



# ArcGIS™ Extensions

## Optional ArcGIS Extensions

*Try Optional ArcGIS Extensions FREE for 30 Days!*

ArcGIS™ is a family of software products built on a common architecture that forms a complete geographic information system (GIS). This architecture supports a series of extensions that dramatically extend the functional capabilities of ArcGIS. The optional extensions can be used with any of the ArcGIS Desktop products including ArcView®, ArcEditor™, and ArcInfo™.

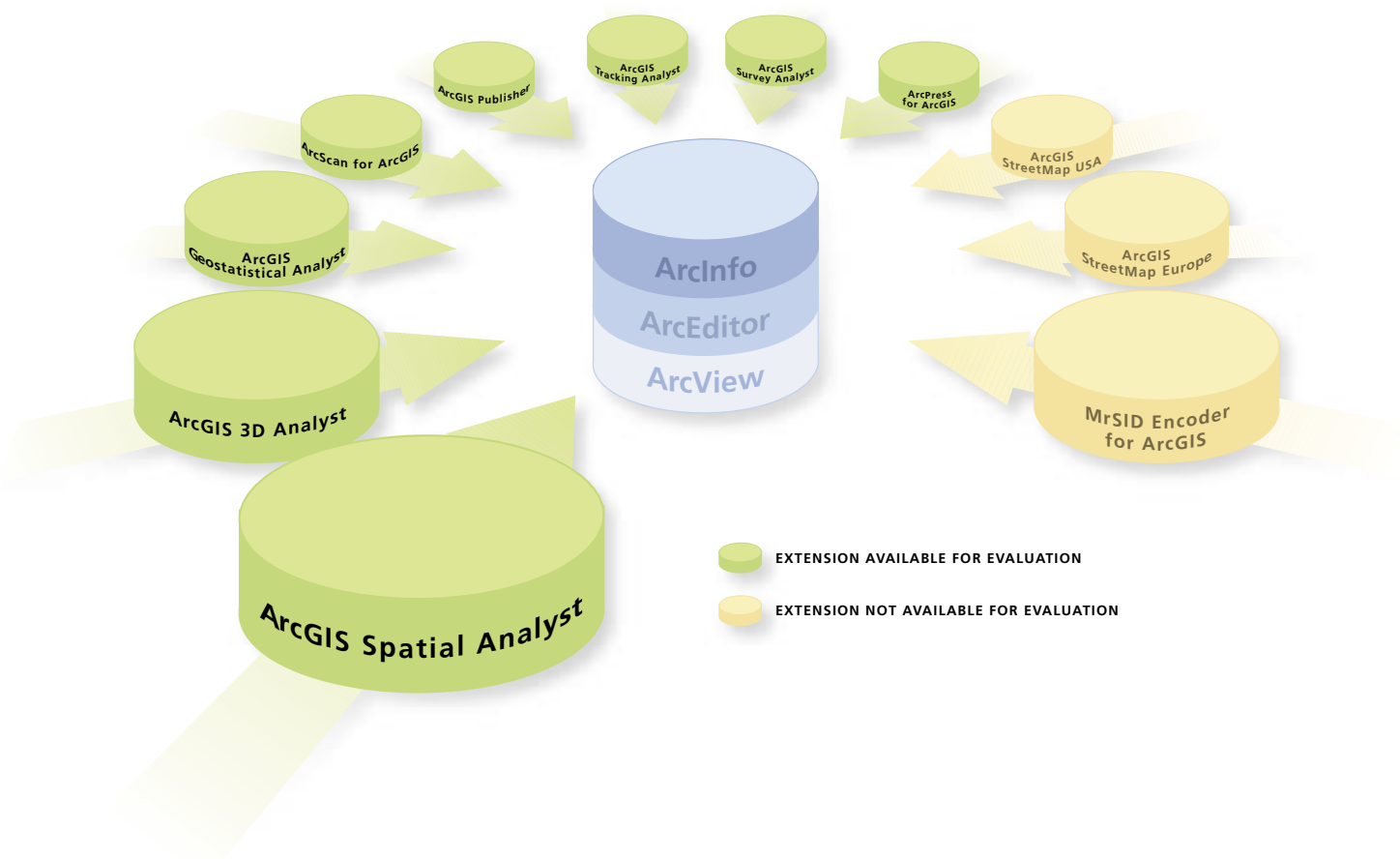
The following extensions can be evaluated at no cost and with no obligation for 30 days—ArcGIS Spatial Analyst, ArcGIS 3D Analyst™, ArcGIS Geostatistical Analyst, ArcGIS Survey Analyst, ArcGIS Tracking Analyst, ArcGIS Publisher, ArcScan™ for ArcGIS, and ArcPress™ for ArcGIS. The evaluation software for these extensions is included on the ArcView 8.3 Evaluation CD.

