

Gmap4

Link Parameters

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Last update to this file: April 12, 2017

For more documentation see the [Gmap4 Help page](#)

Also see the "[What is new](#)" page

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1. Introduction

Many websites, including Gmap4, allow the user to specify 'link parameters' in order to control the behavior of the website. A link parameter is simply a way to pass information to an application. Each link parameter assigns a value to a variable. When the application executes, then it does something with those values.

Often when you click a link to go to a website, link parameters are already included in that link. Thus, you are already using link parameters but may not have realized it. Here is how to spot a link that uses link parameters: Look for a question mark in the link. Consider this hypothetical example:

<https://mysite.com/dogs.html?breed=IrishSetter&age=3>

That link has:

- * The name of a web page that will display when you click the link: "dogs.html"
- * Two link parameters. Each link parameter has (1) a variable name to the left of the equal sign and (2) a value to the right of the equal sign. In the above example, The variable breed is set to the value 'IrishSetter' and the variable age is set to the value '3'.

Often times just a single character is used for the name of link parameters.

Here's a link produced by Google maps for Pegasus Pizza in Kirkland, WA. Note the '?' followed by numerous link parameters.

<https://www.google.com/maps/place/Omega+Pizza+%26+Pasta/@47.6792916,-122.1722427,17z/data=!3m1!4b1!4m5!3m4!1s0x549012bb124d8b55:0x8a342362cddf4f64!8m2!3d47.679288!4d-122.170054>

If a Gmap4 link does not have any parameters at all, then the default map of the world is displayed, like so: <https://mappingsupport.com/p/gmap4.php>

The most commonly used Gmap4 parameters define the map center (ll), zoom (z) and basemap (t). For example, the following link displays the high resolution topographic map centered on the Old Faithful area at Yellowstone National Park:

<https://mappingsupport.com/p/gmap4.php?ll=44.460249,-110.834027&z=15&t=t4>

Another commonly used parameter is ‘q’ which lets you display a data file that is hosted online somewhere. In order to give you an easy way to make the map look the way you want it to look when it opens, Gmap4 understands over 20 different link parameters.

2. Easy tip for perfect parameters

First, make the map look the way you want it to look on your screen. Then click Menu ==> “Link to this map. The link that is displayed includes the parameters that will reproduce the map” on your screen.

If the link includes the ‘q’ parameter, that means the map is displaying a data file. If you want the map to be automatically zoomed and centered such that all of the data in that file is displayed on the user’s screen when the map opens, then delete the ‘ll’ and ‘z’ parameters from the link.

3. Gmap4 Link parameters - Alphabetical master list

Below is a list of all of the parameters that you can use in a Gmap4 link. If a parameter does not appear in the Gmap4 link then its default value will be used when the map opens except in a few special cases.

Many of the features controlled by these link parameters can also be controlled via the **Menu** button.

checkheader (Default: &checkheader=on) Allowable values are: on off.
This is an advanced feature for people that build delimited files for Gmap4 to display. You should accept the default value as you develop your file. By doing so, Gmap4 will make sure that the image files exist that provide symbol images for the map. When you post your production Gmap4 link, set this parameter to ‘off’ and your map should open faster.

congress This parameter will display one or more congressional districts. If you see solid colors then zoom in and the solid colors will go away and you will be able to see the congressional district boundaries very easily. Here are examples of allowable values:

all	Show all congressional districts
all,OH	Show all districts, center the map on Ohio
all,OH,4	Show all districts, center the map on Ohio, highlight district 4
OH	Only show districts in Ohio
OH,4	Only show districts in Ohio, highlight district 4
only,OH,4	Only show Ohio district 4

Example: `&congress=OH,4`

You can use any state's 2 letter abbreviation.

For more information about these maps, see the [Congress map tips](#).

coord (Default: `&coord=d`) This parameter determines the format that is used for the coordinates that appear in the corner of the screen. Those coordinates show the center of the map and (on a desktop/laptop) the cursor location. If you set the coord parameter to utm, usng or mgrs then a grid will be displayed. The allowable values are:

d	Decimal degrees (default)
dm	Degrees and decimal minutes, popularized by geocachers
dms	Degrees, minutes, seconds
utm	Universal Transverse Mercator (grid on screen)
usng	United States National Grid (grid on screen)
mgrs	Military Grid Reference System (grid on screen)
off	Off. Coordinates do not appear in the corner of the screen
latlng	Decimal degrees, retained for backward compatibility

Here is an example map showing that the ll parameter (map center) and coord parameter can specify different coordinate formats.

