

# EME v 3.1 and ArcGIS 10

Working with FGDC metadata in ArcGIS 10



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# Outline

- What's new in the metadata community
- What's new in ArcGIS 10
- Potential Pitfalls
- Using EME v3.1
- Discussion



# What's new in the metadata community

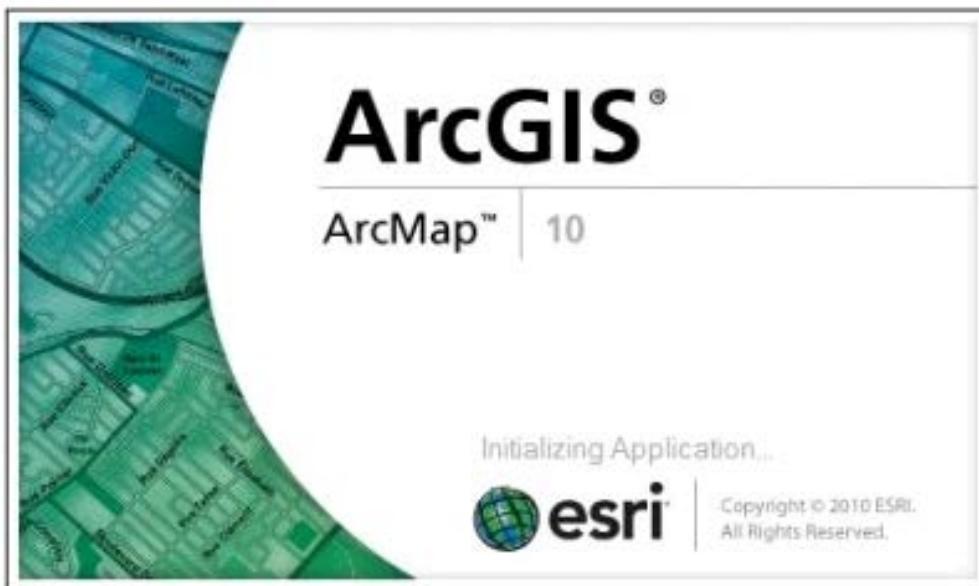
- NAP of ISO 19115/19139 still a work in progress
- FGDC advises agencies to use CSDGM for now\*
- Geospatial One-Stop (GOS) may be retired; merge with Data.gov?

*\*unless you have a pressing need to use ISO*



International  
Organization for  
Standardization

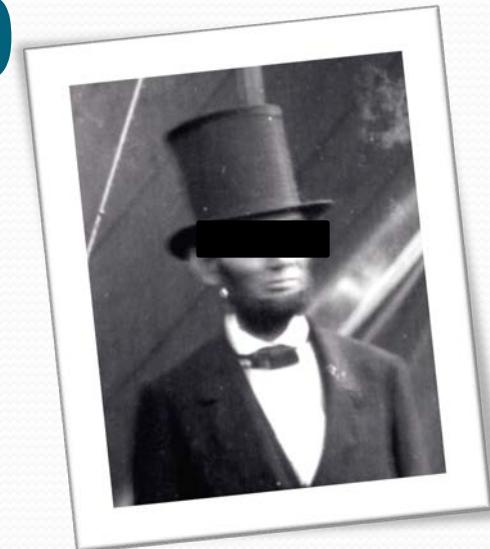
# What's new in ArcGIS 10



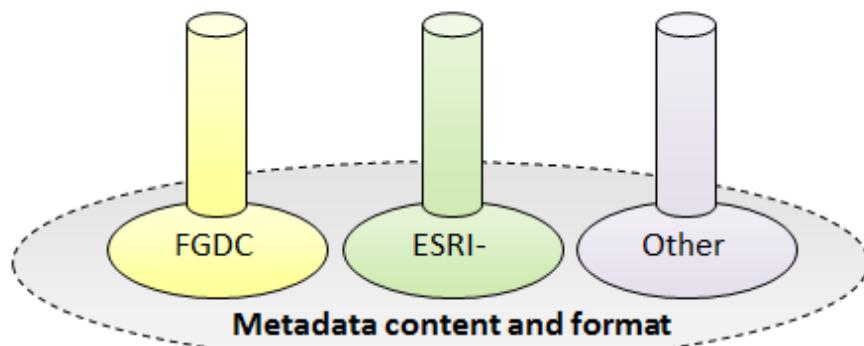
- Biggest metadata overhaul in 10 years
- Changes to many typical metadata business processes
- Main goal: support multiple standards

# What's new in ArcGIS 10

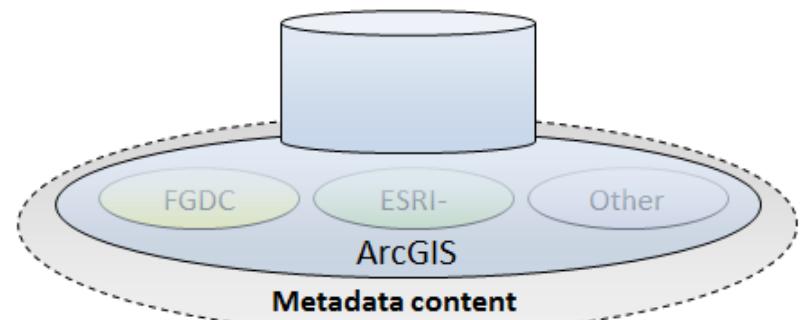
- New approach to metadata storage
  - Called ‘Unified’ approach (as opposed to old “stovepipe” approach)
  - Idea was to make it **easier** to support multiple standards (change metadata style from one standard to another)



Stovepipes are out.