To request this CD, visit the ESRI Web site at [www.esri.com/extensions](http://www.esri.com/extensions).

### Training

Tutorials and data are included with the software. Training is also available for most of the optional extensions. For more information on instructor-led classroom training, ESRI's online Virtual Campus training courses, and ESRI Press self-study workbooks, visit [www.esri.com/training](http://www.esri.com/training).

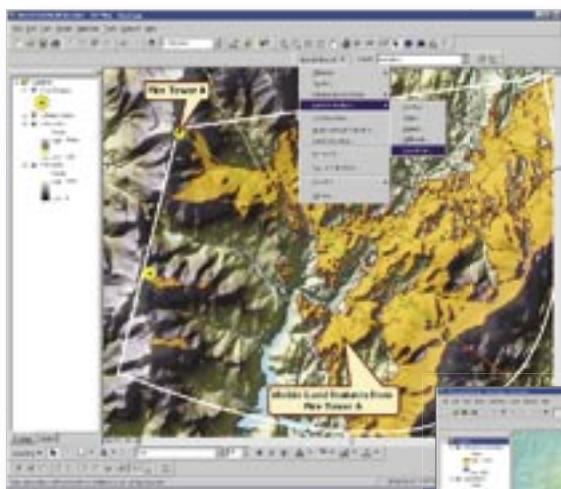
➔ [www.esri.com/extensions](http://www.esri.com/extensions)



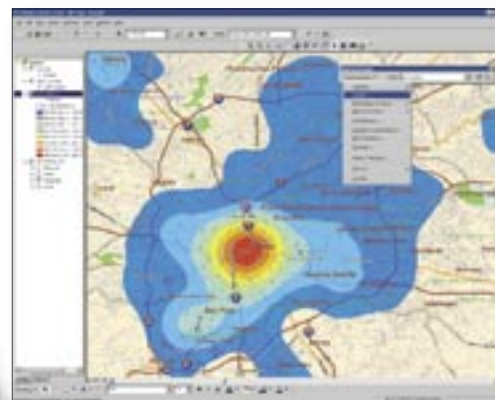
# ArcGIS Spatial Analyst

*Advanced GIS Spatial Analysis Using Raster and Vector Data*

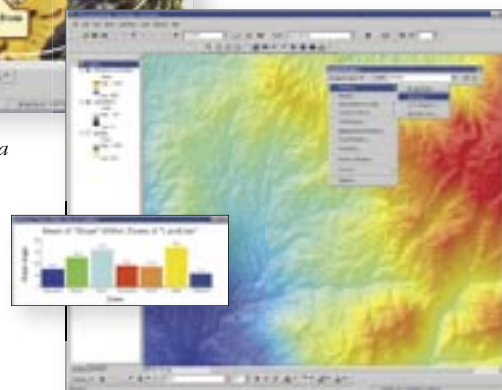
ArcGIS Spatial Analyst provides a broad range of powerful spatial modeling and analysis tools. You can create, query, map, and analyze cell-based raster data; perform integrated raster/vector analysis; derive new information from existing data; query information across multiple data layers; and fully integrate cell-based raster data with traditional vector data sources.



*Model and Analyze Raster and Vector Data*



*Perform Neighborhood and Zone Analysis*



*Land Use Analysis*

## ArcGIS Spatial Analyst features include

- Convert features (point, line, or polygon) to rasters.
- Create raster buffers based on distance or proximity from features or rasters.
- Generate density maps from point features.
- Create continuous surfaces from point features.
- Derive contour, slope, view shed, aspect, and hillshades of these surfaces.
- Perform map algebra—Boolean queries and algebraic calculations.
- Perform neighborhood and zone analysis.
- Carry out discrete cell-by-cell analysis.
- Perform grid classification and display.
- Use data from standard formats including TIFF, BIL, IMG, USGS DEM, SDTS, DTED, and many others.

