ADVANCING FEATURE EXTRACTION TO ACHIEVE MORE
SOPHISTICATED FEATURE EXTRACTION

Feature Analyst software is an automated feature extraction extension that enables GIS analyst to rapidly and accurately collect vector feature data from high-resolution satellite and aerial imagery. Many geospatial analysts have discovered that Feature Analyst helps them achieve more.

With much of GIS management costs being attributed to staying up-to-date with the daily deluge of image data, the ability to quickly extract features from GIS data is a major necessity. Feature Analyst software meets this need and enables analysts to collect linear and polygonal features such as hydrologic zones, buildings, roads, vegetation, and land-use.

Feature Analyst offers a simple interface, end-to-end workflow, and model-based approach for extracting a wide range of geospatial features. The customizable extraction process suggests settings for specific feature types, but allows the user to adjust settings to produce the best results. Multi-thread capabilities leverage multi-core systems to increase processing speed on complex extractions.

Since Feature Analyst is an extension to Esri ArcGIS®, the product's familiar environment makes it easy to install and learn. Feature Analyst can be used on its own or in conjunction with Overwatch's LIDAR Analyst® extension to create an integrated suite of tools.
**POWERFUL ALGORITHMS INCORPORATE THREE DATA FACTORS:**

- **Pattern Recognition** - Each feature's unique size, shape, texture, and orientation are automatically detected.
- **Spectral Layers** - Image bands are filtered to focus only on the bands that assist in identifying the target feature.
- **Spatial Context** - Feature Analyst even uses information from the surrounding environment to increase its extraction accuracy.

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**IMPROVE EFFICIENCY**

Feature Analyst software increases automation across all phases of image feature collection to boost efficiency and produce faster results than manual, hand-drawn digitization:

- Trainable algorithms identify and extract features of interest.
- Intelligence editing tools streamline quality assurance and attribution processes.
- Batch processing speeds large volumes of imagery through classification.

**IMPROVE RESULTS**

Feature Analyst utilizes spatial context as well as spectral and pattern information to produce superior results. Based on pixel patterns associated with desired features, analysts may set templates which examine the context of the target pixels. Spatial context evaluates not only the target pixels, but the surrounding pixels to learn what to look for throughout the image. The user may further reinforce the extraction model by selecting correct and incorrect examples from the initial returned set.

**IMPROVE ACCURACY**

Feature Analyst applies consistent standards throughout the complete extraction process, enhancing results and eliminating human fatigue. Upon optimizing algorithms for particular extraction routines, Feature Analyst executes the same model against all applicable imagery, delivering improved accuracy and results across a series of images captured over time. Finishing tools further enable application of hand-drawn effects and annotations.

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**WHAT FEATURES WILL YOU BE EXTRACTING?**

- Water Bodies
- Permeable/Impermeable
- Forests and Plants
- Land Usage
- Human Construction
- Unique Features
- Land Forms
- Changed Regions

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### SOFTWARE FEATURES

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