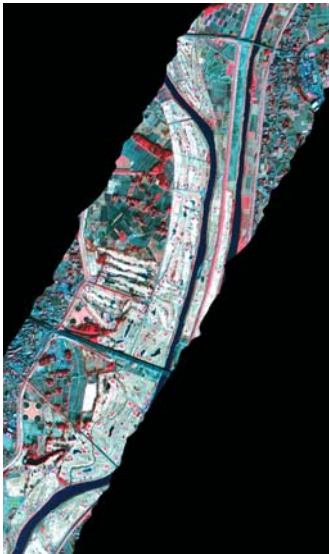


CALIGEO *software*

CaliGeo is a software package designed to process raw AISA sensor data to a format that can be read into any modern data analysis package. There it can be analyzed using any of the latest data processing and analysis methods.



Processed AISA data

CaliGeo runs on a standard Windows or LINUX PC as a separate module under the ENVI software package by ITT Visual Information Solutions. CaliGeo is used to perform all radiometric corrections and to rectify and georeference AISA data while ENVI provides the tools for data analysis and interpretation. The processing sequence is illustrated on the reverse page.

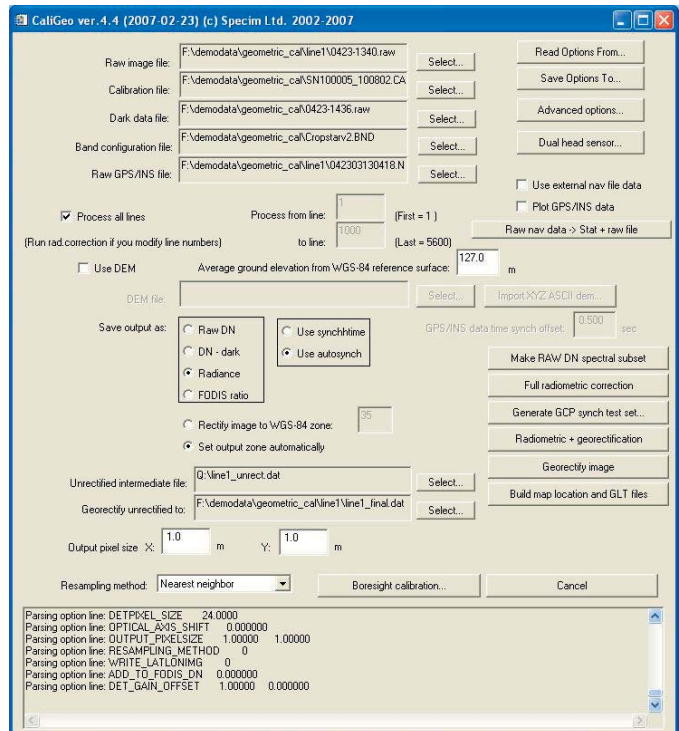
For radiometric processing, CaliGeo uses the radiometric calibration data provided by SPECIM with each AISA sensor. For georectification, CaliGeo uses the position and altitude data collected synchronously with image from a GPS/INS sensor connected to the AISA system. Currently use of data from C-MIGITS III, Applanix POS/AV series sensors, Oxford RT3000 series

sensors and Aerocontrol GPS/INS sensor, as well as import of external position and altitude data, are supported in CaliGeo.

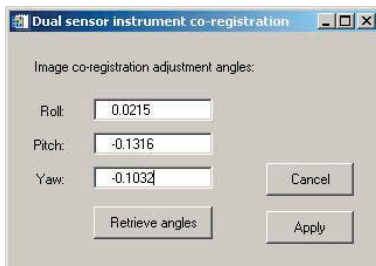
For data analysis and interpretation the ENVI software package combines a complete, advanced image processing and visualization package. Included are the most advanced yet easy-to-use spectral tools. ENVI provides geometric correction, terrain analysis, radar analysis, raster and vector GIS capabilities, extensive support for images from a wide variety of sources, including AISA, and much more.

CaliGeo requires that either the ENVI runtime version or a full version of ENVI + IDL is installed on a computer. CaliGeo does not include any of the analysis features in ENVI or IDL.

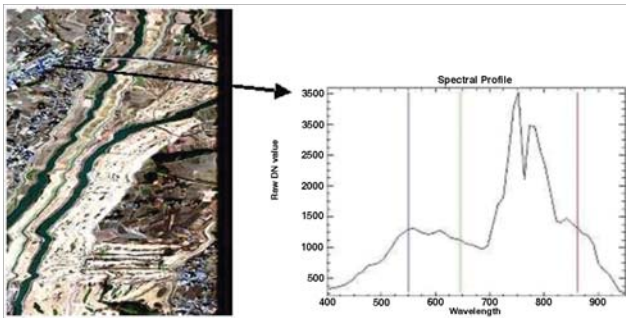
CaliGeo software - main window



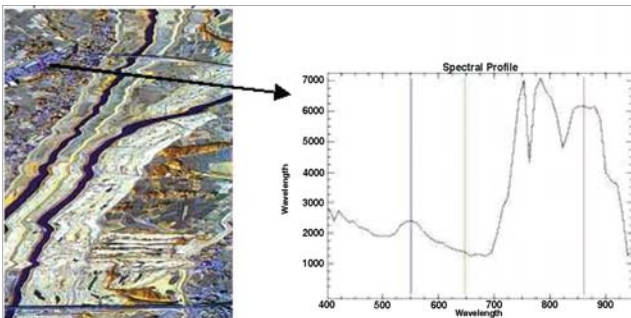
CaliGeo software - dual sensor instrument co-registration



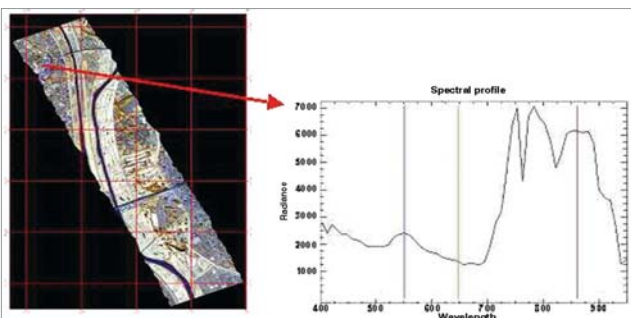
Step 1. Raw AISA data



Step 2. Radiometrically corrected data



Step 3. Rectified and georeferenced data



FUTURE ENVI AND IDL UPGRADES AND CALIGEO VERSIONS

CaliGeo runs as a part in the ENVI+IDL software environment. For every new version of ENVI, SPECIM will release a version of CaliGeo that is fully compatible with it. SPECIM will also provide the latest version of CaliGeo running under a limited set of older ENVI versions, depending on the interest in these versions.

Selected system features

- Option to perform full radiometric corrections to radiance or to reflectance-type FODIS ratio
- Geometric correction and rectification eliminating image distortion due to aircraft movement as well as output as a georeferenced hyperspectral image
- Easy-to-use graphical user interface
- Easy-to-use sensor head vs. pos/att device boresight correction parameter calculation
- Easy-to-use dual sensor boresight correction
- Documentation provided for main IDL subroutine calls for user-developed data processing routines
- Intuitive workflow