**TRY ArcGIS Spatial Analyst**  
➔ [www.esri.com/spatialanalyst](http://www.esri.com/spatialanalyst)

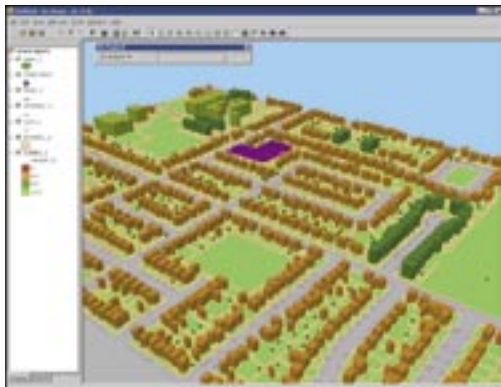
# ArcGIS 3D Analyst

*Three-Dimensional Visualization, Topographic Analysis, and Surface Creation*

ArcGIS 3D Analyst enables you to effectively visualize and analyze surface data. Using 3D Analyst, you can view a surface from multiple viewpoints, query a surface, determine what is visible from a chosen location on a surface, and create a realistic perspective image draping raster and vector data over a surface.



*Terrain Modeling*



*Three-Dimensional Visualization*



*Real-World Surface Modeling*



## ArcGIS 3D Analyst features include

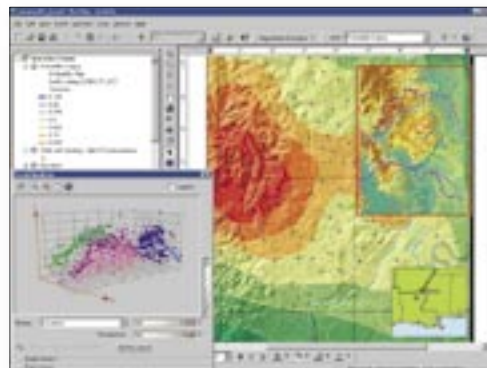
- Build surface models from many supported data formats.
- Perform interactive perspective viewing, including pan and zoom, rotate, tilt, and fly-through simulations, for presentation and analysis.
- Model real-world surface features such as buildings.
- Model subsurface features—wells, mines, groundwater, and underground storage facilities.
- Generate three-dimensional surfaces on the fly from attributes.
- Apply data normalization and exaggeration on the fly.
- Drape two-dimensional data on surfaces and view in three dimensions.
- Calculate surface area, volume, slope, aspect, and hillshade.
- Generate contours as two-dimensional or three-dimensional shapes.
- Perform viewshed and line-of-sight analysis, spot height interpolation, profiling, and steepest path determination.
- Use any data supported in ArcGIS including CAD, shapefiles, ArcInfo coverages, and images.
- Query three-dimensional data based on attribute or location.
- Export data for display on the Web using VRML.
- Create AVI files.

**TRY ArcGIS 3D Analyst**  
➔ [www.esri.com/3danalyst](http://www.esri.com/3danalyst)

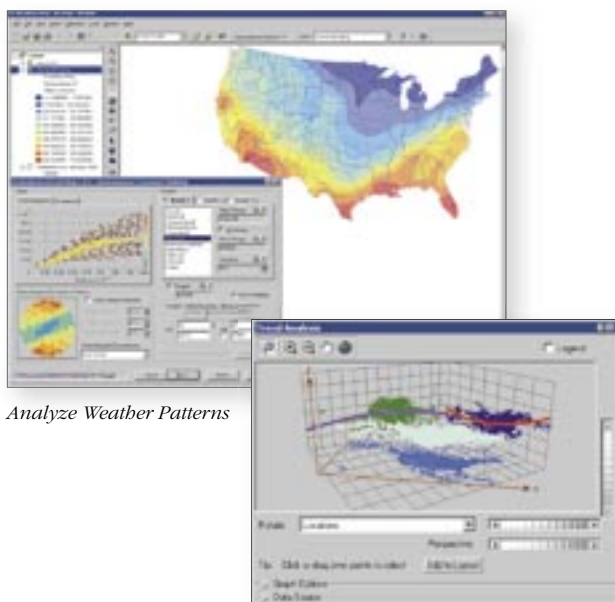
# ArcGIS Geostatistical Analyst

*Statistical Tools for Data Exploration, Modeling, and Advanced Surface Generation*

