

Virginia Department of Conservation & Recreation

Google Earth

• What is it?

 A software program that displays satellite imagery from an online server overlaid on a topographic data, creating a digital three-dimensional model of the plant Earth.

Google Earth Versions

- Google Earth 6 is available for the desktop in three different versions:
 - Google Earth
 - Google Earth Pro
 - Google Earth Enterprise

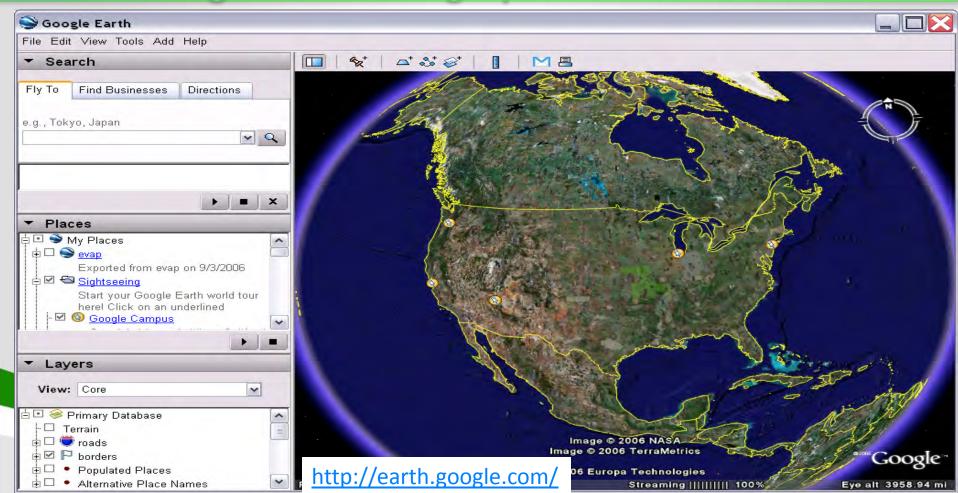
Google Earth Version

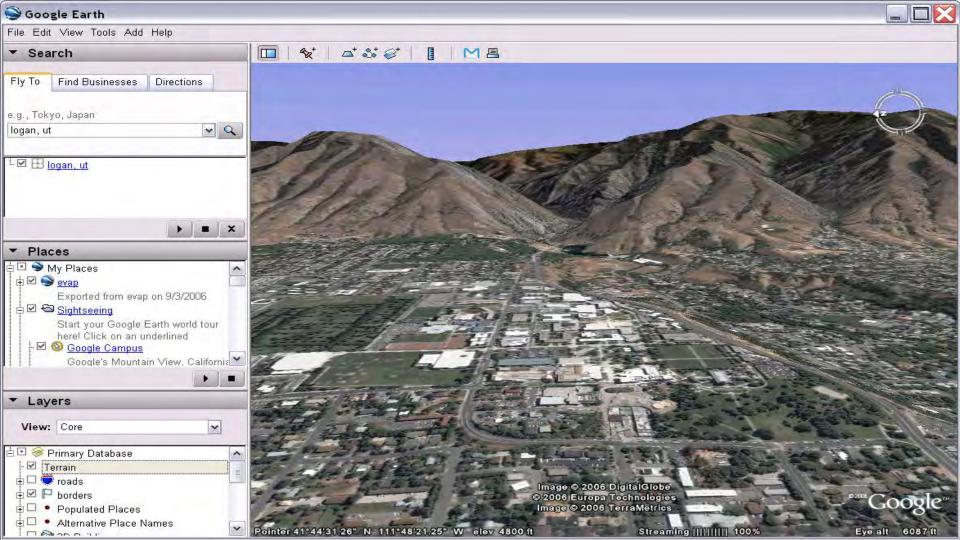
- Google Earth Free, but you cannot measure an area or include topo map images.
- Google Earth Pro \$399 annually, measures area & offers higher printing resolutions.
- Google Earth Enterprise \$20,000

Google Earth

- A GPS data import tool was added in 2009.
- The interface supports only Magellan & Garmin brand GPS units.
- You can download it at www.google.earth.com.
- Download Google Earth for Android, iPhone, or iPad.

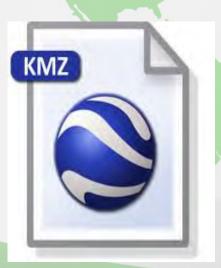
Google Earth Geographic Web Browser





???XMZ, KML, GPX??

• File formats -The VERY condensed version...







KMZ

- Stands for KML-Zipped.
 - It is the default format for KML because it is a compressed version of the file.
 - KMZ allows images you to be zipped up in file.
 - That's all you need to know....we are not exporting pictures because our GPS has a map!

KML

- Keyhole Markup Language
 - Is used by Google Earth
 - The KML format can
 - read & write waypoints
 - read and write tracks
 - read and write routes

GPX

- The GPS eXchange Format
- It is an XML data format for the interchange of GPS data (waypoints, routes, and tracks) between applications and Web services on the Internet.
- Designed for transfer of data for GPS devices.
- Contain a description of what's inside them, allowing anyone to create a program that can read the data within.

XML to GPX

- Create a data file on Google Earth
- Save it as a KML file
- Convert it to GPX file
- Export data to GPS device

– How do we do this?

GPSBabel

- What is it?
- GPSBabel converts waypoints, tracks, and routes between popular GPS receivers and mapping programs.

GPSBabel

- There are many different file formats to hold waypoint, track, & route information in programs used by computers & GPS receivers.
 - GPX defines a standard XML to contain all the data,
 many programs do not understand XML
 - GPSBabel can convert data between two programs.

GPSBabel



Additional Resources

- ExpertGPS http://www.expertgps.com/default.asp
- TopoGrafix http://www.topografix.com/
- GPS Visualizer http://www.gpsvisualizer.com/convert_input
- EasyGPS http://www.easygps.com/default.asp

