



Enterprise: Building Mosaic Datasets

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Mosaic Datasets

ArcGIS Imagery Information Model

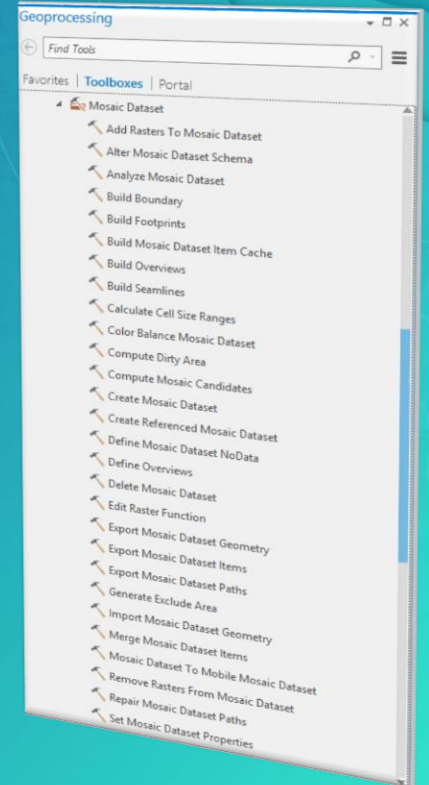
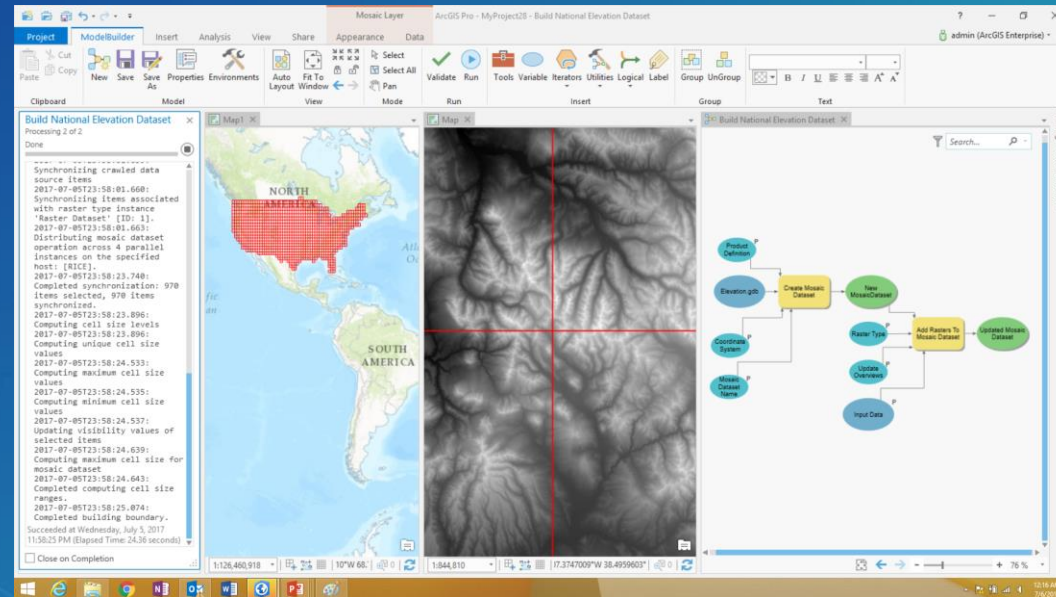
- **The Mosaic Dataset is the primary information model component which manages massive collections of imagery**
- **It's role is to provide...**
 - an image library for management (cataloging, indexing, metadata, searching,...)
 - dynamic, on-the-fly, product generation (mosaicking, processing and analysis)
 - a workflow to shorten the time from sensor to use (quickly ingest, dynamic product immediately available)
- **Scalable (1 to millions of images)**
- **Homogeneous or heterogeneous collections (one sensor or a mix)**
- **Dynamic product generation for visualization or analysis**

Mosaic Datasets

ArcGIS Imagery Information Model

- **Building Mosaic Datasets**

- Geoprocessing : Tools, Models, and Scripts that can be automated
- 25 + GP tools to handle:
 - Creation
 - Optimization
 - Processing
 - Color Balancing
 - Seamlines
 - Synchronization
 - and more



