

## Showing Places and Data on Google Earth

You can use web-based software like Google Earth to display data that you have collected online or in the field. You will however, need to load software and to acquire the data.

### Software

Download the software:

<a href="#">Google Earth</a>	PC or Mac	Free	Quick download	Cool data.
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To show your location, you will set up a spreadsheet with your data, and open it Google Earth. The software places your data automatically in the right place, no matter how big your dataset is.

### Using a Spreadsheet to Display Data: converting to the right file format (KML)

1. Example of an Excel spreadsheet with data for Google Earth.

Here's a simple example from a homemade Frisbee® golf course that could be dumped into Google Earth with only a few manipulations (spelled out below).

Latitude	Longitude	Name	Description	Icon
40.9074667	-105.5092	NW corner	7660'	94
40.9074667	-105.50225	NE corner	7460'	94
40.90525	-105.50885	W corner along road: cairn	7529'	94
40.9049833	-105.50857	Driveway/road	7518'	94
40.9036	-105.50828	Corner fence to nowhere-- the drift fence	7505'	94

The data *could* be more complex, however. In the example that follows, column D combines the information in columns H, G, and F. The combined description is what shows up in the pop-up balloon on the map. You can put multiple columns from your spreadsheet into the Description field by using a formula. Excel demands strict compliance with its rules when writing a formula; if you don't obey its protocols, it will spit back a nasty message.

New Open Save Print Import : Copy Paste Format : Undo Redo : AutoSum Sort A-Z Sort Z-A : Gallery Toolbox									
					Sheets		Charts		SmartArt Graphics
	A	B	C	D	E	F	G	H	I
1	<b>Latitude</b>	<b>Longitude</b>	<b>Name</b>	<b>Description</b>	<b>Icon</b>	<b>Elevation</b>	<b>Par</b>	<b>Description</b>	
2	40.9057667	-105.507	H1	Pantry tree par 3 7566'	55	7566'	par 3	Pantry tree	
3	40.9056333	-105.506	H10	Solitary, left-most rock by solitary pine	55	7527'	par 3	Solitary, left-most rock by solitary pine	
4	40.9058833	-105.505	H11	Dead, fallen pine 1/2-way up Kid Peak	55	7536'	par 3	Dead, fallen pine 1/2-way up Kid Peak	



Here's how the data shows up on Google Earth:

## 2. Steps for preparing your spreadsheet

First, find the data you want from an archive online. For earthquakes in Yellowstone, for instance, you can get the data from the [University of Utah's Earthquake Information Center](#). From that page you can download a file of earthquakes from three sets of data.

1. Use the "CSV text file" button to get a .csv file.
2. Save it as a .csv file.
3. Then open Excel.
4. From the File menu, choose Import.
5. Click the radio button for CSV file and the Import button.
6. Browse for the file. Click the Get Data button.
7. Choose the Delimited button. Click Next.
8. Check Tab and Comma. Click Finish.
9. Choose Existing sheet and OK.

That should open an Excel spreadsheet with tons of data. You will need the lat and lon columns. Spell them out as latitude and longitude though. You probably also want the magnitude ("mag") and at least the year. Delete extraneous columns of data and save as an Excel file (.xlsx or .xls).

Similarly, you can acquire data as CSV files from the US Geological Survey's Earthquake Hazards Program "[Latest Earthquakes: Feeds & Data](#)" site for the last hour, day, and past seven days.


Note: This site also supplies data for the last seven days as a KML file, which is ready for Google Earth. The USGS also supplies KML files for each year back to 1973 on the USGS "[Google Earth Files for Earthquake Catalogs](#)" site. Data from the USGS is global, while the University of Utah's is limited to the Yellowstone region.

### Displaying on Google Earth

To display your spreadsheet data on a map, you'll need to convert it to a KML file. Developers have created software to do that for you, for free, online. You can, for instance, follow the instructions at [Earthpoint](#) or its equivalent.

Here's a preview of [Earthpoint's](#) instructions:

**Select an Excel file** (xls, xlsx, xlsxm, xlsb, txt, or csv)

 Enhanced feature. [What is this?](#)

**Free. User account is not needed.**

You are not signed in to your account. For unrestricted access, please sign in or purchase a subscription. You must have Google Earth installed to use this data.

If you need help getting started, or if you have ideas for improvement, please write or call.

### Quick Start

- Open Excel.
- Enter these words into separate cells on the first row: "Latitude", "Longitude", "Name", "Description", and "Icon".
- On the rows that follow, enter the attributes of each point.
- "Latitude" and "Longitude" are required. The other columns are optional.
- "Name" is the label that appears next to each icon on Google Earth.
- "Description" is the text that appears in the Google Earth pop-up balloon. An Excel [formula](#) can be used to combine data from several columns.
- "Icon" designates the icon that is displayed for each point. An easy way to get an icon is to enter a number from the [table](#) below. If the Icon column is left blank or if it is missing, icon number 166 is displayed. You can also enter an icon's "www" web

1. Go to the [Earthpoint](#) webpage.
2. Follow the Quick Start instructions about adding columns to your Excel file.
3. Save the revised Excel file.
4. Use the Browse button to find your Excel file.
5. Choose the View on Google Earth button. The data should then show up on the Earth.

You can save the data by dragging it from the Temporary Places up to My Places. And you can save the file as a KML file under a name of your choice by right clicking or Control clicking on the file name.

Once you have a KML file, you can open it on demand within Google Earth from the File menu by choosing Open and browsing to your file.