On-the-fly Image Processing in ArcGIS

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Overview

- Introduction to raster functions
- Function editor
- Raster function models
- Sharing functions
- Custom
Image Processing

- Transform pixels to create meaningful information products
Traditional Image Processing

Source rasters → Intermediary raster → Intermediary raster → Output raster
On-the-fly image processing
What is on-the-fly processing?

What are the advantages of on-the-fly processing?

• **Save space**
  - No intermediary data
  - No redundant data
    - Source pixels are referenced

• **Save time**
  - Immediate results
    - No data written to disk
  - Easy to use
What is a raster function?

• A raster function performs on-the-fly processing on a raster
  - (Geoprocessing tools perform processing, but not on-the-fly)

• The easiest way to use a raster function is to use a raster product

• You can also easily use raster functions to produce your own meaningful results
  - Located on the Raster Functions pane in ArcGIS Pro
  - Located on the Image Analysis window in ArcMap
Linking functions together

- Just like traditional processing, you can also link raster functions together to create raster function chains.

- You can keep adding on-the-fly processes to a single layer

- Or you can use the Function Editor to create a complex chain, just like Model Builder
Demo

Raster functions and Function Editor
Demo

Raster functions and Function Editor
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