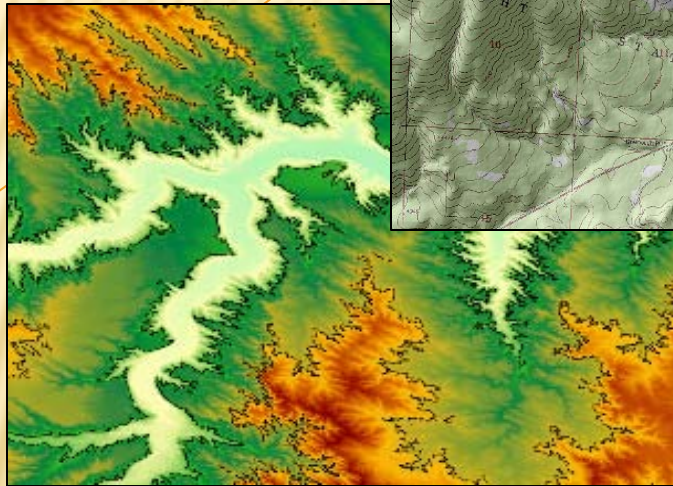
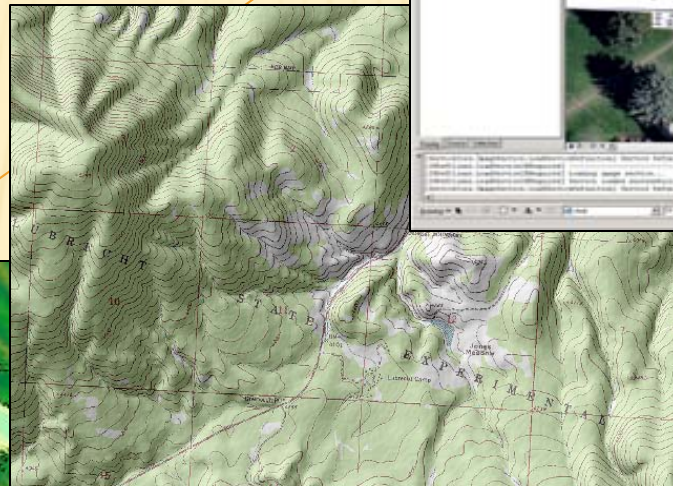
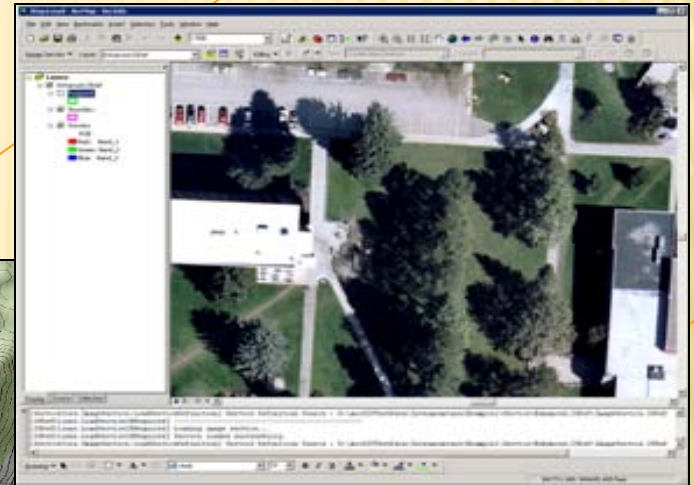


ARCGIS SERVER IMAGE EXTENSION

presented by
Michael Sweet



WHY?

1. Each transformation on an image duplicates storage. Rapidly exceed storage capacity.
2. Higher resolutions over larger areas results in a poor user experience.



3. Support for non 8-bit raster (elevation, climate)
4. Support for time-series

CAPABILITIES

- ✘ Technologies are similar to that utilized by Google and Microsoft to index a collection of imagery (tiles)
- ✘ Transformations (projections, color-balancing, etc.) are done on-the-fly rather than stored. Support for other than RGB raster.
- ✘ In an analysis or extraction the request goes back to the source image(s) ... an option not available through image services (Google Earth, Virtual Earth, ArcIMS, etc.).
- ✘ Good foundation for Internet-based delivery of services (reduced maintenance overhead, build once)

	Number of Images	From network file server	From Image Server
Display Refresh Speed	1	> 10 seconds	1 second
	160	> 53 minutes	1-2 seconds
	11700	Not likely	2 seconds

ARCHITECTURE & LICENSING

- ✘ Stand-alone or Extension
- ✘ When used as an extension in ArcGIS Server, it becomes part of the ArcGIS Server architecture.
- ✘ Four components installed:
 - + Service Editor, Manager, Provider, Image Server
- ✘ Licensing
 - + Additional cost; recently added to higher education site license.

ARCGIS SERVER IMAGE EXTENSION

- ✘ Extends ArcGIS Server by enabling dynamic mosaicing and on-the-fly processing of imagery.
 - + Manage and process a lot of raster data
 - + Create image services that can include data in different formats, projections, and at different resolutions
 - + Multiple representations of the same data
 - + Quick acquisition to dissemination time
 - + More than a picture (Map Service)
 - ✘ Client processing (change band, contrast, brightness, extract, etc.)

IMAGE SERVICE DEFINITION

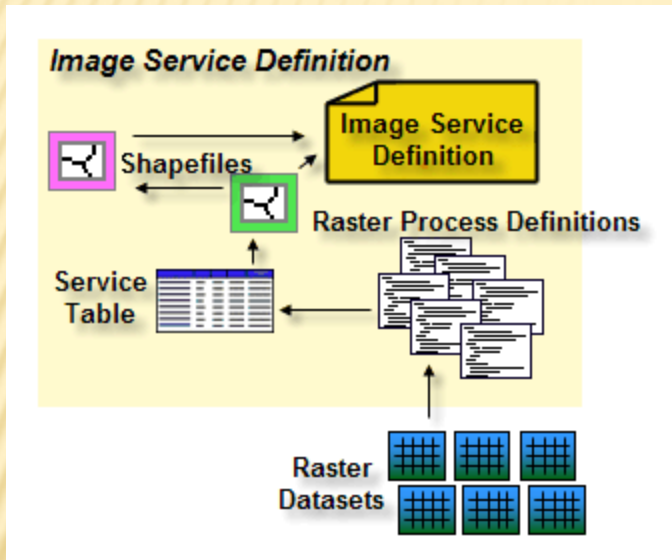


Image Service Definition

Used to define an image service including the data, processing, rendering, metadata, extent, and properties

