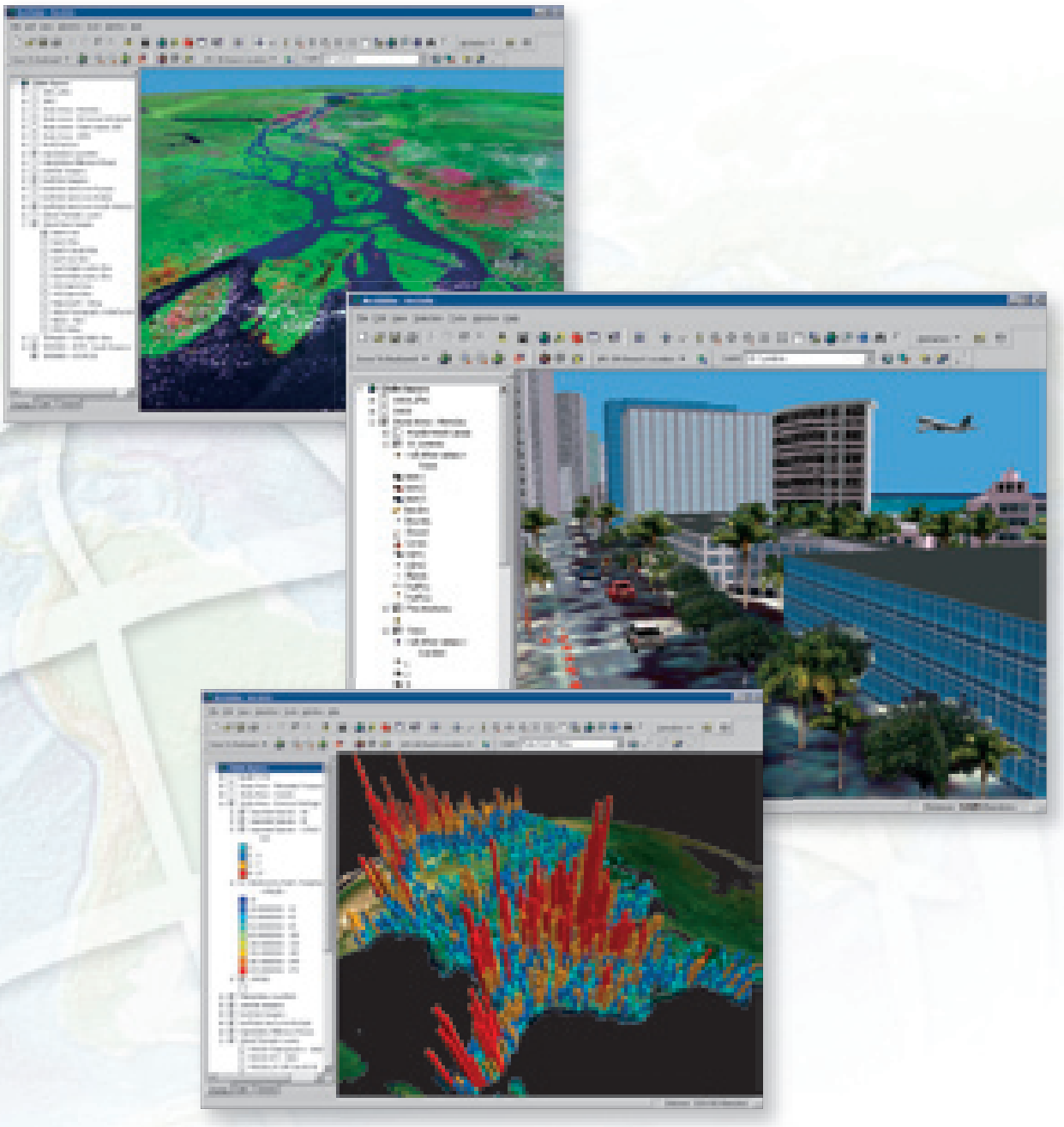
ArcGIS® 3D Analyst™

Three-Dimensional Visualization and Analysis



ArcGIS ESRI

ESRI

ArcGIS® 3D Analyst™

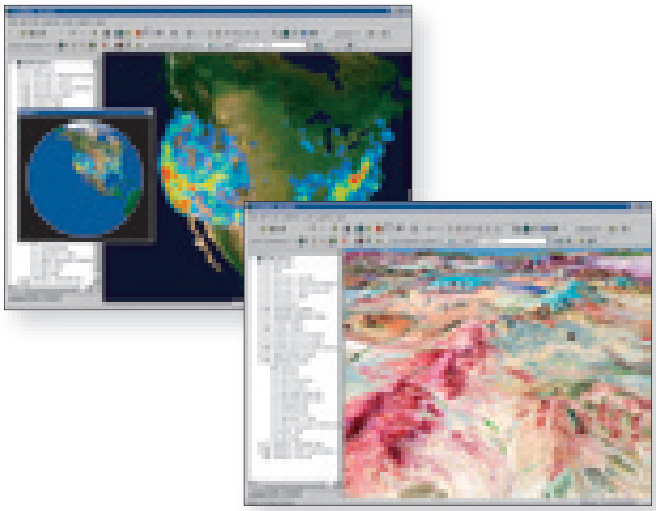
Three-Dimensional Visualization and Analysis

