



Outdoor Activities w/ Google Earth



Google Earth Tours

Image IBCAO
Image Landsat / Copernicus
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Google Earth



Preparing to make your tour

Before we start making a tour, let's prepare our content.

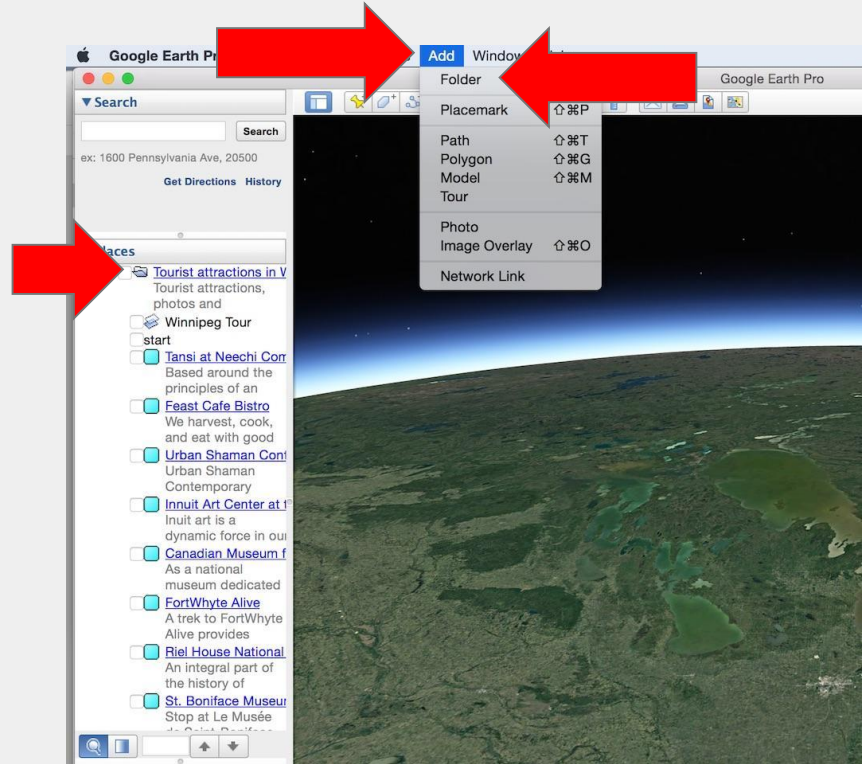
Assemble all the data collected in an Outdoor Activity (images, videos, text, ...)

Upload your videos and images in to the cloud

Starting creating your tour by adding placemarks, lines, polygons, image overlays, ...

Use subfolders to organize material that you want to turn on and off at the same time

Put everything in the order you want to use for the tour



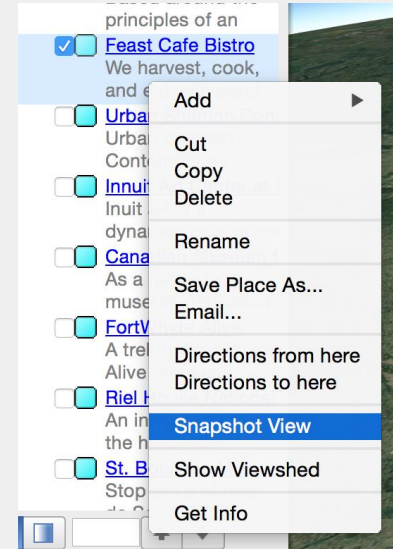
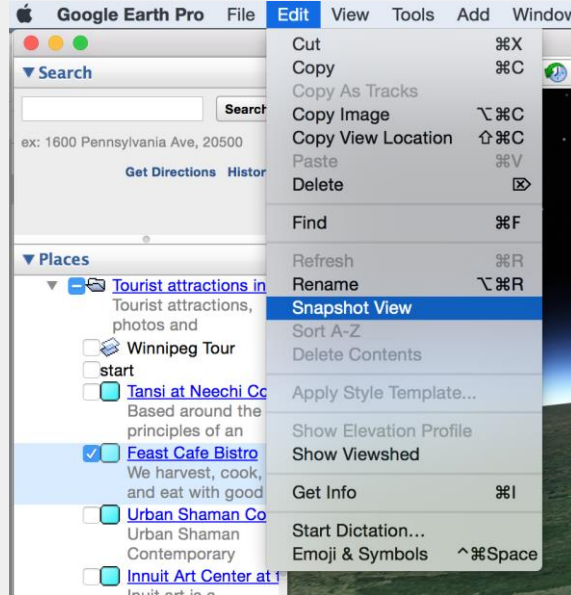
Snapshot View

