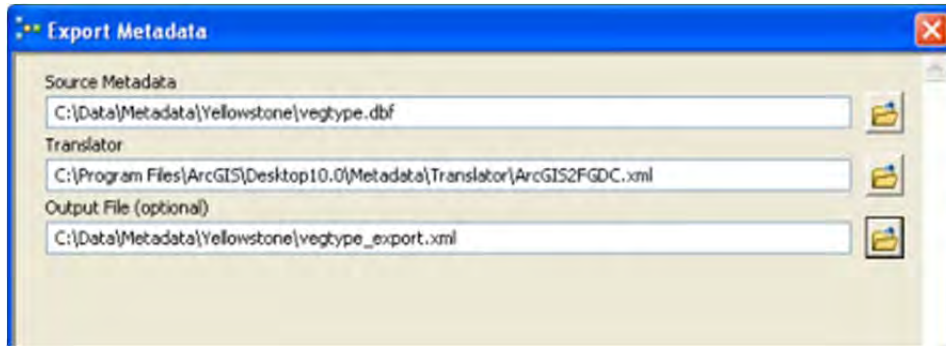
After creating your metadata content, if you want to share information about your item with others through a site such as geodata.gov or MSDIS, you must [export](#) it to an FGDC-compliant XML file that can be published to the site.

Steps:

1. Click the Export button  in the Description tab.

The Export Metadata tool's dialog box opens. The Source Metadata parameter is automatically set to the item's location. The Translator parameter is automatically set to the ARCGIS2FGDC.xml translator, which knows how to get information from the appropriate ArcGIS metadata elements and organize it into an FGDC XML file.

2. Provide an appropriate name for the FGDC-format XML file that will be exported in the Output File parameter.



3. Click OK.

Publishing the exported FGDC XML file to Geodata.gov

The exported XML file can be uploaded to geodata.gov after registering and logging in to the site. Select the Upload Metadata option.

If the items you share and their metadata are continually updated and you would like to regularly publish metadata updates, you can create and automate a Python script that can export FGDC metadata from the appropriate items to a web-accessible folder. Geodata.gov can regularly harvest your metadata from this location.

Producing other FGDC metadata files

In some cases, you might need to provide your metadata to others using FGDC-format text and HTML files. These and other file formats that are traditionally associated with FGDC metadata can be generated from the FGDC-format XML file exported above with the USGS MP Metadata Translator tool, which is available in the Conversion toolbox in the Metadata toolset. Instructions for producing an FGDC-format HTML file are provided below.

This tool uses the USGS metadata parser utility, known as mp. A copy of mp is provided with ArcGIS Desktop and used by the tool.

Steps:

1. Click Geoprocessing > Search For Tools.

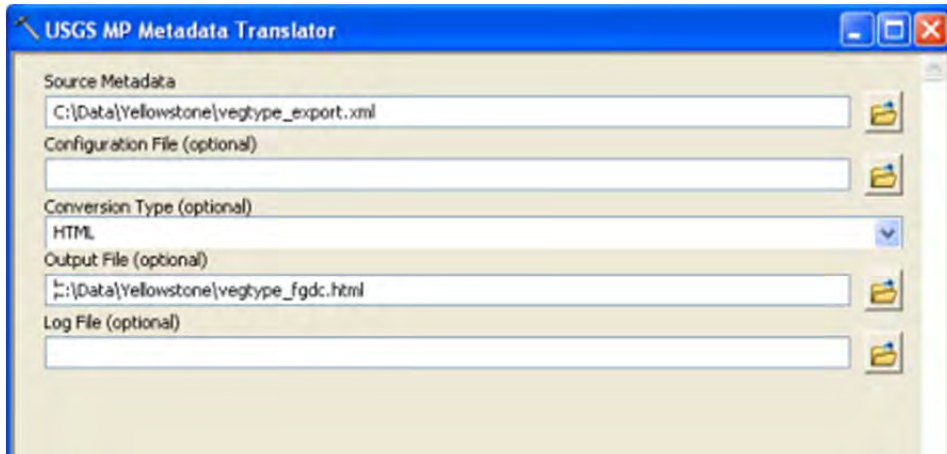
The Search window opens.

2. Start typing usgs mp into the Search text box. Click usgs mp metadata translator (conversion) in the list of tools that appears.

The USGS MP Metadata Translator tool is listed in the search results.