ESRI® ArcGIS® 3D Analyst™ provides powerful and advanced visualization, analysis, and surface generation tools. Using ArcGIS 3D Analyst, you can view extremely large sets of data in three-dimensions from multiple viewpoints, query a surface, and create a realistic perspective image that drapes raster and vector data over a surface.

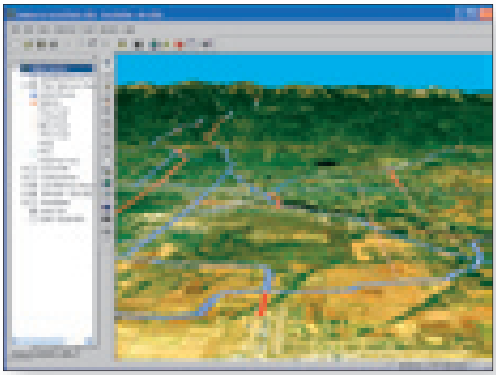
ArcGlobe™, a desktop application that is part of ArcGIS 3D Analyst, introduces whole earth 3D visualization. With ArcGlobe, users can visualize and analyze geographic data sets from a local or global perspective. ArcGlobe can easily and intelligently handle raster, vector, terrain, and image data sets.

As an extension to the ArcGIS Desktop products, ArcGIS 3D Analyst allows users to leverage 3D visualization and analysis in ArcView®, ArcEditor™, and ArcInfo®.

Visualization of Biodiversity Analysis Overlaid on Satellite Imagery



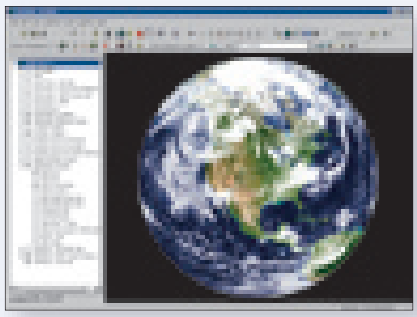
Regional Geology Satellite Imagery



Automatic Overlay of Vector Data on Raster and Terrain Data

With ArcGIS 3D Analyst you can

- Create three-dimensional views directly using your GIS data.
- View data from a global to a local perspective.
- Navigate seamlessly through multiresolution terrain and image data.
- Visualize and analyze extremely large datasets (terabytes).
- Extrude two-dimensional features to three dimensions using attribute data.
- Perform viewshed and line-of-sight analyses, spot height interpolation, profiling, and steepest path determination.
- Model subsurface features (e.g., wells, mines, groundwater, and underground storage facilities).
- Calculate surface area, volume, slope, aspect, and hillshade.
- Query data based on attributes or location.
- Construct models via ModelBuilder™ and analyze results in three dimensions.
- Add three-dimensional symbols and texture for realism.
- Create user-defined animations, using preset flight paths, key frames, and other interactive tools, to convey a message or concept.
- Save animations to standard video format (MPEG, AVI, QuickTime®).