Dynamic Mosaicking

Mosaicking Multiple Images On Demand

- Mosaic imagery from multiple tiles
- User can query mosaic
 - Season = Summer



On-The-Fly Processing

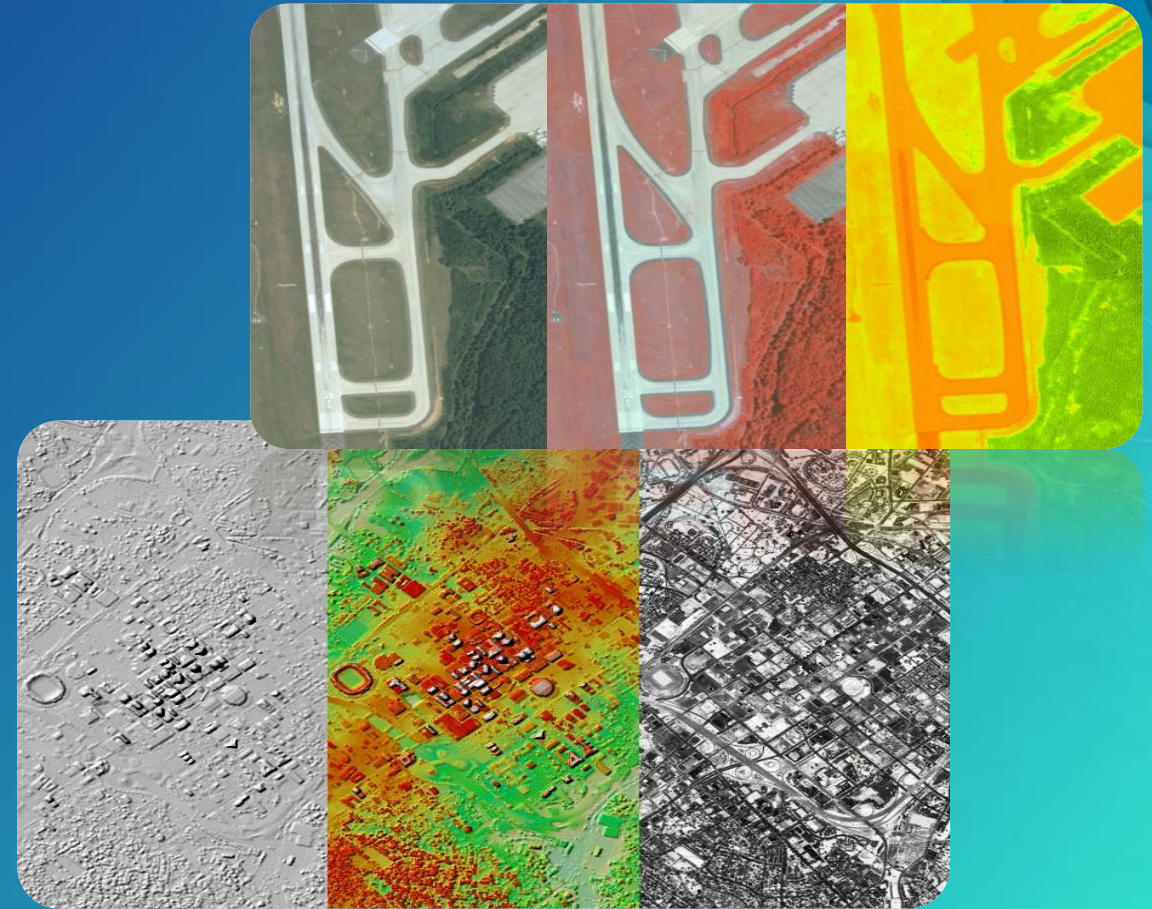
Creating Multiple Products from a Single Source