3. Click USGS MP Metadata Translator (Conversion) in the search results list to open this tool.

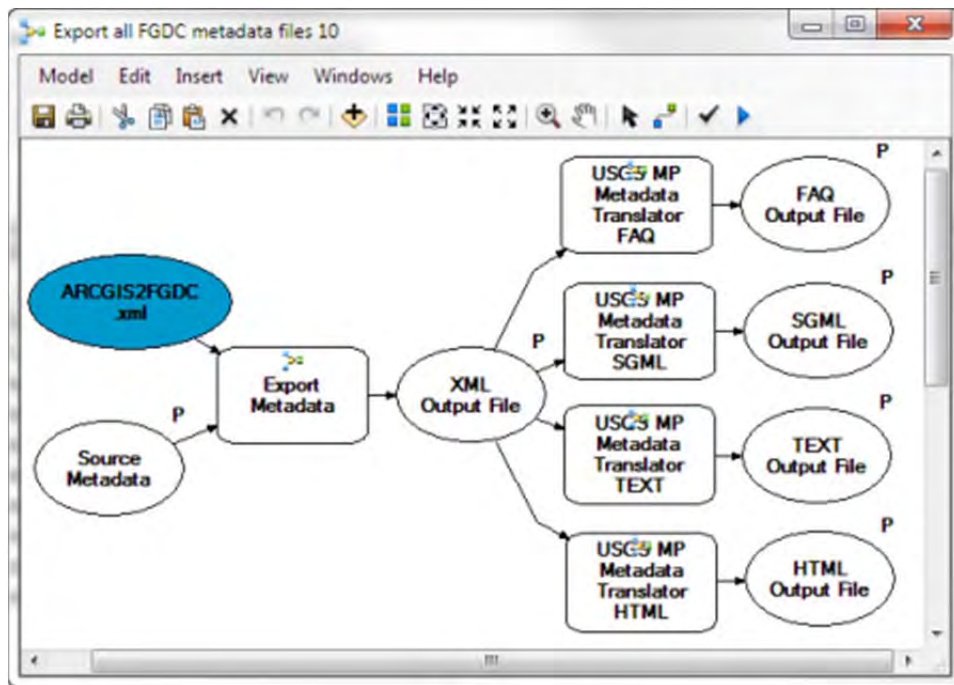
4. Drag and drop the exported FGDC-format XML file onto the Source Metadata parameter in the tool's dialog box.
5. To produce an FGDC-format HTML file, click HTML in the Conversion Type list.
6. Provide an appropriate file name in the Output File parameter. Make sure you specify an appropriate file extension such as .html.



7. Click OK.

To produce an FGDC-format structured text file, you would select the TEXT Conversion Type, instead, and specify an appropriate file extension such as .txt in the Output File parameter. SGML, DIF, and FAQ-format HTML files can also be produced with this tool. Any validation warnings and errors produced by mp can be saved to a text file instead of being returned by the tool as messages; provide an appropriate file name and location in the Log File parameter.

If you need to produce HTML and text files like this on a regular basis, use a model or a Python script to export all the FGDC metadata files you need in one step, as illustrated below.



Importing FGDC metadata

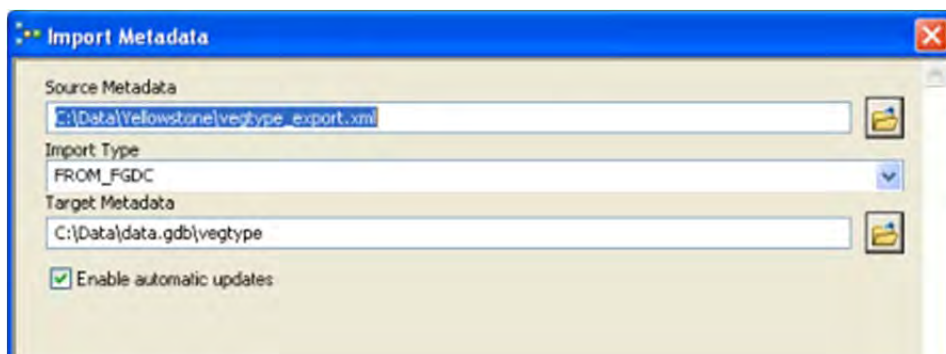
If you have metadata in an FGDC-format XML file, you can [import](#) this information to an item.

Steps:

1. Click the Import button  in the Description tab.

The Import Metadata tool's dialog box opens. The Target Metadata parameter is automatically set to the item's location.

2. Provide the appropriate path to the FGDC-format XML file that will be imported in the Source Metadata parameter.
3. In the Import Type list, click FROM_FGDC.



4. Click OK.

 Note:

Ignore all warning messages produced by the Import Metadata tool.

The imported metadata content is translated to the ArcGIS metadata format and then included in the item's metadata. Any existing ArcGIS metadata content will be replaced by the imported metadata content. However, the item's original geoprocessing history and thumbnail are not lost.

If you are importing FGDC-format metadata from another ArcGIS item, any properties that were added automatically to the source item's metadata by ArcGIS are not imported. Properties that are appropriate to the target item are added automatically at the end of the import process. If Enable automatic updates is checked, all content that can be synchronized with the target item will be updated in its metadata. That is, any manually provided properties in the source item's metadata, such as the number of features in a feature class, will be overwritten by the target item's actual properties or a default value that is appropriate for the item. This will include the item's title, which will be replaced by the item's name; while this might not be the desired result if you are importing an XML file with the item's FGDC-format metadata into ArcGIS, it would be the desired result if you were importing metadata from a raster to a feature class where it is highly unlikely that both items would use the same descriptive title.

Importing an FGDC-format structured text file

In the current version of ArcGIS Desktop, metadata can only be imported to an item if it is in an XML file. However, you may be given metadata for an item in one of the other FGDC-format files such as a text file. This text file must be [converted to an FGDC-format XML file](#) using the metadata parser utility, mp, before it can be imported.

