

ENVI Tutorial - Georeferencing SpecTIR Images

1. Locate the SpecTIR .dat and .hdr files to reference.
2. Select File > Open Image File
3. Navigate to the .dat file and select Open.
4. Locate the corresponding IGM or GLT file.

TO USE THE IGM FILE:

1. Select Map > Georeference from Input Geometry > Georeference from IGM.
2. Click the Open Drop down button and select New File.
3. Select the IGM file with the same name as the SpecTIR input file and click OK.
4. The Input X Geometry Band dialog appears. Select the IGM Input X Map band and click OK.
5. The Input Y Geometry Band dialog appears. Select the IGM Input Y Map band and click OK.
6. The Geometry Projection Information dialog appears. For both the input and output projections, select UTM, North American Datum 1983, Zone 18 N, and click OK.
7. The Build Geometry Lookup file dialog appears. Type or select a filename for the GLT file.
8. In the Georeference Background Value field type -9999
9. Type or select and output filename for the georeferenced image and click OK.

USING A GLT FILE:

1. Select Map > Georeference from Input Geometry > Georeference from GLT. The Input Geometry Lookup File dialog appears.
2. Select the GLT file with the same name as the SpecTIR file to be georeferenced and click OK. The Input Data File dialog appears.
3. Select the appropriate file to Georeference.
4. From the Input Data File dialog, click OK. the Georeference from GLT dialog appears.
5. In the Background Value field, type -9999
6. Type or select a filename for the Georeferenced image and click OK.

DIFFERENCES BETWEEN IGM AND GLT REFERENCING:

Geocorrecting using the IGM file creates a GLT file during the process, and requires more information about the projection and map geometry. It does, however, geocorrect the image in place, as in Figures 3 and 4.

Geocorrecting using the GLT file is much easier, and requires fewer inputs, but also



Image 1: Original uncorrected radiance image

rotates the image to the correct orientation; creating a large amount of wasted data, as in Figures 5 and 6. It does bring the image more inline to the Google Earth image in Figure 2.

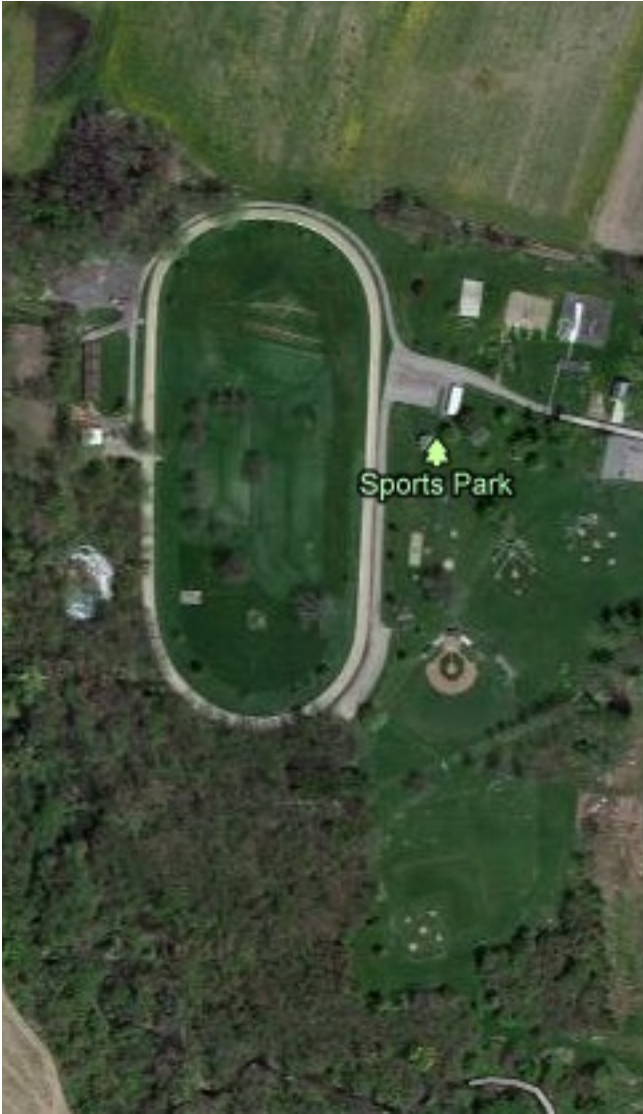


Image 2: Google Earth image for reference



Image 3: IGM Geocorrected image

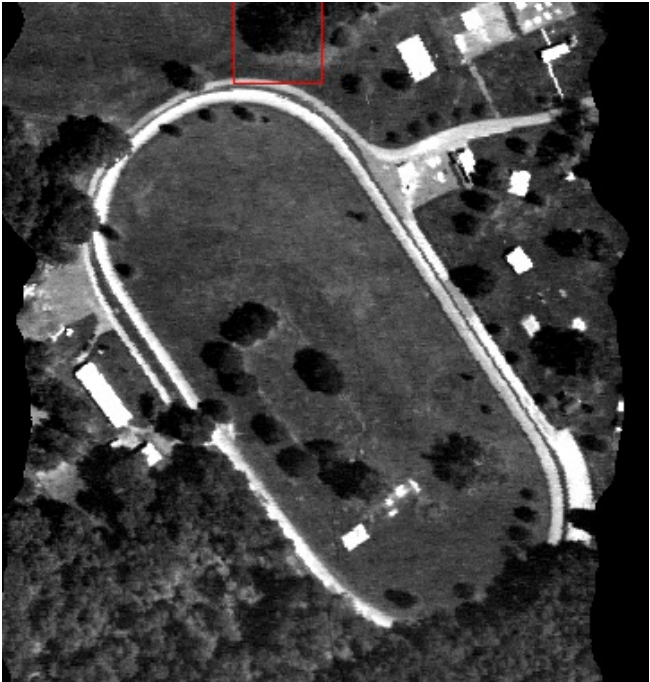


Image 4: Zoom of the IGM Corrected image

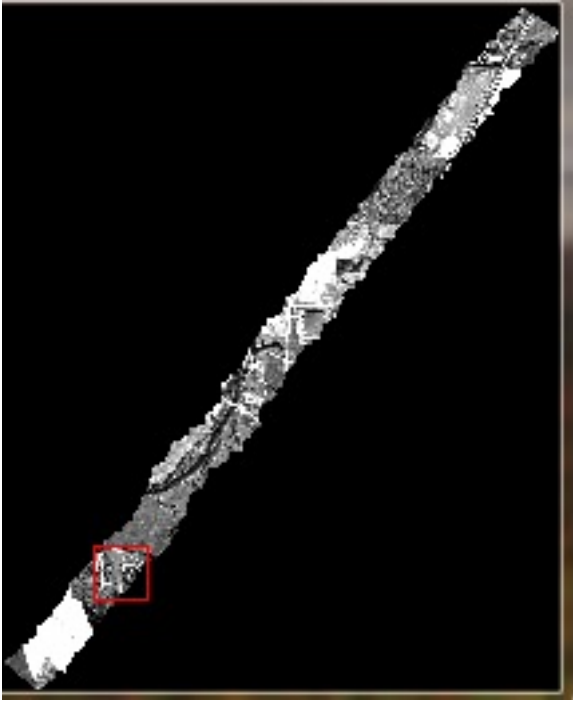


Image 5: GLT Corrected Image



Image 6: Zoom of the GLT Corrected image