- Processes

- Extract Bands
- Hillshade, Shaded Relief
- Stretch

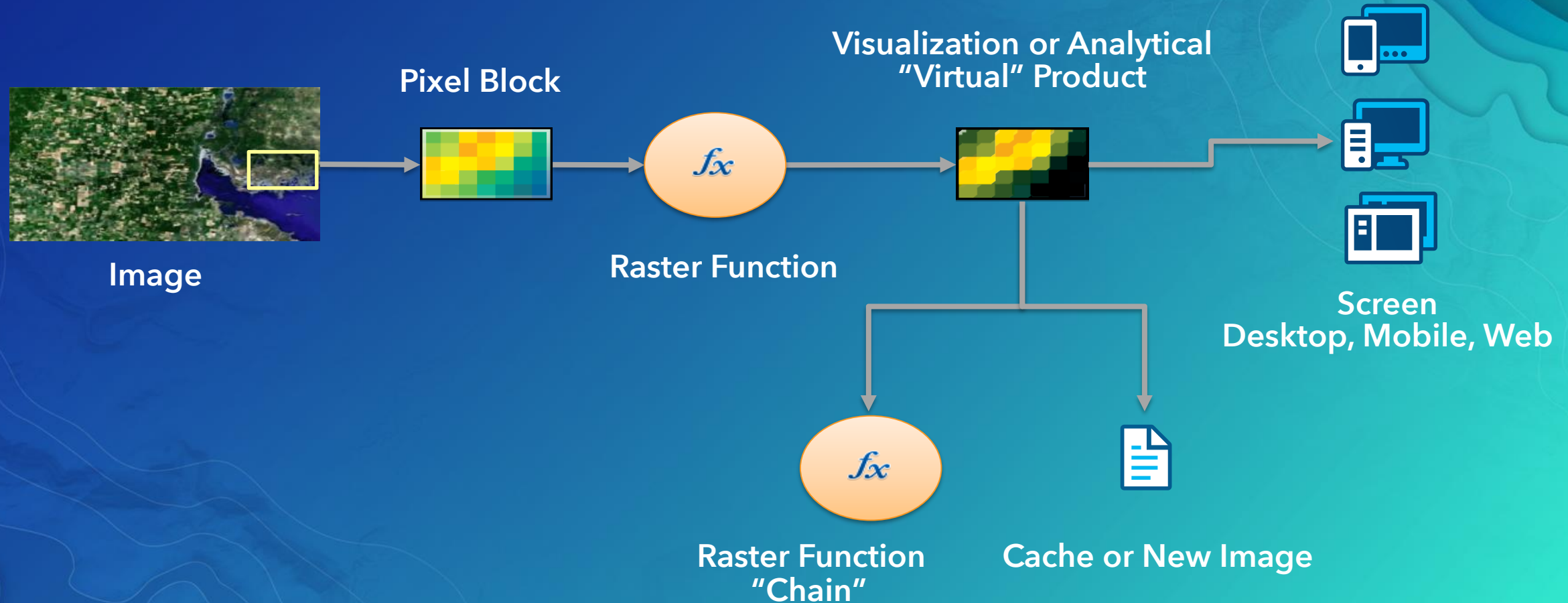
- Applied to

- Individual rasters
- Complete Mosaic



Raster Function

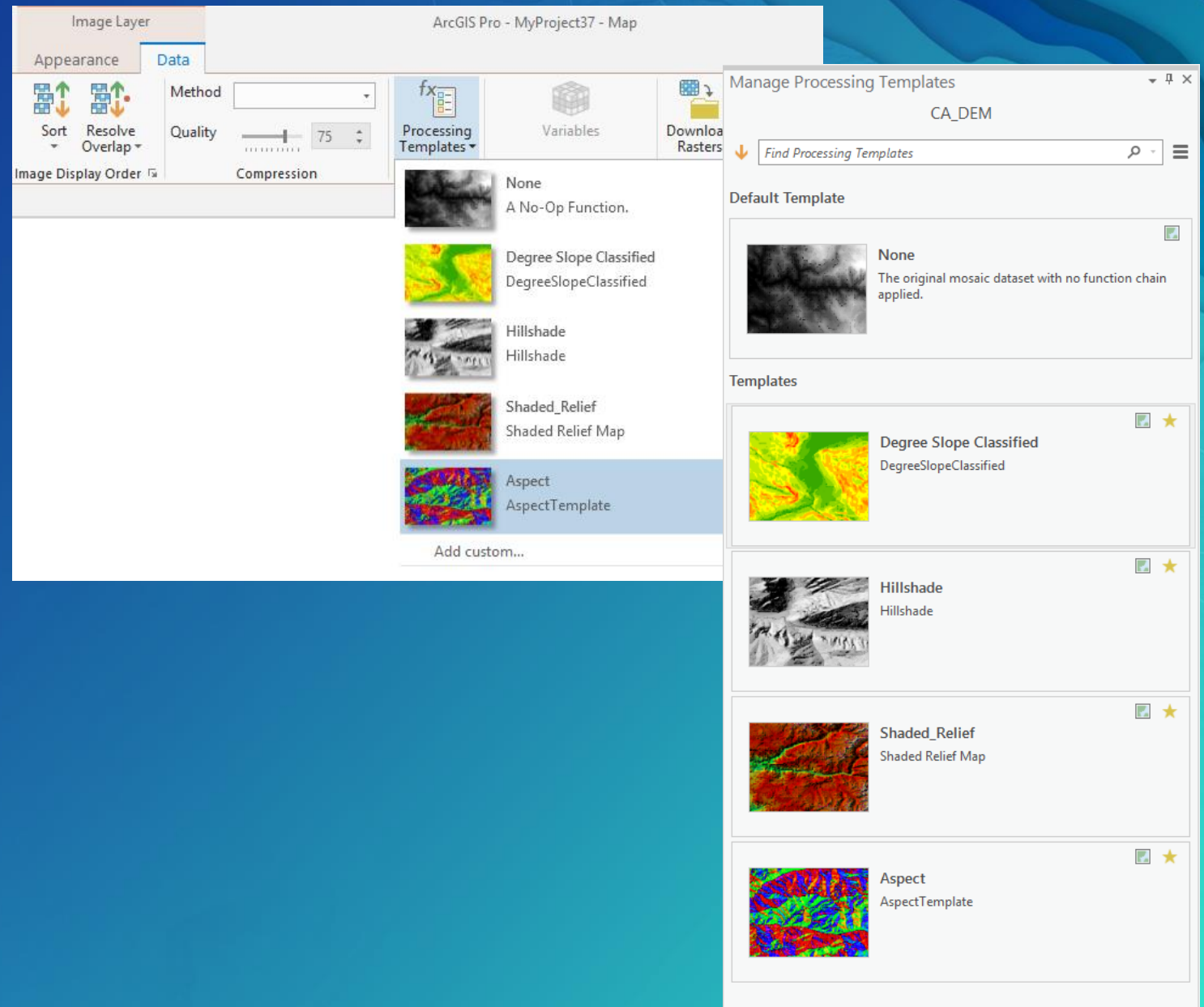
ArcGIS Imagery Information Model

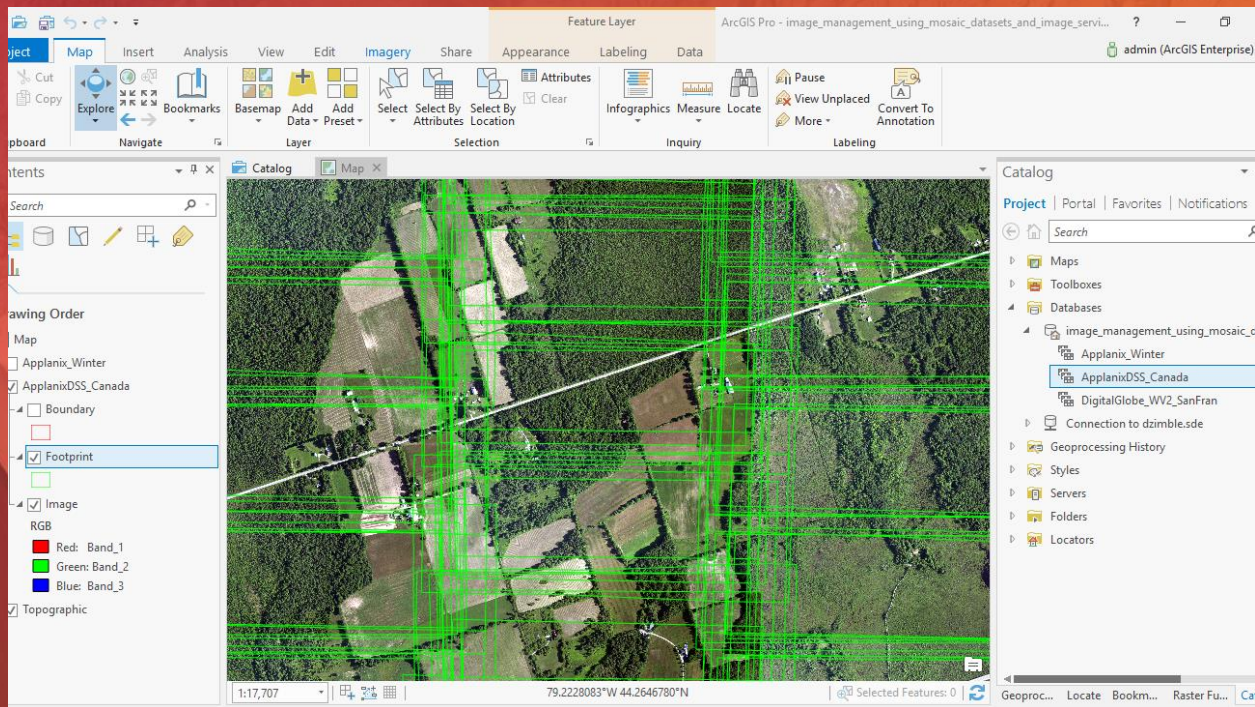


Mosaic Datasets

ArcGIS Imagery Information Model

- Model for managing and serving collections of images with multiple products from single source rasters or images.
- Processing is attached to Mosaic Datasets as Templates or built directly on the Mosaic Dataset.
- Once published they are immediately available when accessing the Web Image Layer in your portal.





