

## DIGITAL MAPPING TECHNIQUES 2025

The following was presented at DMT'25 May 18 - 21, 2025

The contents of this document are provisional

See Presentations and Proceedings from the DMT Meetings (1997-2025) http://ngmdb.usgs.gov/info/dmt/

#### Using the FGDC symbols as a web style in ArcOnline

This presentation provides a brief introduction for using geologic map symbols as a web style in an ArcGIS Online web map. Topics covered include how to share a web style, demos of setting symbol/style attributes for point, line, and polygon geologic data in ArcGIS Online, common errors encountered, and potential improvements.

> Lainey Le Blanc Geological Survey of Alabama DMT 2025

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\*This PDF contains videos, to view the videos you need to download the file. To enable media in Adobe Acrobat: Edit> Preferences> Multimedia & 3D Category> Check box "Enable playing of Multimedia and 3D content"

## Using the FGDC symbols as a web style in ArcOnline

Lainey Le Blanc Geological Survey of Alabama DMT 2025



## The stylx file

#### **≥USGS**

August 2005

#### FRUE Document Number FRUE-STID-015-2005

FGDC Digital Cartographic Standard for Geologic Map Symbolization

Prepared by the U.S. Geologien Survey for the External Geographic Units Committee

Geologic Data Subcommittee

Federal Geographic Data Committee

#### Symbology

fadc

Standard

 FGDC Digital Cartographic Standard for Geologic Map Symbolization — Publication website (Federal Geographic Data Committee, 2006).

ArcGIS styles

 ArcGIS Pro style implementation of FGDC Standard — Comprehensive and authoritative implementation of the standard created by the South Carolina Geological Survey for the NGMDB.

Fonts (required for style files)

- FGDCGeoAge.otf OpenType version of special geologic age characters.
- FGDCGeoSym five TrueType font files of geologic marker symbols used for decorating line symbols and symbolizing points. These are required for the style files above.

https://ngmdb.usgs.gov/Info/standards/GeMS/

## Web styles

#### • Fully implemented February 2023

Made easier to use in February 2024 (no longer require an admin to set up a group)

ArcGIS Blog Mapping ArcGIS Online

nline Mar 05, 2024

#### A New Way To Add Web Styles in Map Viewer

#### By Russell Roberts

In Map Viewer there are multiple ways to add symbols to style your features. Map viewer supports uploading SVG, PNG, JPEG, and GIFs through symbol styler which allows you to use these uploaded images in your maps without having to manage the images being hosted somewhere else. This allows the image to be stored in the map so when the image is removed from Symbol styler it will not break any existing maps. To learn about uploading images and using them in Map Viewer check out this blog. You can also use Esri default web styles or configure your organization settings to use web styles published from ArcGIS Pro and use them in Map Viewer for members across your organization. To learn about this workflow check out my blog on how to publish a web style.

https://www.esri.com/arcgis-blog/products/arcgis-online/mapping/use-published-2dsymbols-in-arcgis-online

<u>https://doc.arcgis.com/en/arcgis-online/create-maps/apply-styles-mv.htm</u>

## To share a web style

#### Conditions:

- For 2D styles, the symbol is a point, a line, a polygon, or text. No colors.
- For 3D styles, the symbol is a point symbol that only contains 3D model marker symbol layers.
- The size of the symbol is less than 100 MB.
- The style item key of the symbol does not contain special characters:
  - / (forward slash)
  - \ (backslash)
  - : (colon)
  - \* (asterisk)
  - ? (question mark)
  - . (period)

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- < (less than)</p>
- > (greater than)
- | (vertical bar or pipe)

## To share a web style

- Right click in Contents or Catalog> Share as web style
- Set Style Type to 2D

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| 😵 FGDC_GSA       | 🧼 Manage Style        |                                     |
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| ArcGIS Online    |                       |                                     |

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| Sharing FGDC_GSA As A Web Style   |     |
| General Messages                  |     |
| ✓ Item Details                    |     |
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| FGDC_GSA                          |     |
| Summary                           |     |
| FGDC symbol set for geologic maps |     |
|                                   |     |
| Tags                              |     |
| geologic mapping × FGDC × ^       |     |
| GeMS × Add Tag(s)                 |     |
|                                   |     |
| ✓ Style Type ①                    |     |
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| ✓ Location                        |     |
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| Select or create folder           |     |
| → Sharing Level                   |     |
| 👝 🔿 Owner                         |     |
| Owner of the item(s) has access   |     |
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| All members of your               |     |
| organization have access          |     |
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## To share a web style

| • | The current stylx implementation of the FDGC   |
|---|--|
|   | Cartographic Standard uses periods in the Keys |

| Name       | <u>^</u> | 01.01.21  |
|------------|----------|---|
| - 01.01.01 |          | 01.01.21  |
| - 01.01.02 |          | Line symbol   |
| - 01.01.03 |          | Name  |
| - 01.01.04 |          | 01.01.21  |
| 01.01.05   |          | Category  |
| 01.01.06   |          | 1.1 - Contacts  |
| 01.01.07   |          | Tags  |
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| - 01.01.09 |          |   |
| — 01.01.10 |          | Style   |
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| - 01.01.12 |          | Key 🕕   |
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|                                  |
|                                  |

Share As Web Style ? ~ 7 × Sharing FGDC\_Geo\_web\_style As A Web Style

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General Messages

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## Error 24413

- 24113: <value> is unsupported for <value> web styles and will be removed
- esri solution: "Do nothing" it'll be eliminated from the web style
- Open style in Catalog view works for symbols, but not for Colors



