GeoSpatial
Training Services

Introduction to ArcGIS Earth

E-Learning for the GIS Professional – Any Time, Any Place!

geospatialtraining.com

Housekeeping Items

- Webinar duration

- Handouts and recording

- Audio

- Questions

Webinar Outline

- ArcGIS Earth Interface

- Navigation

- Supported GIS Data Formats

- Basemaps and Terrain

- Adding Layers

- Sketching and Labeling Features

- Measuring

- Sharing Your Work

- Search

- Settings

- Point Based Service Access
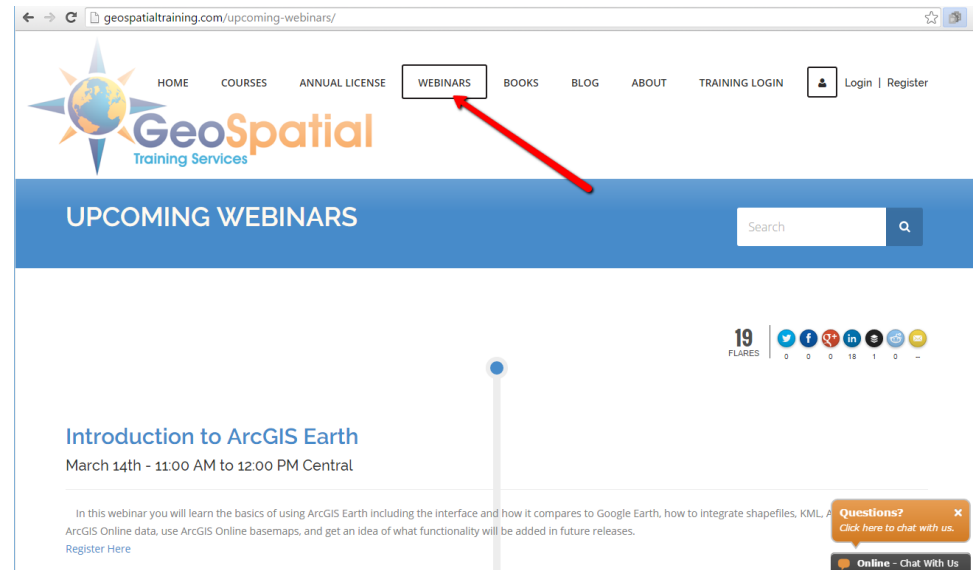
- What's Coming

- Demonstration

About Me

- Eric Pimpler

- Owner of Geospatial Training Services
  - http://geospatialtraining.com

- 25 years experience with GIS and Esri products

- Technical specialties
  - Programming ArcGIS with Python
  - ArcGIS Server Application Development with JavaScript
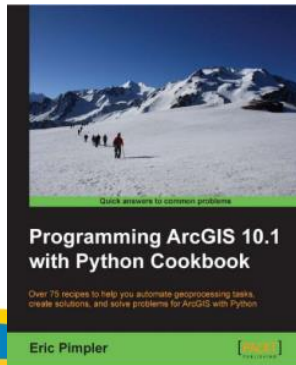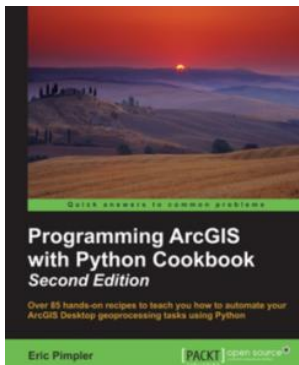
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Other Webinars Coming Soon

- Introduction to QGIS

  – March 29th – 11:00-12:00 PM Central

- Introduction to AppStudio

  – April 25th – 11:00-12:00 PM Central

The Basics

- Interactive 3D globe viewer for data exploration and visualization tool
  - Familiar to Google Earth users
- 2D and 3D
- Supports KML (including Network Links), shapefiles, ArcGIS Server and ArcGIS Online services
  - Feature layers, map services, image services, 3D object scene layers
- Multiple basemaps plus terrain
- Supports Web Mercator and WGS84 GCS
- Sketch and annotate features
- Draw and measure
- Share
- Search

System Requirements

Supported platforms

- Windows 7 SP1 Ultimate, Enterprise, Professional, and Home Premium (64 bit [EM64T])

- Windows 8 Basic, Pro, and Enterprise (64 bit [EM64T])

- Windows 8.1 Basic, Pro, and Enterprise (64 bit [EM64T])