Create the view you want to show

- Zoom in and out
- Tilt the image to show the horizon
- Enter Street View
- Use the timeslider to find imagery from different dates

Once you get the view you want, use snapshot view to save this view

Either click Edit>Snapshot View or right click (PC) or control click (Mac) and click Snapshot View

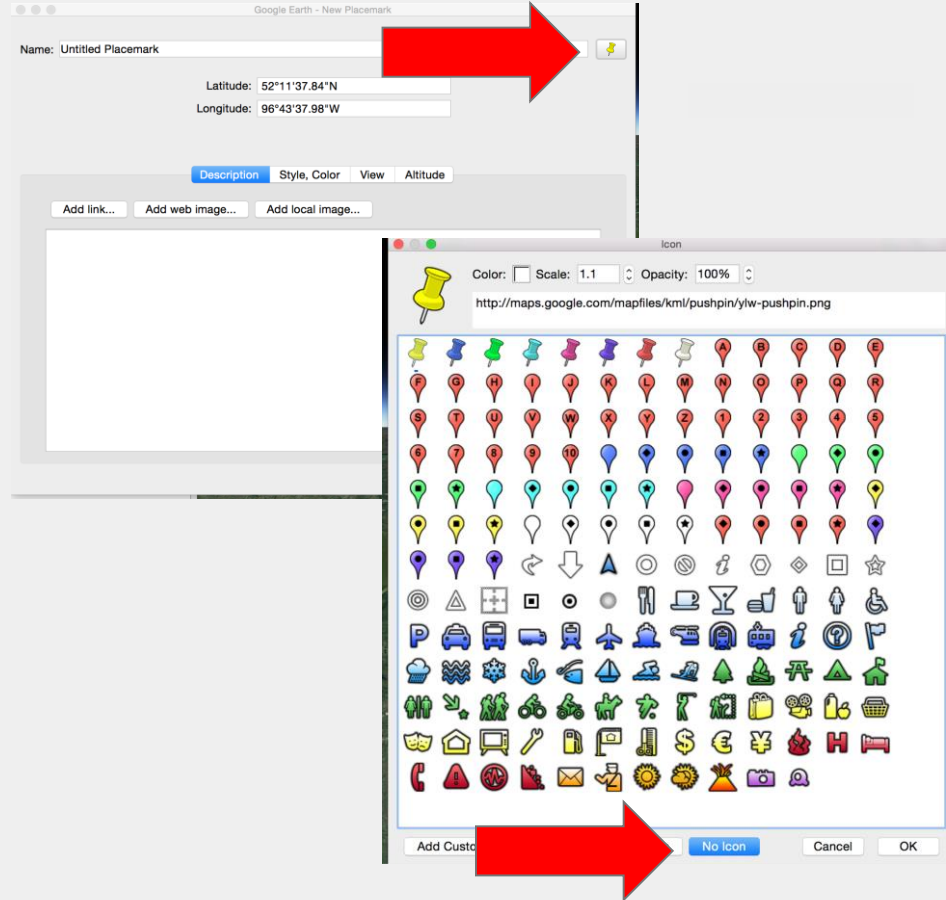


Orient your audience using invisible placemarks

It can be disorienting to the audience to watch a tour where everything is close up and you move between places without showing them where they are on the map

It is better to zoom out between locations and drop a pin, make it invisible, and create a snapshot view so that you can control the way you move between places

