

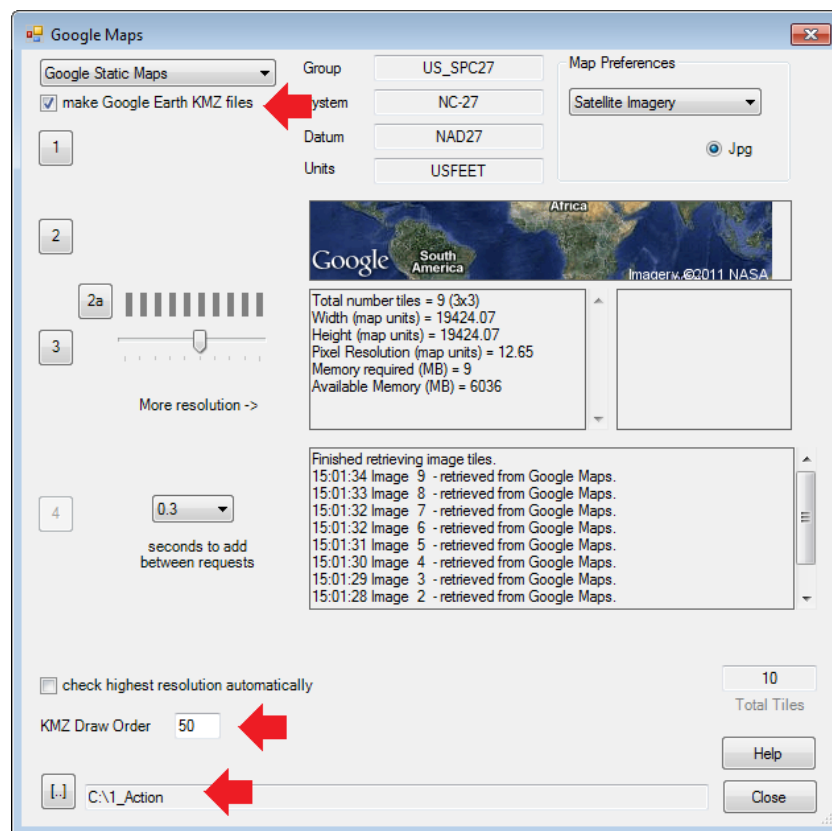
KMZ File Creation With GPSeismic

We have two software features to support KMZ image overlay. KMZ image overlays are able to be viewed in Google Maps and even more importantly, can become background maps for the newer Garmin models (Oregon, Dakota, Colorado, GPSMAP 62, GPSMAP 78, and Edge 800).

Our first new feature involves making a KMZ file for all tiles retrieved in the Google Map utility. The other feature is the ability to take any registered image you might have and make a KMZ from it. This second feature can be used with vector files by first converting the vector file to an image, and then making the KMZ from it.

Using The Google Maps Utility To Make KMZ Files

Here is how the Google Maps -> KMZ feature works. First notice the red pointers on the dialog below. These are all new controls:



There are three new items to discuss:

1) There is a checkbox immediately under a dropdown towards the top of the dialog. Checking this indicates that you wish to make a KMZ file. The KMZ file can be used in Google Earth or be placed in the /Garmin/Custom Maps/ folder of the Garmin 'drive'. Note also that you can select Google Static Maps or OpenStreetView (OSM) map tiles from the drop down. OSM is a new feature. This imagery is roadmap only and could be useful around populated areas since it is an open source project in which users donate

map information that is used to edit the available map data. There is some risk in using this data in that road information in areas such as the United States is based on Tiger files which are becoming somewhat dated. You should use Google Maps when possible.

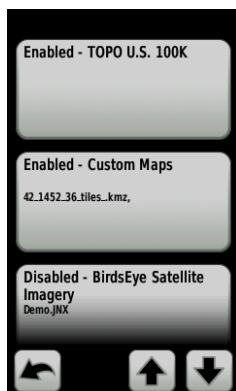
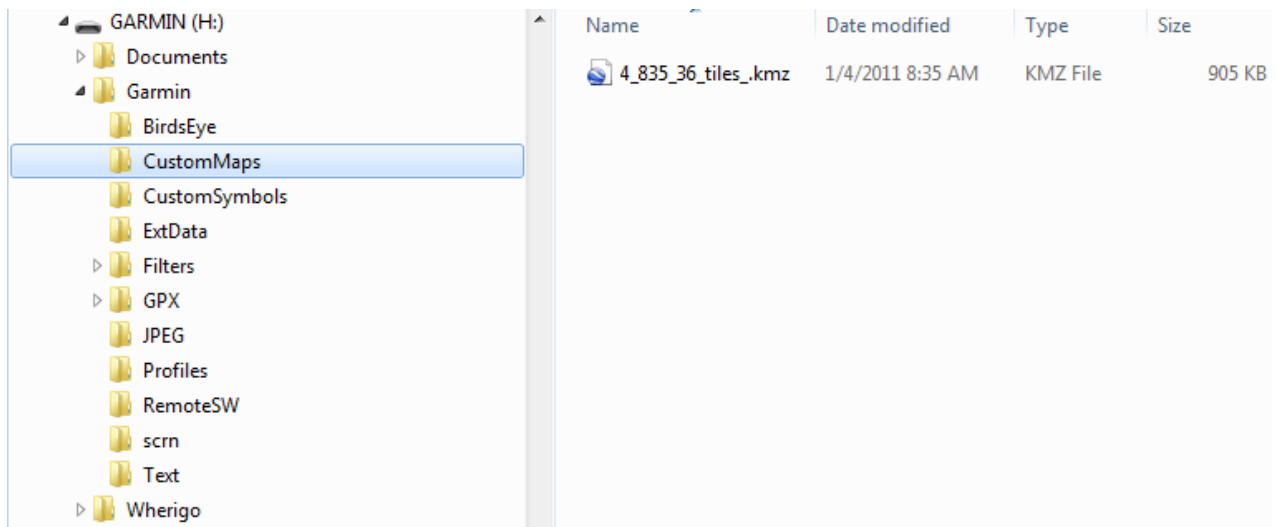
You should note that the imagery used in Garmin Custom Maps must be in the form of JPGs. When you elect to make KMZ files, the JPG selection is made for you. The KMZ file name will be something like, '4_835_36_tiles_.kmz'. The name is Julian Day followed by hours and minutes and number of tiles used to make it.