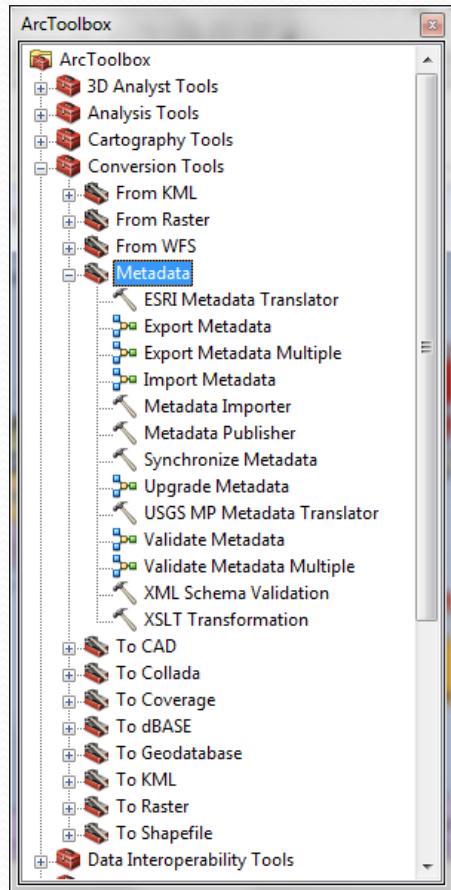


*The ArcGIS 9.3.1 stovepipe model for managing metadata*



*ArcGIS 10 metadata includes content for all standards*

# What's new in ArcGIS 10

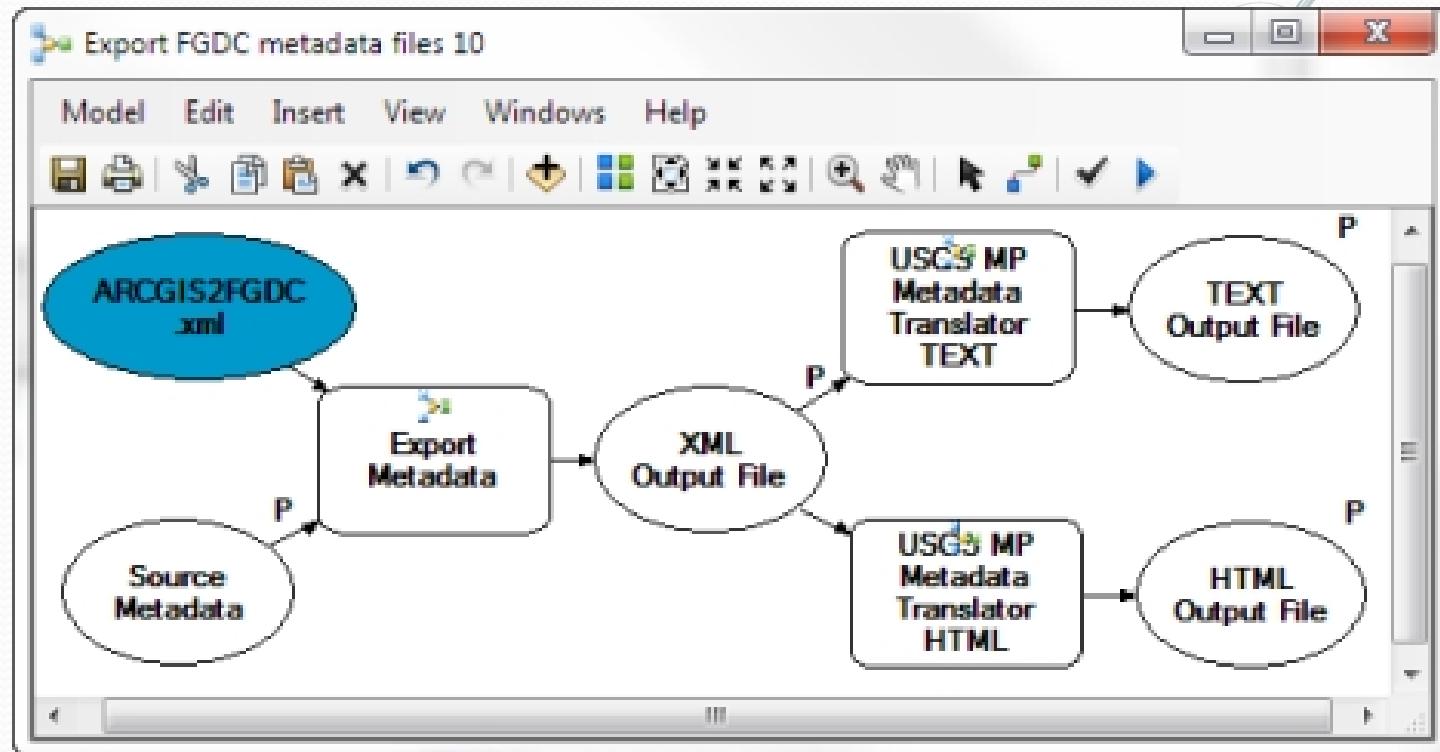


- Different metadata presentation
  - Based on metadata styles
  - Default metadata style is **Description** style
- Metadata tools now available in Toolbox (Geoprocessing tools in Conversion toolbox).
  - New tools in Conversion toolbox support importing, exporting, synchronizing
  - New validation tools
- Integration with ArcGIS software/data processing
  - Different Synchronization
  - Metadata is saved along with layers
  - Changes in map properties are saved to metadata