- Windows 10 Home, Pro, and Enterprise (64 bit [EM64T])

- Windows Server 2008 SP2 Standard, Enterprise, and Datacenter (64 bit [EM64T])

- Windows Server 2008 R2 SP1 Standard, Enterprise, and Datacenter (64bit [EM64T])

- Windows Server 2012 Standard and Datacenter (64 bit [EM64T])

- Windows Server 2012 R2 Standard and Datacenter (64 bit [EM64T])

DirectX

- ArcGIS Earth uses DirectX to provide high-performance map rendering. DirectX provides support for hardware and software rendering of graphics and is provided by the supported Windows platforms.

- Direct3D feature level 9_3

- Default: DirectX 11 hardware support

- Falls back to DirectX 11 software rendering if hardware support is not available

Hardware requirements

- CPU speed: 2.2 GHz or higher; Hyper-Threading Technology (HTT) or multicore recommended.

- Processor: Intel Pentium 4, Intel Core Duo, or Xeon Processors; SSE2 minimum. Run this Microsoft utility from your Windows command prompt to check your processor.

- Disk space: 50 MB is needed for the application, and more is needed for cache and swap.

- Memory/RAM: 2 GB or higher.

- Display: 24-bit color depth.

- Screen resolution: 1024x768 or higher recommended at normal size (96 dpi).

- Swap space: Determined by the operating system; 500 MB minimum. ArcGIS Runtime will create cache files when used; additional disk space may be required.

- Video/Graphics adapter: 256 MB RAM minimum, 1 GB RAM recommended; NVIDIA, ATI, and Intel chipsets supported ; accelerated graphics card driver; Shader Model 4.0 minimum. Be sure to use the latest available driver.

http://doc.arcgis.com/en/arcgis-earth/#systemrequirements

- Google Earth alternative?