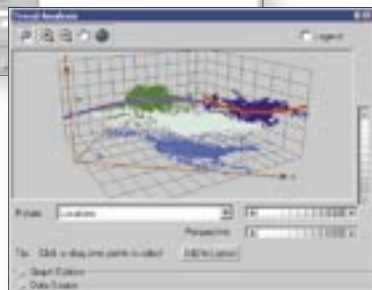
ArcGIS Geostatistical Analyst provides a powerful suite of tools for spatial data exploration and optimal surface generation using sophisticated statistical methods. Geostatistical Analyst allows you to create a surface from data measurements occurring over an area where collecting information for every possible location would be impractical. From improving estimation of temperature values, assessing environmental risks, or predicting the existence of any geophysical element, ArcGIS Geostatistical Analyst gives anyone with spatial data the ability to investigate, visualize, and create optimal surfaces. Geostatistical Analyst enables you to take advantage of these tools and techniques in a friendly and dynamic user interface.



*Analyze Spatial Data Distributions*



*Analyze Weather Patterns*



*Visualize Patterns and Trends*

## ArcGIS Geostatistical Analyst features include

### Interpolation techniques

- Inverse distance weighted (IDW)
- Global polynomial
- Local polynomial
- Radial basis functions including thin plate spline, spline with tension, multiquadratic, inverse multiquadratic, and completely regularized spline
- Kriging (ordinary, simple, universal, probability, indicator, and disjunctive)
- Cokriging (ordinary, simple, universal, probability, indicator, and disjunctive)

### Spatial analytical tools are available in different combinations for each of the following interpolation techniques:

- Cross validation and validation
- Semivariograms and covariance
- Detrending
- Declustering
- Checking for bivariate normal distributions
- Data transformations
- Error modeling

### Output surfaces

- Prediction map
- Error of predictions map
- Quantile map
- Probability map

**TRY ArcGIS Geostatistical Analyst**

➔ [www.esri.com/geostatisticalanalyst](http://www.esri.com/geostatisticalanalyst)

## ArcGIS Publisher

*Making Maps for Everyone*

ArcGIS Publisher converts map documents (MXD) to published map files (PMFs). PMFs contain instructions about the location and symbology of data layers (rendering rules, scale dependencies, etc.) including geodatabase connectivity, Internet connections, and Geography Network™ layers.

Published map files are viewable through ArcReader™, a free downloadable product from ESRI. ArcGIS Publisher allows GIS users and data suppliers to easily publish and share electronic maps locally, over networks, or via the Internet.

## ArcReader

*Making Maps Available to Everyone*

ArcReader is a free, easy-to-use product that allows anyone to view, explore, and print published map files. ArcReader was designed for viewing and sharing maps that access a wide variety of dynamic geographic data.

ArcReader provides significantly increased access to maps throughout all parts of an organization. Anyone with ArcReader can now access and print high-quality maps created in ArcGIS Desktop.



*Create and Publish Maps*

*View and Share Maps*

### ArcGIS Publisher features include

- Create PMF files with a single click of a button.
- Create read-only maps.
- Create live maps by using data locally or on the Internet that is updated in real time or periodically.
- Place all the information about the data and how it is to be symbolized into a PMF.

### ArcReader features include

- View and print ArcGIS maps.
- Standard zoom and pan functions.
- Identify (multilayer).
- View spatial bookmarks.
- Find, measure, hyperlink, and magnify window.

**TRY ArcGIS Publisher and ArcReader**

➤ [www.esri.com/publisher](http://www.esri.com/publisher)

## ArcGIS StreetMap USA

### *Nationwide Address Matching and Street Map Display*

ArcGIS StreetMap™ USA provides nationwide address matching and street map display for the United States. StreetMap layers automatically manage, label, and draw features such as local landmarks, streets, parks, water bodies, and other features. StreetMap can find nearly any address in the United States by interactively matching a single address or by batch matching from a file of addresses.



