

# **ROLTA IRS SENSOR**

The Rolta Satellite Triangulation includes rational function models developed to compensate for distortions and produce satellite stereo Models for high resolution and low resolution sensors. Distortions caused by the platform (position, velocity, and orientation), the sensor (orientation, integration time, and field of view) the Earth (geoid, ellipsoid, and relief), and the cartographic projection (ellipsoid and cartographic) are all taken into account using these models. The models reflect the physical reality of the complete viewing geometry and correct all distortions generated during the image formation.

### Flexible project management

It allows managing and tracking the progress of multiple processes in a project and multiple projects.

### **Coordinate systems support**

Support for a wide range of horizontal and vertical datum, coordinate systems and map projections including userdefined systems and coordinate conversions.

### **Satellite sensors**

Supports a wide range of high and low resolution satellite senors - IRS 1C &1D, Cartosat, IKONOS PAN & Multi spectral, quick bird PAN & Multispectral, Worldview, SPOT 5 – 7, GeoEye and Landsat.

### Simple project layout

The Project layout enables a onetime set up for the whole project. The Project layout simulates the function of laying out individual photos on a large table. Functions such as point deletion and measurement viewing are included in layout.

### Full control on point measuring

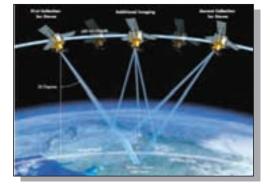
Enables the user to do stereo and monoscopic measurements of tie, pass and ground points automatically and manually.

### **Satellite Triangulation**

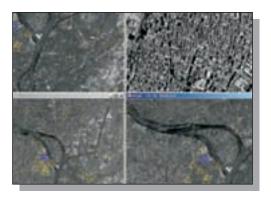
It provides a simultaneous bundle adjustment, utilizing a rigorous math model and RPC models, with minimal number of control points.

### **Supports Image formats**

Tiff, PAN and IMG







### **Key Features**

- Supports a wide range of high, medium and low resolution satellite sensors
- Use of rigorous math models and rational functions
- Manual and Machine-assisted point matching in Relative Orientation and auto Absolute Orientation
- Real-time panning for image movement in • mono or stereo
- Automatic and interactive image manipulation and enhancement
- Single image and Stereo pair triangulation
- Block triangulation for mono and stereo • imagery
- Ability to do standard single photo resection

### **Benefits**

- Flexible project management
- User-selectable statistical indicators and blunder detection methods assure clean measurements
- Orbital constraints permit cantilevering and bridging capabilities
- No constraint on acquisition look angles; the only geometric constraint for stereo images is that they have sufficient overlaps
- Adjusts any combination of Level 1 (un-corrected) panchromatic and/or multi-spectral images
- Generates reports with optional listings of the orbital and point data, iteration listings, image residuals, variance-covariance analysis, and other statistical indicators



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