



Technology Service Corporation

Automatic Vertical Object Detection Tool

Vertical objects (VOs) such as radio towers, power pylons, and windmills present a hazard to air navigation. Technology Service Corporation (TSC) has developed an Automatic Vertical Object Detection (AVOD) tool that locates and measures heights of VOs from interferometric SAR (IFSAR) and LIDAR digital elevation map (DEM) data. AVOD is an add-on software module to ERDAS IMAGINE®, and has these key features:

- Automatic VO location and height extraction
- DEM data import into GeoTIFF or ERDAS standard image format
- Power transmission line association
- “Bald-earth” image generation
- Source sensor data independent
- Fast algorithm for handling large databases
- Batch command line or graphical user interface

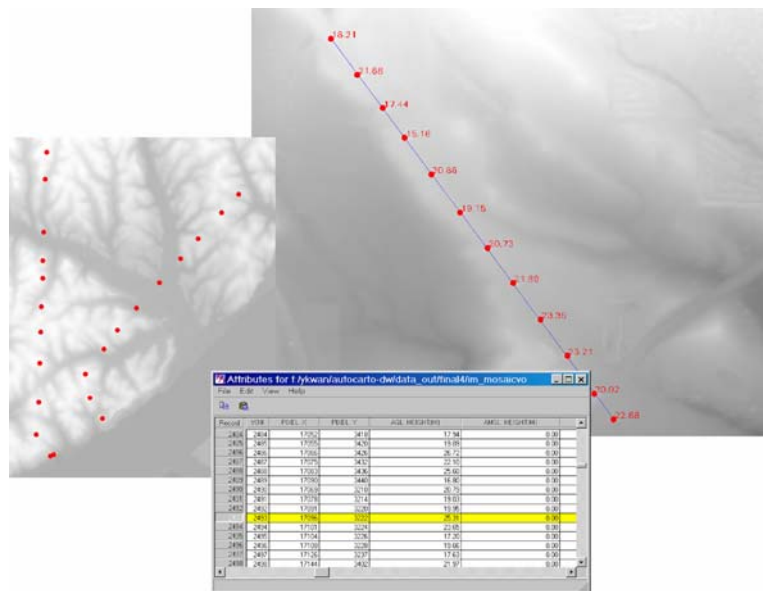


WHY AUTOMATIC VO DETECTION?

IFSAR and LIDAR systems are very effective in collecting terrain data for large areas. But a drawback is that image analysts often become overwhelmed by the volume of IFSAR and LIDAR imagery. It becomes impractical to manually analyze entire data sets. Automated techniques can dramatically reduce manual workload by automatically extracting useful features from the data. The AVOD software streamlines this process by automatically locating and measuring tall features in DEM data. These tall features may be HDTV towers, power pylons, windmills, water tanks, or even tall trees. The operation requires minimal user input (two parameters) but still can be user-adjusted to optimize for a particular data set. The software works well on DEM data of various terrain types and resolutions. Its wide applications include providing rapid updates to VO databases, urban planning databases, and flight simulation databases.

WHY TSC?

TSC has extensive experience in remote sensing technologies and is a leader in GIS. We can deliver the AVOD software as a standalone application or as an API (Application Program Interface) library. We can tailor the AVOD software to fit your specific needs or applications.



CONTACT INFORMATION

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