- Demonstration
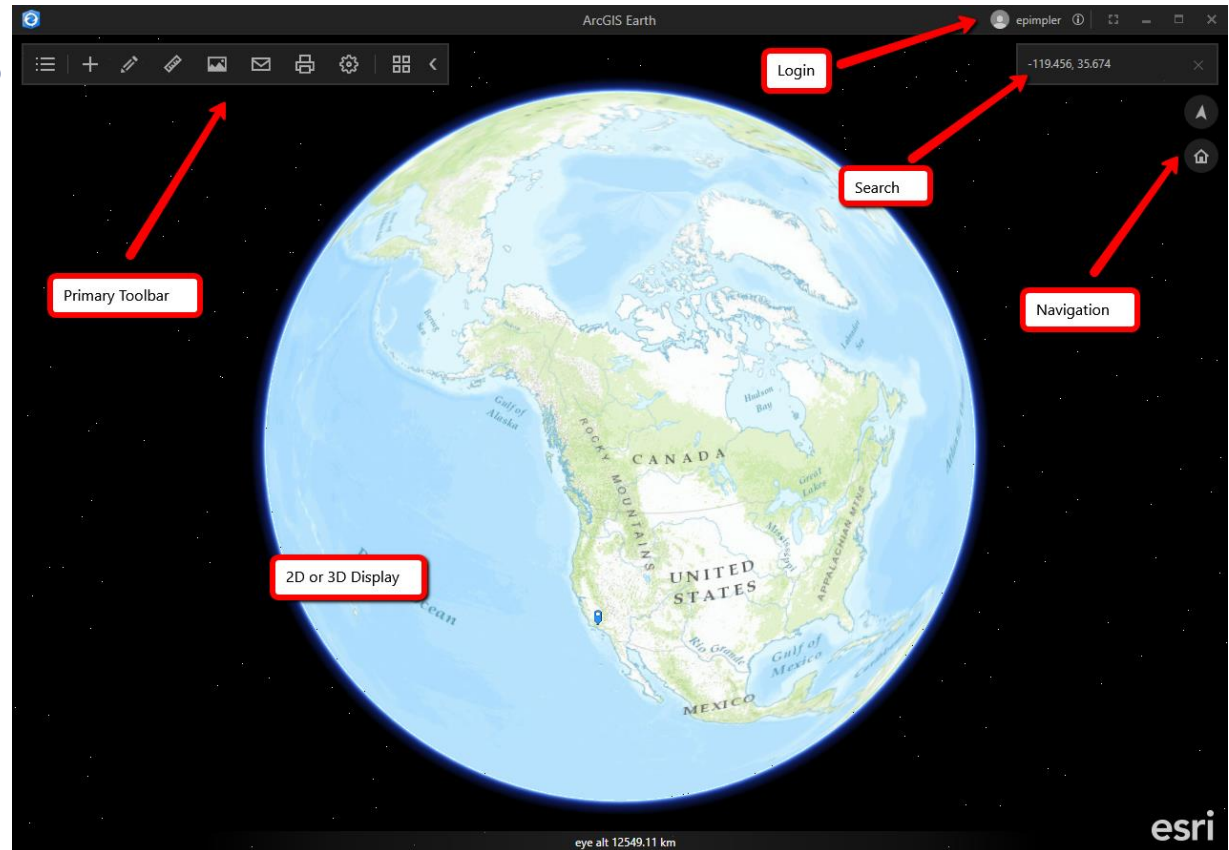
Navigation

- Many options for navigation

- Very similar to Google Earth
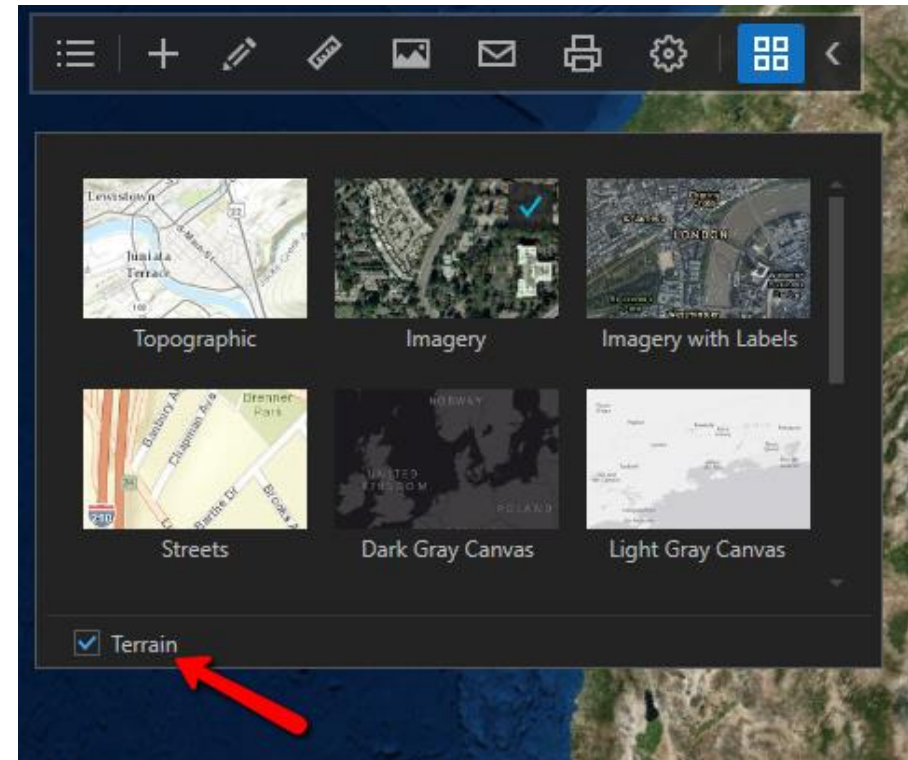
  - Interface

  - Mouse

  - Keyboard

  - Touch

Supported GIS Data Formats

- KML

  – Support for version 2.2 including Network Links

- Shapefiles

- ArcGIS Server and ArcGIS Online Services

Basemaps and Terrain

- Topographic

- Imagery

- Streets

- Canvas (Dark and Light)

