Cool Stuff with Google Earth!

There is much more to Google Earth:

- You can take a 3D tour of the world and our campus!
- You can study and compare historical images.
- You can measure distances.
- You can study the bottom of the oceans or the far reaches of the sky.

Best of all you can create your own animated, interactive, 3D maps with embedded photographs and videos! These maps can be shared as Email attachments, on blogs, or on Facebook.

"I can't explain it—it's just a funny feeling that I'm being Googled."

Please note:

Things change: new features are added, tools are modified, and icons are redesigned. Thus, what you see on your particular computer screen may be different from what is printed in this tutorial, especially if you are using a Mac.

Section 1: Explore Westfield State University in 3D

Take a Virtual Campus Tour!

The campus buildings were modeled in 3D using Google SketchUp by students in Dr. Carsten Braun's Advanced Geographic Information Systems course (Spring 2009).

1. Start Google Earth
2. In the Layer Pane: Uncheck everything except Borders and Labels and 3D Buildings. This makes the screen less cluttered.
3. Fly to Westfield State University.
4. Use the viewing controls to tilt and rotate your view as desired.

You can now see the majority of our campus buildings 'popping-out' as 3D models. Fly around the campus and take a look at these buildings – all sides are realistic!

5. Check and uncheck the 3D Buildings layer – the buildings appear and disappear.
6. Finally, please uncheck the 3D Buildings layer to hide the buildings.

Go to this website:

http://www.westfield.ma.edu/garp/google-earth-animations/

1. Click on any of the links, for example Lammers Hall.
2. If prompted, select Open in the Dialog Box.
3. Lammers Hall now appears in Google Earth and you automatically fly towards the front entrance.
4. Open additional campus buildings!

Note that Lammers Hall is now listed in the Places Pane under Temporary Places.

5. Right-click on the Lammers Hall entry under Temporary Places and delete.
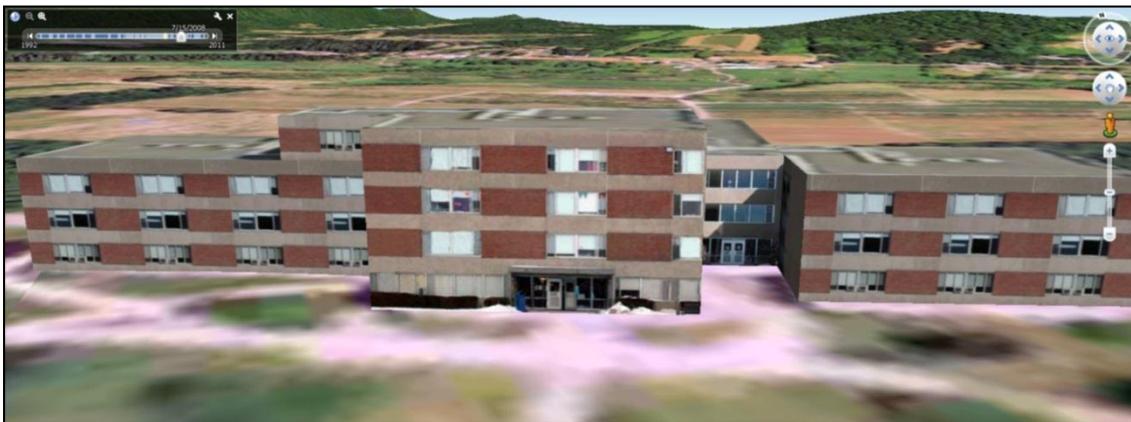
## Section 2: Explore Historical Images

Google Earth can display images from different years!

1. Fly into an area that you are familiar with, for example your hometown, our campus, or the area around Gillette Stadium (Patriot's Place, Foxboro).
2. Click on the Clock Icon in the toolbar. 🕐 This displays a time slider that allows you to move between images of different years.
3. Use the forward/backward button to see how the area has changed over time.

More Information:

http://support.google.com/earth/bin/answer.py?hl=en&topic=2376751&ctx=topic&answer=14809 4
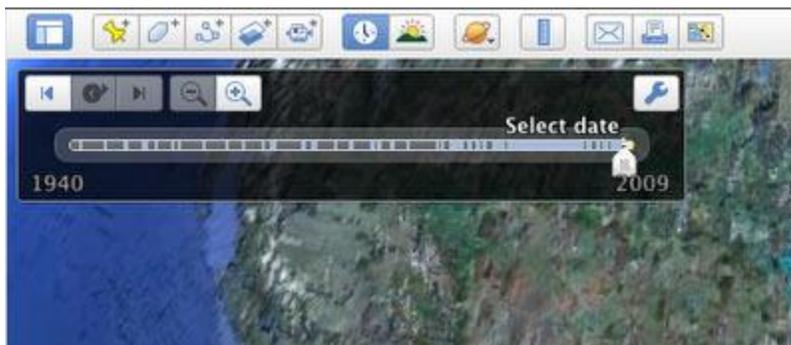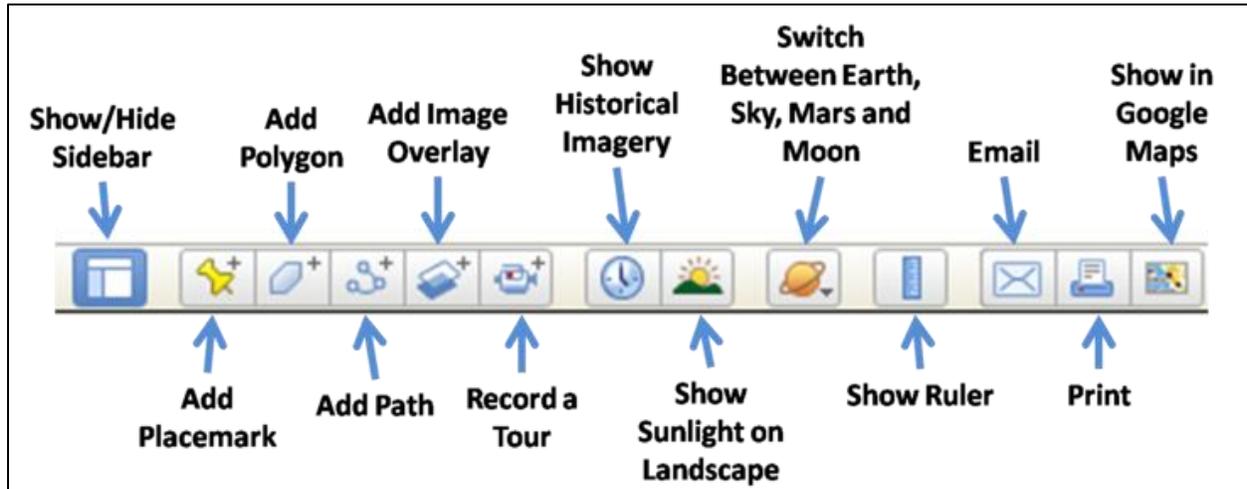
Section 3: Measure Distances with Google Earth

You can easily measure distances in Google Earth – both simple straight-line, but also paths with many twists and turns. Click on the Ruler Tool in the toolbar to activate the ruler.
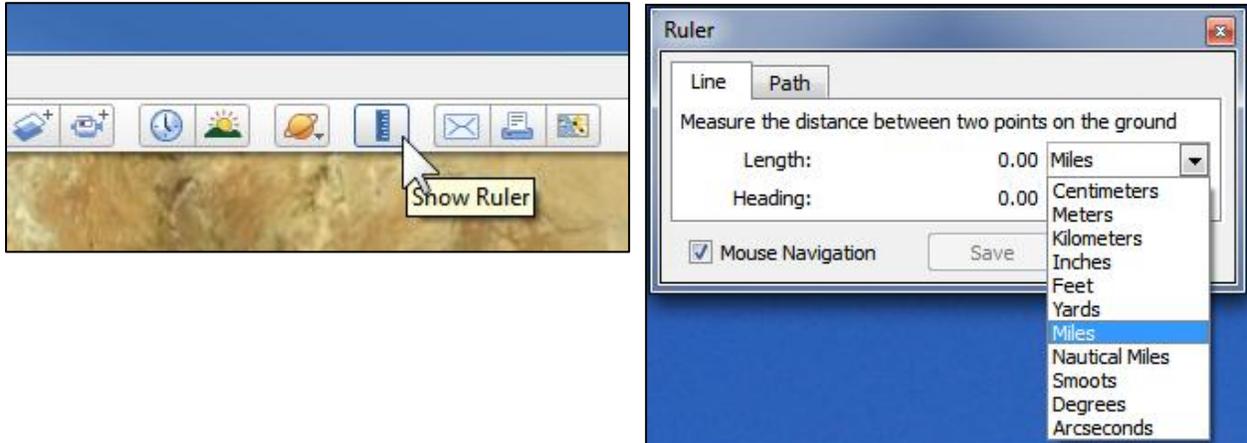
1. Fly to Fenway Park and measure the longest home run distance (in feet) using the 18 June 2010 image and record your measurement:

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2. Fly to UMass Amherst and measure the length of the football field in the stadium using the 12 April 2009 image and record your measurement – is it actually 100 yards?

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3. Fly to Westfield State University. Damn! No parking in commuter lot – again – and you have to park in South Lot. Even worse: you have to park in the most distant corner of South Lot! Measure the distance from your car to Bates Hall using the 10 September 2010 image and record your measurement.

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More Information:

http://support.google.com/earth/bin/answer.py?hl=en&answer=148135&topic=2376756&ctx=topic

Section 4: Using Tours in Google Earth

You can create and play tours of places and content. Tours are a guided experience where you fly from one location to another, view terrain and content and look around as you wish. You can create tours that record your exact navigation in the 3D window and even add audio. You can then share these tours with other Google Earth users.