Raster Process Definitions

Defines each raster dataset and any processes to be applied to them directly

Service Table

List of the raster datasets that make up an image service definition

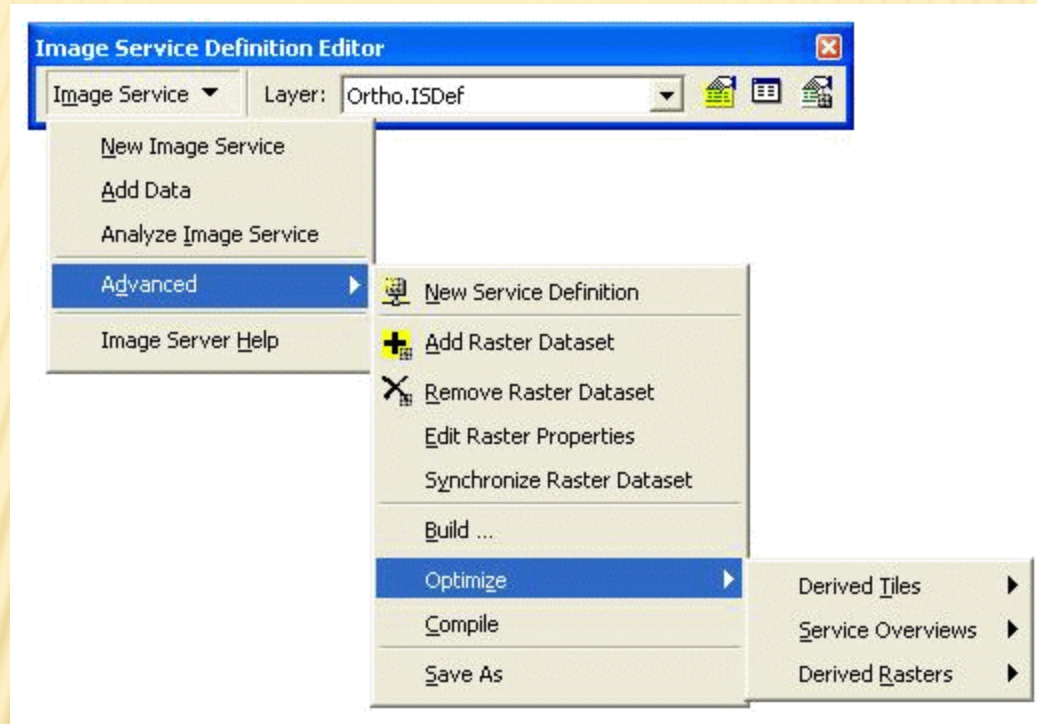
Footprints

Outlines of the raster datasets

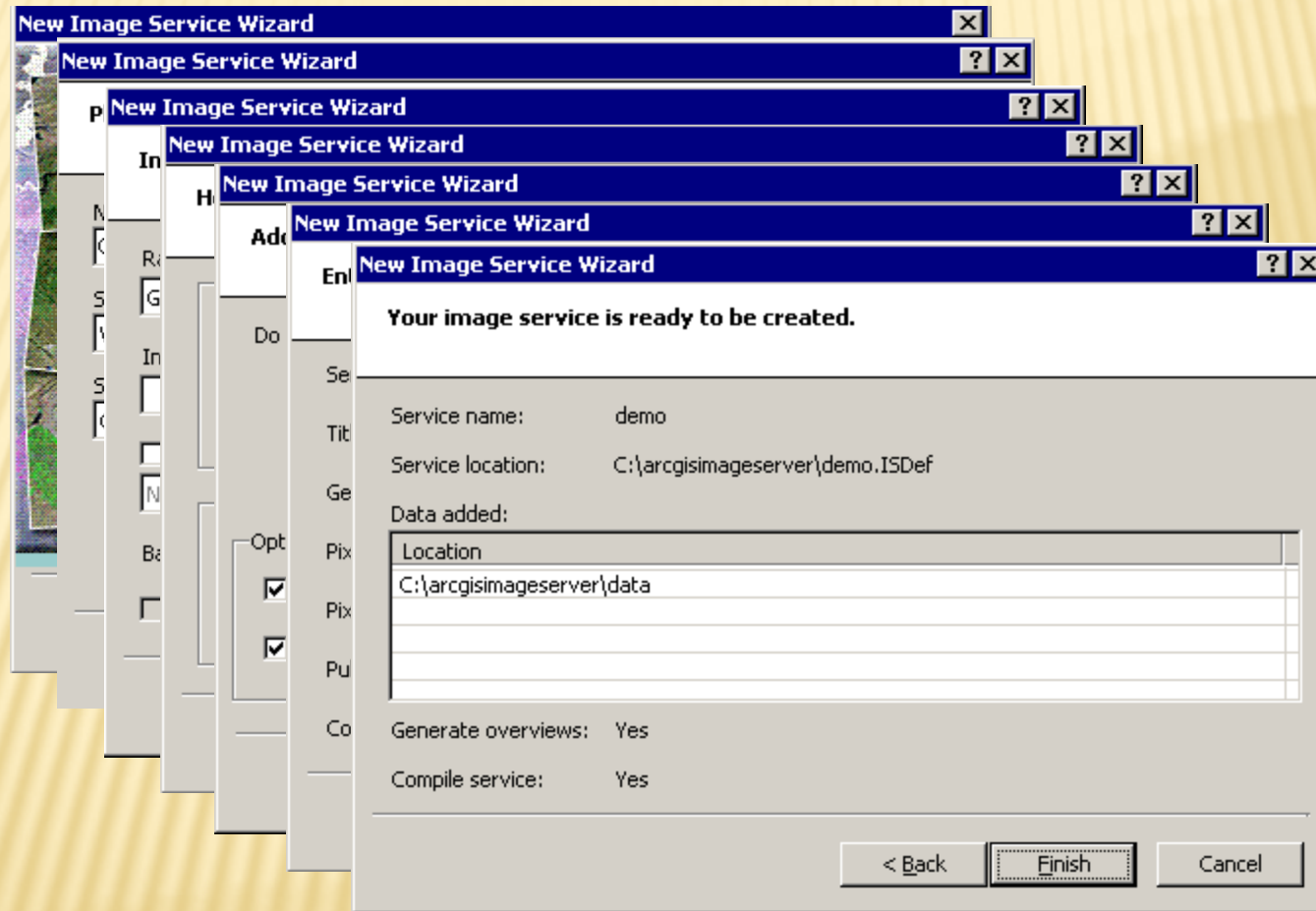
Boundary

Extent of all raster datasets

IMAGE SERVICE DEFINITION EDITOR TOOLBAR

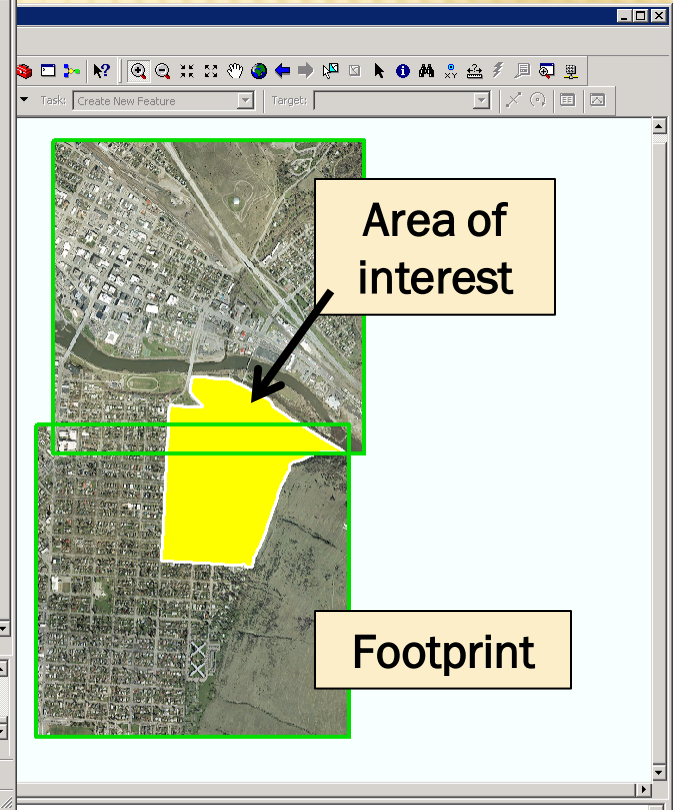
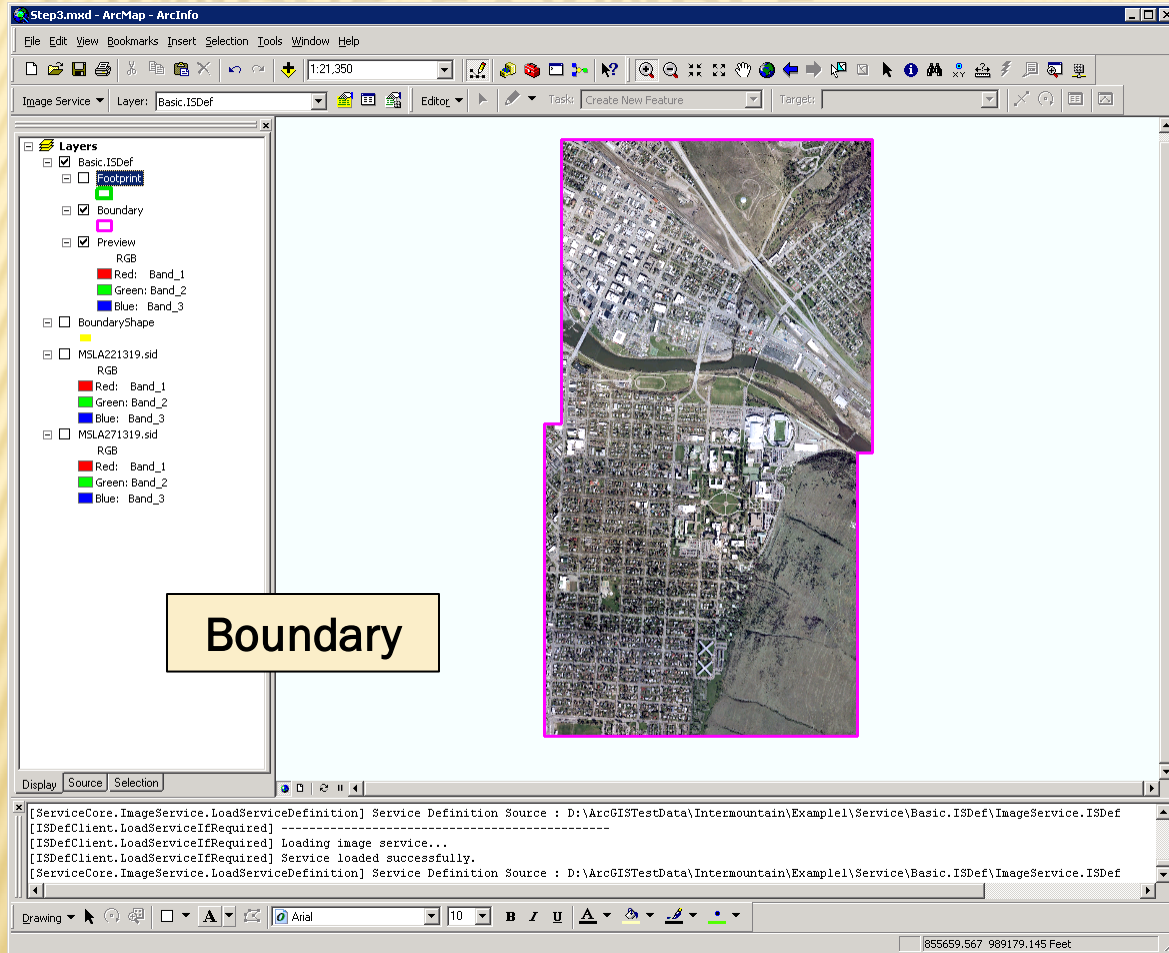


NEW IMAGE SERVICE WIZARD



CAMPUS EXAMPLE

Original service



```
[ServiceCore.ImageService.LoadServiceDefinition] Service Definition Source : D:\ArcGIS\TestData\Intermountain\Example1\Service\Basic.ISDef\ImageService.ISDef
[ISDefClient.LoadServiceIfRequired] -----
[ISDefClient.LoadServiceIfRequired] Loading image service...
[ISDefClient.LoadServiceIfRequired] Service loaded successfully.
[ServiceCore.ImageService.LoadServiceDefinition] Service Definition Source : D:\ArcGIS\TestData\Intermountain\Example1\Service\Basic.ISDef\ImageService.ISDef
[ServiceEditor] Executed successfully...
[ServiceEditor] Performing clean up...
[ServiceEditor] Process completed.
[ServiceCore.ImageService.LoadServiceDefinition] Service Definition Source : D:\ArcGIS\TestData\Intermountain\Example1\Service\Basic.ISDef\ImageService.ISDef
[ISDefClient.LoadServiceIfRequired] Service Definition Source : D:\ArcGIS\TestData\Intermountain\Example1\Service\Basic.ISDef\ImageService.ISDef
```

CAMPUS EXAMPLE

Optimize for display speed

Image Service Properties - Service Defaults

Information
Service Definition
Service Processes
Output Definition
Metadata
Client Interface Control
Default Client Properties
Service Defaults
Field Properties

Max. pixel size range factor: 5.2

Derived Images:

Output folder: [] []

Optimum number of cols: 5120

Optimum number of rows: 5120

Overlap pixels: 5

Format: TIFF

Compression method: JPEG

Compression quality: 80 %

Tile size: 128

Sampling method: Nearest Neighbor

Overview factor: 3

Skip existing images:

Overview sampling method: Nearest Neighbor

Compute pixel size ranges:

Clip overviews to boundary:

OK Cancel Apply

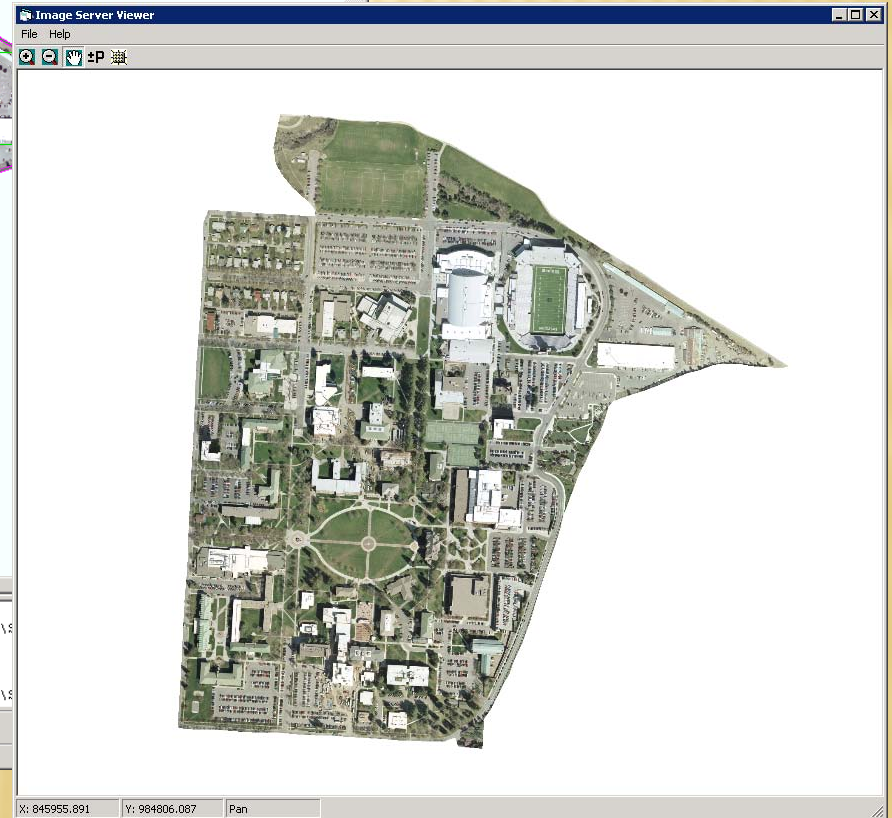
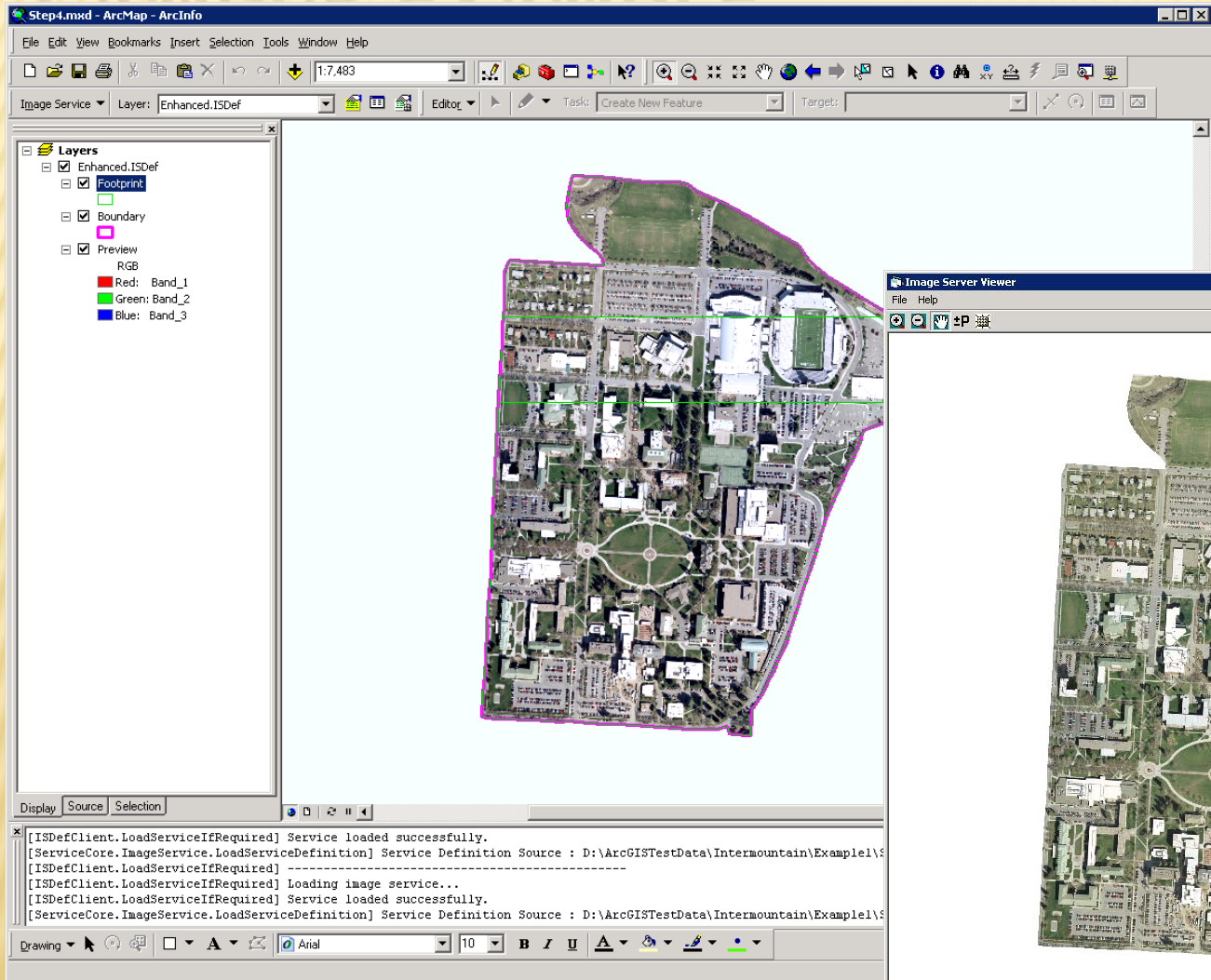
CAMPUS EXAMPLE

Image footprint boundaries



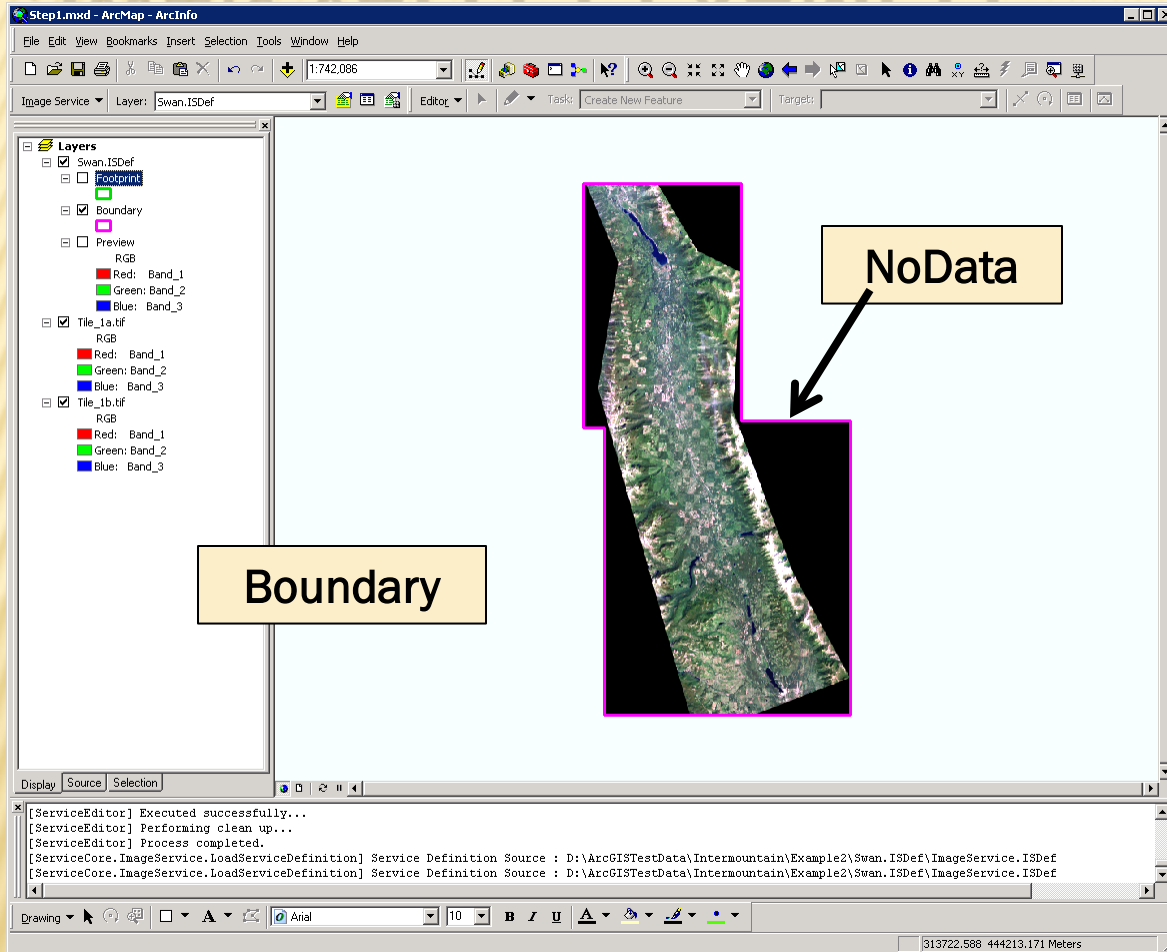
CAMPUS EXAMPLE

Limit service boundary



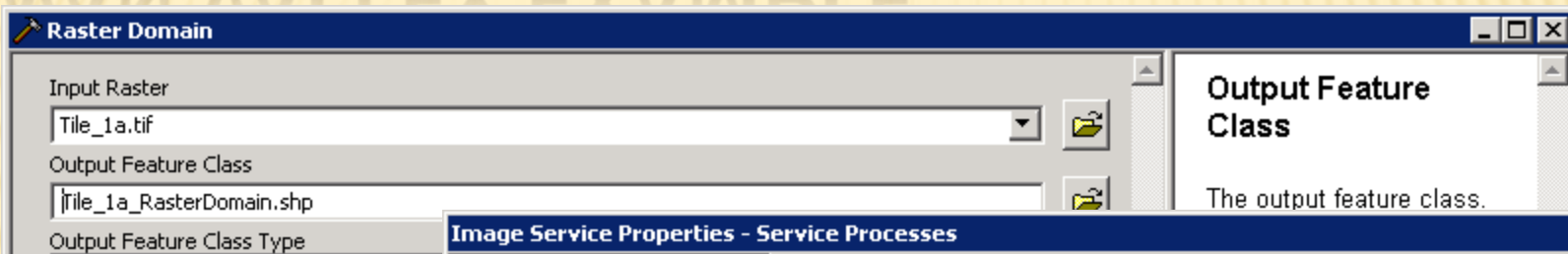
SWAN VALLEY EXAMPLE

Original service

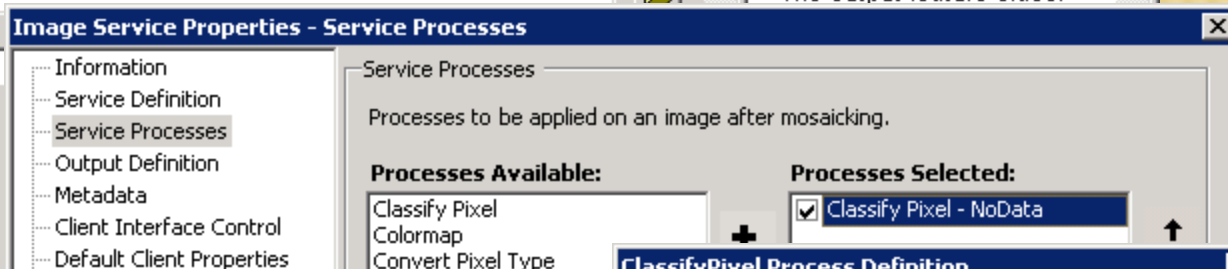


SWAN VALLEY EXAMPLE

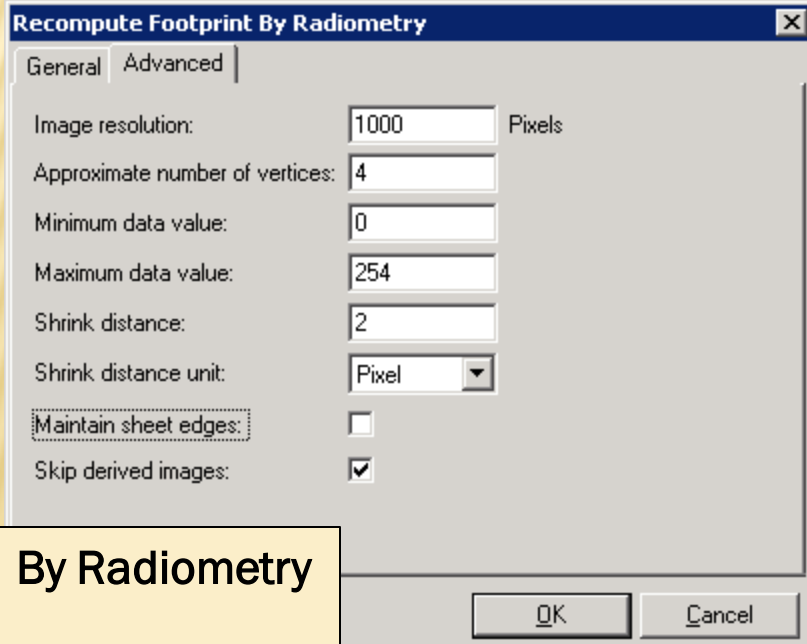
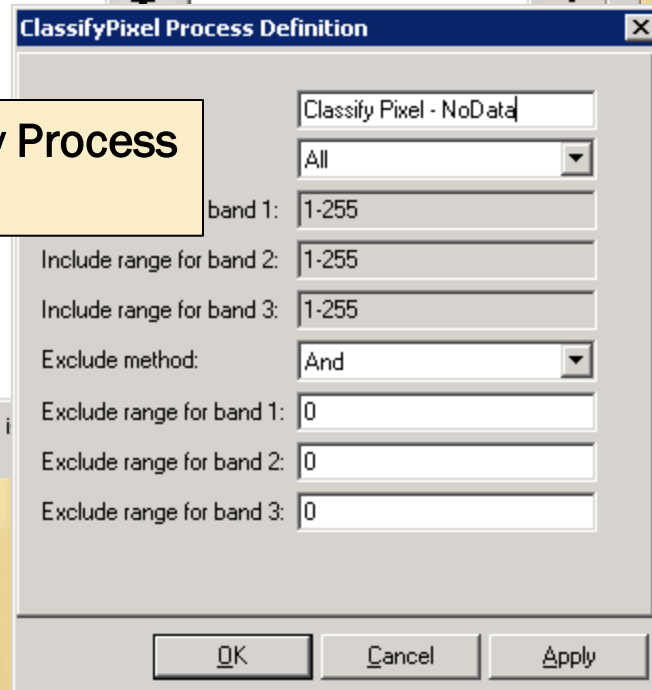
Modify footprints