Used strategically, this can help the audience keep track of where they are while moving across the landscape



Create a simple tour

Image Landsat / Copernicus
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Google Earth

1. Simple tour by clicking on placemarks

Create placemarks, set Snapshot View for each, drag and drop them into the order you want to show them in a folder in the Places Panel

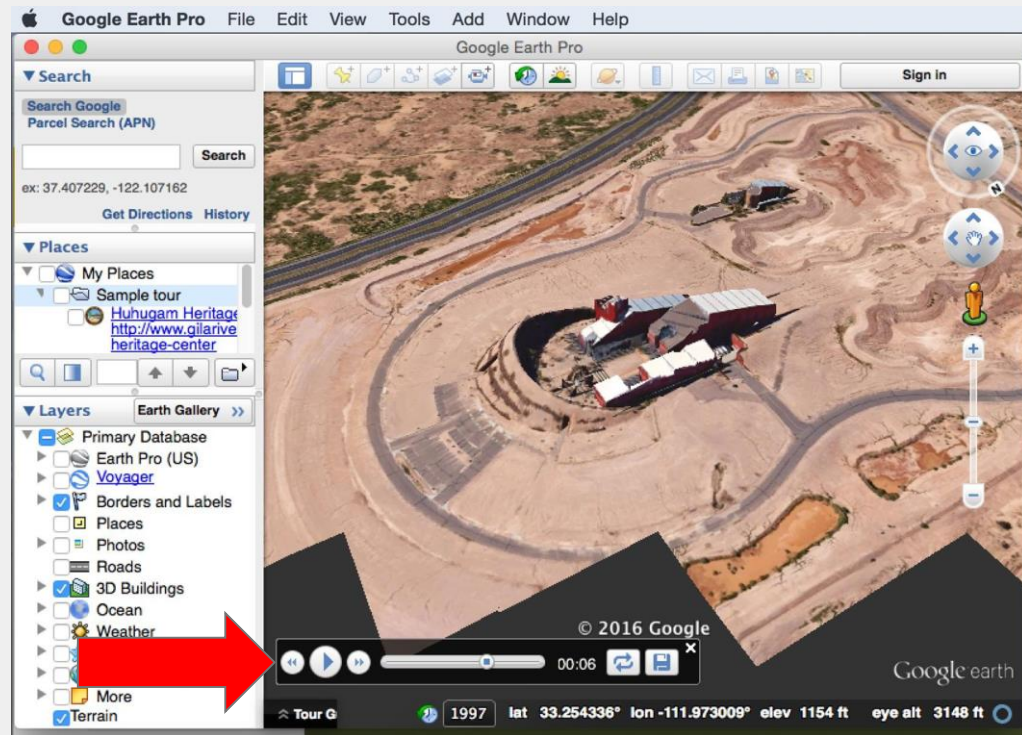
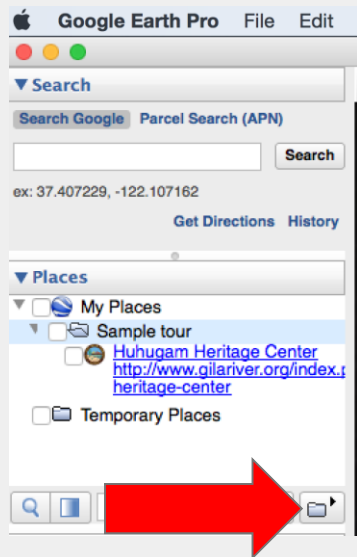
Using invisible icons will allow you to control where you start and end your tour and how you move between locations - if you zoom out to show the region before zooming in to the next location it will help orient your viewers

Manually click on the placemarks to move between locations

Manually open the icon balloons to show content, close the balloon, click on the next location

2. Create a tour from a folder

Create a folder, drag and drop your placemarks into the folder and then click on the folder icon to get the tour toolbar