2) Draw Order – This value dictates how the Garmin depicts the background map. According to several sources a DrawOrder ≥ 50 will draw on top of other maps while a DrawOrder < 50 will draw on top of the land, water, and areas on other maps, but roads, topo lines, and depth contours will draw on top of the Custom Map. Waypoints, tracks, and routes will always draw on top of Custom Maps. In our experience, we have found that roads and topo lines will draw on top of the custom map with a value of 50 or less. We suspect that you might have to experiment with your model to get the effects you want.

3) The final item on the dialog is that you must specify the folder where the KMZ file is to be created.

Using The KMZ In The Garmin

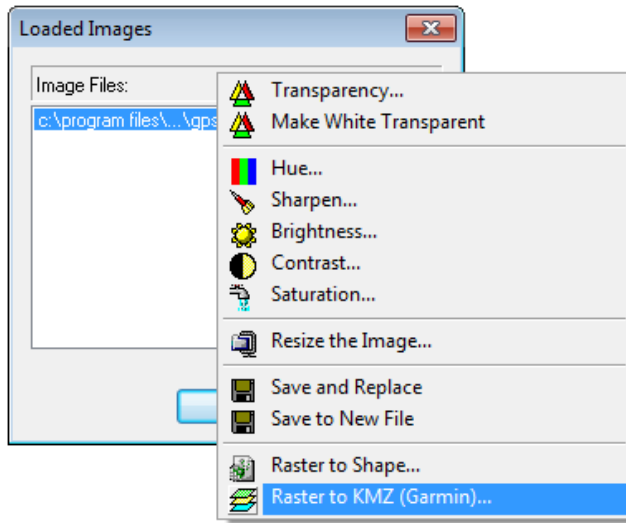
When the Garmin is attached to your computer, it becomes another drive and various folders are available. You should simply copy your KMZ file (or files) into the CustomMaps folder



The Garmin will allow you to enable the background map. Here, we have the display for an Oregon which comes with a 100K US Topo. Both backgrounds are turned on and you can see the KMZ (bottom left satellite imagery) overlaying the topo. On our Oregon unit, the DrawOrder was set to 50 and you can see some of the elements of the topo show above the KMZ satellite imagery.





Converting A Registered Image to A KMZ

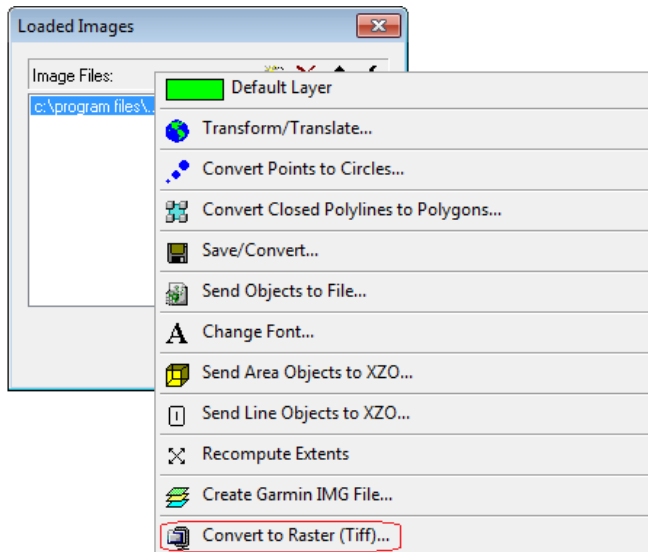


When you bring in a registered image into QuikMap, go to the Layers dialog and select the image then right-click. Select the 'Raster To KMZ (Garmin)' item at the bottom.

This utility allows you to convert the registered image to a KMZ file. Just like the KMZ you created from the Google Maps utility, the KMZ file can be opened in Google Earth and will drape over the existing imagery. It can also be used with the newer Garmins (Oregon, Dakota, Colorado, GPSMAP 62, GPSMAP 78, and Edge 800) as a background map.

Once you select this item, a dialog is displayed and the image is opened automatically in it. There is a two step process to convert to a KMZ.  The first is to select the local coordinate system that the image is registered in.  The second is to create the KMZ. The KMZ file will be created in the same folder as the image and will have the same name as your image but have a KMZ extension. Remember to choose a DrawOrder that you feel is appropriate. If you are not sure, try 50.

Converting A Vector File to A KMZ



The first thing to say is that the KMZ is imagery, not vector data, so there is no real way to directly convert a vector file into a KMZ. But a new feature in QuikMap does allow you to convert a vector file to an image. Import the vector file and go to the Layers dialog.

The bottom item allows you to convert the vector file to a registered image. You will get a dialog indicating the uncompressed size. This is not the size of the resulting file but the memory temporarily required to make the TIF. After TIF is made, follow the steps above.