# What's new in ArcGIS 10

- New FGDC Export Process
  - When exporting FGDC metadata to file formats other than XML, ArcGIS 10 now uses a translator
    - **Old way:** Export to XML, then repeat the export process using other file formats
    - **New way:** Export to XML, then use the USGS MP Metadata Translator tool to create other file formats **from the XML file**
  - Can build a model to export all necessary files in one step

# What's new in ArcGIS 10



Export model for ArcGIS 10

# Potential Pitfalls

- Different default look and feel
- No longer a metadata toolbar in ArcCatalog
- Metadata tools moved to ArcToolbox and are a bit buggy
- Interim files are left on desktop during processing
- ‘**Metadata Import**’ in the main section more of a translator



# Potential Problems

- Users have identified some issues...
  - Import/Export problems
  - No more FGDC editor and FGDC stylesheet
  - Issues with updating metadata created in 9.x
  - Validate tool is unreliable
  - Not always possible to duplicate the results shown in ArcGIS Help (especially when creating/editing FGDC compliant metadata)



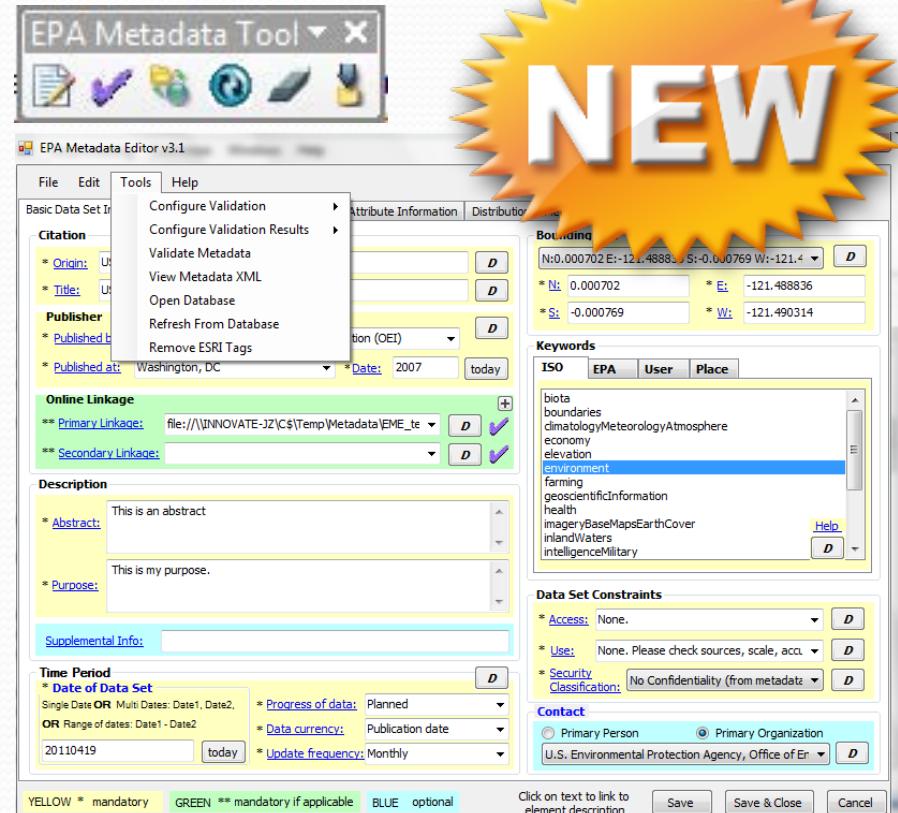
# Enter EME v3.1



- Same simple geospatial metadata editor (3 tabs)
- Maintains ArcGIS 9.X metadata business processes in ArcGIS 10
- Download from  
<https://geogateway.epa.gov/EME/>

