



Technology Service Corporation

Automatic Feature Extraction Tool for 3-D Databases

TSC has developed a tool that automatically extracts buildings and trees from high-density elevation data. This tool has the capability to automatically extract building footprints and heights from a Digital Elevation Map (DEM), and draw 3-D building models in OpenFlight® format (other formats such as shapefiles are also available).

Using TSC's **Automated Feature Extraction Tool** a database builder can expect:

- An accurate height associated with each building model
- Automatic drawing of complex shaped buildings
- Feature extraction on sloped areas
- A “confidence” attribute with every building drawn
- Automatic extraction of trees
- Output of a bare Earth DEM

WHY AUTOMATIC FEATURE EXTRACTION?

High-quality 3-D visualization of inhabited areas requires comprehensive and accurate modeling of features such as buildings, structures, and large trees. Feature modeling has historically been performed manually from aerial or satellite imagery, at considerable cost. Databases are essential for realistic visualization in several areas:

- Urban planning
- Simulation and training
- GIS databases
- Change detection
- Entertainment

The recent availability of high-resolution LIDAR and interferometric SAR (IFSAR) data opens new possibilities for automating feature extraction tasks and producing large-scale populated 3-D databases quicker and more cost effective than before.



Automated results showing building



3-D Automated results

WHY TSC?

TSC products can be customized to the needs of our customers. We feature software that is highly adaptable and can be provided as a stand alone application or a plug-in to existing database creation software. Our highly skilled technical staff can tailor the **Automated Feature Extraction Tool** to handle *your* geographic data, output *your* database format, and create a database the way *you* want it created.

CONTACT INFORMATION

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