- National Geographic

- Oceans

- OpenStreetMap

- USA Topo Maps

- USGS National Map

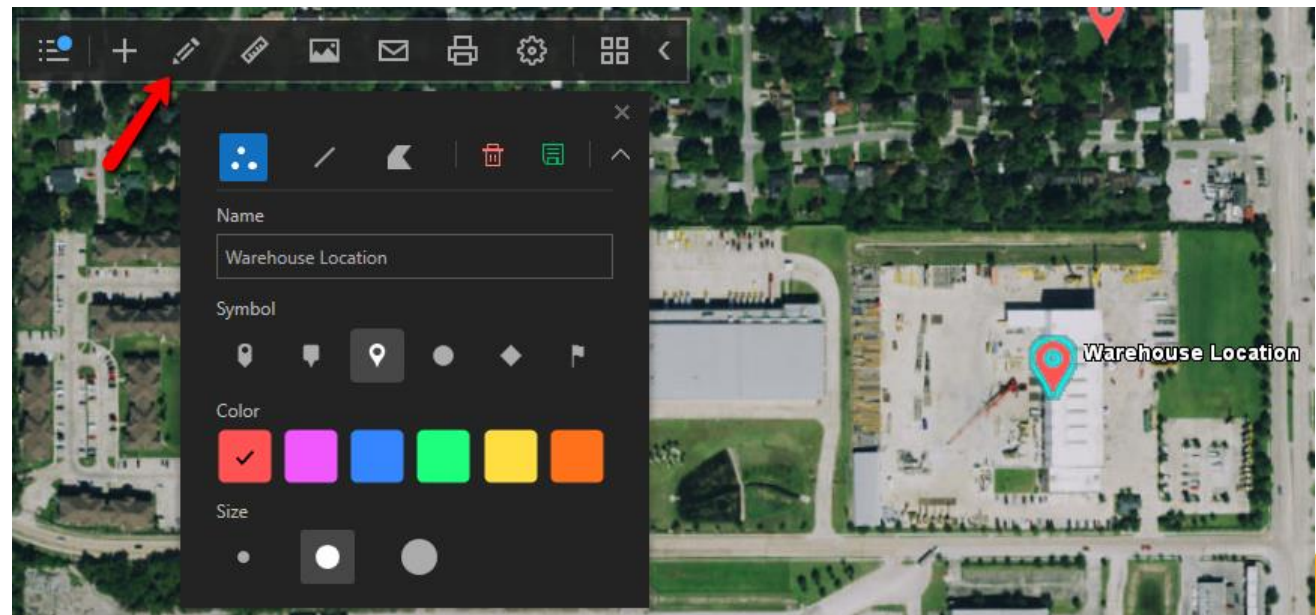- Terrain – Provides the elevation reference

Adding Layers

- ArcGIS Online

  – Public, My Content, My Groups, My Organization (same as ArcGIS Online)

