

How to disable ArcMap's Gamma Stretch to correctly view GeoTIFF imagery

In order to correctly view Sanborn imagery, you will have to disable the Gamma Stretch in ArcMap. There are two options for disabling the Gamma Stretch:

Method One (recommended) is to disable the Gamma Stretch *before* loading any imagery into ArcMap. **Please note**: Depending on the version of ArcMap used, you may have to disable Gamma Stretch every time you start a new ArcMap session. *In v10.1 disabling Gamma Stretch is a one-time operation, while in v10.2.x Gamma Stretch must be disabled before every session.*

Method One: Disabling the Gamma Stretch *before* loading the imagery:

- 1) Open ArcMap
- 2) Click- Customize>ArcMap Options
- 3) Click on the Raster Tab then click on the Raster Layer Tab
- 4) Ensure the Enable Custum Rendering Defaults box is checked
- 5) Set Display Resample: to Nearest Neighbor (This is the default option)
- 6) Set Stretch Type: to None
- 7) Ensure Apply Gamma Stretch is not checked

Your ArcMap Options window should look like this when finished:

| ArcMap Options | | | | |
|---|--|--|--|--|
| CAD Sharing Display Cache | | | | |
| General Data View Layout View Metadata Tables Raster | | | | |
| Raster Dataset Raster Catalog Raster Layer Mosaic Dataset ImageSe 4 | | | | |
| Default RGB Band Combinations | | | | |
| Use wavelength information when available | | | | |
| 3 band data source | | | | |
| Red: 1 - Green: 2 - Blue: 3 - | | | | |
| 4 or more band data source | | | | |
| Red: 1 - Green: 2 - Blue: 3 - | | | | |
| ☑ Enable Custom Rendering Defaults | | | | |
| Display Resampling: Nearest Neighbor | | | | |
| Stretch Type: None 🔻 | | | | |
| Standard Deviation n: 2 | | | | |
| Percent Clip Minimum: 2 | | | | |
| Percent Clip Maximum: 2 | | | | |
| Apply Gamma Stretch 1 1 | | | | |
| Display Background Value: 0 0 0 as | | | | |
| Display NoData as | | | | |
| | | | | |
| About raster options | | | | |
| OK Cancel Apply | | | | |

REMINDER: If you are using Arc 10.2+ you will have to disable the Gamma Stretch every time you start a new ArcMap session. ArcMap 10.1 allows a onetime setup. Sanborn has not upgraded to ArcMap 10.3 at this time, so we are not sure if the v10.3 settings will hold through new sessions or if you will have to repeat this process for every new session.



Method Two can be applied if you've already loaded imagery and need to disable the Gamma Stretch on images individually. *If* you're working with more than a handful of images, it's **highly** recommended that that you close out of your ArcMap session and start over using Method One.

Method Two: Disabling the Gamma Stretch after loading the imagery:

- 1) Right Click on one of your loaded images>click Properties
- 2) Click on the Symbology tab
- 3) Ensure the RGB Composite option under Show: is selected
- 4) In the Stretch Box at the bottom of the tab set Type: to None
- 5) Ensure Apply Gamma Stretch is not checked.

This is how your Layer Properties window should look when finished:

| Layer Properties | | | <u> </u> | |
|--|-------------------------------------|--------|----------|--|
| General Source Key Metadata Extent Display Symbology | | | | |
| Show: Draw raster as an RGB composite | | | | |
| | Channel | Band | | |
| | Red | Band_1 | | |
| | Green | Band_2 | ▼ | |
| | Alpha | Band_3 | ▼ = | |
| Display Background Value:(R, 0 0 0 as G, B) Display NoData as C | | | | |
| | Stretch | | | |
| | Type: None | | | |
| | | Invert | | |
| | Apply Gamma Stretch: | | 1 | |
| | Statistics From Each Raster Dataset | | | |
| About symbology | Red Green Blue | | | |
| OK Cancel Apply | | | | |
| | | | | |

REMINDER: Using this method, you'll have to repeat disabling the Gamma Stretch for every loaded image. *If you have more than a handful of images loaded, it is highly recommended that you close out of ArcMap and start a new session using* **Method One** to *turn off the stretch.*

Thank you for your time in reading this walkthrough on how to disable the Gamma Stretch. By following these instructions you will now be able to view your imagery in its correct display. **Before and after examples are shown on page 3**.



Before and After Examples:

A water tile with Gamma Stretch applied:



A Land tile with Gamma Stretch applied:



A water tile with Gamma Stretch disabled:



A Land tile with Gamma Stretch disabled:

