## How to Make Super Quads of Your Area for the Triton GPS

Here is how: Surf to "The USGS Store" http://store.usgs.gov Then select "Map Locator" (There is good help available on the page, explore the links.)

Locate your area of interest then download your 7.5' x 7.5' map

(get free "Acrobat Reader" from http://www.adobe.com/) (get free GeoPDFToolbar from the link on USGS Store or: http://www.terragotech.com/solutions/geopdftoolbar.php)

\*If you want to look at two good 7.5' x 7.5' USGS Topo examples, \*Step 1 Search for "pembroke,ga" \*Clear markers then click on "Groveland" click on red marker download Groveland 7.5' x 7.5' \*Clear markers then click on "Lanier" click on red marker download Lanier 7.5' x 7.5' exit "The USGS Store"

Open geoPDF file with "Acrobat Reader" Zoom to 100% and the notate coordinates of NW corner of map. Select Tools>Snapshot Tool Select NW corner to SW corner of map (don't include white border) (notate coordinates of SE corner of map) exit geoPDF file

Open accessories>Paint ("Paint" is included with "Microsoft Windows") Edit>paste Save as \*.jpg Exit "Paint" (get free "TritonRMP" from http://www.msh-tools.com/)

Open "TritonRMP" File>Import Images select your saved \*.jpg file change preferences to 00 Deg 00 Min 00 Sec enter calibration coordinates for NW corner of map (Point 2) scroll to SE corner of map enter calibration coordinates for SE corner of map (Point 1) calibrate Create RMP save as \*.rmp exit "TritonRMP"

Open "VantagePoint" Library>Browse (Maps)>Add Map>select your saved \*.rmp file>view map If all done correctly, you will be able to zoom to see the 7.5' x 7.5' USGS topo. Actually, with one more step, you CAN squared off your Super Quads.

You must use Microsoft Office Picture Manager or some other software that lets you rotate the JPG image by any arbitrary amount. Some maps require 1-2 degrees, some as fine as -0.874 degrees. Trial and error at 400% magnification and lining up the crosshairs will pay off. For my home quadrants, I had to further make longitude corrections of 0.061' (no latitude corrections) to make the streets line up with the tracks I drove. It translated to about 300 feet of offset.

For big regional maps like the 1x2's, you need to calibrate 4 bullseye's to account for the fact that the top corner marks are closer than the bottom corner marks

For large maps, the best way to calibrate them is to bring them into a program like GlobalMapper 11 (ver 10 can't load geo pdf files) and reproject them to WGS84, then export a jpg (TritonRMP maker prefers WGS84 and large maps will calibrate well with only 2 points). You can then resize the jpg to multiple sizes with any photo editing program. You can also manually project scanned maps using GlobalMapper.

The only drawback is that GlobalMapper is around \$300, but if you want to make maps for many different states from different sources, it can be cheaper than NG Topo State or NG Topo explorer.

Instead of GlobalMapper you might look at GDAL

http://gdal.org/ Or the NOAA online toolkit FIXED Link http://www.ngs.noaa.gov/PC\_PROD/pc\_prod.shtml DLG32Pro at USGS Essentially a free version of Global Mapper http://mcmcweb.er.usgs.gov/drc/dlgv32pro/index.html

Also Lizard Tech has a free MrSid viewer that will export to geotiff for processing by GDAL into WGS84, then conversion to jpeg

http://www.lizardtech.com/download/dl\_options.php?page=viewers

Example for New Mexico -Collarless DRG's in Mr Sid images -same base data as the geo-pdf version.

http://rgis.unm.edu/loader\_div.cfm?theme=Topographic%20Maps&subthe me=7.5%20Minute%20Collarless%20USGS%20DRG

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