*Nationwide  
Address  
Matching*

*U.S. Street Map Display*

### ArcGIS StreetMap USA features include

- Nationwide address matching
- Street and landmark database
- StreetMap group layer that displays different levels of detail at different scales
- Exporting of selected StreetMap USA features

## ArcGIS StreetMap Europe

### *European Address Matching and Street Map Display*

ArcGIS StreetMap Europe provides powerful and easy-to-use European street map display and geocoding. StreetMap layers automatically manage, label, and draw features such as local landmarks, streets, parks, and water bodies.

ArcGIS StreetMap Europe data is available for the following countries: Austria, Belgium, Denmark, France, Germany, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.



*European Street Map Display*

### ArcGIS StreetMap Europe features include

- Geocoding and associated functions (detailed data option required)
- Graphic display of streets and other geographic features
- StreetMap group layer that displays different levels of detail at different scales
- Exporting of selected StreetMap Europe features

**Purchase Today!**

➔ [www.esri.com/streetmap](http://www.esri.com/streetmap)

# ArcGIS Survey Analyst

## *Integrating Surveying and GIS*

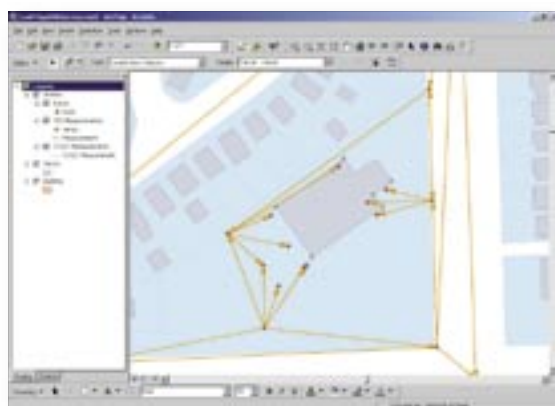
ArcGIS Survey Analyst adds a rich suite of survey measurement-based processing and analysis tools for improving the spatial accuracy of features and determining the quality of feature locations. ArcGIS Survey Analyst enables you to work with survey observations from field notes, survey equipment, and data collectors and store the survey data directly in a GIS database. ArcGIS Survey Analyst provides the tools to support organizations in which surveyors and GIS technicians work together in a single integrated environment.



*Evaluate the Accuracy of Measurements*



*Integrate Survey Measurements  
Into a Geodatabase*



*Improve the Accuracy of Features*

## ArcGIS Survey Analyst features include

- Create, edit, and manage GIS features using survey measurements.
- Integrate survey measurements into a geodatabase.
- Improve spatial quality and evaluate the accuracy of existing features based on surveyed locations.
- Incrementally improve feature geometry quality by linking survey features to GIS features.
- Perform basic COGO computations.
- Perform survey computations such as traverse and least squares adjustments.

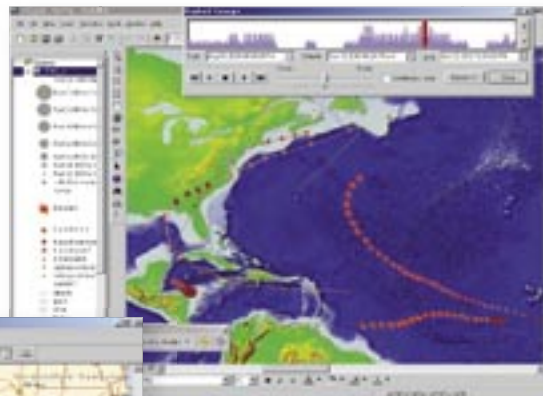
 **TRY ArcGIS Survey Analyst**  
[www.esri.com/surveyanalyst](http://www.esri.com/surveyanalyst)