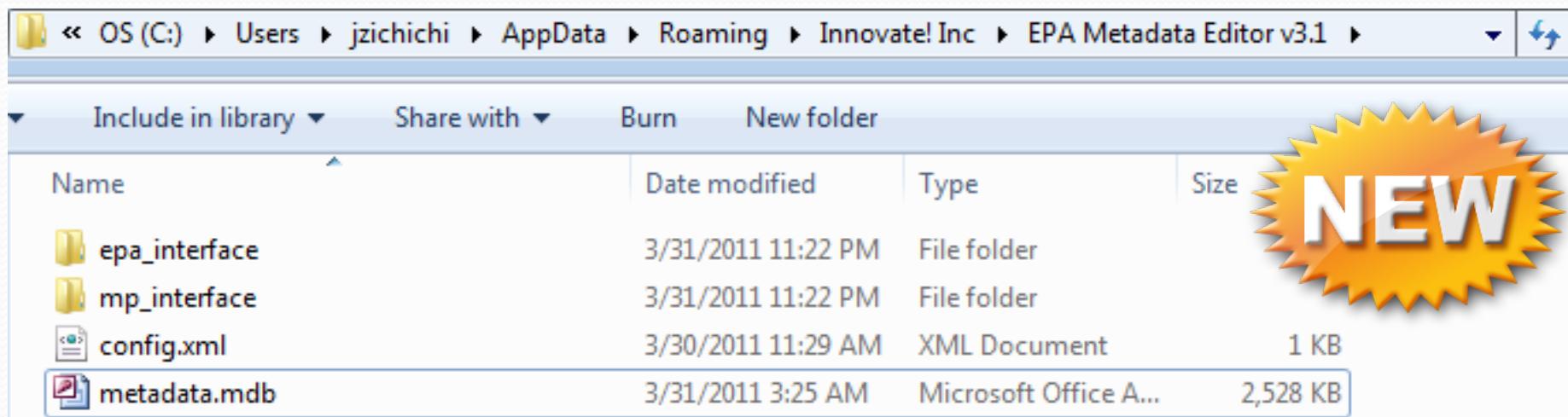
# New in EME v 3.1

- On the face of it – not much! *But....*
- Compatible with ArcGIS 10
- Runs as a standalone application
  - ArcGIS 10 extension calls standalone tool
- Synchronizes FGDC metadata in ArcGIS 10
  - Same configurable EPA Synchronizer
  - Allows user to retain published doc ID if removing ESRI tags
- **Clear all & import** buttons in toolbar
  - One or more records
- Many functions moved to menu bar



# New in EME v 3.1 (cont'd.)

- EME database moved to new location
  - Makes an operational copy of EME database in user directory (e.g., C:\Users\jzichichi\AppData\Roaming\Innovate! Inc)
  - *Still allows user to point to alternative db location in config.xml*
- Allows users to include more than two online linkages in metadata
- Fixes bugs from previous version of EME



A screenshot of a Windows File Explorer window. The address bar shows the path: OS (C) > Users > jzichichi > AppData > Roaming > Innovate! Inc > EPA Metadata Editor v3.1. The main pane displays a list of files and folders:

Name	Date modified	Type	Size
epa_interface	3/31/2011 11:22 PM	File folder	
mp_interface	3/31/2011 11:22 PM	File folder	
config.xml	3/30/2011 11:29 AM	XML Document	1 KB
metadata.mdb	3/31/2011 3:25 AM	Microsoft Office A...	2,528 KB

A large orange starburst graphic with the word "NEW" in white is overlaid on the bottom right of the file list.

# Using the EME

- Installing v. 3.1
  - EME 3.0 must be uninstalled **prior** to uninstalling ArcGIS 9.X.
  - EPA has developed a patch to help address this issue (Included in EME v3.1 download package)
- EME v3.1 Installation Reqts:
  - .Net Framework 3.5 required
  - ArcGIS 10 (for ArcGIS extension)
  - FGDC Style Patch (for ArcGIS extension)

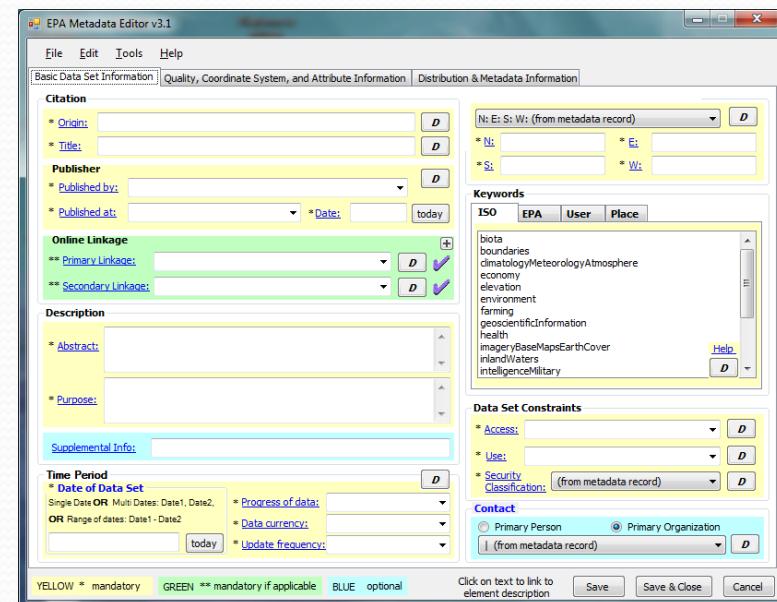
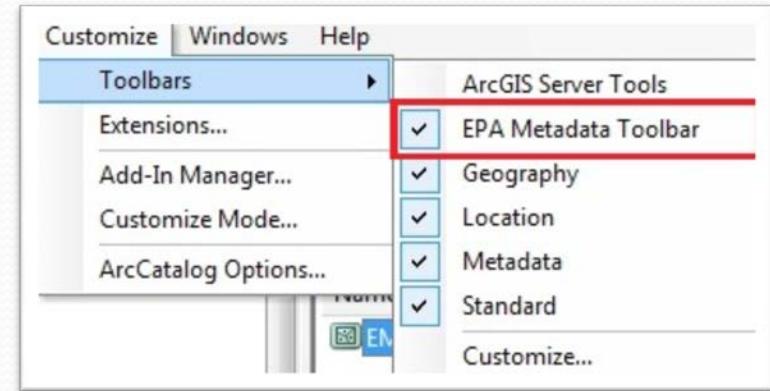
Uninstall EME 3.0



