PARGE®

Orthorectification for Airborne Scanners

PARGE® is a **direct geocoding and orthorecticifation** software. It exactly reconstructs the scanning geometry for each image pixel using position and attitude of the airplane in conjunction with (optional) terrain elevation data. It is especially suited for the application with hyperspectral airborne scanning instruments.

Orthophoto
Flightline 1
Flightline 2
Orthophoto

Data Source: Florida Environmental Research Institute's Spectroscopic Aerial Mapping System with Onboard Navigation (SAMSON) sensor

Compatibility

- Consistent and open data structure optimized for airborne hyperspectral instruments,
- Support for Specim AISA, APEX, AVIRIS, CASI/SASI, HYMAP, HYPER, NEO's HYSPEX, Resonon Pika, Headwall Photontics Hyperspec®, and more,
- Import filters for auxiliary data and DEM, including ENVI™ and PCI geomatica,
- Operating system independent operation,
- Calculation outputs to ENVI™ formats.

Accuracy

- Sub-pixel accurate geometric calculation and DEM intersection,
- Boresight alignment of sensor system based on ground control points,
- Optimized choice of resampling techniques.
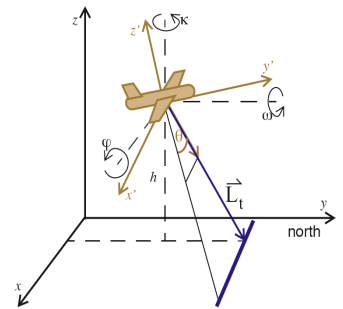
Scan Geometry

Flexibility

- Sophisticated graphical user interface for all functions with integrated on-line help system,
- Side output of pixel scan geometry for BRDF research and atmospheric correction,
- Tools for parameter filtering and correction,
- Support for batch processing through IDL scripts.

Support and Customization

- Introduction of user specified sensors and data formats is supported upon request,
- Detailed user manual includes full description of functionality, procedures, and internal data format.

Technical Conditions

- IDL version 8.0 or higher or the free IDL VM from Exelis Vis,
- Linux, OS-X, or Windows (64bit recommended),
- RAM: min. 4GB allocated to IDL,
- ENVI™ license recommended, but not a condition.

Hymap
Mosaic on DEM

ReSe
Applications
Schläpfer

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