# ArcGIS Tracking Analyst

## *Temporal Data Visualization and Analysis*

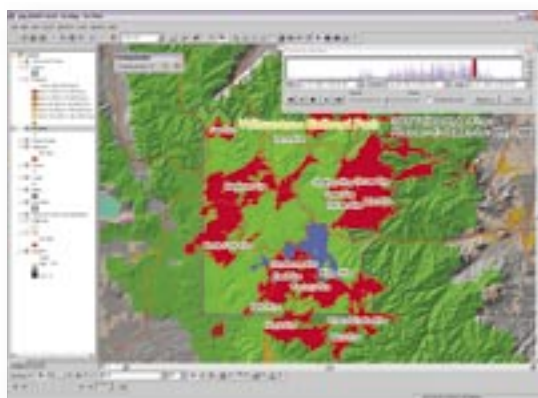
ArcGIS Tracking Analyst provides capabilities for sophisticated visualization, exploration, and analysis of time-related data. You can reveal time-related trends or phenomena, allowing you to see where and when an event occurred. You can “replay history” and observe how any time period (hour, day, week, month, etc.) is associated with the occurrence or location of various events. ArcGIS Tracking Analyst allows users to observe temporal data with either future time windows for mission planning or past time windows for historical analysis.



*Hurricane Tracking and Monitoring*



*Airplane Tracking and Monitoring*



*Fire Spread Tracking and Monitoring*

## ArcGIS Tracking Analyst features include

- Display point, line, and polygon data.
- Apply layer-specific time windows to manage multiple temporal layers.
- Symbolize time by color, size, or shape to display the aging of the data.
- Interactively play back time-related data.
- Apply actions to individual temporal layers based on attributes, location, or a combination of the two using Highlight, Suppression, or Filter.
- Set temporal offset for comparisons of temporal events.
- Create animation files for AVI output.
- Create a data clock temporal chart for additional analysis.

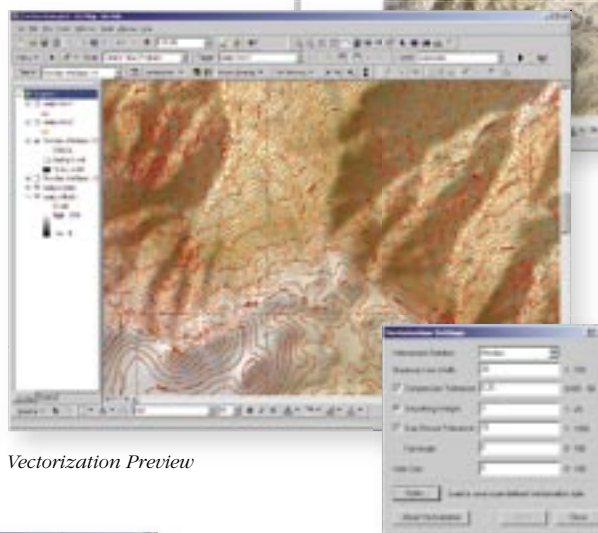
➤ **TRY ArcGIS Tracking Analyst**  
[www.esri.com/trackinganalyst](http://www.esri.com/trackinganalyst)

# ArcScan for ArcGIS

## *Vectorization and Simple Raster Editing*

ArcScan for ArcGIS provides a powerful and easy-to-use set of tools for raster to vector data conversion. ArcScan lets you create line and/or polygon vector features directly from raster images by interactively tracing the image. ArcScan also provides batch vectorization capabilities to create vector features from a selected area or the entire image. ArcScan provides simple raster editing tools to erase or fill in areas of the raster prior to performing batch conversion to increase efficiency and minimize postprocessing.

*Before Vectorization*



*Vectorization Preview*



*Create Polygons*

*Trace Rasters*

### ArcScan for ArcGIS features include

- Create shapefile or geodatabase line and polygon features directly from raster images.
- Perform interactive or batch mode raster to vector data conversion.
- Clean up unwanted parts of a raster image prior to batch vectorization.
- Use raster snapping capabilities to make interactive tracing more accurate and efficient.
- Select groups of raster cells by querying for connected areas.

**TRY ArcScan for ArcGIS**

 [www.esri.com/arcscan](http://www.esri.com/arcscan)

## ArcPress for ArcGIS

### *High-Performance Printing*

ArcPress for ArcGIS is a PostScript®-based raster image processor (RIP) for fast and high-quality printing and exporting of maps. ArcPress for ArcGIS translates maps into industry-standard export formats or the native language format of your printer. Because ArcPress for ArcGIS does all of its processing on your computer, you do not need to rely on the printer to interpret, translate, and store data. ArcPress for ArcGIS allows printers to do what they do best—print.