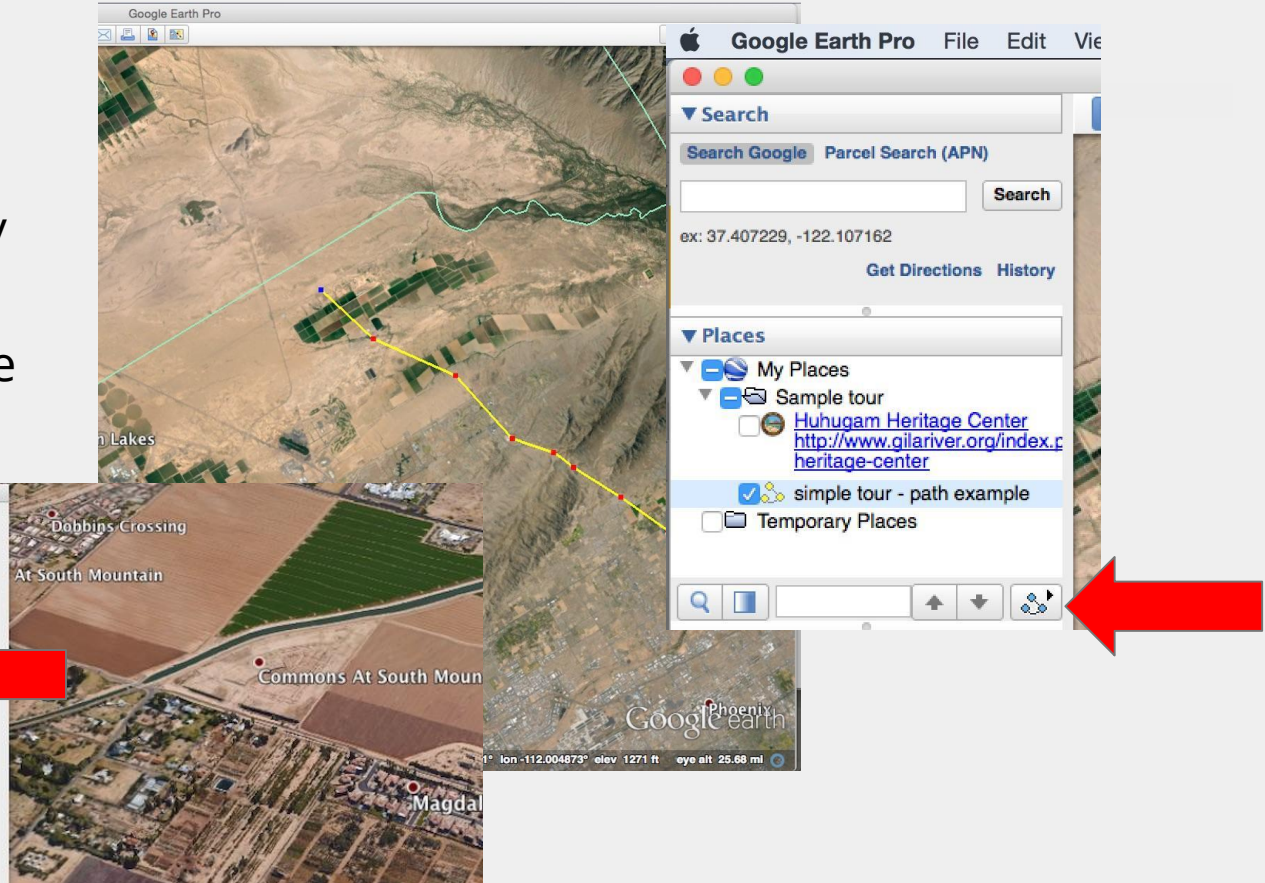
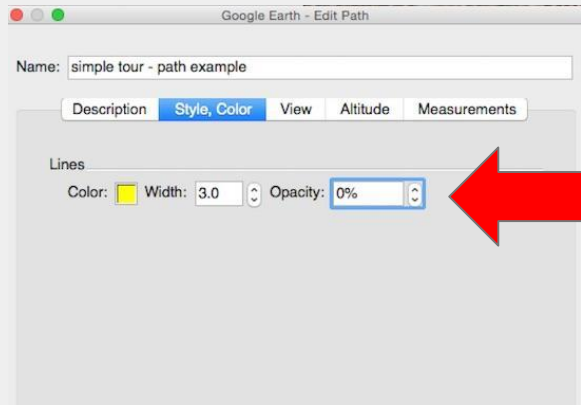