By Raster Domain



By Process



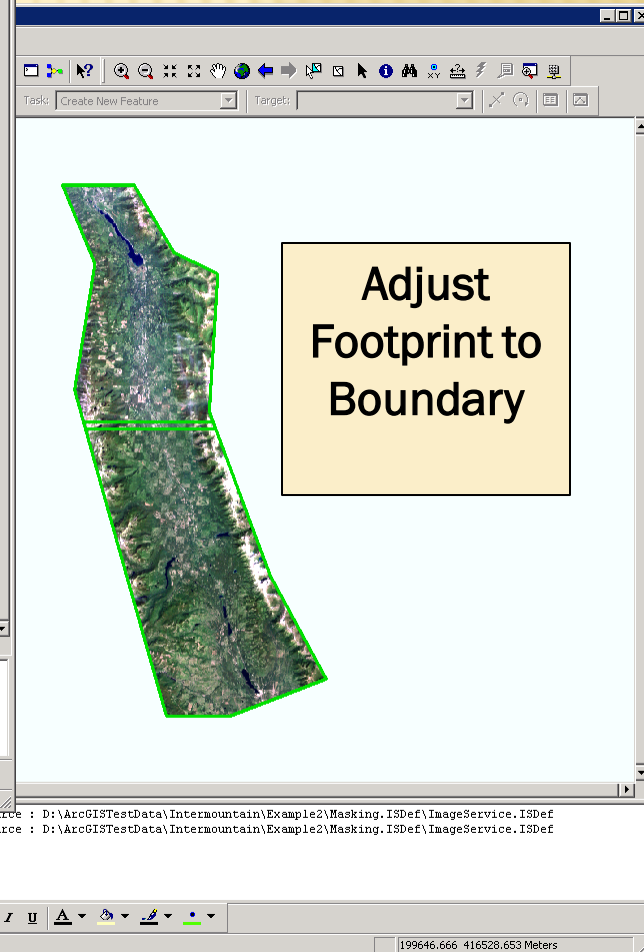
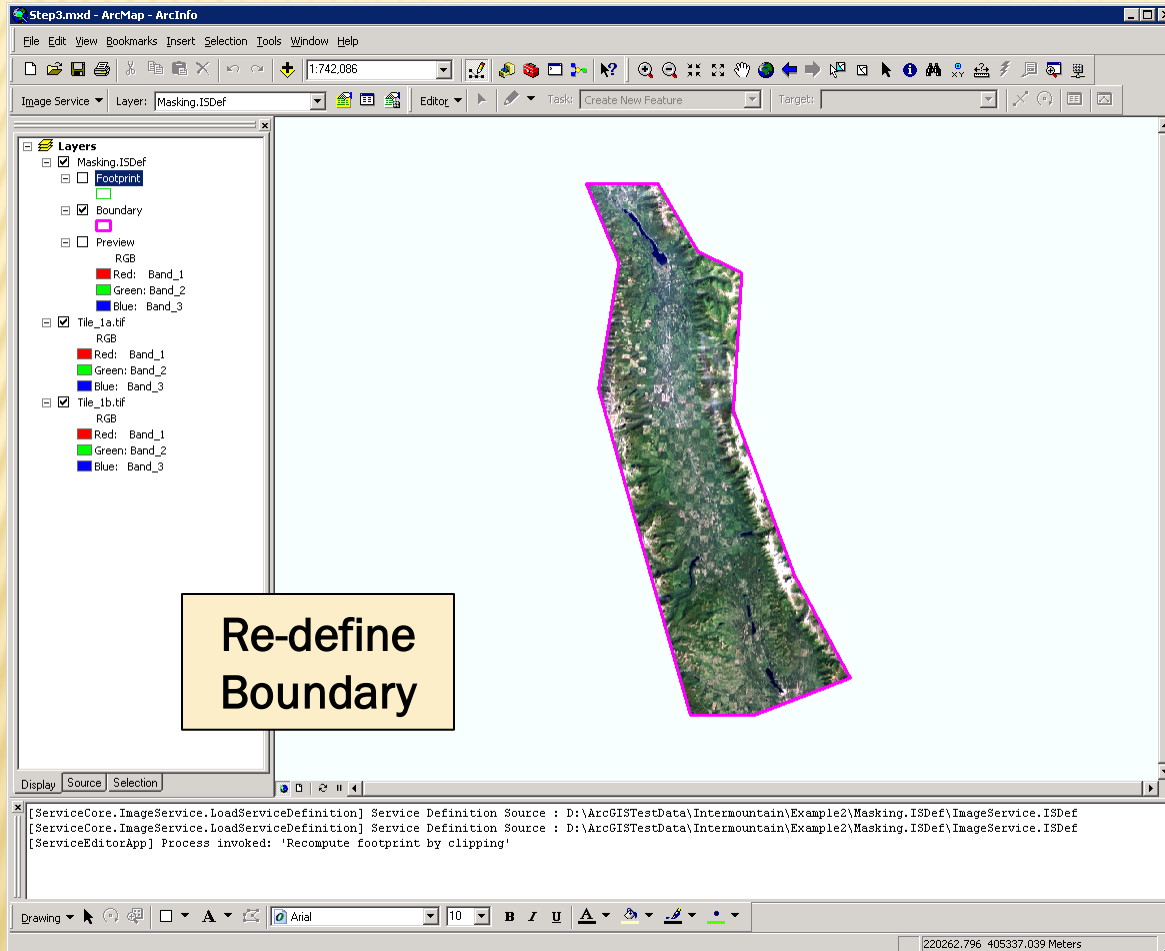
By Radiometry

NODATA IS YOUR FRIEND

- ✘ Cells or pixels that have missing information
- ✘ NoData and "0" (zero) are not the same. "0" is a valid value
- ✘ A value for file-based raster
- ✘ A bit mask for ArcSDE and file-GDB raster
- ✘ NoData does not participate in statistics calculation
- ✘ NoData cells can be displayed (set a color or transparent color)
- ✘ NoData can be used to define footprints (**Raster Domain Tool or Radiometry**)

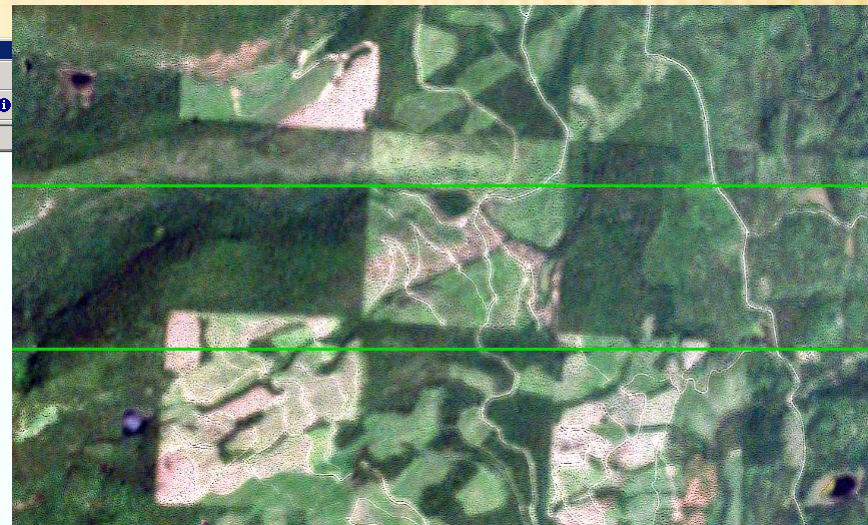
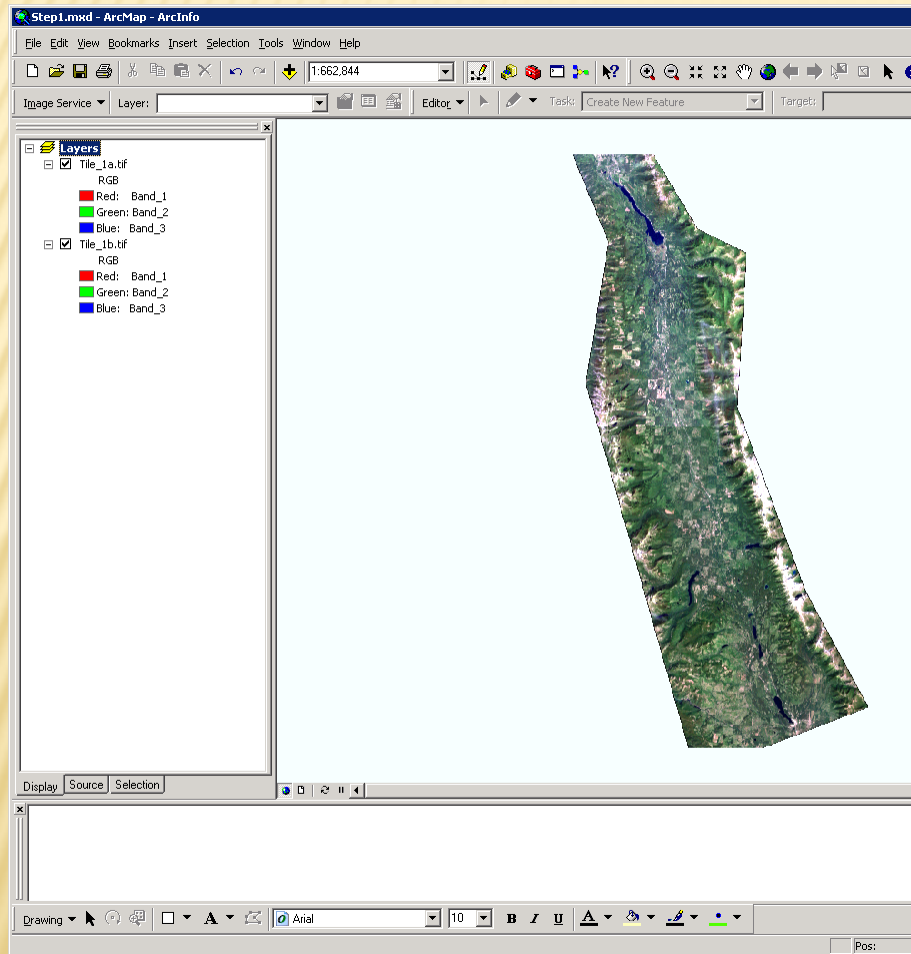
SWAN VALLEY EXAMPLE

Limit service boundary



SWAN VALLEY EXAMPLE

Image Service



ELEVATION DATA

Other than 8-bit, 3-band (RGB) raster

The screenshot displays the ArcMap interface with the following components:

- Layers Panel:** Lists several layers including 'Simple.ISDef', 'Footprint', 'Boundary', 'Preview Value' (with a range of 575 to 1129), 'dem10344.img' (with a range of 707.389 to 1130.56), and 'dem10345.img' (with a range of 574.181 to 1023.24).
- Main Viewport:** Shows a grayscale elevation map with a green rectangular selection box.
- Callout Box:** A yellow box on the right contains the text "32-bit floating point values".
- Log Window:** Shows the following text:

```
[ServiceCore.ImageService.LoadServiceDefinition] Service Definition Source : D:\ArcGISTestData\Intermountain\Example3\Simple...
[ISDefClient.LoadServiceIfRequired] -----
[ISDefClient.LoadServiceIfRequired] Loading image service...
[ISDefClient.LoadServiceIfRequired] Service loaded successfully.
[ServiceCore.ImageService.LoadServiceDefinition] Service Definition Source : D:\ArcGISTestData\Intermountain\Example3\Simple...
```
- Status Bar:** Displays coordinates: -102.932 44.549 Decimal Degrees.

