

Lab 11

-- GOOGLE EARTH: CREATING POINTS WITH KML --

Section 1: Creating Points

Overview

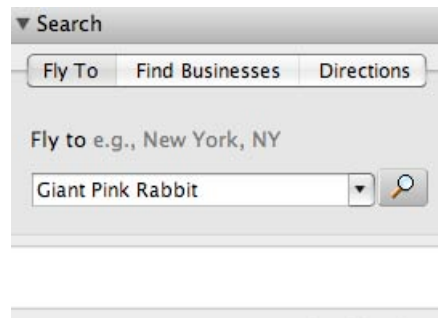
The ability to mark a point is a fundamental concept for all maps and globes. In KML this is done using <Placemark>. The default marker is a yellow push-pin, where the tip of which marks the location. In KML terminology it is actually a <Placemark> parent element with a <point> child.



Tutorial

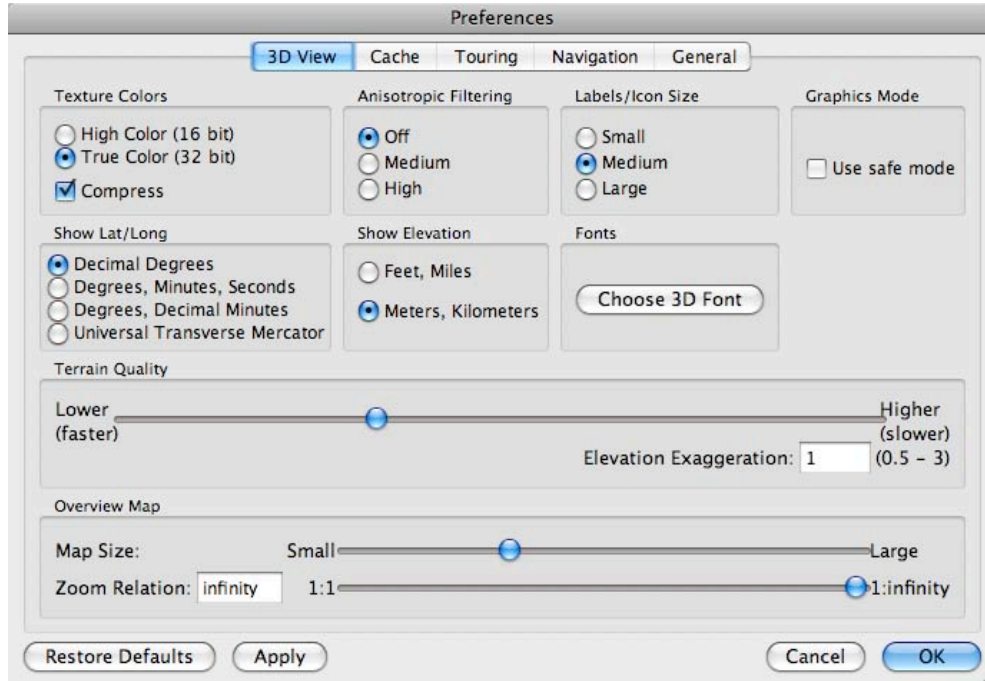
1. Searching for Locations

In Google Earth, search online Google Earth (KML) files for the *Giant Pink Rabbit*. To do this, simply type “ *Giant Pink Rabbit* ” in the search box. Note the results of your search will appear in the search bar, where Google's locations are shown with **red** markers, and the user community placemarks are shown by **blue** markers.



Question 1: In which country is the Giant Pink Rabbit located?

Note that the latitude and longitude locations of your mouse are tracked in the bottom left corner of the Google Earth viewing window. If these display as **Degrees-minutes-seconds** format, go **Tools → Options → 3D View tab**, then click on the **Decimal Degrees** button. (Note, on a Mac, you need to go to the **Google Earth Menu → Preferences → 3D View tab**.)