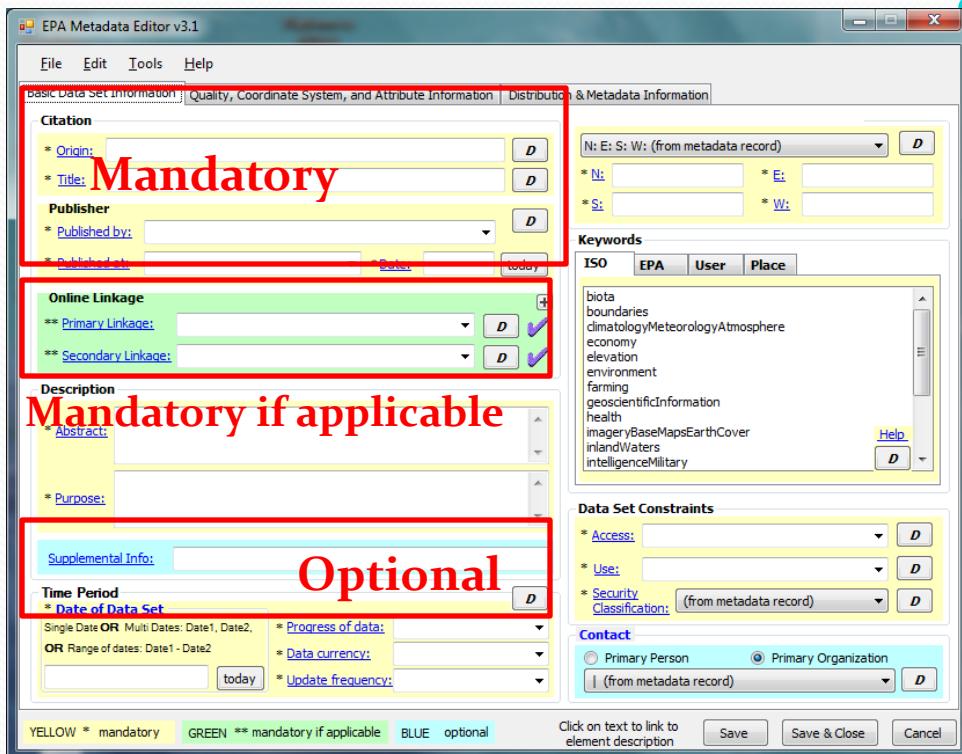
Uninstall ArcGIS 9.x

# Using the EME

- Access EME as an ArcGIS Extension from ArcCatalog
- Access EME as a standalone application
  - Start → EPA Metadata Editor



# Using the EME



## User interface

- Specify information that corresponds to all EPA required elements in Sections 1, 2, 4, 6, and 7 of the FGDC CSDGM.
- Specify some information for Section 5 (Attributes) of the FGDC CSDGM.
- Fields are color-coded
  - Yellow = 'mandatory'
  - Green = 'mandatory if applicable'
  - Blue = considered 'optional'

# Using the EME

- EME Database

- EME uses a Microsoft Access database to supply default information within the user interface
- Database is structured to align closely with the flow of the user interface
- Modify the database from the EME user interface
- Change the location of the database as needed

	orderedId	tag	tabNo	spellcheck	srcTable
▶	10010	idinfo/citation/citeinfo/origin	1	<input checked="" type="checkbox"/>	1a_Citation
	10020	idinfo/citation/citeinfo/title	1	<input checked="" type="checkbox"/>	1a_Citation
	10030	idinfo/citation/citeinfo/pubinfo/publish	1	<input checked="" type="checkbox"/>	1b_Publisher
	10040	idinfo/citation/citeinfo/pubinfo/pubplace	1	<input checked="" type="checkbox"/>	1b_Publisher
	10050	idinfo/citation/citeinfo/pubdate	1	<input type="checkbox"/>	1a_Citation
	10060	idinfo/descript/abstract	1	<input checked="" type="checkbox"/>	
	10070	idinfo/descript/purpose	1	<input checked="" type="checkbox"/>	
	10080	idinfo/descript/supplinf	1	<input checked="" type="checkbox"/>	
	10100	idinfo/timeperd/current	1	<input checked="" type="checkbox"/>	1e_Currentness
	10110	idinfo/status/progress	1	<input checked="" type="checkbox"/>	1d_Progress
	10120	idinfo/status/update	1	<input checked="" type="checkbox"/>	1f_Update
	10130	idinfo/spdorm/bounding	1	<input type="checkbox"/>	1g_BoundingBox