- Files

  – KML, KMZ, Shapefiles

- URL

  – ArcGIS Server service

  – KML endpoint (service or file)
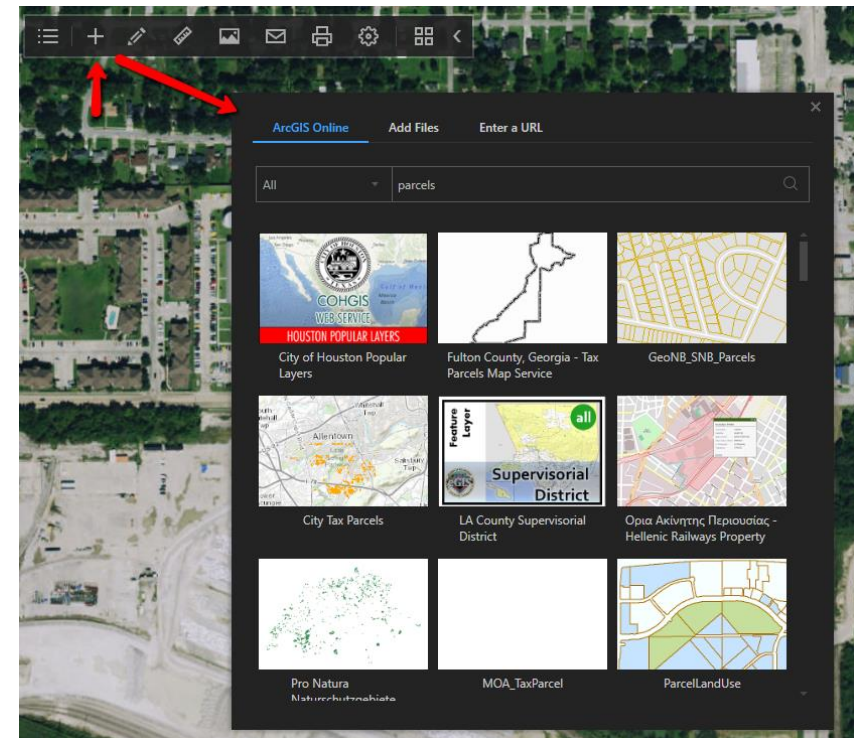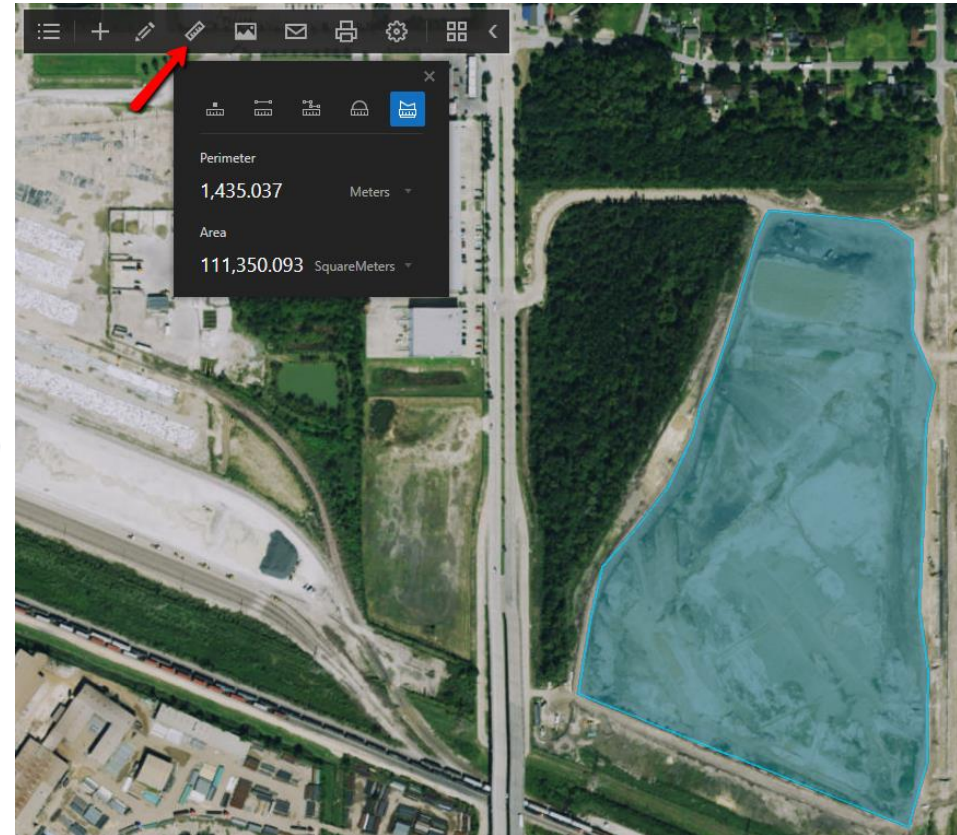
Sketching and Labeling Features

- Points, lines, polygons

- Label

- Define symbols, colors, size, transparency

- Save to TOC

  - Not saved to file

Measuring

- Measure points, lines, polygons, circles

- Change units of measure

- Polygons and Circles

  - Perimeter and area
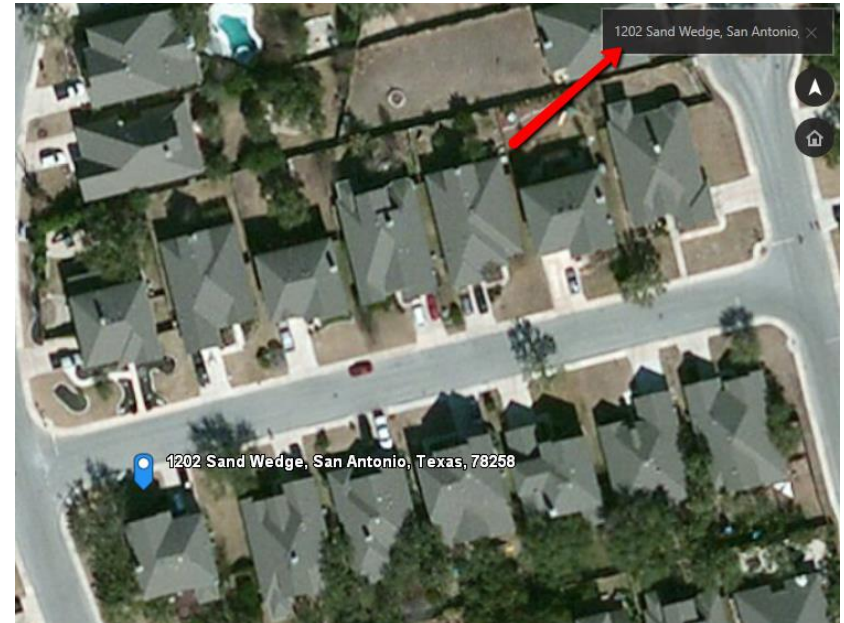
- Length of a line or path (more than 2 pts)