🗿 00327 Style item keys contain invalid chara A 24113 Style items are unsupported for 2D 1 ▲ 24113 Red is unsupported for 2D web s A 24113 50% Red is unsupported for 2D w A 24113 Green is unsupported for 2D web A 24113 50% Green is unsupported for 2D A 24113 Violet is unsupported for 2D web A 24113 Purple is unsupported for 2D wel A 24113 Brown is unsupported for 2D wel A 24113 Orange is unsupported for 2D we A 24113 0 is unsupported for 2D web style A 24113 1 is unsupported for 2D web style A 24113 2 is unsupported for 2D web style A 24113 3 is unsupported for 2D web style 🛕 24113 4 is unsupported for 2D web style ▲ 24113.5 is unsupported for 2D web style Warnings 24113 Code: everity: Low Unresolved status: Green Name: Description: Green is unsupported for 2D web styles and

Type:

will be removed

https://pro.arcgis.com/en/pro-app/latest/help/sharing/analyzer-warning-messages/24113value-is-unsupported-for-value-web-styles-and-will-be-removed.htm

## My solution

• Make a very pared down version of the symbol set with corrected keys

#### FGDC\_GSA

#### Style

- ✓ Path C:\Users\LLeBlanc\Documents\GeMS\Style\FGDC\_GSA.stylx
- ✓ Status

Editable

- ➤ Description
- Tags
- Color Management
- ✓ Style Classes
- Point symbol (903)
- 🗛 Line symbol (1450)
- Polygon symbol (794)
- A Text symbol (385)
- 🛟 Color (1008)

| FGDC_Geo_web_style  |
|---|
| Style   |
| Y Path  |
| C:\Users\LLeBlanc\Documents\GeMS\Style\FGDC_Geo_web_style.stylx |
| ✓ Status  |
| Editable  |
| ➤ Description   |
| Subset of FGDC geologic symbols for ArcGIS Online               |
| > Tags  |
| Color Management  |
| ✓ Style Classes   |
| <ul> <li>Point symbol (13)</li> </ul>                           |
| ூ Line symbol (71)  |
|   |

Polygon symbol (190)

## In AGOL, web styles:

|                  | ☐ FGDC_Geo_web_style   | 🗞 Style     |
|------------------|--|-------------|
| FGDC_Geo_web_st  | yle /  | Overview 🔻  |
| / Edit thumbnail |  | Download    |
|                  | Pared down version of the ArcGIS Pro style<br>Pared down version of the FGDC Cartographic Standard | Update Data |
|                  | for geologic map symbols. Contains a subset of geologic symbols to be used in ArcGIS Online.       | Share       |

FGDC Geo\_web\_style

Ø Desktop Style by Ileblanc\_gsaogb

Add to Favorites

Add to Favorites

Item created: Jan 28, 2025 Item updated: Jan 28, 2025 Number of downloads: 0

# FGDC\_Geo\_web\_style Description Edit thumbnail Pared down version of the ArcGIS Pro style Edit mplementation of the FGDC Cartographic Standard for geologic map symbols. Contains a subset of geologic symbols to be used in ArcGIS Online. Style by lleblanc\_gsaogb

Item created: Jan 28, 2025 Item updated: Jan 28, 2025 Number of downloads: 6



- Layers with existing styling applied, that styling will be applied when added to another map
- Can be used in smart mapping and sketch



#### 10 <u>https://www.esri.com/arcgis-blog/products/arcgis-online/mapping/a-new-way-to-add-web-styles-in-map-viewer</u>

Overview 🔻

#### Download

Ø Desktop style

Share

#### Apply the web style in AGOL- Points

- In Map Viewer > Styles> Choose attributes > Field > Symbol field > Types (unique symbols)
- In Style options + add the web style
- Bedding symbols are ~14pt = ~19px, scale dependent if adjust size automatically is checked





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#### Apply the web style in AGOL-Polys

Throws polygons into Other, Move to group

Osgc, Sequatchie Formation, Greensport Formation, and Chickamauga Limestone undifferentiated

Monteagle Limestone undifferentiated

Dfm, Frog Mountain Sandstone

OCchcr, Chepultepec Dolomite and Copper Ridge Dolomite undifferentiated

Ocm, Colvin Mountain Sandstone

Og, Greensport Formation

Olol, Little Oak Limestone and Lenoir Limestone undifferentiated

Os, Sequatchie Formation

Ppvht, Hardwick Tunnel member of Pottsville Formation

Ppvl, Pottsville Formation lower part

Ppvp, Pine Sandstone Member of Pottsville Formation

Ppvs, Shades Sandstone Member of Pottsville Formation

Ppvu, Pottsville Formation, upper part

Water



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## Result & in Field Maps



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### **Potential improvements**

#### Less clicking

Automatic sizing is confusing

- Don't know which apps will support web styles
- Requires sharing from ArcPro 3.x

"At that time there was no client consuming web styles of different geometries. When Map Viewer brought in support for point lines and polygons we required a special flag on the item to help the symbol styler know when to show a symbol gallery and when not too. ArcGIS Pro 3.0 started writing this out and we use these same flags when searching for compatible web styles for the geometry being styled. "

https://community.esri.com/t5/arcgis-online-questions/help-needed-customweb-styles-not-showing-under/m-p/1527593

#### 🔊 Note:

Vector symbols are only supported in some ArcGIS apps. Instead of the vector symbols you apply to a map, a default symbol is applied when the map is used in apps that don't yet support these symbols. To determine whether vector symbols are currently supported in a specific ArcGIS app, refer to the app documentation.

https://doc.arcgis.com/en/arcgis-online/createmaps/use-style-options-mv.htm

## Contact



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