The USGS MP Metadata Translator tool only accepts FGDC-format XML files in the Source Metadata parameter, so it can't be used to perform the conversion. Because a copy of mp is provided with ArcGIS Desktop, you can perform the conversion in ArcGIS using a Python script. The example script below performs the conversion and then imports the resulting FGDC-format XML file with the Import Metadata tool as described above.

A Python script that first converts an FGDC-format structured text file to an FGDC-format XML file, then imports the XML file to the item as its metadata.

```
import os
import arcpy

#set local variables
dir = arcpy.GetInstallInfo("desktop")["InstallDir"] + "bin"
fgdcTXT = "c:/data/fgdcInText.txt"
fgdcXML = "c:/data/fgdcOutXML.xml"

#convert the text file to an XML file
runCmd = "mp.exe " + fgdcTXT + " -x " + fgdcXML
os.chdir(dir)
os.system(runCmd)
```

```
#import the XML file
from arcpy import env
env.workspace = "c:/data/data.gdb"
arcpy.ImportMetadata_conversion (fgdcXML, "FROM_FGDC", "streams")
```

5). Other things you can do to better publish your metadata in the MSDIS GeoPortal...

The following are things that MSDIS will check\change before publishing your metadata.

a). Metadata Style sheet: The addition of the following line of .xml code in an XML editor – almost always on line two – will help your metadata to display better in the geoportal.

```
<?xml-stylesheet href="../fgdc_classic.xsl" type="text/xsl"?>
```

It's a reference to the FGDC Classic style sheet. When not used the portal throws what appears to the future user to be an error:

“This XML file does not appear to have any style information associated with it. The document tree is shown below.”

This is not actually an error - but I'm sure you'll note the difference when you begin to add the line in the way the metadata displays on the portal.

b). Title: You may have noticed that MSDIS has implemented a new title standard for GeoPortal implementation. This will help users both more readily identify a file and with its publishing to GOS on the national level. The MO for Missouri is a markedly better identifier than the past “st” label each Missouri file name was preceded by.

Format = MO YEAR DESCRIPTIVE TITLE (file type)

Examples: MO 2010 Public Schools (SHP){for shapefile}

MO 2011 Christian County School Districts (SHP)

MO 2011, October MoDOT Roads - Routes (GDB) (file geodatabase)

c). Keywords: The metadata theme keywords are the search dictionary for a metadata file – how it is discovered not only on the geoportal but via the web. There are two important things to remember for users.

i. In the GeoPortal's case (as it is in GOS) discoverability is aided by keywords that match the ISO categories listed below:

ISO Topic Category:

Administrative and Political Boundaries
Agriculture and Farming
Atmosphere and Climatic
Biology and Ecology
Business and Economic
Cadastral
Cultural, Society and Demography
Elevation and Derived Products
Environment and Conservation
Facilities and Structures
Geological and Geophysical
Human Health and Disease
Imagery and Base Maps
Inland Water Resources
Locations and Geodetic Networks
Military
Oceans and Estuaries
Transportation Networks
Utilities and Communication

Adding an ISO category keyword in your metadata helps categorize and refine searches for your data. Determine the category your data best fits in and use that keyword. You can specify more than one category – and it may show up in the portal – but for some reason we have not yet discovered - it doesn't always display.

ii). All other keywords – use other theme keywords that best help your data be discovered – choose the keywords you think most users will search on.

Our current experience with the GeoPortal indicates it can be temperamental in this regard – in any case it's not intuitive for most users... It seems you must use the singular and the plural forms for major keywords. i.e. – for MoDOT files – road **and** roads. We don't yet know why this is – just that it is...

d). File Type: Is the file type Shapefile or File Geodatabase Feature Class? Specify either in ArcCatalog under the Identification/General tab – look at the bottom line where it says “Native Data Set Format” or in a text editor use on the line following the “Native” line:

<natvform Sync="TRUE">File Geodatabase Feature Class</natvform> or this:

<natvform Sync="TRUE">Shapefile</natvform>

e). Downloadable Data: If the data is to be made publically available go into the ArcCatalog metadata editor (or FGDC editor in ArcGIS10) and under the “Distribution” tab make sure the Resource Description box specifies “**Downloadable Data**”. If the data is to be offline specify “**Offline Data**”. There are multiple other locations to provide the information for users to contact you if they wish a copy of the data.

These are things that can be accomplished by the user before they submit their data – things that help. MSDIS will still be editing various other details in the metadata such as the onlink, ensuring the spatial extents are specified, adding the geoportal admin tags for future reference if there are issues with the file and testing the file after changes and posting.

Finally – there is another function of the Geoportal that we have not implemented. The tool would allow users to submit their own metadata after being registered and granted permissions.

This is a discussion on a future horizon that several will need to sign off on...

IMPORTANT NOTE!

MSDIS is harvested on a regular basis (automated) by the Geospatial One Stop (GOS) Portal - so there is no need for data our submitters to publish to GOS themselves...