- Longitude/Latitude of a point

- Email view

  – Screenshot of view as email attachment

- Save view as image

  – JPG, PNG, TIF

- Print

- Uses Esri World Geocoding Service and AGOL Geosearch service

- Address

- City

- County

- Postal Code

- Lat/Long Coordinates

- Points of Interest and Landmarks
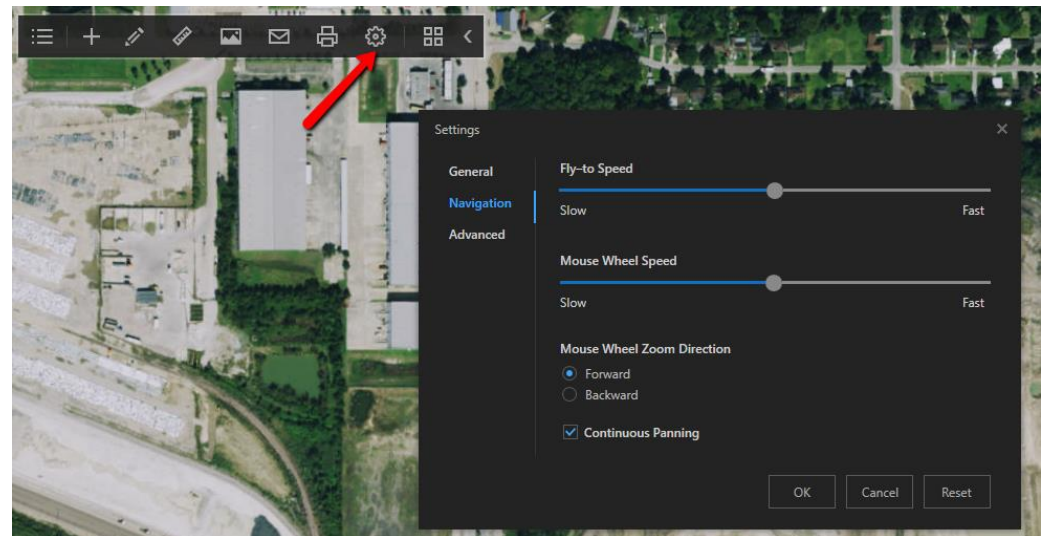 - Grand Canyon

Settings

- General

  - Default Portal URL

  - Startup view

  - Spatial reference

- Navigation

  - Fly to speed

  - Mouse wheel speed

  - Mouse wheel zoom direction

- Advanced

  - Proxy settings

Point Based Service Access

- Additional information about point locations

  - Google Street View, What3Words, Mapillary

- Pop-up window showing information about a point location returned by a service

  - Service must return KML – KML displayed in the pop-up window

  - Many services don't return KML so additional steps needed

    - https://blogs.esri.com/esri/arcgis/2016/03/08/point-based-service-access-with-arcgis-earth/