# Using the EME

Non-compliant

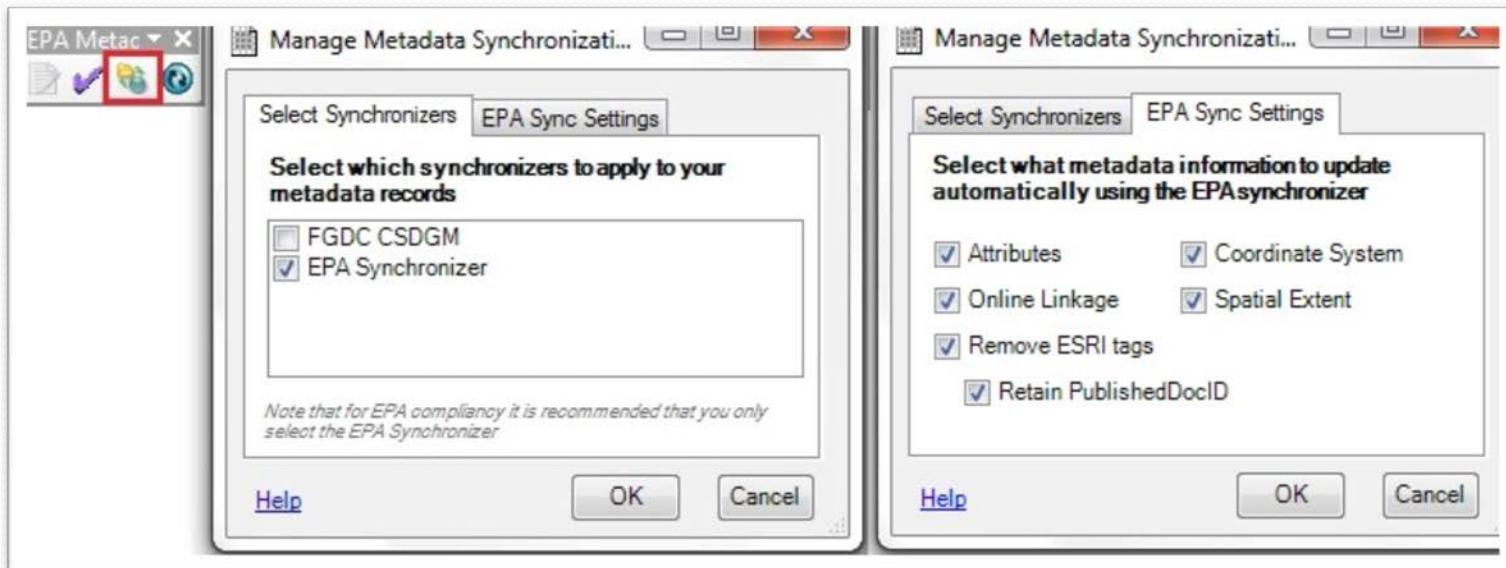


- Synchronization

- Automatically insert data properties into metadata
- Save time and ensures consistency with data
- Particularly useful for coordinate system and spatial extent

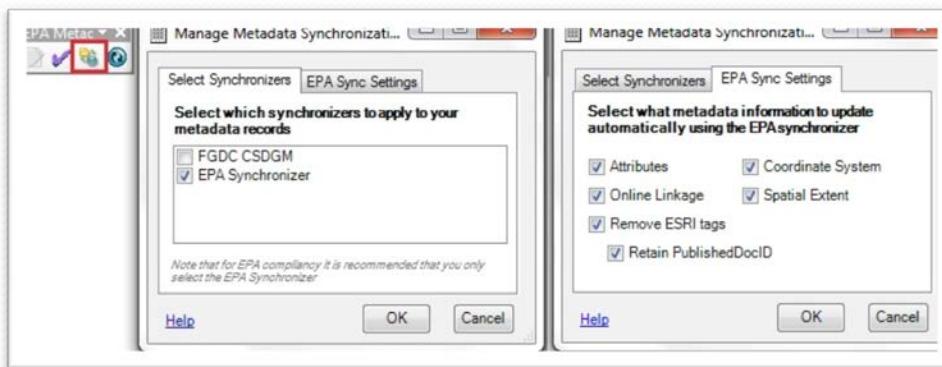
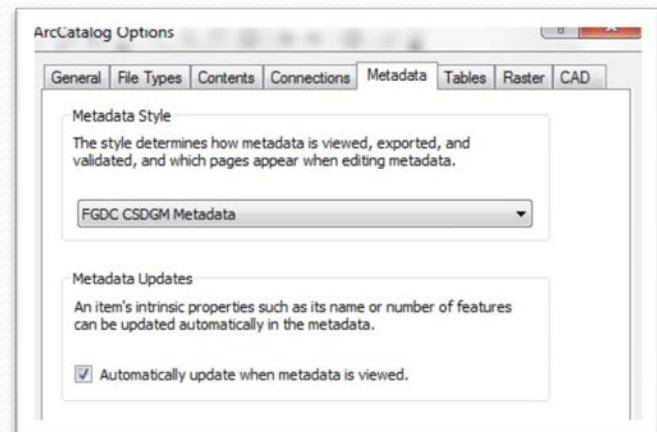
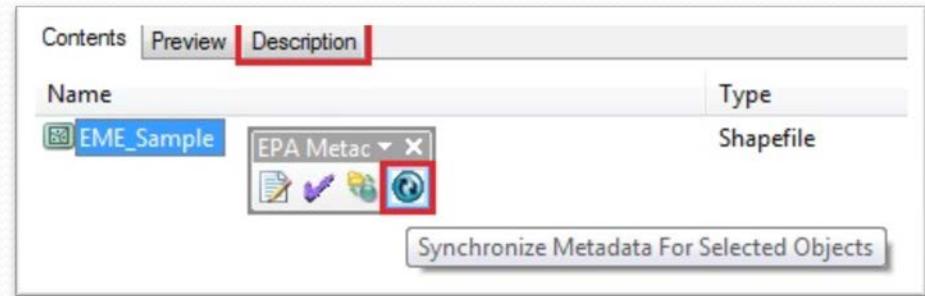
# Using the EME