Question 2: Provide approximate latitude and longitude coordinates (in decimal degrees) of this location:

2. Saving Searches to My places

- Position yourself over Sydney, Australia. Use the search tool to do this.
- Search for the location of *Aquatic Ping Pong* and zoom-in.
- Create a Placemark for this location. Rename it **Destination Ping Pong**. To do this, go to **Add → Placemark**, or click on the Add Placemark icon.



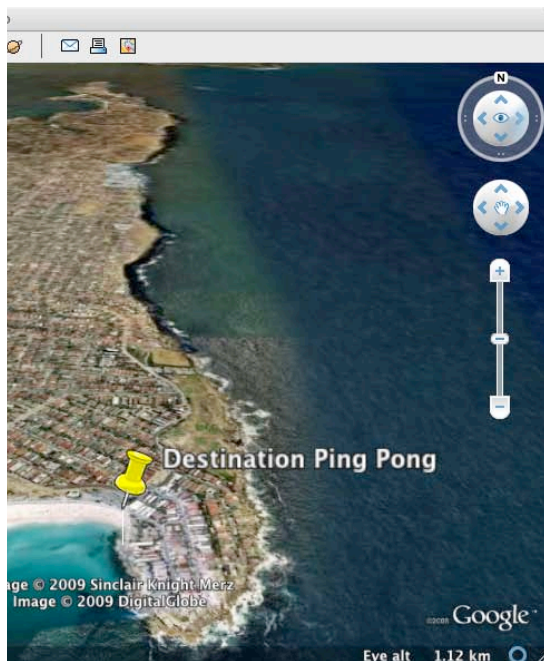
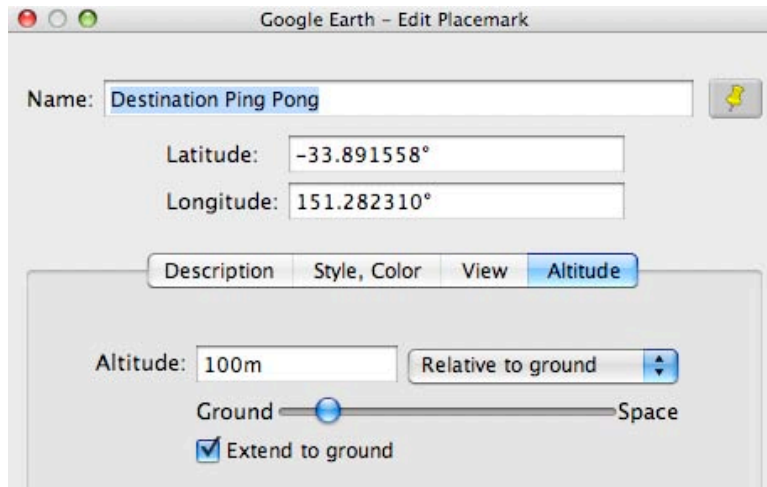
- Note that your new placemark symbol now shows in the Places window. If it doesn't, right click and select **Save to My Places**.
- Clear (select and right-click delete) your search items from the Search

Due: Tuesday, April 7th

window. The blue placemarks should disappear from your viewing window.

3. Altitude of Placemark

- Open the Destination Ping Pong Placemark properties. To do this, right-click the placemark and select **Properties** (on a Mac, this is **Get Info**).
- Select the Altitude tab, adjust height to 100m relative to ground and turn on *extend to ground*.
- Select OK and tilt your perspective in the viewer. You can control the viewing perspective with the circular icons located at the top right corner of your viewing window.



perspective controls

4. Description Balloons

- Open your placemark properties again and write in the description box:

Hello Earth, I'm playing ping pong!

- Select *OK* and check the balloon by clicking on your placemark icon.
- Re-open the properties and add the following text (as a second line of the description) that will provide a web link.