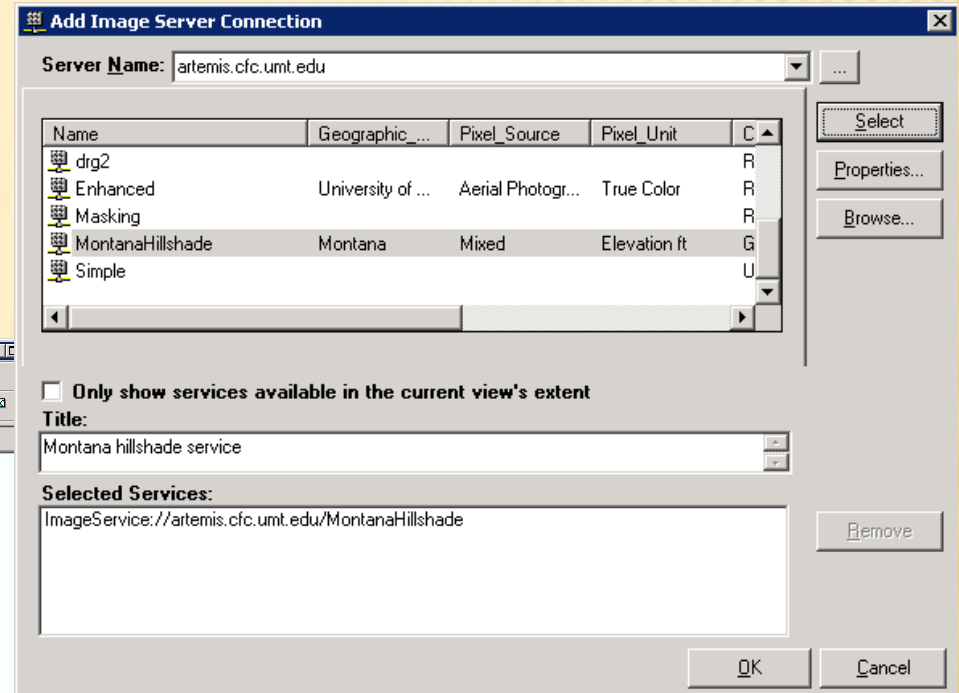
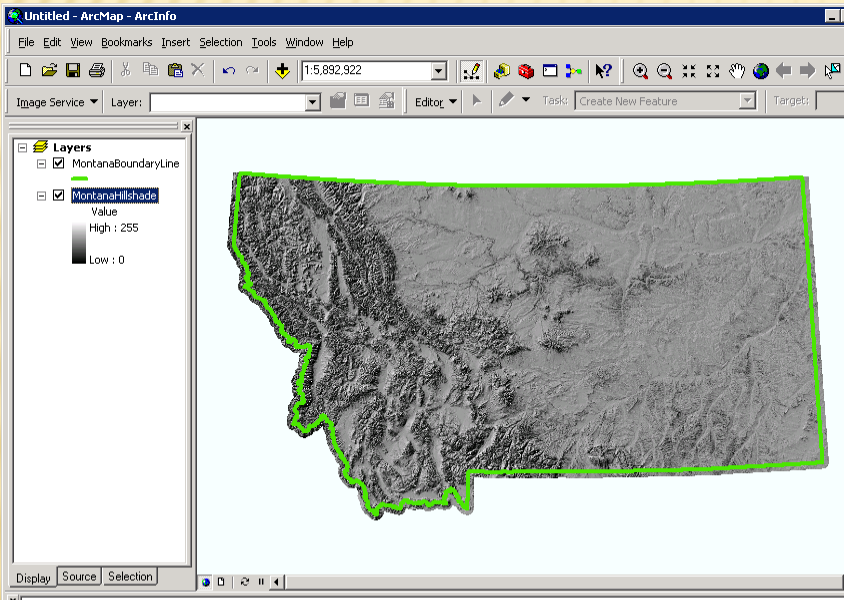
ELEVATION DATA

Server-side processing

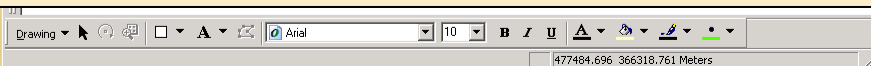
The image shows two overlapping software dialog boxes. The left dialog, titled "Image Service Properties - Service Processes", has a sidebar with a tree view containing: Information, Service Definition, Service Processes (selected), Output Definition, Metadata, Client Interface Control, Default Client Properties, Service Defaults, and Field Properties. The main area is titled "Service Processes" and contains the text "Processes to be applied on an image after mosaicking." Below this are two lists: "Processes Available:" and "Processes Selected:". The "Processes Available:" list includes: Classify Pixel, Colormap, Convert Pixel Type, Convolution Filter, Extract Bands, Grayscale, Histogram, Image Algebra, NDVI, Pan-sharpen, Spectral Matrix, Stack Bands, Stretching, SultansProcess, Trend, Visualize Elevation (highlighted), and Watermark. The "Processes Selected:" list contains: Visualize Elevation [0]. A black arrow points from the "Visualize Elevation" entry in the "Processes Available:" list to the "Visualize Elevation" dialog box on the right. The "Visualize Elevation" dialog has three tabs: "General" (selected), "Symbology Source", and "Symbology Properties". It contains the following fields: "Alias:" with a text box containing "Visualize Elevation [0]"; "Visualized as:" with a dropdown menu showing "Hillshade"; "Altitude:" with a dropdown menu showing "Elevation-coded", "Hillshade" (highlighted), "Shaded Relief", "Slope", "Aspect", and "Curvature"; "Azimuth:" with an empty text box; and "Z factor:" with an empty text box. At the bottom of the dialog are "OK", "Cancel", and "Apply" buttons. The "Image Service Properties" dialog also has "OK", "Cancel", and "Apply" buttons at the bottom.

ELEVATION DATA

Server-side processing



Hillshade on statewide 10-meter DEM



ELEVATION DATA

Query and client-side geo-processing

The screenshot shows the ArcMap interface with the following components:

- Layers Panel:** Shows 'MontanaCountyBound' and 'MTElev' layers. The 'MTElev' layer has a legend with 'High : 4208.49' and 'Low : 221.452'.
- Identify Window:** Displays the following data:

Field	Value
Stretched value	78
Pixel value	958.491699
- Callout Boxes:**
 - 'Identify for elevation value' points to the 'MTElev' layer in the Identify window.
 - 'Derive Contours' points to a map view showing contour lines overlaid on the elevation data.

BLENDING SERVICES

Image service of image services

Saving image service definitions is like saving a layer files.

The screenshot shows a Windows Explorer window titled "D:\ArcGISTestData\Intermountain\ImageServices". The left pane shows a folder tree with "Example5" expanded to show "Blending.ISDef" and "Presentation". "Example6" is also expanded to show "ImageServices" and "References". Other folders include "LubrechtWeb.gdb", "Mashups", "WI", and "WINM". The right pane shows a list of files:

Name	Size	Type	Date Modified
idoqq.ISRef	2 KB	Image Service Refe...	3/26/2009 10:08 AM
drg.ISRef	2 KB	Image Service Refe...	3/26/2009 10:08 AM
Hillshade.ISRef	2 KB	Image Service Refe...	3/26/2009 11:10 AM
Imagery.ISRef	2 KB	Image Service Refe...	3/26/2009 11:10 AM

Overlaid on the Explorer is a Notepad window titled "\\artemis\D\$\ArcGISTestData\Intermountain\Example5\Hillshade.ISRef". It displays the XML content of the selected .ISRef file:

```
<ImageServer><ImageServiceProperties><AvgImageSpacingX>0</AvgImageSpacingX>
<AvgImageSpacingY>0</AvgImageSpacingY>
<BackgroundColor>16777215</BackgroundColor>
<CompressionMethod>None</CompressionMethod>
<CompressionQuality>100.0</CompressionQuality>
<MosaicMethod>Center</MosaicMethod>
<ProcessChain/><RequestId>32c90aa3-9ee4-47f2-b366-d92ac6683a1a</RequestId>
<SamplingMethod>Bilinear</SamplingMethod>
<ServiceName>ImageService://artemis.cfc.umd.edu/MontanaHillshade</ServiceName>
<SimulateMosaic>false</SimulateMosaic>
<Srs><Prj>PROJCS["NAD_1983_StatePlane_Montana_FIPS_2500",GEOGCS["GCS_North_Ame
<ViewPointDefShiftY>0</ViewPointDefShiftY>
</ImageServiceProperties></ImageServer>
```

Step 1: Save Image Service Reference file (.ISRef) for participating services .

Step 2: Create new image service using .ISRef files as data source.

BLENDING SERVICES

Processing parameters

Attributes of Footprint

RasterID	RasterName	RasterType	RasterSrc	M
0903261402316170	drg2	ImageService	RPDefs\2009-03-26T14.02.31\09032614	
0903261402318830	hillshade	ImageService	RPDefs\2009-03-26T14.02.31\09032614	

Record: 1 Show: All Selected Records (0 out of 2 Selected)

Raster Source

D:\ArcGISTestData\Intermountain\Example5\d
--

Rasters

General | Process | Format Info

Raster ID: 1
 Description:
 Format: ISClient
 Raster source: D:\ArcGISTestData\Intermountain\Example5
 Source index: 0
 Enabled:
 Pixel size: 2.440000000000 m
 Min. pixel size: 0 m
 Max. pixel size: 0 m
 No data value: 0
 Derivation method: Primary

Step 3: Disable Digital Raster Graphic (DRG)

OK

Cancel

Apply

BLENDING SERVICES

Processing parameters

Attributes of Footprint

RasterID	RasterName	RasterType	RasterSrc	M
0903261402316170	drg2	ImageService	RPDefs\2009-03-26T14.02.31\09032614	
0903261402318830	Hillshade	ImageService	RPDefs\2009-03-26T14.02.31\09032614	

Record: 1 Show: All Selected Records (0 out of 2 Selected)

Process

Process Chain for the selected Raster Item:

Processes Available:

- Classify Pixel
- Colormap
- Convert Pixel Type
- Convolution Filter
- Extract Bands
- Grayscale
- Histogram
- Image Algebra
- NDVI
- Ortho
- Pan-sharpen
- SampleCustomProcess
- Sampler2D
- Spectral Matrix
- Stack Bands
- Stretching
- SultansProcess

Processes Selected:

- Extract Bands [0]
- Image Algebra [0]

Note: Top-most process is applied first in the process chain.

