Scripts by Jack™

Workflow: Calibrating/Analyzing Multispectral Images

The diagram below shows how you can use the geospatial scripts in the Scripts by Jack™ series (represented by the colored boxes) in various combinations to calibrate, analyze, and enhance multispectral satellite images. Any of the script products can also be used along with other geospatial data in standard TNTmips processes for display, further analysis, or presentation.

Multispectral Satellite Image
QuickBird, Ikonos, ASTER, Landsat TM or ETM+

TERCOR
Image Calibration
Correct surface reflectance values for terrain-induced illumination variations.

Image Bands Calibrated to Scaled Surface Reflectance

SRFI
Image Calibration
Correct raw image values for:
- Sensor gain/offset and solar zenith angle and irradiance
- Path-radiance (haze)
- Atmospheric absorption

WATER
Image Enhancement
Color-enhance calibrated images of coastal areas to reveal underwater features.

GRUVI
Image Analysis
Compute optimized vegetation and soil indicator rasters or custom indicators of other biophysical properties.

TASCAP
Image Analysis
Compute Tasseled Cap biophysical indicator rasters or custom indicators of other biophysical properties.

Wetness
Brightness

Greenness

Yellowness
Soil
Vegetation

Diag
Image Analysis
Process SRFI bands to identify bare soil and dense green vegetation and determine input parameters for GRUVI and TASCAP.

Dr. Jack F. Paris, a private remote-sensing and geospatial consultant/coach, has developed a collection of advanced, model, geospatial Scripts by Jack™ and associated documentation called FAQs by Jack™. These scripts are in the public domain and can be used and modified as desired. For access to the scripts and FAQs, more information, and contact with Jack, go to: www.microimages.com/freestuf/ScriptsByJack.htm