

Raster Imagery for Mapping and Land Development Professionals

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Class Summary

This class demonstrates some of the common functions used to display, manage and edit aerial images and Digital Elevation Models (DEM) in the AutoCAD® Map 3D, AutoCAD® Civil 3D® and AutoCAD® Raster Design programs.

Learning Objectives

At the end of this class, you will be able to:

- Insert and manage multiple geo-referenced images
- Use rubber sheeting tools to correlate raster images
- Improve image display with nonlinear tonal adjustment and palette controls
- Generate color elevation maps from DEM data files
- Connect to raster data with AutoCAD Map's Feature Data Objects (FDO).
- Drape an aerial photograph on a terrain surface.

Introduction

David Zavislan, P.E.

- NV5, Inc.
 - Infrastructure – Civil/Survey/CM
 - Construction Quality Assurance
 - Municipal Outsourcing
 - Asset Management
 - Environmental Services

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NV5
BEYOND ENGINEERING

Introduction

David Zavislan, P.E.

- NV5, Inc.
- CAD Manager
 - Support
 - Training
 - Application Development
 - Consulting
 - 12th Year Teaching at AU!











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Which Software do I use?

	AutoCAD	AutoCAD Map 3D	AutoCAD Raster Design in AutoCAD	AutoCAD Raster Design in AutoCAD Map 3D
Insert Image				
Insert Geo-referenced Image				
Edit Raster Image				
Re-project Image				












AutoCAD Civil 3D includes AutoCAD Map 3D functions

Which Software do I use?

	AutoCAD	AutoCAD Map 3D FDO	AutoCAD Raster Design in AutoCAD	AutoCAD Raster Design in AutoCAD Map 3D
Insert Image				
Insert Geo-referenced Image				
Edit Raster Image				
Re-project Image				

AutoCAD Civil 3D includes AutoCAD Map 3D functions
FDO = Feature Data Objects

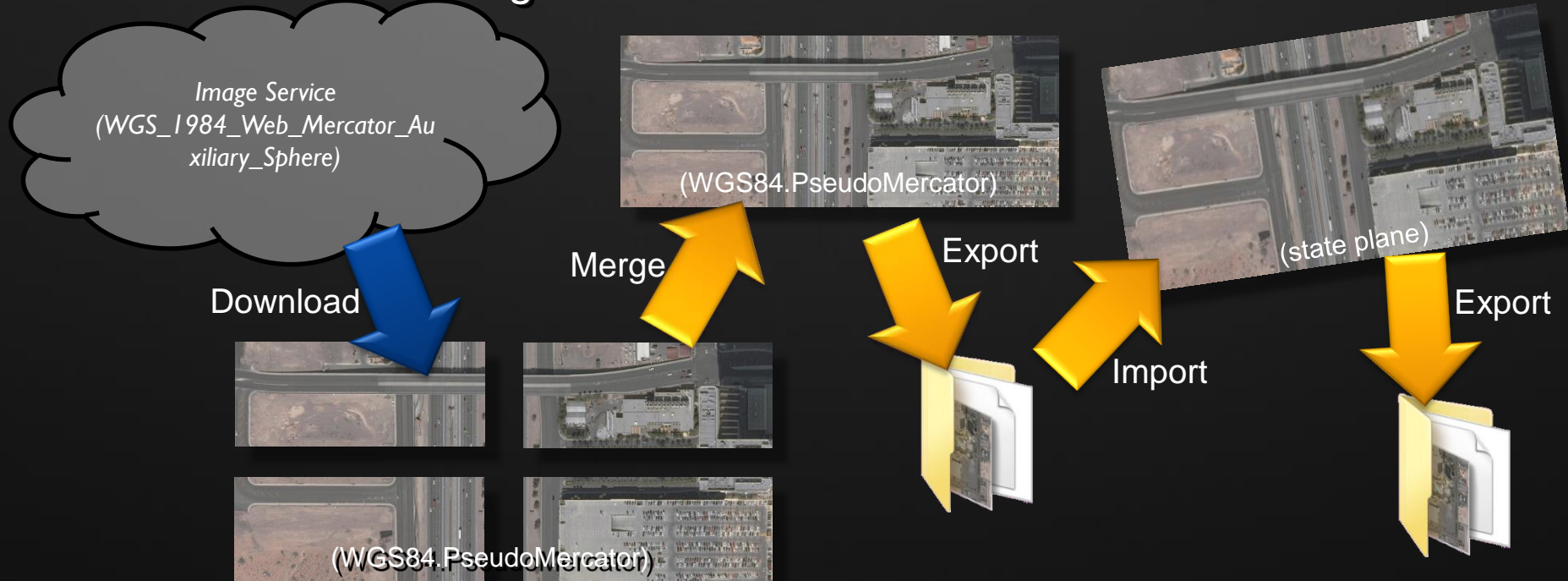
Which Software do I use?