3. Create a tour from a line

Create a line (or import a GPS track)

Make the path 0% opacity so that it is invisible

Click Create tour from line button



4. Screen Capture movie to record your tour

Create placemarks, set Snapshot View for each, drag and drop them into the order you want to show them in a folder in the Places Panel

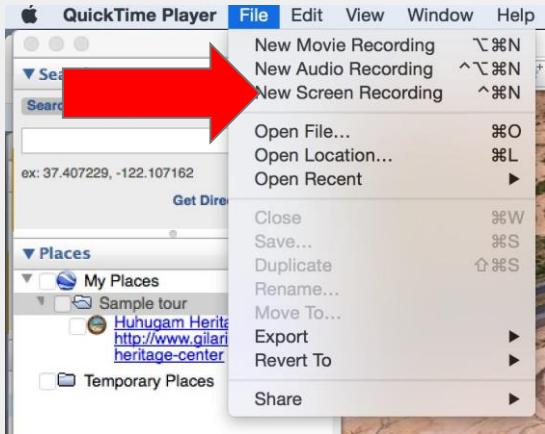
Make a screen capture movie while running your tour (manually, from a folder or from a line)

Don't include the Places Panel in the movie, and be careful not to move your cursor into the view window while recording your movie

You must include the Google Earth logo on all recordings and screenshots

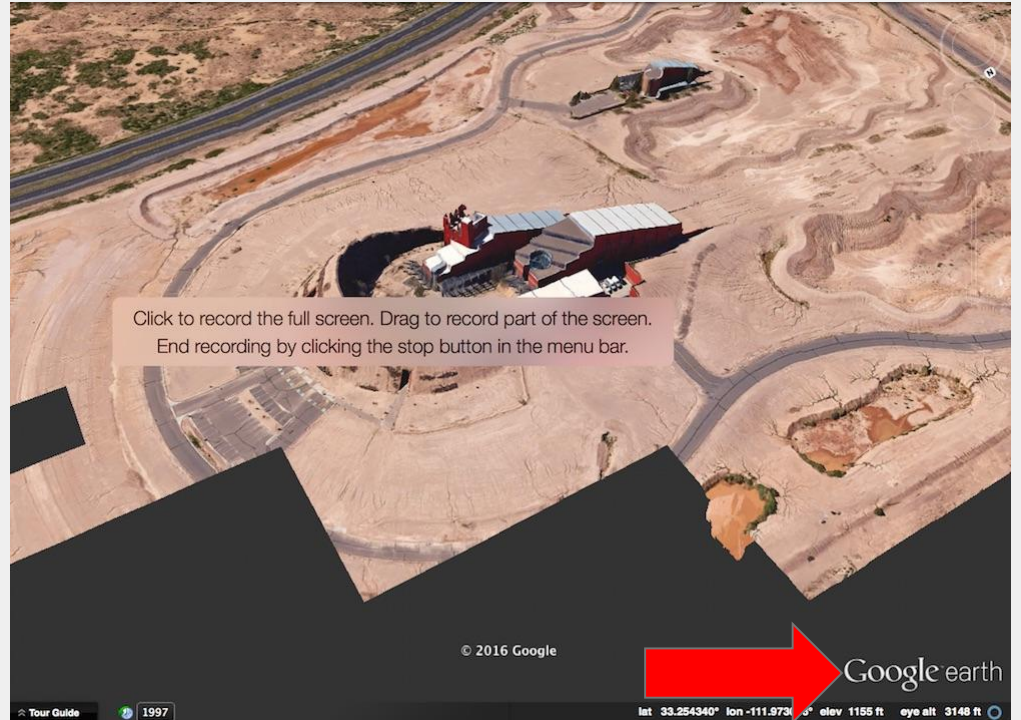
Edit the movie and add a voiceover or soundtrack in iMovie or other video editing software

