

TerraServer Utility

This utility allows you to create a background image based on image tiles retrieved from TerraServerUsa, a site hosted by the USGS and MSN. This requires an Internet connection. TerraServer originally hosted imagery from around the world, however in 1997, the service went in two directions. The free TerraServer service now hosts US imagery only. The imagery is available as USGS quads or satellite imagery.

When the parent application displays the utility, it informs the utility as to the extents that need to be covered. When the utility dialog is displayed, you need to execute the following steps:

1

- Step one is to select the grid coordinate system of the input data. This is required because the image requests are all handled in UTM83 grid coordinates. Therefore, the local grid system must be specified so that it is ultimately transformed to it. Note that this only has to be done once (unless the system changes). When the local grid coordinate system is specified, it is remembered the next time the dialog is displayed.

2

- Step two is a simple test that you have an Internet connection. When you press the button, an image request is made and one image is displayed for the center of your extents. This action also enables the next step. If everything works, and if you specified USGS Topo, then you will see something similar to the image below appear:



3

- Step three is where you can request many image tiles which will be stitched together to give you a single image of high resolution, or few tiles which will produce a single image of less resolution. The reasons for minimizing the number of tiles is to reduce the time it takes to retrieve and stitch the images. The one reason for maximizing the number of tiles is to obtain the highest resolution of the composite image.

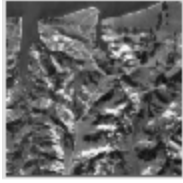
As you change the slider bar to the right of button 3 you will see the total number of images that would be used to make the composite, what the composite image is in terms of map units distance, and what one pixel represents in map units. Because the images retrieved from TerraServer are essentially squares bounded by UTM83 grid coordinates, once they are stitched together, the composite image is then orthorectified which is inherent in transformations due to scale and rotation.

Note that this step is an approximation. The number of tiles actually retrieved might differ from what is calculated here.

4

- Step 4 performs the request for the image tiles. This can take a while depending on your connection speed. For a fast connection of, say cable-type speeds, expect to retrieve a tile every 1-2

seconds. You must specify the image type before retrieving. F There are two map types that can be requested:



Satellite



USGS Topo

5

- Step five prompts you for the name and location of your image. It will then stitch the images to form the composite image and then ortho-rectify. When complete, your image will become visible in the background of the parent application map. If you look in the folder where the composite image was made, you will see that there is also a world registration file for the image which will allow you to import the image in any GPSeismic application.