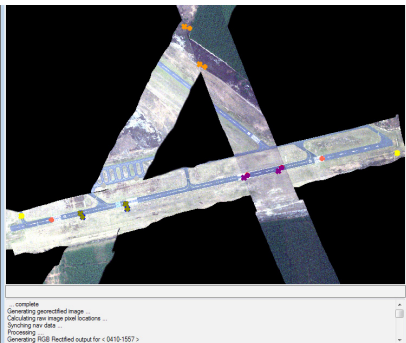




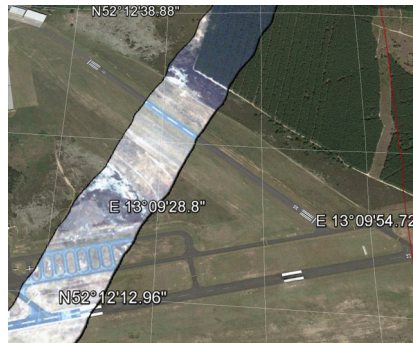
# CALIGEOPRO 2.2.

CaligeoPRO 2.2 software provides in a single package all the tools for high speed pre-processing of raw hyperspectral AISA data into images which are ready for applications. CaligeoPRO 2.2 meets the productivity requirements in all hyperspectral applications, including data production in large scale commercial and research projects.



## USER FRIENDLY BORESIGHT TOOL

CaligeoPRO includes a feature to calibrate mechanical angular offsets between the GPS/IMU sensor and the hyperspectral imager.



## PRECISE GEORECTIFICATION

Get more accurate georectification with the help of new features, geometric correction of optical aberrations and improved image and navigation data synchronization.



## SPEED IMPROVEMENT

CaligeoPRO performs 20 times faster than previous generation in normal operations - particularly when DEM is applied thus a complete flight campaign can be preprocessed in a few hours.

### WHAT IS CALIGEO PRO FOR?

CaligeoPRO software features high speed tools for radiometric processing and georeferencing of push-broom type hyperspectral image data produced by SPECIM AISA sensors. It also includes tools to calibrate angular offsets between the hyperspectral imager and the GPS/IMU sensor, and to co-register images produced by AisaDUAL system. Images produced with CaligeoPRO are ready for atmospheric correction, if required, and application production.

With CaligeoPRO SPECIM responds to the market need for high capacity pre-processing of hyperspectral data. The performance of the new software has been taken to the level where AISA data from a complete flight campaign can be pre-processed in a few hours.

### RADIOMETRIC PROCESSING

In the radiometric processing, the hyperspectral raw data produced by any AISA sensor is converted to spectral radiance data, using the radiometric calibration data provided by SPECIM with each AISA system. Additionally, in case where the AISA sensor is equipped with a FODIS sensor (fiber optical down-welling irradiance sensor), the image data can be normalized by the FODIS data, and obtain a rough estimate of the reflectance properties of the target.

### GEOREFERENCING

In the georeferencing process, the flight line image is placed on its actual position on the ground. CaligeoPRO performs georectification and georeferencing of the AISA flight line images by using the position and attitude data collected from the system's GPS/IMU sensor synchronously with the image data.

### DATA SUPPORTED

CaligeoPRO processes data from any single sensor AISA system, including AisaFENIX as well as data from AisaDUAL system. AISA systems working with Applanix POS/AV, Oxford Technical Solutions RT3000 series, Novatel Span, and IGI Aerocontrol GPS/IMU sensor are currently supported. CaligeoPRO includes a feature to calibrate mechanical angular offsets between the GPS/IMU sensor and the hyperspectral imager.

### INTERACTIVE AND BATCH PROCESSING MADE EASY WITH CLEAR USER INTERFACE

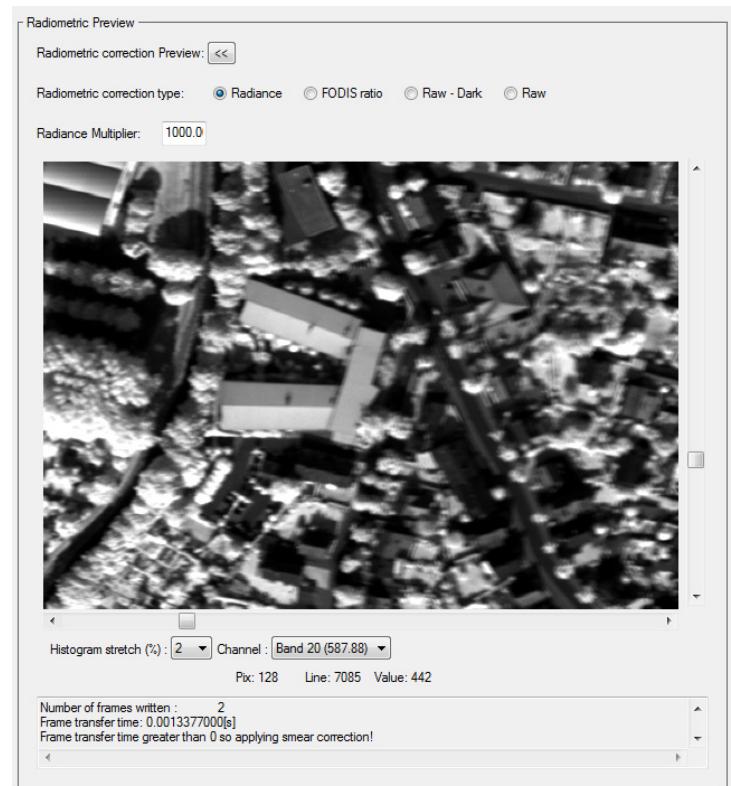
With its clear user interface, CaligeoPRO provides a logical process flow to go through the data processing chain. Processing can be conducted either in an interactive mode or in automated batch process for large data sets. Real-time preview can be followed while data processing is in progress, for both for a single flight line and batch process. It makes possible immediate validation of correctness of the processing parameters and quality of the data produced.

### SYSTEM REQUIREMENTS

CaligeoPRO runs as a plug-in application in ENVI 4.7 or newer software environment. CaligeoPRO runs smoothly on a regular office PC with 64 bit Windows operating system. For highest performance, CaligeoPRO exploits efficiently resources of a 64 bit operating system and multiprocessor platform.

	CALIGEO	CALIGEO PRO 2.2
Radiometric processing	x	x
Georectification	x	x
Batch processing from GUI	x	x
Geometric correction of optical aberrations	-	x
Improved image and navigation data synchronization	-	x
Enhanced boresight correction tool with graphical user interface and ground control point support	-	x
Speed improvement	-	x

Outstanding improvement for existing CaliGeo users



Radiometric correction preview