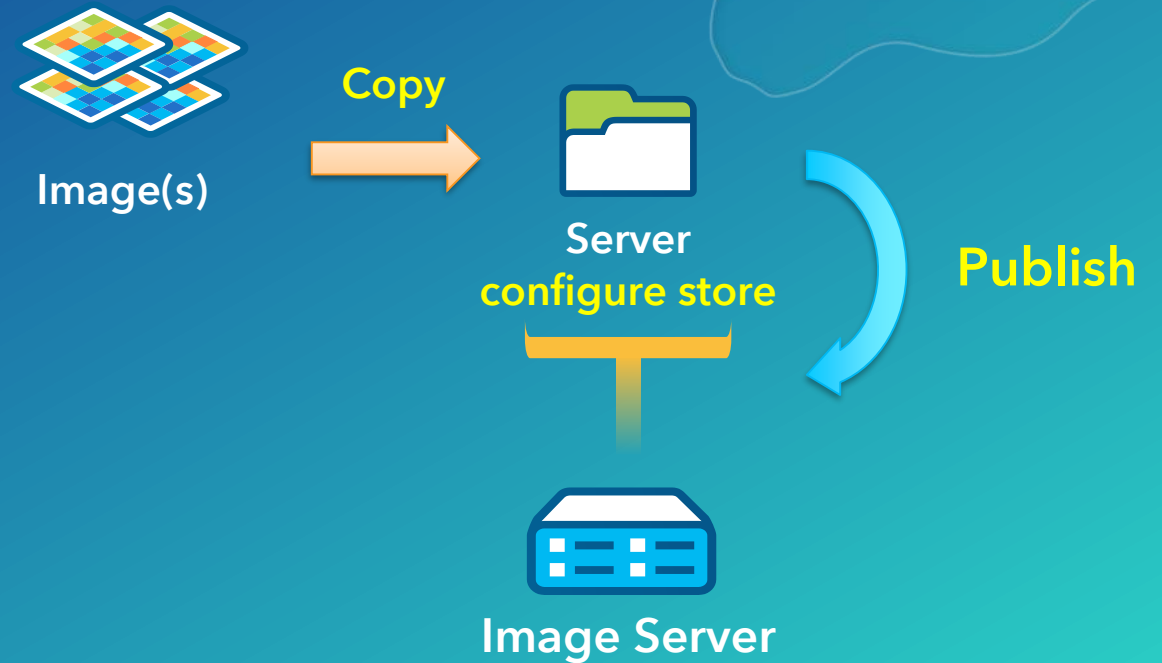
DEMO

Building and working with Mosaic
Datasets

Sharing Mosaic Datasets by Value

- **Share by Value**

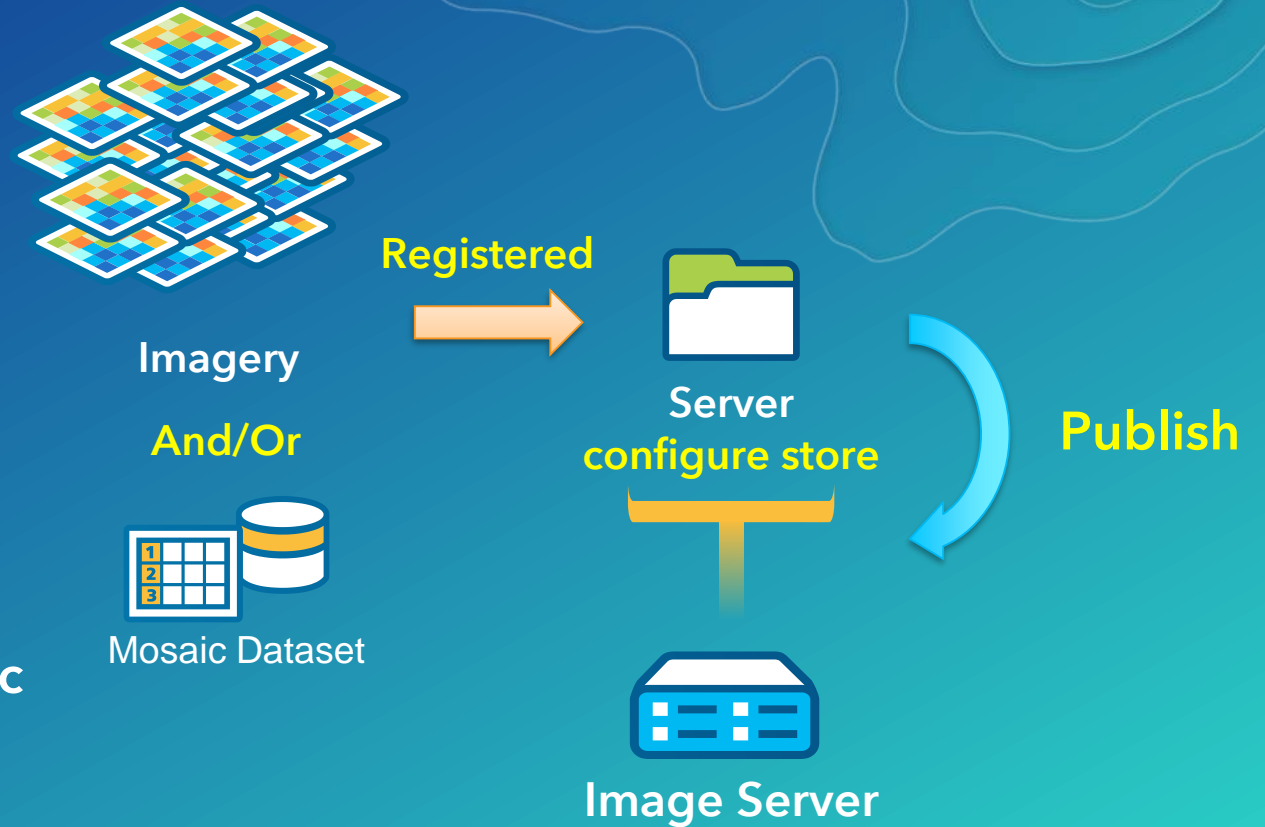
- Imagery is copied to the ArcGIS Server configuration store
(e.g. C:\arcgisserver\config-store\services)
- Data will be converted into File Geodatabase
- **NOT** recommended for large image collections