<https://mappingsupport.com/p/gmap4.php?ll=48.694756,-113.692703&z=14&t=h&coord=dms>

crosshair (Default: `&crosshair=on`) Allowable values are: on off. If the link includes `&crosshair=off` then when the map opens the crosshair at the center of the map will not appear.

directions (Default: `&directions=off`) Allowable values are: on off. If the link includes `&directions=on` then the interface for getting directions will be displayed when the map opens.

hillshade (Default: &hillshade=18) This setting controls the amount of hill shading when you view the 't4 Topo High' maps. Allowable values are 0 through 35.

iframezoom (Default: &iframezoom=off) Allowable values are: on off.
If the link includes &iframezoom=on then the mouse wheel will not zoom the map. The user will need to use the sliding control near the upper left corner for zooming. This parameter should only be used in Gmap4 links that run in an <iframe>. Including this parameter will allow the mousewheel to continue scrolling the html page instead of suddenly zooming the map.

interface This setting determines the interface that will be displayed. **This is an advanced feature that most users will not need.** Allowable values are:

auto	(default)
scroll	Display the touch-friendly scroll interface
desktop	Display the mouse-friendly desktop interface

Gmap4 automatically detects whether or not you are using a mobile device (smartphone, tablet, etc) and then either displays the touch-friendly 'scroll' interface or the mouse-friendly 'desktop' interface, whichever is appropriate. If your mobile device is not automatically detected, then please [email me](#) the make/model of your device and the name/version of the browser you are using.

label (Default: &label=off) Allowable values are: on off.
This feature works together with most types of data files that Gmap4 can display. If the link includes &label=on and the data file includes waypoint names, then when the map opens all the waypoint names are displayed on the map. This feature works for waypoint names in KML, GPX, TPO and delimited text files. This feature is not yet supported for KMZ files.

Delimited text files also support **advanced label features** that let you control the styling and position of the label. You can include a link in the label. You can put a label on the map without any associated symbol. For more information about using labels, please visit the [Gmap4 Help page](#) and download the pdf file "Delimited Data" and review the table of contents for information on labels.

ll **The map will be centered at this location.**
Latitude,longitude in decimal degrees and WGS84 datum.
For example: &ll=43.877015,-103.45087
Make sure there is no space after the comma.
North America coordinates must have a minus sign in front of the longitude.

At most, a Gmap4 link can include only one of the following parameters to set the center of the map: ll, mgrs, usng or utm.

See also the q parameter.

markers If you are making a map-in-a-link, then the value for this parameter is the delimited file syntax that Gmap4 can read. If this parameter is used and things do not seem to be working right, then try making this the **last parameter in the link**. For more information about using the markers parameter, please visit the [Gmap4 Help page](#) and download the pdf file “Delimited Data”. Search that file (control F) on “map-in-a-link”.

mgrs **The map will be centered at this location.**
Military Grid Reference System
If the Gmap4 link does *not* also include the coord parameter, then this parameter will cause a grid with labels to be displayed.
For example: &mgrs=12TWQ1367123033
Google aerial centered at Old Faithful:
<https://mappingsupport.com/p/gmap4.php?mgrs=12TWQ1367123033&z=15&t=h>

At most, a Gmap4 link can include only one of the following parameters to set the center of the map: ll, mgrs, usng or utm.

See also the q parameter.

mylocation (Default: &mylocation=off) If this is set to ‘on’ (&mylocation=on) then a symbol will appear at your location.
As you move, that symbol also moves. This feature is designed for smartphones, tablets and other mobile devices.

q The full http://_____ link to a KML, KMZ, GPX, TPO or delimited text file that is online. Files can be online almost anywhere and Gmap4 can display them

OR

A pointer to a map that was made with regular Google maps.

Tip: If you use the q parameter and **do not** use a parameter to specify the map center (ll, utm, usng or mgrs) and do not use the z parameter to specify the map zoom, then the map will automatically be centered and zoomed so that all of the data in your file fits on the user’s screen.

For more information on displaying a map made with regular Google maps, please go to the [Gmap4 Help page](#), download the pdf file named “Quick Start” and search it on “google”.

refresh (Default: &refresh=off) Allowable values are: on off.
You only need to know about this parameter if you edit GPX or TPO files and then display them with Gmap4. If you are doing that then please go to

the [Gmap4 Help page](#), download the pdf file named “Working With Files” and look at the table of contents for the section “Using the refresh link parameter for GPX and TPO files”.

rest (No default) This parameter is used to specify GIS data hosted on servers that use the ArcGIS software from the ESRI company. The ‘rest’ parameter is used together with sub-parameters ‘name’, ‘layers’ and ‘transparent’. GIS data can also be specified in a text file and then the ‘q’ parameter is used in the Gmap4 link to point to the text file.

search (Default: &search=off) If this is set to ‘on’ (&search=on) then the search bar will be open when the map appears on the screen.

state This parameter will display one or more legislature districts for a state.

Here are examples of allowable values:

OH	Show lower chamber state districts
OH,lower	Show lower chamber state districts
OH,lower,19	Show lower chamber state districts and highlight one
only,OH,lower,19	Show just one district

Instead of the word “lower” you can specify the legislature’s lower chamber by using the word “house” or “assembly”. For example: &state=OH,house,19

To specify the legislature’s upper chamber districts, use the word “upper” or “senate”. For example: &state=OH,upper,24

You can use any state’s 2 letter abbreviation.

For more information about these maps, see the [state legislature map tips](#).

streetview (Default: &streetview=on) If this is set to ‘off’ (&streetview=off) then the upper left corner of the screen will not display the streetview symbol. In order to comply with Google’s terms of service, this feature only works if the basemap being displayed is hosted on Google’s servers.

symbol This parameter will display a symbol at the center of the map when the map opens. Allowable values are

b	blank icon
c	Icon has letter “C”. Mouse hover displays “Camp”.
ch	Crosshair
pg	Paddle - green
pgs	Paddle - green -small
pr	Paddle - red

- prs Paddle - red - small
- th Icon has letters "TH". Mouse hover displays "Trailhead".

Your Gmap4 link must also specify the "ll" parameter since that is the spot where the symbol will be placed.

t

Map type. (Default: &t=t1) The allowable values are:

- m Street map from Google
- s Aerial photo from Google
- h Aerial plus street names from Google
- naip Aerial photos from U.S. Department of Agriculture
- usgs Aerial photos hosted by the U.S. Geological Survey.
Relatively high resolution aerials and often taken when there were no leaves on the trees
- t1 Terrain from Google **(default)**
- t2 Topographic map from MyTopo (USA 1:24,000 & Canada 1:50,000)
The low resolution 't3' topographic map are no longer available.
- t4 Topographic map from CalTopo.com & USGS (USA 1:24,000) **t4 maps are high resolution topographic**
- t5 Topographic vector maps for Canada
- t6 USA topographic maps from ESRI. Zoom level 12 shows a very nice map for a relatively large area.
- t7 Worldwide topographic maps from ESRI
- t8 **Worldwide topographic maps plus crowd-sourced trails** from OSM Cycle
- osm Worldwide street maps from OSM
- awb All white basemap

tilt

(Default: &tilt=on) Allowable values are: on off.

If the link includes &tilt=off then if you zoom in on a google aerial in an urban area the screen will continue to display a straight down view instead of a tilted view. This feature only works in certain larger urban and suburban areas where Google has access to oblique aerial images.

