Working with Google Earth

Objectives: Creating Virtual Tours with Google Earth

The objective of these exercises is to explore Google Earth plug-in as a tool for visualizing spatial information. To accomplish this goal, we will perform the following tasks:

- Visit websites relevant to developing Google Earth web applications
- Explain the files & folders in the *ge* folder that support Google Earth web apps
- Explain the use of KML files in Google Earth
  - Walk-through the sample code;
  - Point out how KML data is used to create information layers in Google Earth.
- Collect spatial data from Paeloko using GPS & video/camera devices.
  - Create a KML tour & waypoints layers using **track & waypoint data** from the GPS.
  - Add images & video you collected around campus to the waypoints KML.

Exercise #7: Convert GPS Track data to KML Tour format

The GPS data is stored on the device as GPX files. The GPX files need to be converted into KML files before the data can be used in your web app. Perform the following steps to convert your GPX files to KML files:

1. Connect GPS to computer using USB cable.
2. Wait for computer to recognize GPS device.
3. Open <u>Windows Explorer</u> and find GPS drive **GARMIN (E:)**
4. Go to **E:\Garmin** folder on GPS drive and find your *Track* & *Waypoint* GPX data.
5. Copy your GPX files to your computer.
6. In a web browser, go to the GPS Visualizer website: http://www.gpsvisualizer.com/convert_input
7. Convert your GPX *Track* file into *Google Earth KML* format.
8. Set the following options on the website:
   a. Output format: **Google Earth KML**
   b. Output file type: KML
   c. Upload files here: Choose file -> Select your **GPX *Track*** file
9. Press the **Create KML File** button.
10. Download the KML file from the website to your computer.
11. Go to the Krolik website: http://krolik.net/KMLTours/
12. Add a title for tour you will create.
13. Choose the KML file create by the **GPS Visualizer** website.
14. Press the **Create Tour** button.
15. Download the KML tour file from the Krolik website to your computer.
16. Go to your *ge/kml* folder on Google Drive and upload your KML tour file.
17. Delete the existing *HaleakalaTour.kml* file in your *ge/kml* folder.
18. Rename your KML tour file to *HaleakalaTour.kml.*
19. Delete the existing *HaleakalaWaypoints.kml* file in your *ge/kml* folder.

20. Copy *HaleakalaWaypoints.kml* file from *gmap/kml* folder to your *ge/kml* folder.
21. Run *ge/index.hml* and load tour & waypoints file.