- The EPA Synchronizer
  - Lets users control which data properties are synchronized
  - Retain information for important elements
  - Avoid inserting unnecessary information
  - Access from EME Toolbar



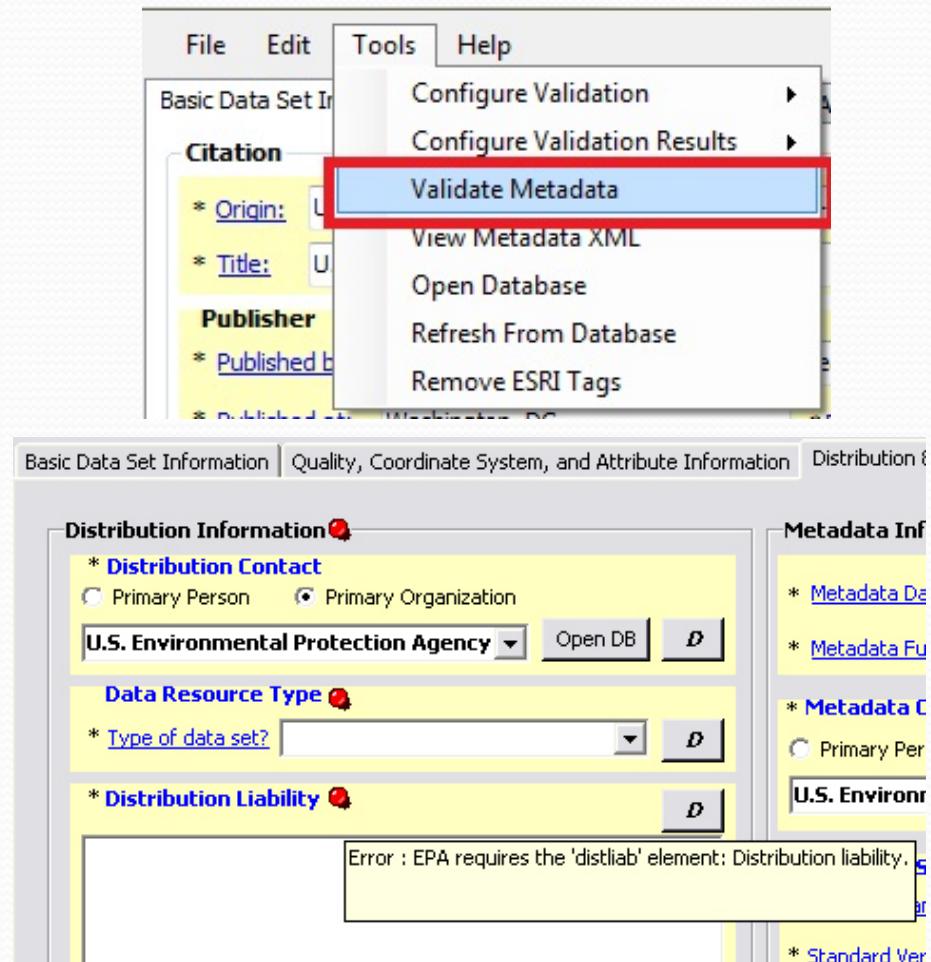
# Using the EME

- Set EPA Synchronizer as default
- Select which attributes to synchronize
- Apply synchronization