To record a tour, click the Record a Tour button in the toolbar or click View > Tour. The record tour controls appear in the bottom left corner of the 3D window. To begin and end recording, click the Record/Stop button. To add audio to your tour, click the Audio button. When you are finished recording your tour, it appears in the Places panel. You can then play it or share it with others.
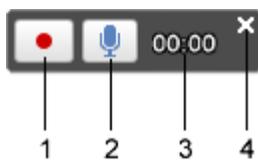
1. Record/Stop
2. Audio
3. Current time in tour
4. Cancel tour recording

When you finish recording, click the Record/Stop button. The tour then plays. To save the tour, click the Save button in the playback controls that re-appear. Your tour appears in the Places panel.

More Information:

http://support.google.com/earth/bin/answer.py?hl=en&answer=148174&topic=2376757&ctx=topic

Section 5: Make Maps with Google Earth

Making your own maps, complete with linked photographs and videos, is very easy! Please refer to these great tutorials for more practice and information.

Beginner Tutorials

http://www.google.com/earth/outreach/tutorials/index.html

- Annotate Google Earth: add placemarks and embed images and videos
- Add photos and image overlays
- Add views and perspectives
- Create a narrated tour
- Embed Google Earth in your website or blog
- Embed Google Maps in your website or blog
- Import GPS and GIS data

All Tutorials

http://www.google.com/earth/outreach/tutorials/all.html

- Google Earth, Google Maps, Google Maps Engine, Open Data Kit, Fusion Tables, KML, Spreadsheet Mapper and more

Here's how to make an animated, interactive Google Earth map in 3D:

1. First, add a few placemarkers and change the icons, colors, sizes, etc.
2. Second, you create the 3D effect animation effects.
3. Third, you embed photographs.
4. Fourth, you embed videos.
5. Finally you save your map for further use.

Embedding Photographs

Note: the easiest way to link photographs is to store them in an online photo album such as Picasa Web Albums. All you have to do is copy/paste the provided link.

Otherwise you need to add a few characters around the web link for the photograph.

Example:

Web link for a photograph:
http://www.carstickers.com/prodimages/massachusetts/oval_westfield_state_university.gif

This goes into Google Earth:
<img
src="http://www.carstickers.com/prodimages/massachusetts/oval_westfield_state_university.gif">

So, all you do is copy/paste the web link into the Description Box of your placemarker and then enter the few characters around it. Careful – you need to have everything 100 percent exact!
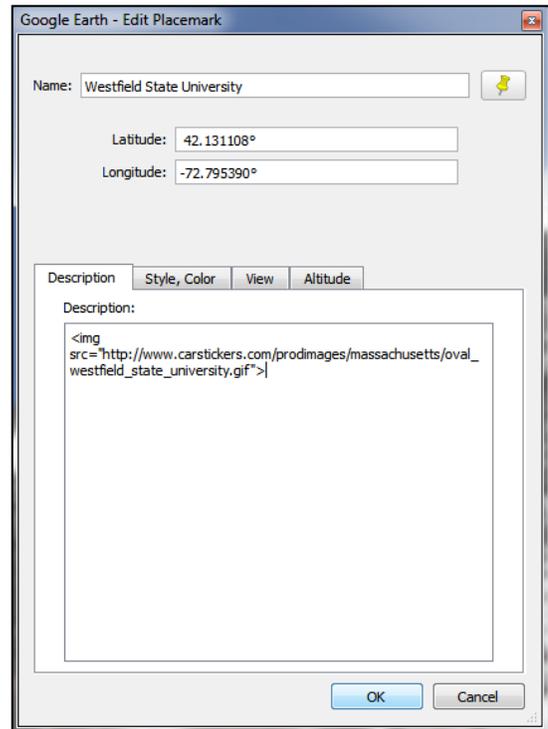
Saving and Sharing your Map

Finally, you can save your map as a so-called KMZ file you can send to everyone as an Email attachment.

https://support.google.com/earth/bin/answer.py?hl=en&answer=148150&topic=2376990&ctx=topic

https://support.google.com/earth/bin/answer.py?hl=en&answer=148160&topic=2376990&ctx=topic

Section 6: Google Fusion Tables

http://www.google.com/fusiontables/Home/

Google Fusion Tables is a modern data management and publishing web application that makes it easy to host, manage, collaborate on, visualize, and publish data tables online.

In essence, you upload a table, for example from a spreadsheet. If this table contains any geographic information (addresses, zip code, city/town, state, country, latitude, longitude, etc.) Google Fusion table will turn it into a choropleth map – instantly!

It's like making a bar graph from a MS Excel spreadsheet, except it's a map based on geographic information – cool!

More Information:

A Guided Tour
http://www.google.com/fusiontables/public/tour/index.html

Fusion Tables Help
http://www.google.com/support/fusiontables/

Fusion Tables Tutorials

http://support.google.com/fusiontables/answer/184641?hl=en&topic=29372&ctx=topic

- Create and share a map
- Collaborative data collection
- Add a chart
- Using MapMaker and Street View