Sharing Mosaic Datasets by Reference

- Share by reference

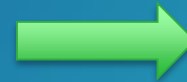
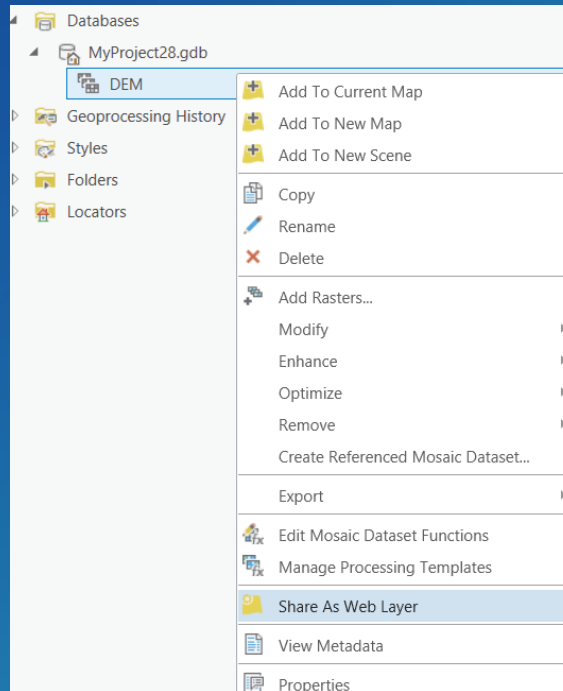
- Register a file share and/or enterprise geodatabase(s) with the server data store
- Data is **not moved**
- Recommended for publishing mosaic dataset or large single images or large single raster data