Record and edit your movie



It helps to run through the tour a couple of times to cache the imagery before recording

Remember to include the Google Earth logo



Pro tips - Simple Tours

Adjust how fast you move between placemarks, the Elevation Exaggeration, etc. with the Preferences Panel

Use a mouse with a wheel

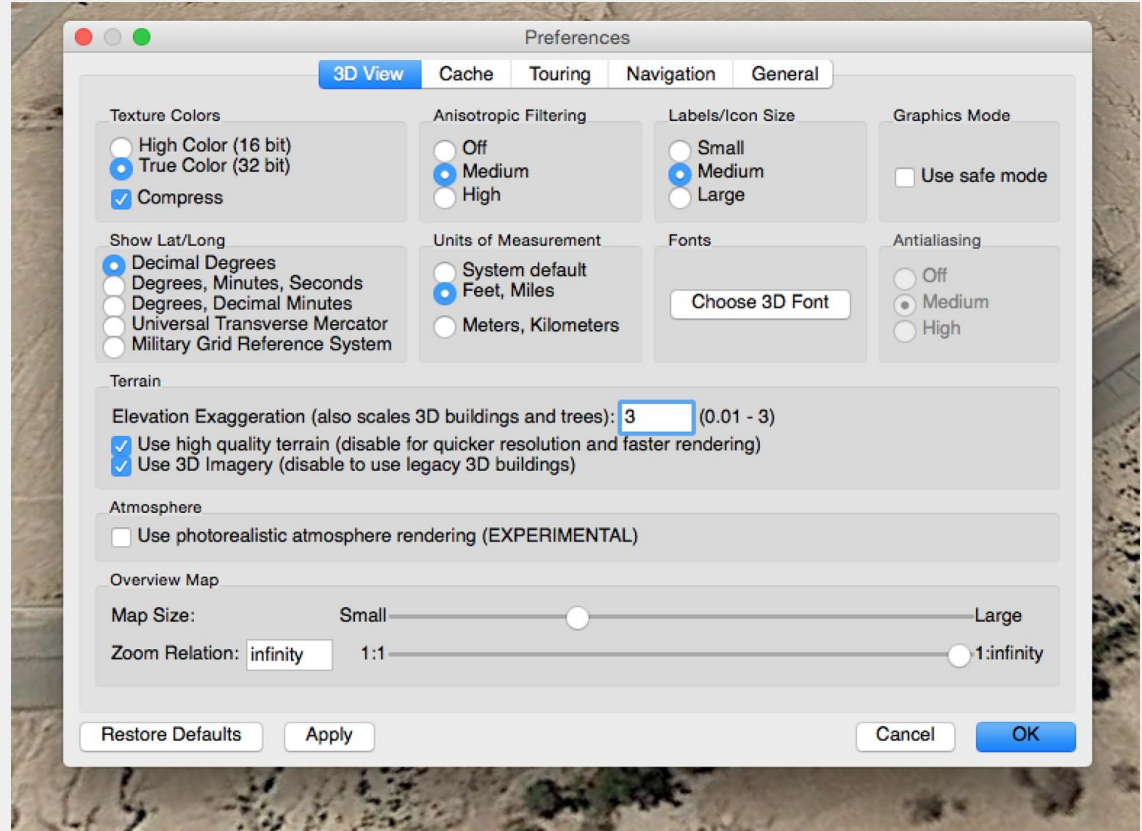
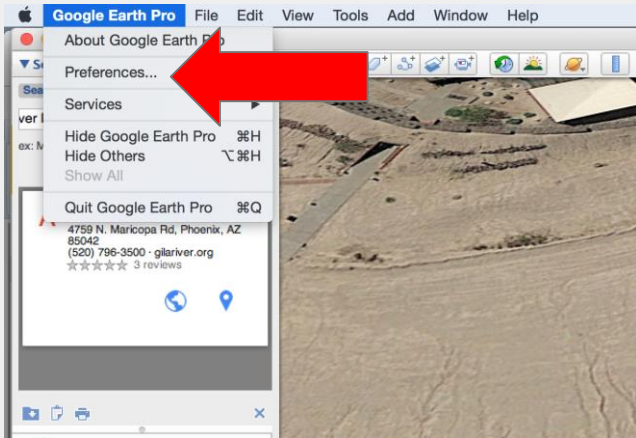
Use invisible placemarks to control how you move between locations - add a placemark at a higher elevation to give a bird's eye view which allows the viewer to orient