	AutoCAD	AutoCAD Map 3D FDO	AutoCAD Raster Design in AutoCAD	AutoCAD Raster Design in AutoCAD Map 3D
Insert Image				
Insert Geo-referenced Image				
Edit Raster Image				
Re-project Image				
Web/Server Image				

Aerial Images

Aerial Images

- Common Raster Design workflow



Aerial Images

- Editing with Raster Design
 - Correlation
 - Crop
 - Color depth
 - Histogram
 - Density
 - Tonal adjustment
 - Palette

Digital Elevation Models (DEM)

Digital Elevation Models

- Raster data with elevation values
- Raster Design
 - Elevation color map
 - Slope color map
 - Aspect color map
 - Cropping
 - Image capture

Feature Data Objects (FDO)

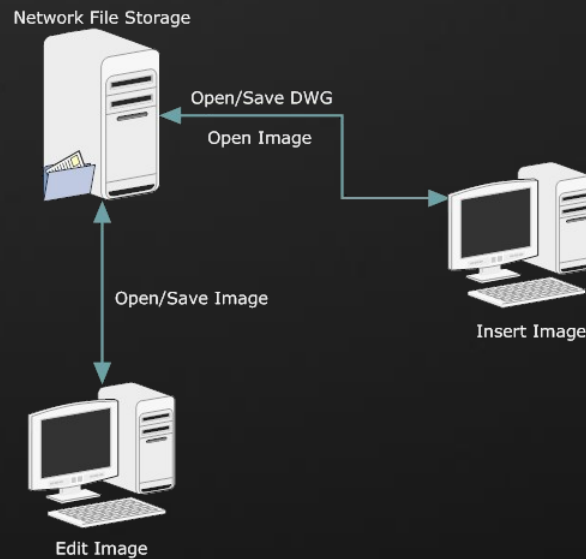
Feature Data Objects (FDO)

- Access GIS data within Map 3D
- Aerial imagery
 - Reprojection
 - Opacity
- DEM
 - Reprojection
 - Stylization
 - 3D viewing

FDO - Web Mapping Services (WMS)

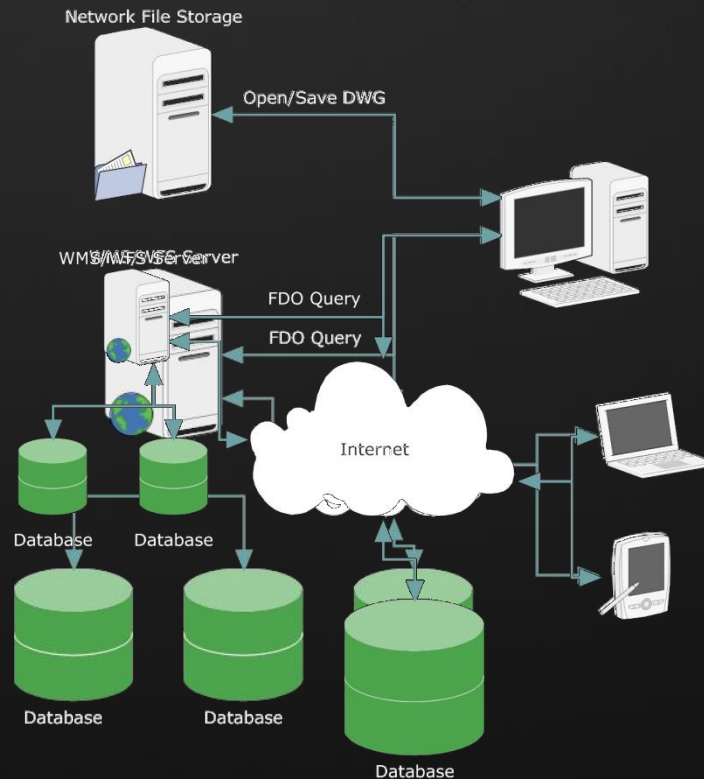
FDO - Web Mapping Services (WMS)

- Typical image insert data model



FDO - Web Mapping Services (WMS)

- WMS data model



FDO - Basejump

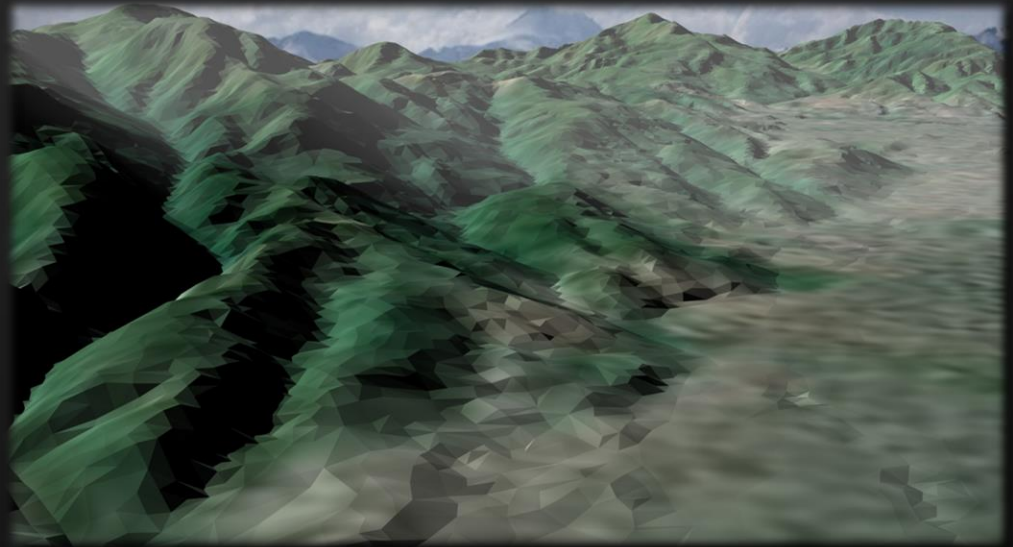
- Autodesk Labs technology preview
- FDO provider
- Bing™ Maps in AutoCAD Map 3D



Civil 3D Image Drape

Civil 3D Image Drape

- Creates material from image file
- Maps material to surface



Your Questions...