Mosaic Datasets

ArcGIS Imagery Information Model

- **Sharing Mosaic Datasets as Web Image Layers is easy!**
 - Requires Publisher role or higher
 - Must publish to a Portal



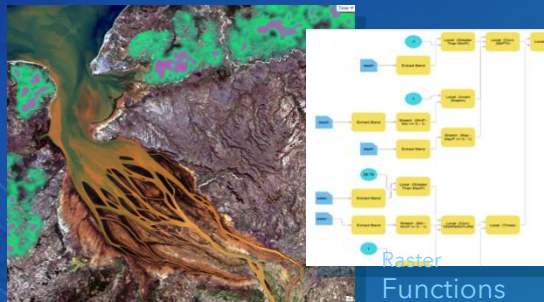
A screenshot of the 'Share As Web Layer' dialog box in ArcGIS. The dialog has tabs for 'General', 'Configuration', and 'Content', with 'General' selected. The title bar reads 'Share As Web Layer' and the subtitle is 'Share Raster Data As Web Layer'. The 'Name' field contains 'USA_10m_DEM'. Under the 'Data' section, 'Reference registered data' is selected. Under the 'Layer Type' section, 'Imagery' is checked. The 'Item Description' section has a 'Summary' field containing 'USA Elevation at 10 meters' and a 'Tags' field containing 'dem'. Under 'Sharing Options', 'My Content', 'ArcGIS Enterprise', and 'Everyone' are all checked. At the bottom, the 'Finish Sharing' section contains three buttons: 'Analyze' (with a green checkmark), 'Publish' (with a cloud icon), and 'Jobs' (with a list icon).

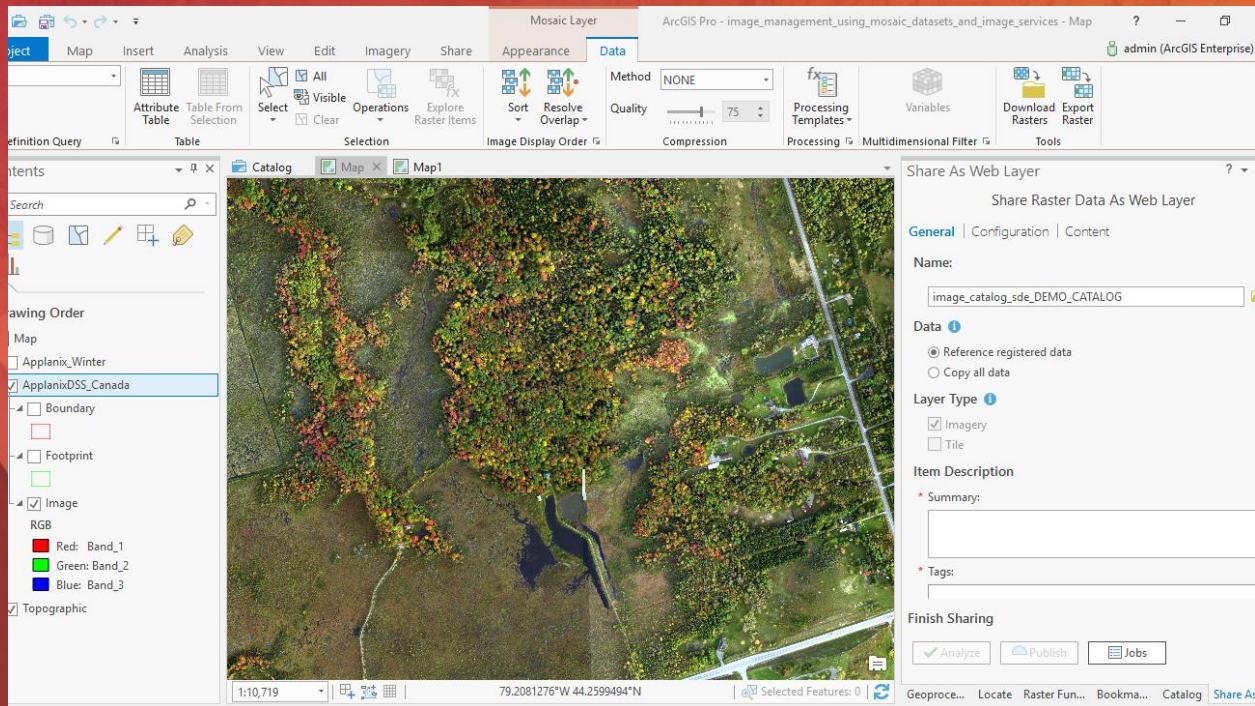
Mosaic Datasets

ArcGIS Imagery Information Model

- Processing on Mosaic Datasets
 - Individual items inside the Mosaic Dataset
 - Directly on the Mosaic Dataset
 - Attached as Templates

