

ENVI for Urban Planning

Aerial and satellite imagery provide urban planners and public works officials with a bird's eye view of the geography, assets, and infrastructure of their communities. Geospatial imagery can be used to identify and categorize urban and rural land use, map inventory for site selection applications, and assess the condition of public works assets.

The ENVI family of image analysis software provides best-in-class spatial and spectral tools needed to visualize and extract information from these data sources, save time and money, and make more accurate decisions.

ENVI can be easily customized to solve your unique challenges, making it a highly flexible solution for urban and regional planning applications. ENVI easily integrates into GIS workflows, allowing users to quickly and accurately view, manipulate, process, and analyze imagery. And, because ENVI products are tightly integrated with ArcGIS®, you can easily exchange data and layer files between the software packages.

Image Analysis Solutions for Urban Planning

MAP AND MONITOR LAND COVER OR LAND USE

Land cover and land use categories can be easily distinguished by analyzing geospatial imagery using ENVI. You can use the classification and feature extraction tools in ENVI to map land cover or land use from a wide variety of image types. And, the change detection tools can be used to monitor changes over time.

Radar and data fusion tools in ENVI are especially useful when an area of interest is inaccessible or obscured by clouds in optical imagery.

MAP AND MONITOR ENVIRONMENTAL CONDITIONS

Using the tools found in ENVI, you can derive information from imagery that can help you map and monitor pavement conditions, building materials, desertification, deforestation, urbanization, soil erosion, increase in impervious surfaces, water loss, loss of farmland and/or wilderness, and more. The information extracted using ENVI can provide input to environmental impact statements, land development models, asset management budgets, and more.

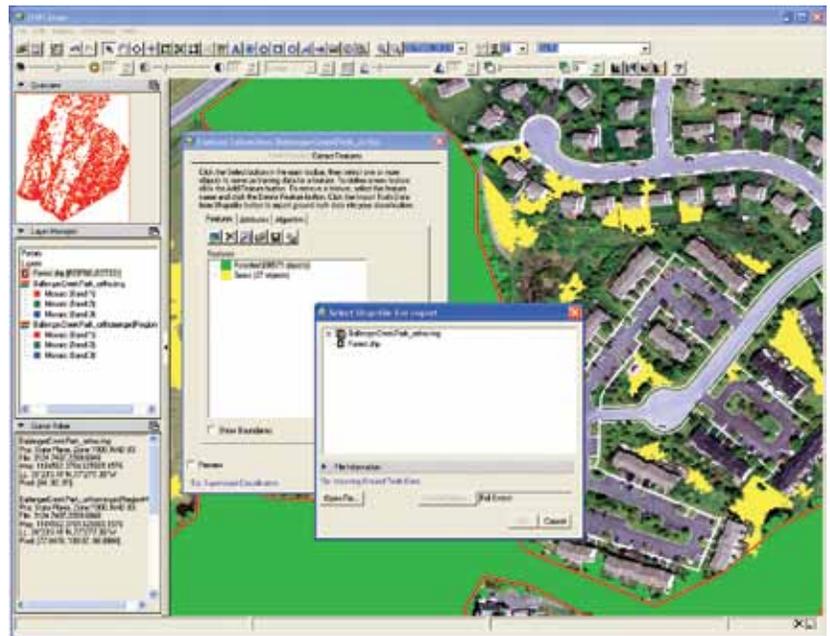


Fig. 1: ENVI's feature extraction abilities are used by planners for asset management and to analyze land use, building footprints, and utility infrastructure.

DETECT AND MONITOR CHANGES OVER TIME

ENVI provides an array of sophisticated tools for dynamically viewing the same location in two or more images simultaneously, as well as tools for automatically detecting changes at various scales, ranging from county to individual structure. The change detection tool in ENVI is appropriate for detecting all types of changes, from soil erosion to urban development.

Change detection results generated using ENVI can be displayed as a map or in a report showing the area and percentage of different detected changes. You can quickly overlay the areas of change onto other images, with or without transparency, to visualize changes.

CREATE AND UPDATE BASE MAPS FOR PLANNING

Data extracted from imagery in ENVI can be used to generate and update base maps that you use for planning. Base map information can be derived from various types of imagery using classification and feature extraction tools in ENVI.

The feature extraction tool in ENVI uses a wizard-like interface to easily guide you through the analysis from beginning to end and rapid rendering preview screens allow for adjustments at any point in the workflow. A complete suite of post-classification tools help you generalize and clean up your results and seamlessly pass them into ArcGIS.

ENVI delivers accurate, scientifically proven processes, so you can easily use geospatial imagery to solve your urban planning challenges.

To learn more about ENVI, ENVI training options, live learning events, and more, visit www.exelisvis.com/ENVI, or call **303.786.9900**.

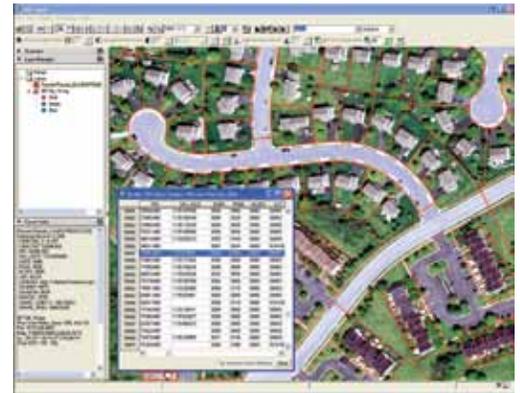


Fig. 2: Information pulled from ENVI is increasingly used by planners as a data source to populate, update, and assess the quality of GIS databases.

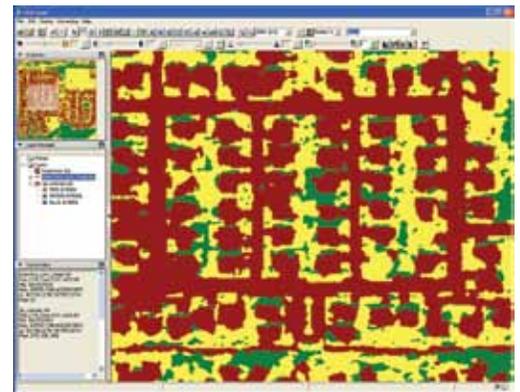


Fig. 3: ENVI's automated image processing and analysis solutions increase accuracy, lower costs, and reduce the time and efforts from tedious manual tasks.

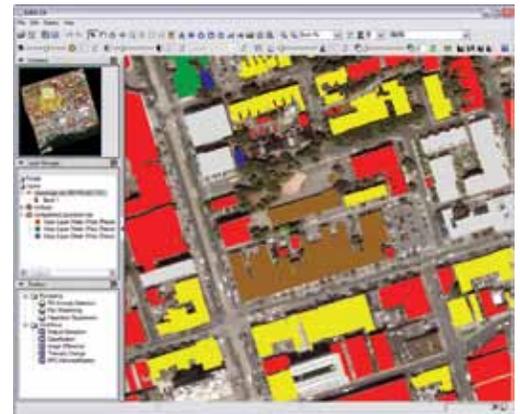


Fig. 4: ENVI provides critical information needed to accomplish both planning and operational goals.



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