

# In-class demonstration of image-to-image georeferencing using TNTmips

## Satellite images

1. SPOT (2004) (Georeferenced using the following data)

Upper Left : 265080, 2765160

Lower Right : 276080, 2754160

Cell Size : 20 (m)

Image Size (Column, Line ) : 550 x 550

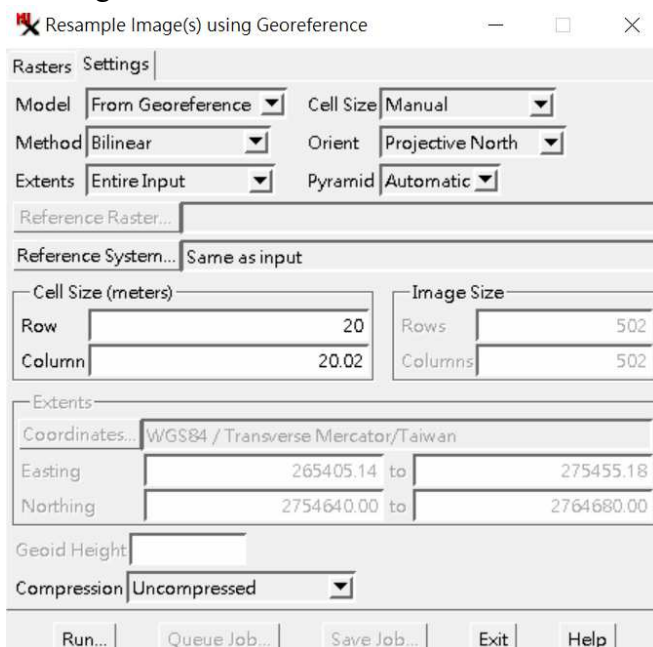
2. SPOT (2003) (to be georeferenced using ground control points and SPOT\_2004 images)

Image Size (Column, Line ) : 500 x 500

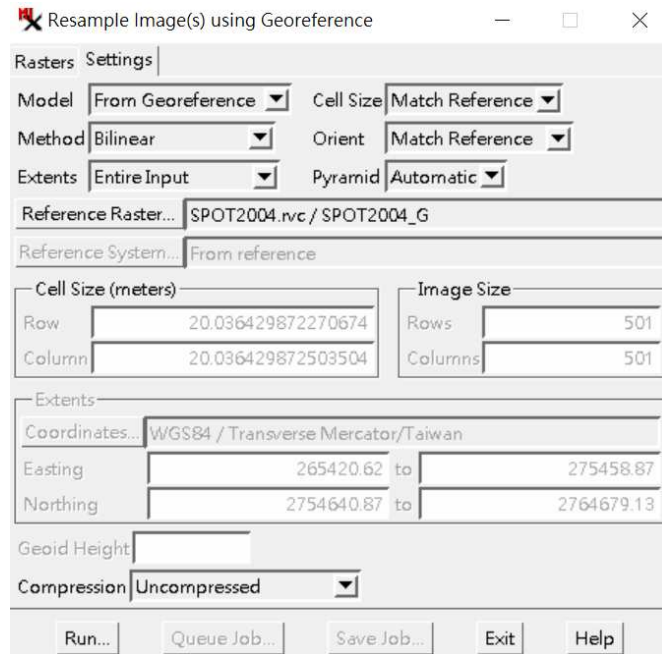
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## Images in TNTmips

- (1) SPOT2004.rvc – Georeferenced, 550 x 550 pixels
  - Use “Main – Display” to show three bands (Display Group 1)
  - View histogram
  - Image band correlation
  - Enhance contrast
  - Edit colors
  - Examine cell values
- (2) SPOT2003.rvc – Georeferenced using GCPs, 500 x 500 pixels (without resampling)
  - Use “Main – Display – New – 2D Display” to add a new display group (Display Group 2)
  - Observe the crosshairs in the two display groups
  - Observe the corresponding TM-2 coordinates of the pixels at upper left corner
- (3) SPOT2003\_Resampled.rvc – Resampled images of SPOT2003.rvc
  - “Image – Resample and Reproject”
  - “Resample using georeferenced”
  - “Select rasters” (three bands of SPOT2003)
  - “Settings”



## “Cell size (Match Reference – SPOT2004\_G)”



- Save the results in “SPOT2003\_Resampled.rvc”
  - Use “Tools – File Manager – Properties” to check the size of images in “SPOT2003\_Resampled.rvc”. (501 x 501)
- (4) SPOT2004\_Extractedfrom2003.rvc
- “Image – Extract”
- Select three bands from SPOT2004.rvc
  - In the “Raster Extract” window, select “Range” for regions to be extracted.
  - Click “Map Extent” and enter the map extent of the “SPOT2003\_Resampled.rvc”
  - Save the results in the “SPOT2004\_Extractedfrom2003.rvc”
  - Check the size of images in “SPOT2004\_Extractedfrom2003.rvc”. (501 x 501)
- (5) Difference\_2003Resampled-2004Extracted.rvc
- “Image – Combine – Arithmetic and Indices”
  - Subtract one band in SPOT2004\_Extractedfrom2003.rvc from the corresponding band in “SPOT2003\_Resampled.rvc”.
  - Save the results in “Difference\_2003Resampled-2004Extracted.rvc”.