Processing Templates





DEMO

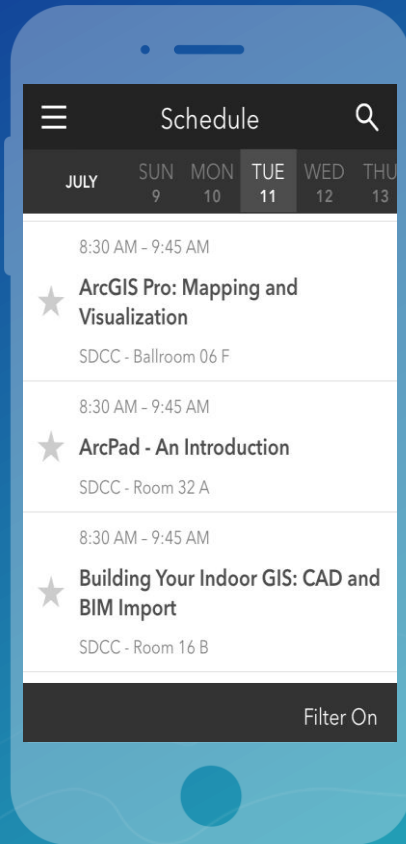
Building and working with Mosaic
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Please Take Our Survey on the Esri Events App!

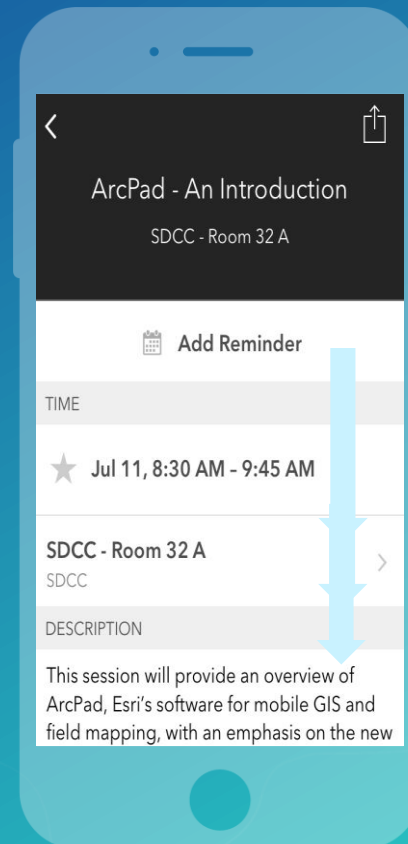
Download the Esri Events app and find your event



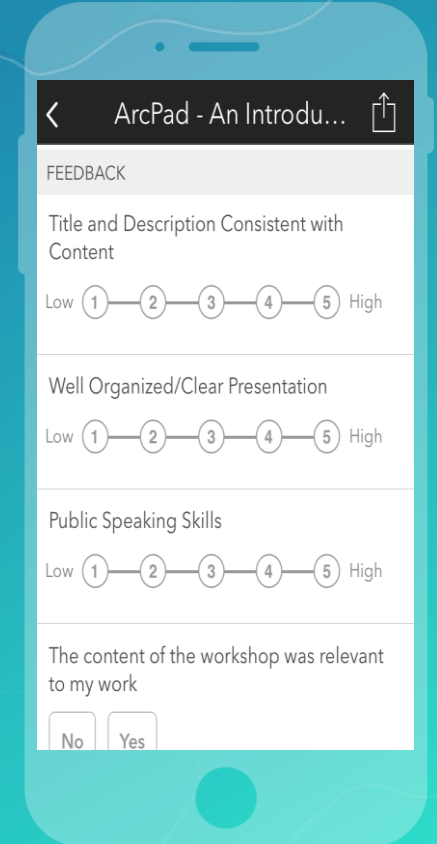
Select the session you attended



Scroll down to find the survey



Complete Answers and Select "Submit"





esri

THE
SCIENCE
OF
WHERE