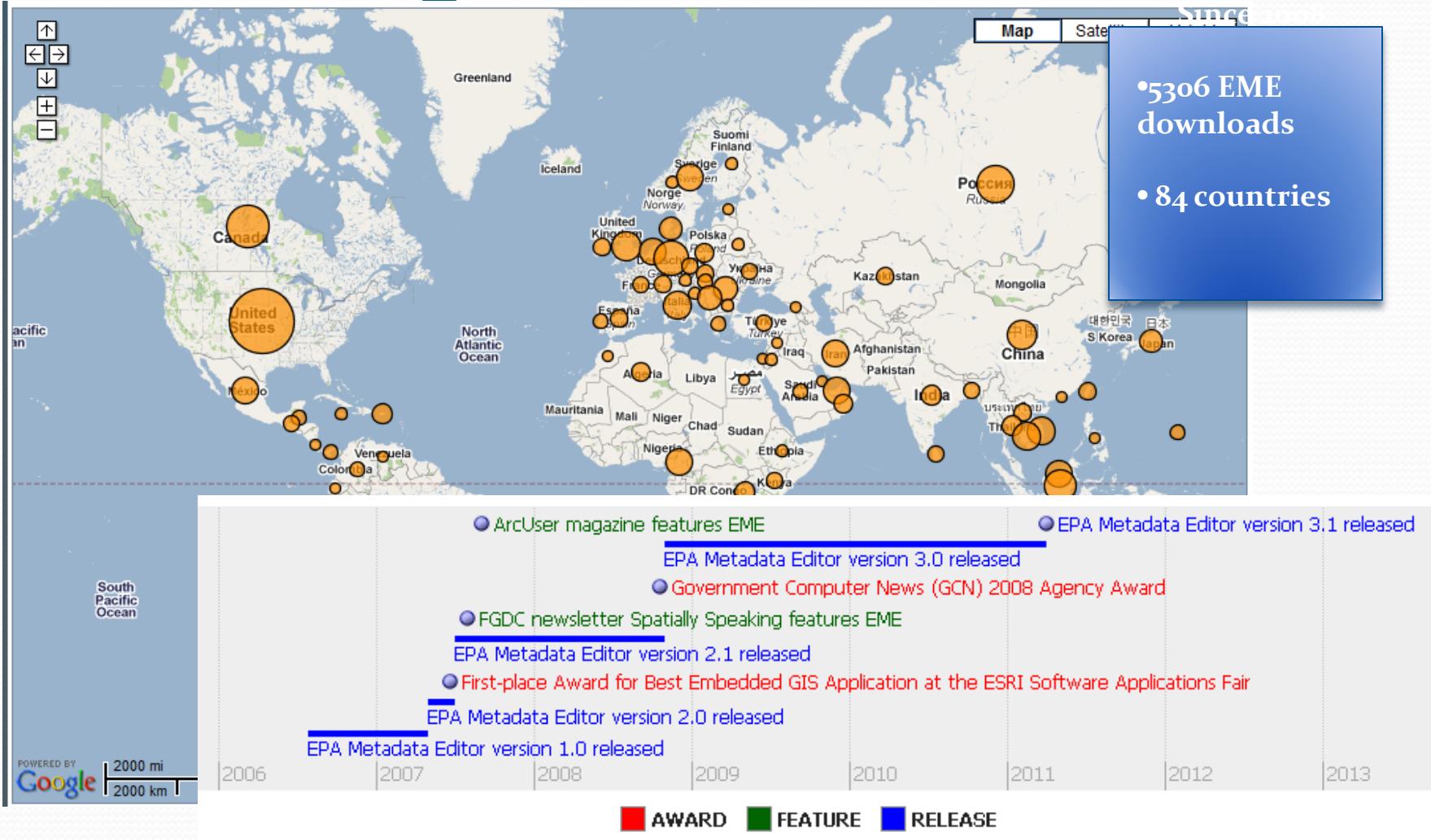


# Using the EME

- The EME Validator
  - Tests metadata records for compliancy with both FGDC and EPA requirements.
  - Validate records one at a time or with batch processing
  - Results of validation available in:
    - EME user interface
    - Web browser



# EME Usage



<https://geogateway.epa.gov/EME/>



## EPA Metadata Editor v3.1 – Validation Results –

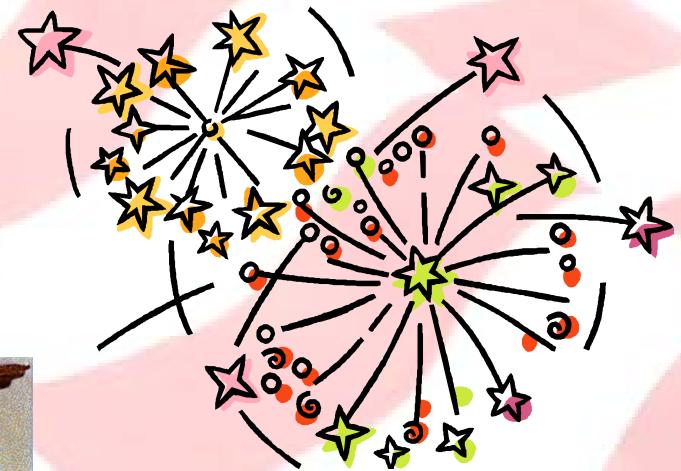
No errors or warnings!

1	<?xml version="1.0" encoding="UTF-8"?>
2	<metadata>
3	<idinfo>
4	<citation>
5	<citeinfo>
6	<origin>United States Environmental Protection Agency – Office of Environmental Information (OEI)</origin>
7	<pubdate>201102</pubdate>
8	<title>U.S. EPA Metadata Editor (EME) Version 3.1</title>
9	<pubinfo>
10	<pubplace>Washington, DC</pubplace>

# Additional Resources

- EME Website
  - <https://geogateway.epa.gov/EME/Home.htm>
- ESRI FGDC Style Patch
  - <http://blogs.esri.com/Dev/blogs/arcgisdesktop/archive/2010/08/25/FGDC-Metadata-Style-Patch.aspx>
- ArcGIS 10 Desktop Metadata Help
  - <http://help.arcgis.com/en/arcgisdesktop/10.0/help/index.html#/ooqoooooooooooo.htm>
- ArcGIS Metadata Blog Posts
  - <http://blogs.esri.com/Dev/blogs/arcgisdesktop/archive/2011/01/03/A-new-approach-for-Metadata-with-ArcGIS-10.aspx>
- FGDC Metadata Website
  - <http://www.fgdc.gov/metadata>

# Discussion



# Contact Us

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