Note: This tilt feature has been disabled when any of the following features are being used:

- The 'My location' feature is on
- The map is displaying GIS data
- The map is displaying a USNG, MGRS or UTM grid

Allowing the Google aerial to tilt makes the above features not work correctly. Therefore tilting of the Google aerial has been disabled when any of the above features are being used.

usng	<p>The map will be centered at this location. United States National Grid Note: Use an underline character or comma as a separator For example: <code>&usng=12T_WQ_13671_23033</code> You can also use a comma instead of the underline character. If the Gmap4 link does <i>*not*</i> also include the coord parameter, then this parameter will cause a grid with labels to be displayed. Topographic map centered at Old Faithful: https://mappingsupport.com/p/gmap4.php?usng=12T_WQ_13671_23033&z=15&t=t4 At most, a Gmap4 link can include only one of the following parameters to set the center of the map: ll, mgrs, usng or utm. See also the q parameter.</p>
utm	<p>The map will be centered at this location. For example: <code>utm=12S,405335,4006664</code> Note that Gmap4 uses latitude bands as part of UTM coordinates. The USA is in latitude bands R, S, T and U. If the Gmap4 link does <i>*not*</i> also include the coord parameter, then this parameter will cause a grid with labels to be displayed. At most, a Gmap4 link can include only one of the following parameters to set the center of the map: ll, mgrs, usng or utm. See also the q parameter.</p>
wms	<p>(No default) This parameter is used to specify GIS data hosted on servers that use open source software. The ‘rest’ parameter is used together with sub-parameters ‘name’, ‘layers’, ‘transparent’ and sometimes ‘version’. GIS data can also be specified in a text file and then the ‘q’ parameter is used in the Gmap4 link to point to the text file.</p>
z	<p>Zoom level. (Default: <code>&z=15</code>). Maximum zoom for MyTopo maps is 16. Maximum zoom for ‘t5 Canada’ maps is 17. Maximum zoom for aerals is usually 18 but might be higher in urban areas. See also the q parameter.</p>

4. How to set the center of the map when the map opens

To make a Gmap4 link that will have the map centered at a specific location when the map opens, use **one** of the following parameters. All coordinates must use the WGS84 datum.

ll	latitude,longitude (decimal degrees)	<code>&ll=44.460479,-110.828138</code>
utm	Universal Transverse Mercator	<code>&utm=12T,513672,4923034</code>
usng	U.S. National Grid	<code>&usng=12T_WQ_13671_23033</code>
mgrs	Military Grid Reference System	<code>&mgrs=12TWQ1367123033</code>

Using the utm, usng or mgrs parameter will cause a grid with labels to be displayed.

5. How to see all the data from a GPX or other file when the map opens

Here is a map that automatically displays all of a GPX file when the map opens on any size screen from smartphone to desktop:

https://mappingsupport.com/p/gmap4.php?t=t4&q=https://sites.google.com/site/gmap4files/p/helpfile/Johnson_Ridge.gpx

And here is a map that is zoomed in on part of this GPX file when the map opens:

https://mappingsupport.com/p/gmap4.php?ll=47.792280,-121.197944&z=16&t=t4&q=https://sites.google.com/site/gmap4files/p/helpfile/Johnson_Ridge.gpx

The difference between these map links is that the second one includes the ll parameter to set the center of the map and the z parameter to set the zoom level. If you are making a Gmap4 link to display any kind of data file and you want all of the data to be on the user's screen when the map opens, then do not include any parameter in the link that forces the map to be centered at a specific spot (ll, utm, usng or mgrs) and do not include a parameter (z) to force a certain zoom level.

The same rule applies if you are making a Gmap4 link to display a map-in-a-link.

Tip: You can use the coord parameter to specify the coordinate format. For example, this link opens the same GPX file with the coordinate format set to UTM. Note that (1) UTM coordinates are displayed in a corner of the map and the map has a UTM grid.

https://mappingsupport.com/p/gmap4.php?t=t4&coord=utm&q=https://sites.google.com/site/gmap4files/p/helpfile/Johnson_Ridge.gpx

6. How to make a short Gmap4 link when displaying GIS data

If you build a Gmap4 link to display data from a GIS server then the link can become rather long. Sometimes these long links do not work well if you try to email them or post them in forums. The problem is not with the Gmap4 link but rather with the email software or forum software.

Fortunately there is a simple solution. Instead of specifying the GIS data in the Gmap4 link, specify the GIS data in a delimited text file. Then make a Gmap4 link like so:

https://mappingsupport.com/p/gmap4.php?q=_____

Replace the underline with the full http link to your delimited text file.

For more information please visit the [Gmap4 GIS page](#).