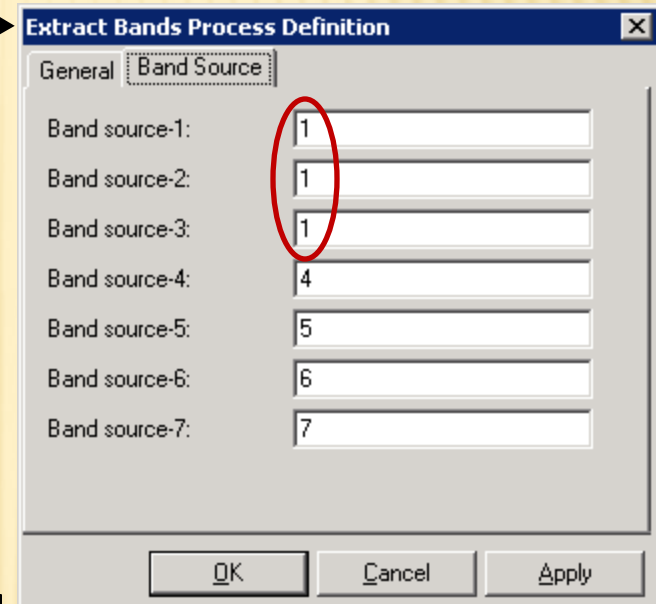
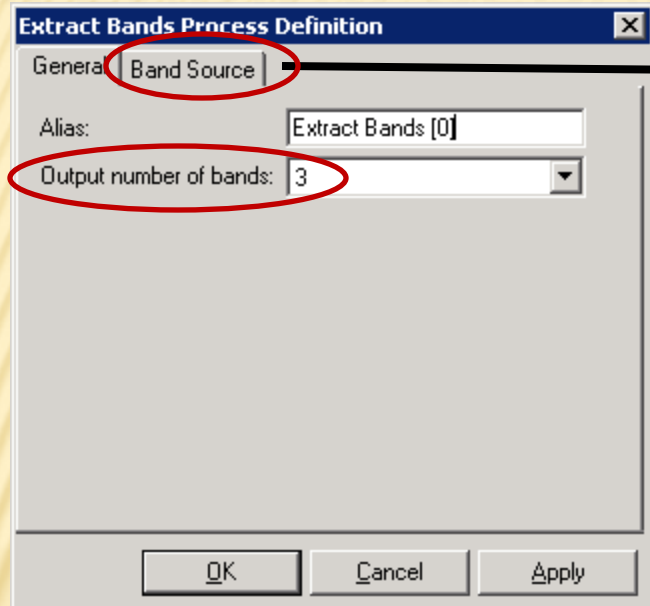
OK Cancel Apply

Step 4: Add two server processes to hillshade

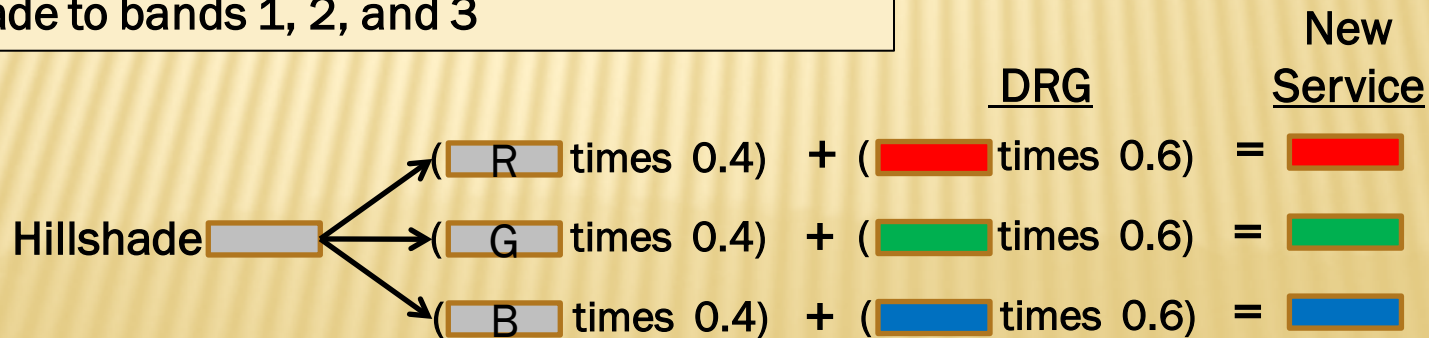
Stepwise

BLENDING SERVICES

Processing parameters



Step 5: Map band 1 of single-band panchromatic hillshade to bands 1, 2, and 3



BLENDING SERVICES

Processing parameters

Hillshade

DRG

Step 6: Blend hillshade with DRG to create composite image

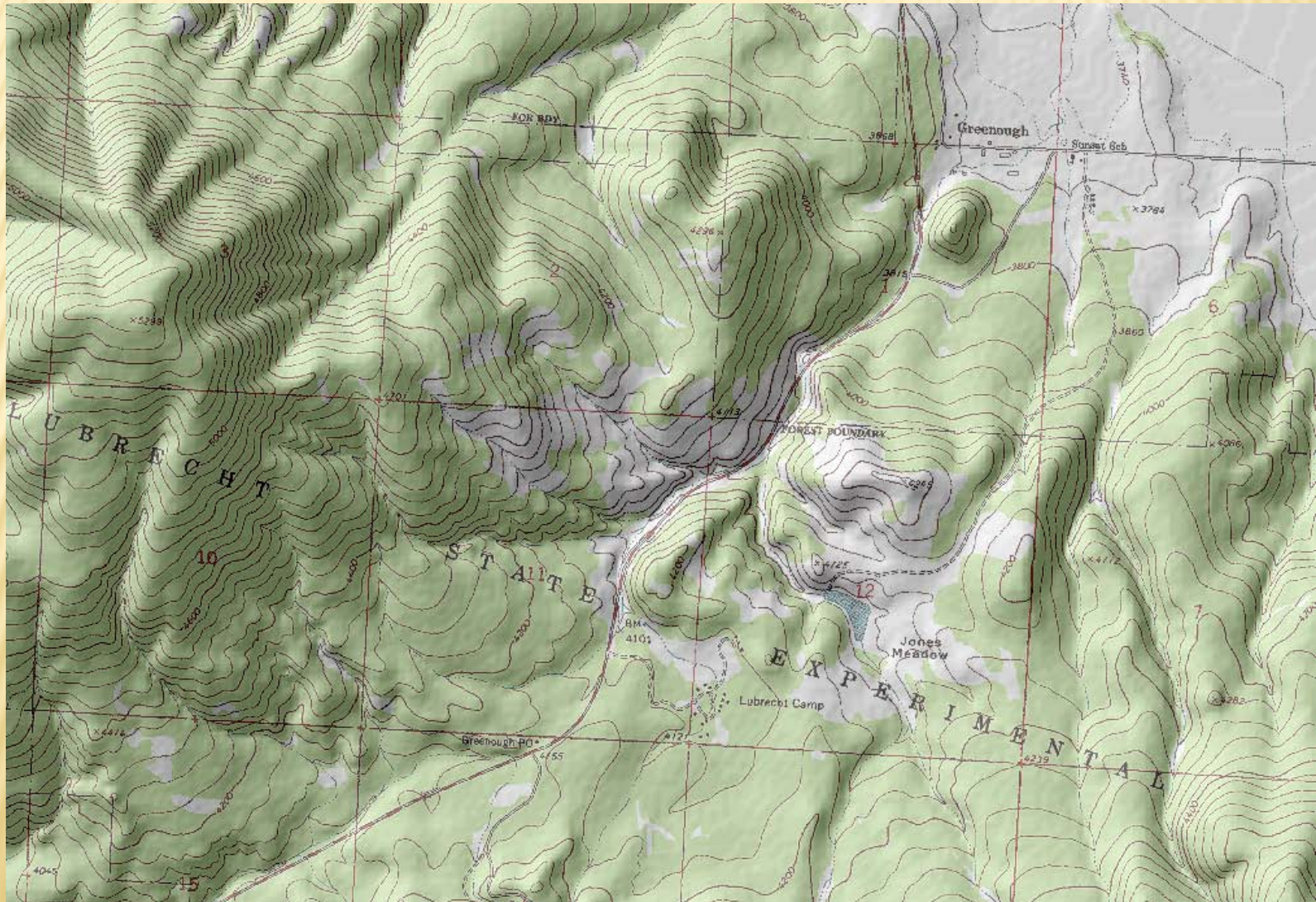
Attributes of Footprint

RasterID	RasterName	RasterType	RasterSrc	M
09032614023161700000.1	drg2	ImageService	RPDefs\2009-03-26T14.02.31\09032614	
09032614023160030	Hillshade	ImageService	RPDefs\2009-03-26T14.02.31\09032614	

Record: 1 Show: All Selected Records (0 out of 2 Selected)

BLENDING SERVICES

Blended image service



TIME SERIES

Working with raster metadata

2	2	2	2	2
2	2	1 or 2	2	2
2	2	1 or 2	2	2

Factoid: You can modify an image service definition file without stopping the service. The only time the service has to be stopped and started is after (while?) compiling the service.

RasterID	RasterName	RasterType	RasterSrc	Min
0903301002485640	MSLA271319	Generic:Mrsid	RPDefs\2009-03-30T10.02.48\09033010	
0903301002486740	MSLA221319	Generic:Mrsid	RPDefs\2009-03-30T10.02.48\09033010	
0903301003189550	ServiceOverview	ServiceOverview	RPDefs\2009-03-30T10.03.18\09033010	0
0903301003192050	ServiceOverview	ServiceOverview	RPDefs\2009-03-30T10.03.19\09033010	2
0903301003194400	ServiceOverview	ServiceOverview	RPDefs\2009-03-30T10.03.19.409\09033	6

Record: 1 Show: All Selected Records (0 out of 5 Selected)

usID	StatusMsg	TimePeriod
0		3/30/2009
0		3/31/2009
0		4/1/2009
0		4/1/2009
0		4/1/2009

- Define additional attributes for footprints, such as collection period.
- Can be of type date or numeric
- This field is defined in process editor as type “metadata”
- Enable the mosaic process “by attribute” in properties dialog box
- Raster can be selected by attribute value (client- or server-side)

USER-DEFINED PROCESS

GeoTransformers

<http://edndoc.esri.com/imageserver/9.2/>

ArcGIS Image Server Developer Guide - Windows Internet Explorer

http://edndoc.esri.com/imageserver/9.2/index.html?arcgis_image_ser

Convert Select

ArcGIS Image Server Developer Guide

ArcGIS Image Server Developer Guide

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 - ArcGIS Image Server processing chain
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- Raster types
- GeoTransformers
 - An overview of Geotransformers**
 - GeoLocator: How to test Geotransformers
- Custom

ArcGIS Image Server

An overview of Geotransformers

Georeferencing describes the process of locating an entity in real world coordinates. Once an entity has been georeferenced, the relationship between the entity and its real world location can be used to map and display information about the entity. This relationship can be described as a chain of transformations that can be modeled mathematically. Each of these transformations can be defined through a set of parameters and will process coordinates from one virtual space to another. Such transformations applied to rasters are implemented by a Geotransformer. The set of parameters defining the transformation forms the Geotransformer definition, which is stored as XML for extensibility considerations.

