



Mapmaking with Google Earth

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The purpose of this document is to provide step-by-step instructions for creating a facility map in Google Earth.

The Google Earth free version has simple tools to zoom to an Address or known Place Name. It also has functions for printing the Area of Interest, and drawing graphics on map viewer. Especially important, it has a function to save a jpg image, which you can put into Word or PowerPoint and print multiple times. You can also use the drawing tools within those other programs to add graphic features for a map product.

Step 1. Download the software

1. Point your browser (ie: Internet Explorer) to <http://earth.google.com>
2. In the upper left corner of the window, select "Downloads"
3. Your computer may begin downloading the software automatically, depending on your security settings. If automatic downloading does not seem to happen, click "... click here to start it" and the download will begin.
4. Follow the instructions from Windows Installer to install the program.
5. Close your browser and you should have a "Google Earth" icon on your desktop.
6. Double-click to launch the program.

Step 2. Find your facility

1. In the "Fly to" tab in the upper left corner of the Google Earth window, type the physical address of your facility and click the magnifying glass.
2. This should zoom you to an aerial image of your facility.
3. Check the image carefully for the major features required by the order – some of the images are very outdated!

Step 3. Make your map.

1. Add a Scale Bar
 - a. In the View menu, select "Scale Legend" to toggle this feature on and off.
 - b. You can also add a grid, if you wish, in the same way.
2. Draw graphic features (lines/polygons) to identify features
 - a. Polygon
 - i. This can be tricky, but it just takes practice!
 - ii. Select the Polygon or Path icon from the toolbar.
 - iii. Trace a polygon by clicking and holding the mouse button on the first point, then drag to make the desired shape.
 - iv. You can edit by pushing parts of the lines around to refine the overall shape.
 - v. Name the polygon and change the appearance of the lines in the "Style/Color" tab.
 - vi. Once you close the window, you can't edit any more.
 - b. Lines
 - i. Select the "Path" icon in the toolbar. The Path window opens.
 - ii. Trace the path by clicking on each intersection (similar to the measuring tool) of the desired path.
 - iii. Make changes by pushing parts of the lines to refine the path.

- iv. Name the path and edit the appearance in "Style/Color".
 - v. Once you close the window, you can't edit any more.
3. Latitude/Longitude reference in viewer
 - a. The coordinates of the cursor are constantly updated in the lower left corner of the Google Earth window. This feature is only available in the viewer, and does not print.
4. Measuring Tool
 - a. Click on the "Ruler" icon (Ruler) in the toolbar.
 - b. Select the units of measurement from the drop-down list.
 - c. Position the cursor on the start point. Click, then move to the end point and click again.
 - d. The distance measurement between start and end will appear in the "Length:" box. You'll need to write this down, or put it in a placemark note (see 5 below).
 - e. Repeat c to measure a new object or line.
 - f. To measure a path (a series of connected lines), click on the "Path" tab in the Ruler window.
 - g. Position the cursor on the first point, click, move to the intersection of the first two lines, click again, move to the next intersection, click, then repeat until the entire path is traced. The length measurements will appear at each click. Again, write the measurements down.
5. Labeling Tool
 - a. Click the "push-pin" icon (Placemark) in the toolbar.
 - b. A small window will open (this is the placemark properties window)
 - c. Name the placemark by typing a name in the Name box in the window (ie: Domestic Supply Well #1)
 - d. Move the pin to the desired location on the map
 - e. You can change the size of the pin and the text by selecting the "Style/Color" tab in the window and adjusting the scale and/or color.
 - f. Click "OK" to complete the marker.
 - g. If you want to change an existing marker, use your right mouse button on the particular marker you wish to change and selecting "Properties". This opens the Placemark properties window.
6. Save map as an image file (JPEG) for later use.
 - a. Click on the File menu.
 - b. Highlight Save.
 - c. Move the mouse to the right to highlight Image and click again.
 - d. Type a file name and location, then click the Save button.
 - e. You now have a JPEG file of the aerial image on your computer!
 - f. You can use this image in other applications, such a drawing or drafting program or document preparation program.
7. Publishing
 - a. E-mail - you can e-mail your image to yourself if you use Microsoft Outlook or have a gmail account with Google.
 - i. Set the map up so that it looks the way you want it to, making sure the relevant features are visible and that the scale is appropriate – the image will look exactly as it does in the Google Earth window.
 - ii. Next, click on the envelope icon in the toolbar.
 - iii. Be sure that "Graphic of 3D View" is selected, then click on OK.
 - iv. You will be prompted to choose your e-mail Service, then to put in the e-mail address.
 - v. Click Send and away it goes.
 - vi. It may take several hours for the e-mail to get through.
 - b. Print
 - i. Click the printer icon in the toolbar.
 - ii. Select "Graphic of 3D View", then select the resolution you prefer.
 - iii. Click Print.