

Turn your imagery into information by extracting visual features from satellite and aerial images. FeatureObjex™ is a user friendly stand alone software package which combines interactive and intelligent editing tools with sophisticated image analysis and machine learning technology to maximize your production capabilities. FeatureObjex provides two techniques for extracting features of interest from your imagery. The first is a comprehensive model based on information gathered from the entire image, thus enabling a more global extraction. The second technique allows a user to extract features from a smaller subset of the image, taking into account local variations more so than global details.

FeatureObjex Applications

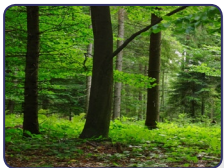
Military:



Quickly identify hazardous locations and/or targets of interest such as vehicles, ships, and airplanes in high resolution multispectral, panchromatic, and

even radar imagery.

Environmental Monitoring & Forestry:



Accurately conduct forest inventory by extracting dense forest stands or individual trees.

Intuitive and interactive tools can adjust the model threshold,

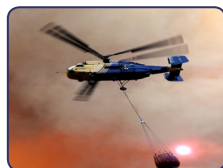
allowing you to delineate dense forest stands, individual trees, or extract both.

Urban Planning:



Easily locate existing and new urban features from imagery to update current municipal GIS datasets.

Change Detection:



Military, municipalities, forestry, disaster management, and many other industries rely upon change detection workflows in numerous applications. Detecting and

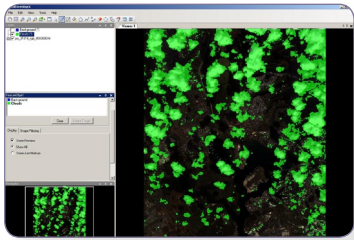
monitoring specific changes over time is easy by extracting features of interest within imagery, separated by a period of time.

How it Works

By using interactive markup tools, users teach FeatureObjex™ to recognize color, texture, and shape characteristics that correspond to a feature area of interest. Background markup is added to further differentiate between objects for extraction and those that do not belong. As the extraction model is refined, results are continually updated and displayed in a user defined preview area allowing for easy modifications of the extraction model.

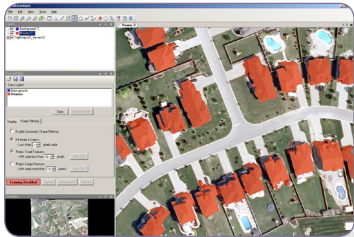
Relatively simple features, such as bodies of water or cloud cover, can be extracted over large areas with just a few clicks. When extracting more visually ambiguous features such as asphalt-roofed buildings in urban areas, easy to follow manual editing tools and post processing algorithms, such as polygon squaring, allow users to achieve precision results in the least amount of time.

The Advantages of FeatureObjex



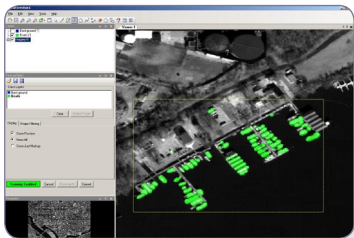
Cloud Extraction Using FeatureObjex

Cloud polygons have been accurately and automatically extracted in minutes using FeatureObjex. Extracted colour polygons can then be exported and used in further remote sensing workflows, such as those offered through Geomatica's atmospheric correction module or automatic mosaicking and color balancing technology.



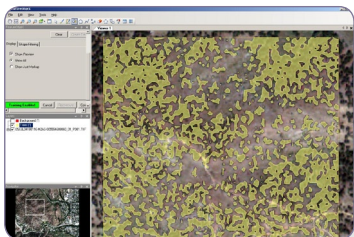
FeatureObjex for Extracting Urban Features

Office building polygons have been extracted from high resolution imagery. FeatureObjex polygon squaring algorithm removes noise from the extracted polygons ensuring they are GIS ready.



Ship Extraction using FeatureObjex

Ships can easily be distinguished from all other features in the scene by providing simple target and background markup. By specifying size thresholds of extracted objects, analysts can refine results to delineate large cargo or military ships from smaller pleasure crafts.



Tree Extraction using FeatureObjex

Whether you are trying to control green space in urban settings or manage forest inventories, FeatureObjex can quickly and accurately identify and extract features of interest.

Use FeatureObjex when Time Matters

By making use of state-of-the-art machine learning and image analysis to perform the bulk of the feature extraction process, while at the same time allowing the user to dynamically and easily adjust and correct the automatically extracted output, FeatureObjex has the potential to significantly reduce total wall clock time for feature extraction tasks, while greatly reducing user fatigue. Quickly import raster images in a variety of formats to extract features from, and export the final GIS-ready polygons to shapefiles or *.kml files. Use the output in PCI's Geomatica and other image processing applications, GIS software, and Google Earth.

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