- CTRL-RIGHT-CLICK to invoke the service

  - Latitude, Longitude, Elevation are passed to the service

- ArcGISEarth.exe.config

  - C:\Users\<user>\Documents\ESRI\ArcGISEarth

  - serviceURL element

Point Based Service Access
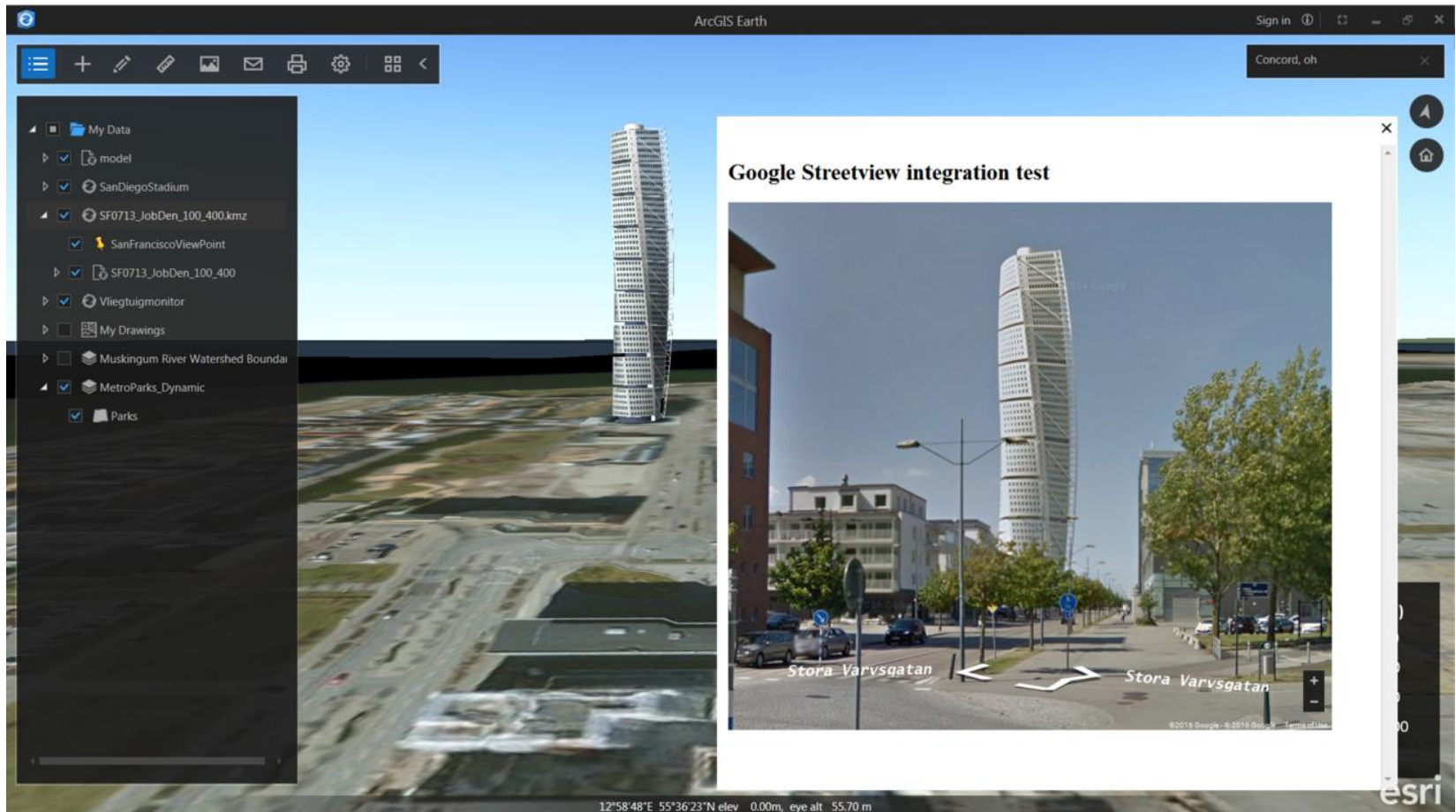
What's Coming in Future Releases

- Offline use

- Maptours

- Timesliders

- Support for WMS

Help Links

- Product page- http://www.esri.com/software/arcgis-earth

- Help documentation - http://doc.arcgis.com/en/arcgis-earth/

- GeoNet forum: http://j.mp/Earth1_0Forum

- Twitter - @ArcGISEarth

- Slideshare - http://www.slideshare.net/ChrisAndrews11/introducing-arcgis-earth-january-2016

- Upcoming Classes

  - Introduction to ArcGIS Earth

- ½ Day Class

- Classroom

  - May 18th – Phoenix

  - June 16th – Denver

  - August 8th – Helena, MT

- Live, Online

  - May 4th

  - June 1st

Introduction to ArcGIS Earth

- Course Modules

  - Module 1: Introduction to ArcGIS Earth

  - Module 2: ArcGIS Earth Navigation, Basemaps, and Search

  - Module 3: Adding Layers To the View (KML, Shapefiles, CSV, ArcGIS Server, ArcGIS Online)

  - Module 4: Sketching, Symbolizing, and Labeling Features

  - Module 5: Measuring Distances and Areas

  - Module 6: Sharing Your Work

  - Module 7: What's Coming in Future Versions

- http://geospatialtraining.com/introduction-to-arcgis-earth/

Questions

- Any questions about todays webinar?

- All our webinars will be recorded for later viewing.

- Questions after the webinar?

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  – @gistraining on Twitter