Be careful of using marker icon balloons, they don't always behave well

Cache your imagery before recording and make sure you have a good connection so that Google Earth runs smoothly

Preferences Panel

Preferences panel controls how Google Earth behaves - only on your computer, it does not change the file that you save (on another computer it will behave differently)



Practice - Create a simple tour

Create a tour of your favorite places - add four placemarks, use custom icons and set the Snapshot View

Go to your first marker, zoom out, and create an invisible marker icon and set the Snapshot View, then do the same thing at the second, third, and fourth places

Create a folder and drag the placemarks and invisible placeholders in order into the folder

Run the tour

Sharing your tour

More secure - keep completely offline

- Show your tour directly in your Google Earth for presentations
- Save your tour on a thumb drive or external hard drive and give it to your audience to view on their own computers

Less secure - although you can use password protection, the file does travel through servers

- Send KML/KMZ file as an email attachment
- Upload Videos of your tour to YouTube, Vimeo
- Embed as a YouTube in your website
- Host KML/KMZ file at a public URL for anyone to download and view in Google Earth on their computers
- Create a [Tour Builder](#) or My Maps from your KML/KMZ file and share online

Hands on - Create a tour

Find a partner to interview

Create a Google Earth Tour of significant places that are important to them

Work together to find photos, YouTube video, and other rich media to add to the tour

Create custom placemarks

Now switch roles, and have your partner build a tour of significant places that are important to you

Advanced GE Tours

Screen Overlays

- Screen overlays behave really nicely in a tour - icon balloons and image overlays snapped to the ground do not behave well in a tour
- Screen overlays are anchored relative to the screen while Image (ground) overlays are anchored relative to the ground
- Image (ground) overlays can be added with the toolbar button, but Screen overlays are added using KML code
- See the full tutorial: [Adding Legends, Logos and banners to Google Earth using Screen Overlays](#)

Exercise: Screen Overlay

Here is the code we will use:

```
<ScreenOverlay>
<name>Title</name>
<Icon> <href>YourURL.html</href>
</Icon>
<overlayXY x="0" y="0" xunits="fraction" yunits="fraction"/>
<screenXY x="25" y="95" xunits="pixels" yunits="pixels"/>
<rotationXY x="0.5" y="0.5" xunits="fraction" yunits="fraction"/>
<size x="0" y="0" xunits="pixels" yunits="pixels"/>
</ScreenOverlay>
```

What are you looking at?

```
<ScreenOverlay>
```

```
<name>Title</name>
```

← Name of your screen overlay

```
<Icon> <href>YourURL.html</href>
```

← Online location of image file

```
</Icon>
```

```
<overlayXY x="0" y="0" xunits="fraction" yunits="fraction"/>
```

```
<screenXY x="25" y="95" xunits="pixels" yunits="pixels"/>
```

```
<rotationXY x="0.5" y="0.5" xunits="fraction" yunits="fraction"/>
```

```
<size x="0" y="0" xunits="pixels" yunits="pixels"/>
```

```
</ScreenOverlay>
```

