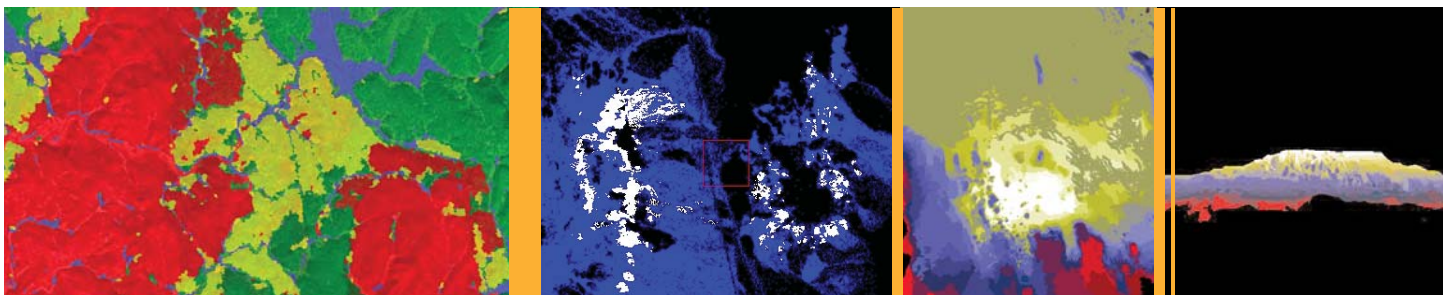




## Complete Workflows. Data Integration. Advanced Spectral Tools.

ENVI 4.5 builds on ENVI's automated workflows to deliver the next advance in efficiency - integration with ArcGIS®. Now you can easily exchange data between ENVI and ArcGIS through the geodatabase, and generate maps with ENVI data and images using ArcMap®. ENVI 4.5 also continues the ENVI tradition of delivering advanced, high performance image processing capabilities with additional spectral processing tools, vector creation, and data format support. And, if you use IDL to extend ENVI applications you will find a new, modern IDL development environment that simplifies your IDL interaction.



### ArcGIS and ENVI Integration

If you are working with both ENVI and ArcGIS products, you can quickly and easily share image and data files between the two platforms for improved workflow efficiency. The ENVI 4.5 release delivers seamless integration of ENVI and ArcGIS, allowing you to easily exchange files between ENVI and ArcGIS through the geodatabase. ENVI 4.5 supports enterprise, personal, and file geodatabase types.

### Map Composition Capabilities

ENVI 4.5 delivers direct access to the full suite of map composition tools available with ESRI's ArcMap, providing a complete image processing workflow from data access and analysis to sharing a completed map product. You can now complete your image processing and analysis in ENVI and then launch ArcMap from within ENVI to generate reports and map compositions.

### ENVI Feature Extraction Module Capabilities

New ENVI Feature Extraction Module capabilities are also being released with ENVI 4.5. This add-on to ENVI allows you to quickly, easily, and accurately find and identify features of interest in geospatial imagery. Upgrades include batch processing, vector smoothing, statistics and results summaries, and the ability to save and restore training data, as well as export vectors to a shapefile. For more information on the ENVI Feature Extraction Module, visit [www.itervis.com/ENVI/Fx](http://www.itervis.com/ENVI/Fx).

### New ENVI Spectral Tools

#### Independent Components Analysis (ICA)

ICA is a new tool for finding and separating a hidden noise component in an image, this is useful for data dimension reduction, anomaly detection, noise reduction, classification, end member extraction, and data fusion. Without requiring prior information about your image, ICA transforms a set of mixed signals into components that are mutually independent. The process is superior to PCA in instances where the signal of interest is relatively weak compared to other signals in the data.

#### Spectral Information Divergence (SID)

SID is a new tool for spectral mapping and identification that delivers improved performance over other similarity measures. SID measures the spectral similarity between two spectral signatures based on the discrepancy between their corresponding signature-derived probability distributions. The process takes advantage of relative entropy to account for the spectral information provided by spectral signatures.



## Creating Vectors with ENVI Zoom

ENVI 4.5 delivers the ability to digitize or manually create vectors in ENVI's optional interface, ENVI Zoom. Now you can both create and edit vectors with one application for an improved, efficient workflow.

## Data Support Features

### WorldView-1 Data Support

ENVI now supports all WorldView-1 data formats, including GeoTIFF, NITF, and Stereo Pair data. If you are working with panchromatic data, pan sharpening multispectral data, building digital elevation models, or looking to extract features from high spatial resolution imagery, you will benefit from the WorldView-1 data support in ENVI.

### ENVI NITF Module Updates

The ENVI Certified NITF Module is now supported on Linux 32-bit and 64-bit systems, giving Linux users full access to NITF data. The ENVI NITF Module now also supports the ENGRDA TRE (Engineering Data Support Tagged Record Extension).

### ENVI NITF with TFRD Module Updates

The ENVI NITF with TFRD Module is now supported in the optional ENVI Zoom interface allowing you to read TFRD data, view the metadata, exploit data and save to NITF – all from ENVI Zoom.

### JPIP/OGC Remote Connection

The Remote Data Connection Manager is now accessible from the ENVI interface. With ENVI 4.5, you can now access JPIP URLs and OGC compliant servers for data.

## New IDL 7.0 Modern Development Environment

If you are using IDL to extend ENVI applications, you will benefit from the new, modern development environment introduced with IDL 7.0 - the IDL Workbench. The IDL Workbench, based on the popular Eclipse development platform, has the advantages of a modern, full-featured cross-platform development environment, including a native user interface, a project based organizational scheme, code editing tools, user assistance features - such as hover help, and much more. For more information visit [www.ittvis.com/IDL7](http://www.ittvis.com/IDL7).

## Access. Analyze. Share.

Improve your image processing and analysis workflow today. Download ENVI 4.5 from [www.ittvis.com/envi](http://www.ittvis.com/envi), or contact your account representative for technical information, product demonstrations, and tutorials at [www.ittvis.com/findmyrep](http://www.ittvis.com/findmyrep) or 303-786-9900.

ENVI 4.5 is also available on DVD.