Geotransformers can be applied in a chain with a certain order, as well as encapsulated one into another. Specific raster processes that perform coordinate transformations are called georeferencing processes. Since in most generic cases a composition of Geotransformers represents a sensor model, a georeferencing process will be identified by a sensor definition. There are no restrictions on what kind of transformations are defined within a sensor definition (SDef), meaning it doesn't have to describe a physical sensor.

A raster process is defined by a raster process definition (RPD) which

Done Internet 100%

PUBLISHING A SERVICE

Image Server Manager

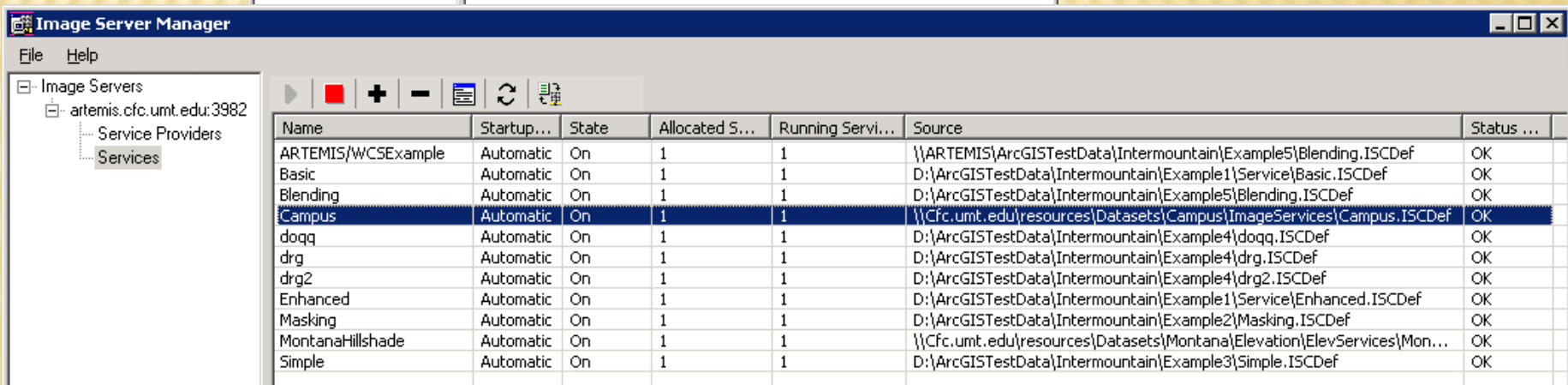
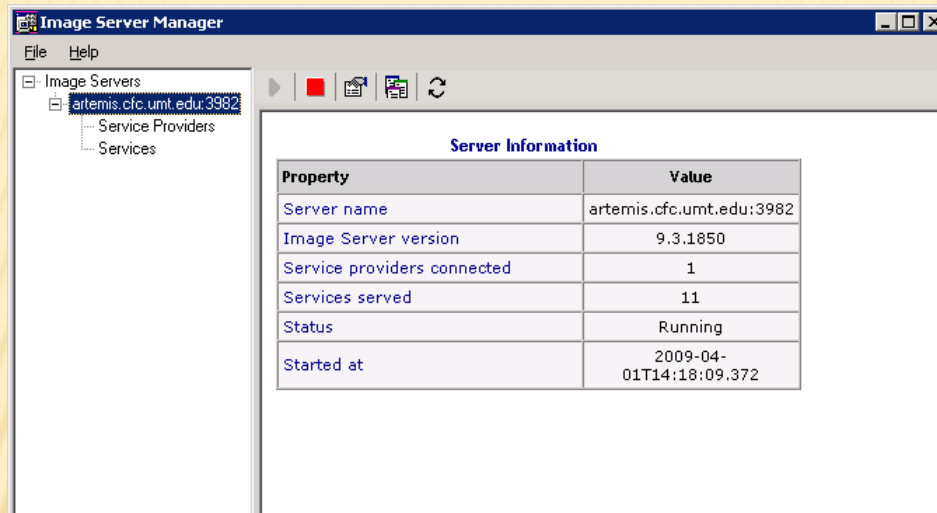


IMAGE SERVER CLIENTS

Image Server Desktop Client

Image Server client must be installed to access image services with in ArcGIS desktop. This is a free download from ESRI for the following products:

- ArcGIS Desktop 9.2 SP6
- ArcGIS Desktop 9.3
- AutoCad
- GeoMedia
- MapInfo
- Microstation
- Open Geospatial Consortium (WMS, WCS)

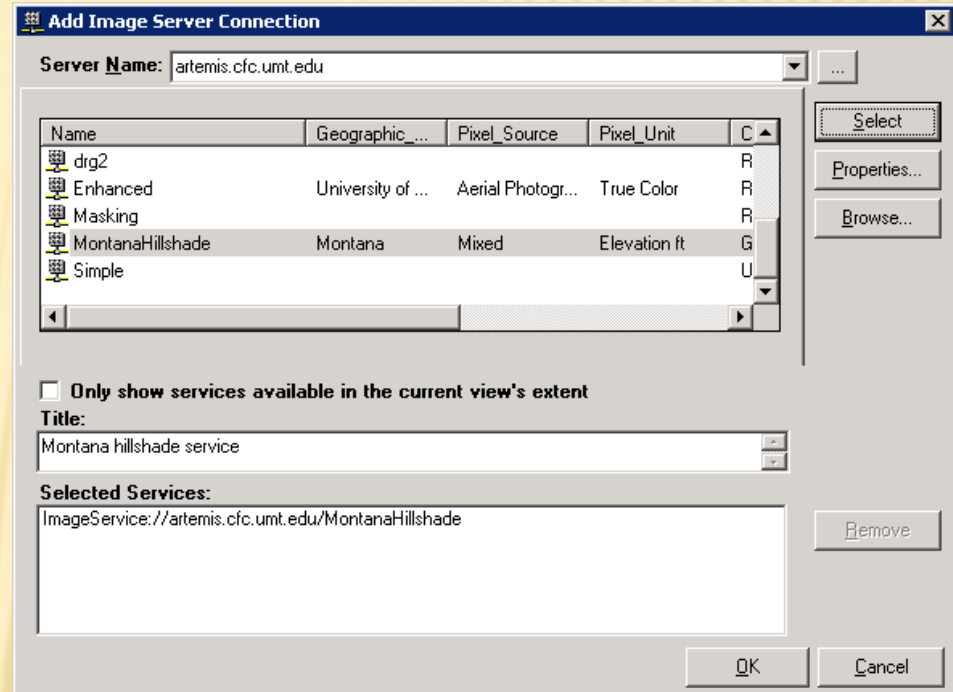


IMAGE SERVER CLIENTS

ArcGIS Server Services

Port 80 versus
Port 3982/3983

ArcGIS Server Manager - Windows Internet Explorer

http://gis.cfc.umt.edu/CFCGIS/Manager/default.aspx

Logged in as cfc\mike.sweet - Tuesday, March 31, 2009 9:06 AM

Home

Manage Services

Services

Manage Services
Publish GIS Resource
Add New Service
Settings

Applications

GIS Server

Security

Services in: ARTEMIS (root)

Name	Type
<input type="checkbox"/> AboretumTrees	Map Service
<input type="checkbox"/> Arboretum	Map Service
<input type="checkbox"/> LEF	Map Service
<input type="checkbox"/> LubrechtWeb	Map Service
<input type="checkbox"/> MTElev	Image Service
<input type="checkbox"/> NWPS_Web	Map Service
<input type="checkbox"/> TestWCS	Image Service
<input type="checkbox"/> WeedMap	Map Service
<input type="checkbox"/> WeedMapPoints	Map Service

GIS Server Status

Name: artemis
Status: **Online**
Started: 3/26/2009 8:35 AM
Messages: View

ArcGIS Server Manager - Windows Internet Explorer

http://gis.cfc.umt.edu/CFCGIS/Manager/default.aspx

Logged in as cfc\mike.sweet - Tuesday, March 31, 2009 9:06 AM

Home

Services

Manage Services
Publish GIS Resource
Add New Service
Settings

Applications

GIS Server

Security

Editing TestWCS

General Parameters Capabilities Pooling Processes

Select and configure capabilities

Image Service

WCS

WMS

No properties to configure

Enable web access

URL: [services/TestWCS/ImageServer](#)

Operations allowed:

Image

Mosaic

Metadata

Save and Restart Cancel

GIS Server Status

Name: artemis
Status: **Online**
Started: 3/26/2009 8:35 AM
Messages: View

ArcGIS Server Image
Service with WCS enabled

IMAGE SERVER CLIENTS

ArcGIS Desktop WCS Service

Add WCS Server

URL:

Examples: <http://www.myserver.com/arcgis/services/mymap/MapServer/WCSServer?>
<http://www.example.com/servlet/com.esri.wcs.Esrimap?ServiceName=Name&>

Version:

Server Coverages

WCSExample
 ARTEMIS/WCSExample

Name: WCSExample

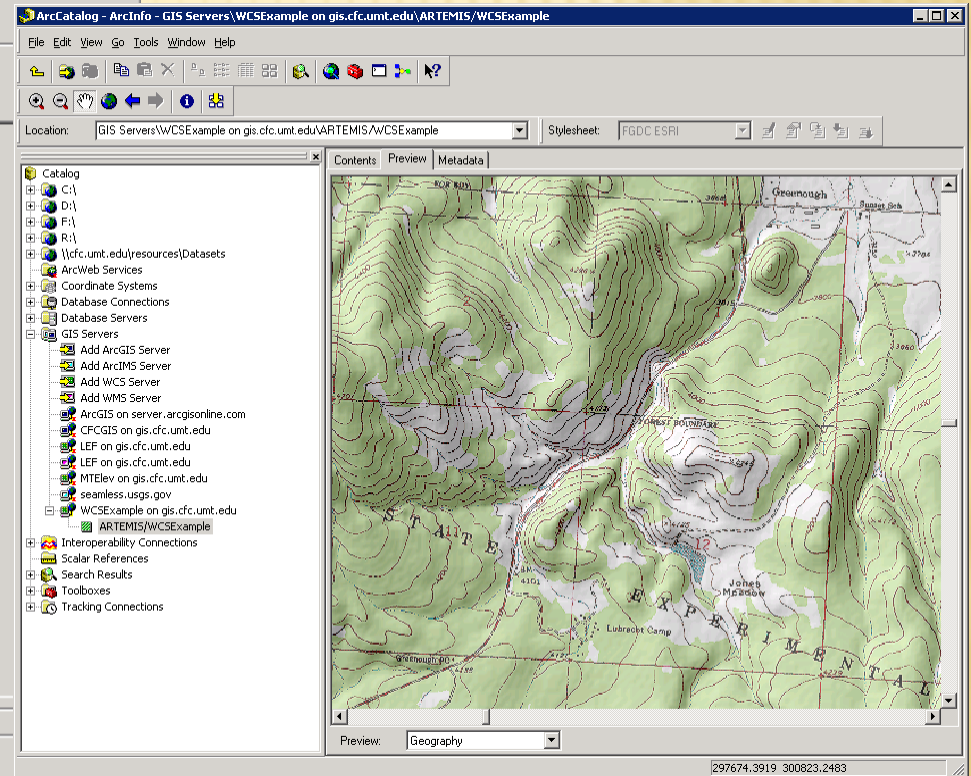
Version: 1.0.0

Abstract:

Account (Optional)

User:

Password: Save Password



**ArcGIS Desktop using WCS
image service**

IMAGE SERVER CLIENTS

Interoperability Client

ArcGIS Image Server Reader

FORMAT NOTES:
This format is not supported by FME Base Edition.