ArcPress for ArcGIS saves you money because there is no need to employ printers with extended memory, hard disks, or onboard drivers to efficiently produce high-quality maps. It easily renders high-quality images on either high- or low-end devices.

### ArcPress for ArcGIS features include

- Support industry-standard printers.
- Render popular bit map formats including TIFF, JPEG, PNG, and PCX.
- Support separate raster processing for even faster rendering.
- Include easy color adjustment.
- Support batch processing with simple customization.



*High-Quality Printing of Maps*

**TRY ArcPress for ArcGIS**  
➔ [www.esri.com/arcpress](http://www.esri.com/arcpress)

## MrSID Encoder for ArcGIS

The MrSID® Encoder for ArcGIS enables you to efficiently reduce the size of large georeferenced images in ArcGIS. MrSID reduces many image file sizes by at least 95 percent while maintaining the geometric accuracy of the original image. MrSID Encoder, included with ArcGIS, has the ability to handle rasters up to 50 MB in size. The optional MrSID Encoder extension enables the encoding of rasters up to 500 MB and allows the mosaicking of multiple images into a single image file.

### MrSID Encoder for ArcGIS features include

- Encoding images up to 500 MB
- Mosaicking images into a single file



*Encode Images up to 500 MB*

### **Purchase Today!**

➔ [www.esri.com/mrsidencoder](http://www.esri.com/mrsidencoder)

For more information on the ArcGIS optional extensions, visit  
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For more than 30 years ESRI has been helping people manage and analyze geographic information. ESRI offers a framework for implementing GIS technology in any organization with a seamless link from personal GIS on the desktop to enterprisewide GIS client/server and data management systems. ESRI GIS solutions are flexible and can be customized to meet the needs of our users. ESRI is a full-service GIS company, ready to help you begin, grow, and build success with GIS.

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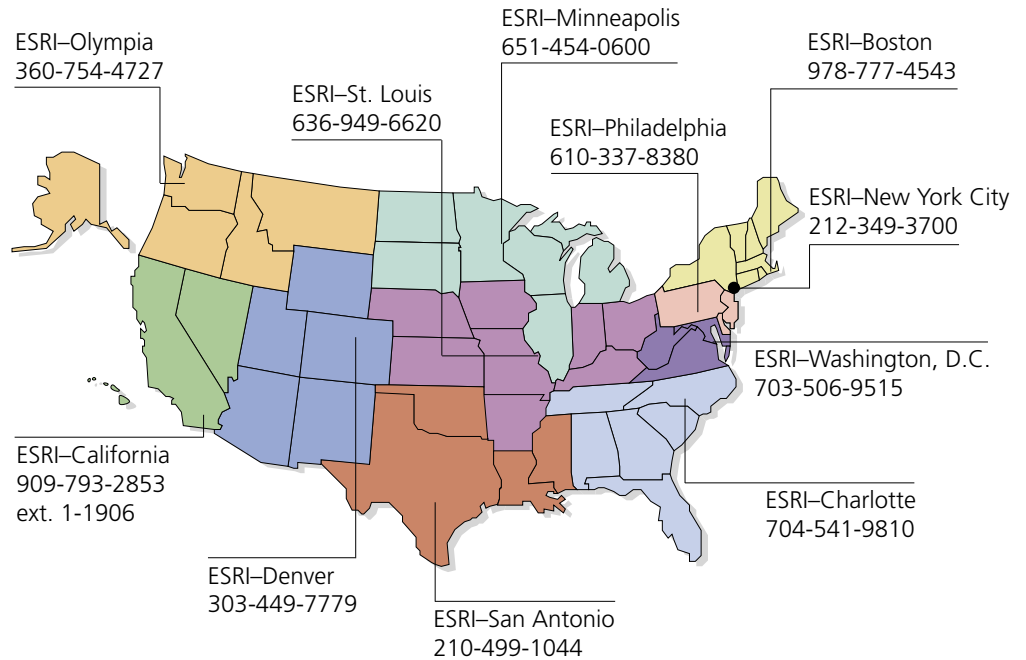
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