<href> http://en.wikipedia.org/wiki/Ping_Pong </href>

- The `<href> enter link here </href>` command represents a web link.
- Re-open the balloon and check that the webpage link works.
- Experiment with changing the format of text displayed in your placemark balloon. Open your placemark properties and make the text italicized and red. To do this, add a `<i>` and a `</i>` on the front and back ends of your text to make it italicized:

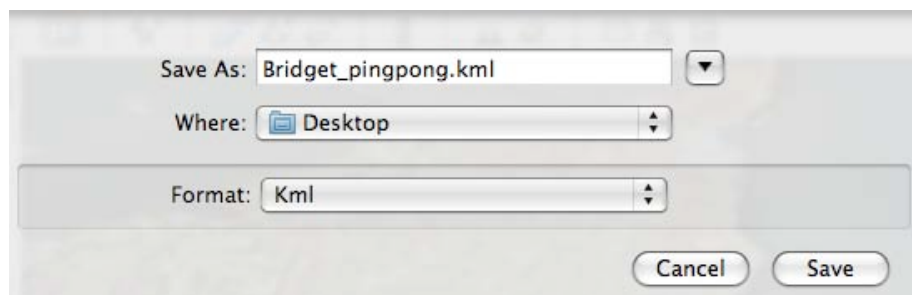
<i> Hello Earth, I'm playing ping pong </i>

Then add the following layer to apply color:

** your text here **

The color code for red is ff0000. Other color codes can be found at <http://html-color-codes.com>. Use pg. 11 of the Digital Explorer handout for more documentation about formatting placemark text.

- Now Save your placemark to your Lab11 folder on \\geobase (you'll need to create this folder first). Right-click the placemark and select **Save Place As**. Give your placemark the name **YourName_pingpong.kml**. Select the **Format** as **Kml**. *Note that a .kmz file is simply a zipped version of a .kml file.*



Exercise 1.

Create a placemark located at the UTEP campus with a description balloon that contains the following:

- Name the placemark UTEP
- UTEP internet address: <http://utep.edu>
- Insert text that contains the address of your home Department, ie: University of Texas at El Paso, Department of Geological Sciences, El Paso, Texas 79968.
- Insert an image of UTEP (see below)
- Insert the UTEP logo (see below)
- Save your file as YourName_UTEP.kml and drop a copy in the DropBox

To insert an image of UTEP and the UTEP logo, use pg 12-13 of the Digital Explorer handout for help. You will first need to find the images you want to use, and a good place to start is at <http://images.google.com>. Type in "UTEP" or "UTEP logo" in the **Search Images** box to look for images. Once you find an image you like, click on the link, then click on [See full size image](#), then copy the full web address of the image. (Note, on a Mac, you can right-click on the image and select Copy Image Address). Then open the placemark properties, and add an "image tag" to the description. This is just additional text that gives the web address of the image, in the following format:

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- **Save** your placemark to your Lab11 folder on \\geobase. Give your placemark the name **YourName_UTEP.kml**.
- To scale the image down to size, you can append the text
object width="100" height="100"
inside your command. The numbers are in pixel dimensions, so you can vary them as large or as small as you like. See p. 39 of the Digital Explorer for more help.

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Exercise 2.

Create a placemark at Redoubt volcano with a description balloon that contains the following YouTube video of the recent eruption from the Associate Press: <http://www.youtube.com/watch?v=0CN-EGuCBUg>. Use pp 39-42 of the Digital Explorer handout for help with this. Simply copy and paste the **Embedded** text from YouTube into your description balloon text.

Due: Tuesday, April 7th

- Save your file as YourName_Redoubt.kml and drop a copy in the DropBox

Exercise 3.

Create a small database of either “Places I’ve Been” or “Places I’d Like to Go To”. To do this, add a new folder in Places by going to **Add → Folder** and give it one of the titles provided above. Then right-click this folder in the Places window, and select **Add→Placemark**. Do this for at least 10 locations that document your past or future travels. Notice how the directory structure is organized, in that your new placemarks are all being saved in the folder you created. Give each placemark a title and add one representative image to each balloon description. When you’re done, save your folder by right-clicking it, and selecting **Save Place As**. Give your placemark the name **YourName_MyPlaces.kml**. Finally, open your .kml file in WordPad and inspect its contents. Identify where each of your places is stored in the file, and provide the latitude/longitude coordinates from your .kml file here for at least 5 of these places:

- Drop a copy of YourName_MyPlaces.kml in the DropBox.