The ArcGIS Image Server Reader/Writer module provides the Feature Manipulation Engine (FME) with access to data in the ArcGIS Image Server.

ArcGIS Image Server Raster Quick Facts

Format Type Identifier	ARCGIS_IMAGE_SERVER
Reader/Writer	Reader
Licensing Level	Professional
Dependencies	ISClientC.dll (see Reader Overview)
Dataset Type	Reader: Service
Feature Type	A server host name
Typical File Extensions	None
Automated Translation Support	Yes
User-Defined Attributes	No
Coordinate System Support	Yes
Generic Color Support	No
Spatial Index	Never
Schema Required	No
Transaction Support	No
Geometry Type	arcgis_image_server_type

Geometry Support

Geometry	Supported?	Geometry	Supported?

SafeSoft FME and ArcGIS
Interoperability Extension

IMAGE SERVER CLIENTS

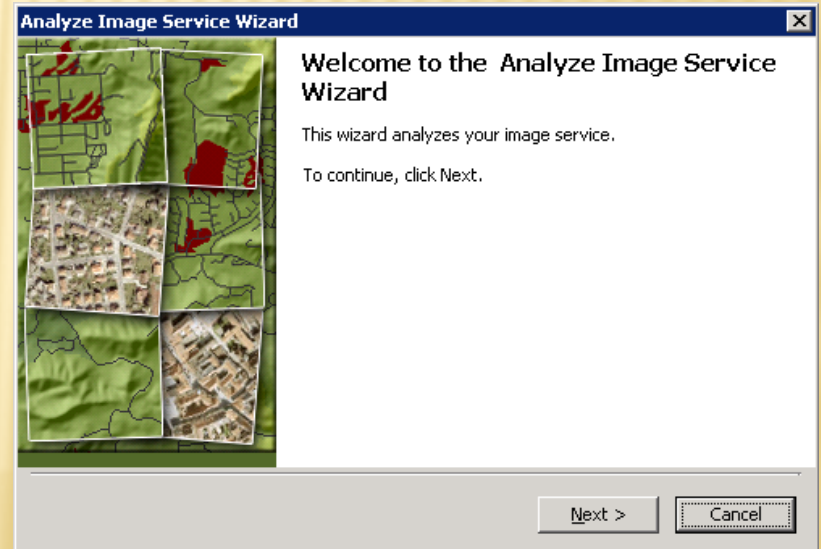
Interoperability Client

- ✘ The ArcGIS Server Image format is a reader only, since the product itself doesn't have it's own format (we read from a service). However for writing, it (the ArcGIS Server Image product) supports as source many of the same formats FME supports as a destination, plus I strongly suspect it would also accept a service as input, so you could create an "on-the-fly" FME writer using an FME Server service as an ArcGIS source.
- ✘ *To get access to this format requires installation of the **ArcGIS Image Server Client Core.***

http://www.safe.com/reader_writerPDF/arcgis_image_server.pdf

TIPS AND TRICKS

- ✘ ETL (Error, Trial, and Learn)
- ✘ Stepwise development (analyze for errors)
- ✘ Raster definition files (XML) are handy
- ✘ Prototype then scale problem
- ✘ NoData is your friend
- ✘ Scripting



RESOURCES

<http://webhelp.esri.com/arcgisdesktop/9.3/>

The screenshot shows the ESRI Webhelp TOC in Windows Internet Explorer. The browser window title is "ESRI Webhelp TOC - Windows Internet Explorer". The address bar shows the URL: <http://webhelp.esri.com/arcgisdesktop/9.3/toc.cfm?Action=1&LID=3101&rand=405#3101>. The search bar contains "Google". The TOC is expanded to show the following items:

- [-] Raster display and visualization
- [+] Raster analysis and geoprocessing
- [-] Serving raster data
 - [-] Serving raster data
 - About serving raster data
 - [-] ArcGIS Image Server extension
 - [+] About the ArcGIS Image Server extension
 - [+] Designing an image service definition
 - [+] Supported raster types
 - [+] Creating an image service definition
 - [+] Working with the image service definition
 - [+] Working with image service definition layers
 - [+] Working with raster data in an image service definition
 - [+] Processes for image service definitions
 - [+] **ArcGIS Image Server workflows**
- [+] Data support in ArcGIS
- [+] Extensions

The "ArcGIS Image Server workflows" item is circled in red. The status bar at the bottom shows "Error on page." and "Internet" with a zoom level of 200%.

RESOURCES

<http://webhelp.esri.com/arcgisdesktop/9.3/>

ESRI Webhelp TOC - Windows Internet Explorer

http://webhelp.esri.com/arcgisdesktop/9.3/toc.cfm?Action=1&LID=3196&rand=27#3196

Convert Select

ESRI Webhelp TOC

- Working with raster data in an image service definition
- Processes for image service definitions
- ArcGIS Image Server workflows**
 - Creating an SRTM service with the Visualize Elevation process
 - Creating a multispectral service using the NDVI process
 - Creating multiple image services from one multiband image service definition
 - Removing a color representing NoData from an image service definition
 - Recomputing the footprints of service overviews containing artifacts along the edges
 - Creating secure areas in an image service
 - Clipping the footprint to the boundary of an image service definition
 - Combining a hillshaded DEM with a topo map
 - Creating an image service containing other image services

Error on page. Internet 200%

RESOURCES

<http://edndoc.esri.com/imageserver/9.2/>

ArcGIS Image Server Developer Guide - Windows Internet Explorer

http://edndoc.esri.com/imageserver/9.2/index.html?about_automation_in_arcgis_image_serv

ArcGIS Image Server Developer Guide

ArcGIS Image Server Developer Guide

[Contents](#) | [Index](#)

- ArcGIS Image Server development
- ArcGIS Image Server clients
- Raster formats
- Raster types
- GeoTransformers
- Metadata
- Automation
 - An overview of automation in ArcGIS Image Server
 - Automation of the Image Service Editor
 - Auto-synchronizing image services
- ArcGIS Image Server XML**

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ArcGIS Image Server

An overview of automation in ArcGIS Image Server

Image Service Editor and Image Server Manager are graphical user interfaces that enable you to create, compile, and publish image services. The different clients provide you with user interface to view and extract imagery from the image services.

In some installations, partially- or fully-automated workflows are required, such that when new imagery is acquired a new image service can be created or an existing image service can be updated without the use of any graphical user interface. ArcGIS Image Server provides three methods to automate such workflows.

- ISCommand is a command line program that can be used to call the tasks performed by the Image Service Editor, Image Server Manager, and clients. These tasks include adding rasters, building, compiling, log extraction, file comparison, get image, generating overviews, etc.
- Auto-synchronization enables image services to be published automatically by adding them to the service provider Extensible Markup Language (XML) configuration file and enables image services to auto-synchronize when a compiled service definition is updated.
- Console client provides a command line interface to extract imagery from ArcGIS Image Server and output standard image formats. For more information about the Console Client, see Working with the Console Client in the ArcGIS Image Server Help.

Internet 100%

OBSERVATIONS

- ✘ 10-20% storage overhead.
- ✘ Great potential. Meets our objectives.
- ✘ Steep learning curve.
- ✘ Image Server tutorial is excellent introduction.
- ✘ It's not a bug, it's a workflow issue.
- ✘ Image services are not (yet) supported in 3D applications like ArcGlobe and ArcExplorer

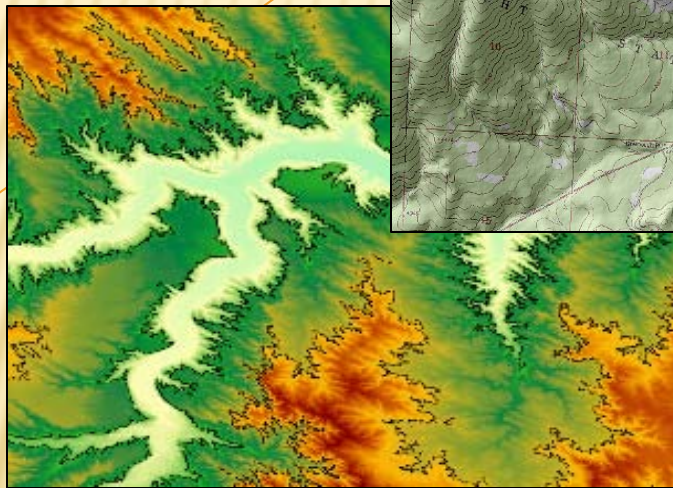
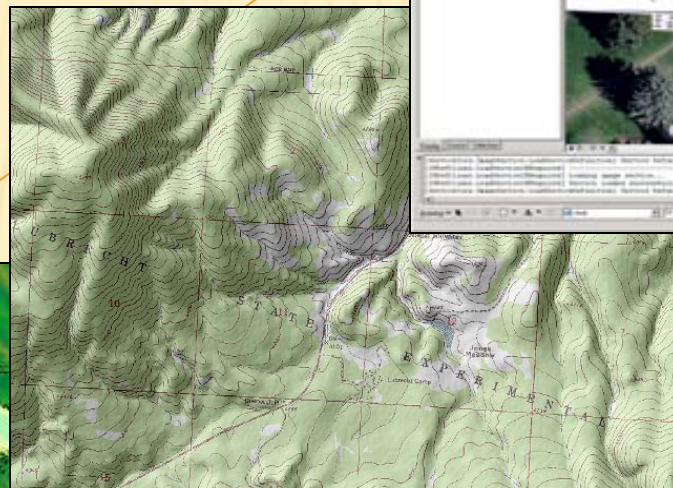
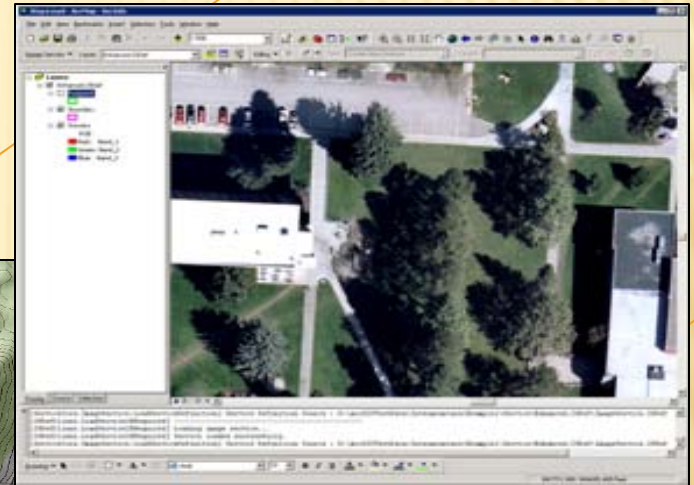
OBSERVATIONS

Advantages:

- + Data management/storage
- + Less processing
- + Quick acquisition to dissemination time
- + Server processes (client-enabled dynamic layers in an ArcGIS Server map service)
- + Client processes (client can modify service locally)
- + Different views of the same data without duplicating source

ARCGIS SERVER IMAGE EXTENSION

The End



Thank you for
your attention