Map location where your screen overlay will be placed

Practice - New Screen Overlay

Copy the code below
Paste it into your Text Editor

```
<ScreenOverlay>
<name>Title</name>
<Icon> <href>YourURL.html</href>
</Icon>
<overlayXY x="0" y="0" xunits="fraction" yunits="fraction"/>
<screenXY x="25" y="95" xunits="pixels" yunits="pixels"/>
<rotationXY x="0.5" y="0.5" xunits="fraction" yunits="fraction"/>
<size x="0" y="0" xunits="pixels" yunits="pixels"/>
</ScreenOverlay>
```

Open a text editor

Open a text editor (like Notepad or Notepad++ for PCs or TextMate for Macs)

If you don't have a text editor on your computer download free text editors from these websites:

- Mac TextMate <http://macromates.com/download>
- PCs Notepad++ <https://notepad-plus-plus.org/download/v7.3.2.html>

Edit the code

Change the Title to the name of your screen overlay

Change the URL to the URL of any picture of your choosing that is hosted online (your picture must be hosted online so that you can obtain a URL)

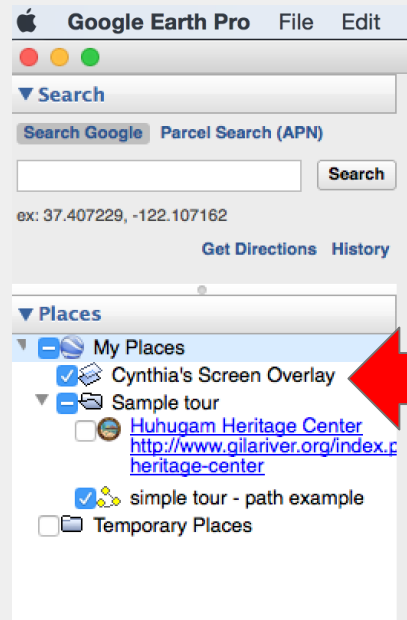
```
<ScreenOverlay>
<name>Title</name>
<Icon> <href>YourURL.html</href>
</Icon>
<overlayXY x="0" y="0" xunits="fraction" yunits="fraction"/>
<screenXY x="25" y="95" xunits="pixels" yunits="pixels"/>
<rotationXY x="0.5" y="0.5" xunits="fraction" yunits="fraction"/>
<size x="0" y="0" xunits="pixels" yunits="pixels"/>
</ScreenOverlay>
```


Practice - New Screen Overlay

Copy the code from your Text Editor, click on My Places and paste your code

You should now see your Screen Overlay in the Places Panel and in the view window

```
TextMate  File  Edit  View  Navigate  Text  Go  Bundles  Window  Help
untitled
1 <ScreenOverlay>
2 <name>Cynthia's Screen Overlay</name>
3 <Icon>
4 <href>https://lh3.googleusercontent.com/-Ec0VfPXchS4/VhtFiT_42DI/AAAAAAAAuWI/Z0ujpH
5 yM4o0/s720-Ic42/IMG_20151011_163441785.jpg</href>
6 </Icon>
7 <overlayXY x="0" y="0" xunits="fraction" yunits="fraction"/>
8 <screenXY x="25" y="95" xunits="pixels" yunits="pixels"/>
9 <rotationXY x="0.5" y="0.5" xunits="fraction" yunits="fraction"/>
10 <size x="0" y="0" xunits="pixels" yunits="pixels"/>
11 </ScreenOverlay>
```



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1 <ScreenOverlay>
2 <name>Cynthia's Screen Overlay</name>
3 <Icon>
4 <href>https://lh3.googleusercontent.com/-Ec0VfPXchS4/VhtFiT_42DI/AAAAAAAAuWI/Z0ujpH
5 yM4o0/s720-Ic42/IMG_20151011_163441785.jpg</href>
6 </Icon>
7 <overlayXY x="0" y="0" xunits="fraction" yunits="fraction"/>
8 <screenXY x="25" y="95" xunits="pixels" yunits="pixels"/>
9 <rotationXY x="0.5" y="0.5" xunits="fraction" yunits="fraction"/>
10 <size x="0" y="0" xunits="pixels" yunits="pixels"/>
11 </ScreenOverlay>
```