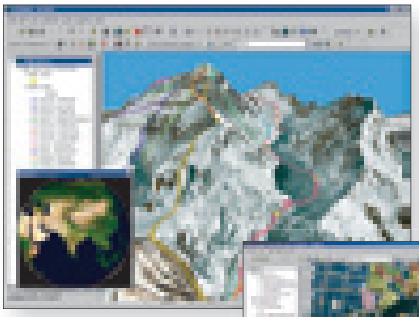


Whole Earth Visualization of Global Raster Data

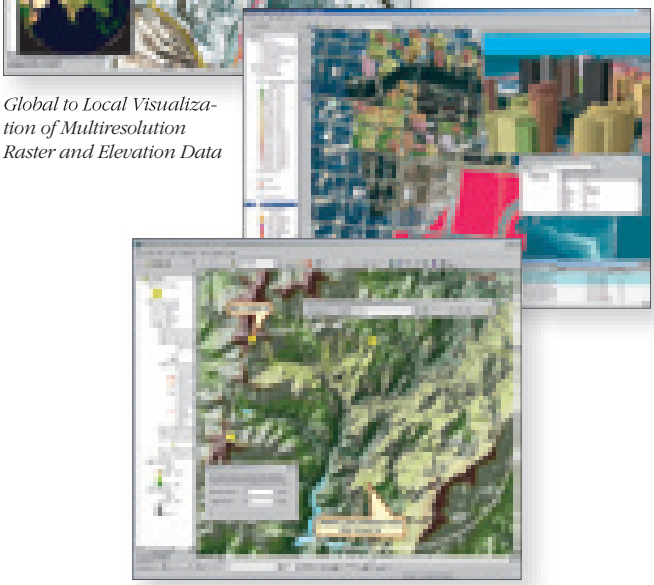
ArcGlobe: Whole Earth Visualization

ArcGlobe is the next generation of 3D visualization. It is a highly interactive 3D visualization and analysis application for working with large and varied geographic data sets. ArcGlobe literally presents a globe of the earth. It can easily be navigated in three dimensions, whether taking a planetary view or zooming to a high-resolution, detailed examination of a specific terrain on earth.

ArcGlobe allows users to quickly navigate terabytes of data without preprocessing the data. Data is seamlessly merged on the fly into a single, fast visualization experience enhanced by 3D symbols and realistic texture support. Through its integration with the geoprocessing framework, tools, models, and scripts can be executed in a highly dynamic environment.



Polygon Visualization via Attribute Data Extrusion



Global to Local Visualization of Multiresolution Raster and Elevation Data

Elevation Layer Line-of-Sight Analysis

Visualization and Analysis

ArcGIS 3D Analyst provides an extensive set of tools to visualize and analyze geographic data sets in three dimensions. These tools include interactive three-dimensional navigation tools to explore, display, and query data as well as create and analyze sophisticated models that can provide answers and solutions for complex problems.

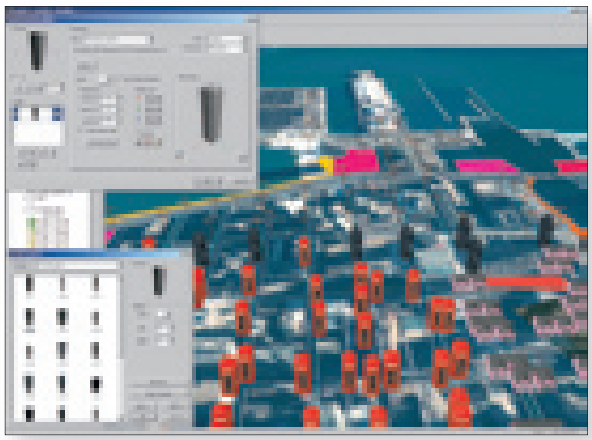
With ArcGIS 3D Analyst users can create highly interactive visualizations of their data. 2D symbology can be reused directly in a 3D environment, allowing users to drape their map in 3D. Annotation can be added as billboard text within the 3D display and GIS features can be draped over derived or existing surfaces, such as elevation or pollution levels. The same features can be extruded using attributes like building height or well dept. Advanced features such as distance-dependant drawing and the level of detail provided give the user precise control over the 3D visualization. To help share and communicate visualization ideas, ArcGIS 3D Analyst includes the ability to export production quality graphics and create animations based on industry-standard formats.

More than just 3D visualization, ArcGIS 3D Analyst integrates with the ArcGIS geoprocessing framework and can be used together with ModelBuilder to build and execute complex models from within the 3D environment. Users can derive specific answers such as determining visibility from a particular position or calculating signal strength loss.

3D Symbology

ArcGIS 3D Analyst supports three-dimensional symbology, which enhances scientific visualization and real-world simulation. GIS features can be represented using 3D symbols such as trees or fire hydrants for point features, grass or water for polygon features, and tubes or texture lines for line features.

A style library is included as part of the application and provides the user with more than 500 real-world symbols to choose from including houses, cars, street signs, structures, plants, and more.



3D Symbology Representing Point Features

Data

ArcGIS 3D Analyst includes a series of base data, giving users immediate access to data of the entire world including elevation data, bathymetry data, and detailed natural color global imagery at 150-meter resolution.

ArcGIS 3D Analyst directly supports any data formats that can be used with ArcGIS, including images, shapefiles, geodatabase, and CAD data. ArcGIS 3D Analyst also supports specialized three-dimensional models, such as MultiGen OpenFlight and 3D Studio MAX formats, to allow for a more realistic representation of three-dimensional features.

Requirements

ArcGIS 3D Analyst requires ArcView, ArcEditor, or ArcInfo.

For more information on ArcGIS 3D Analyst or to request an evaluation, please visit www.esri.com/3danalyst

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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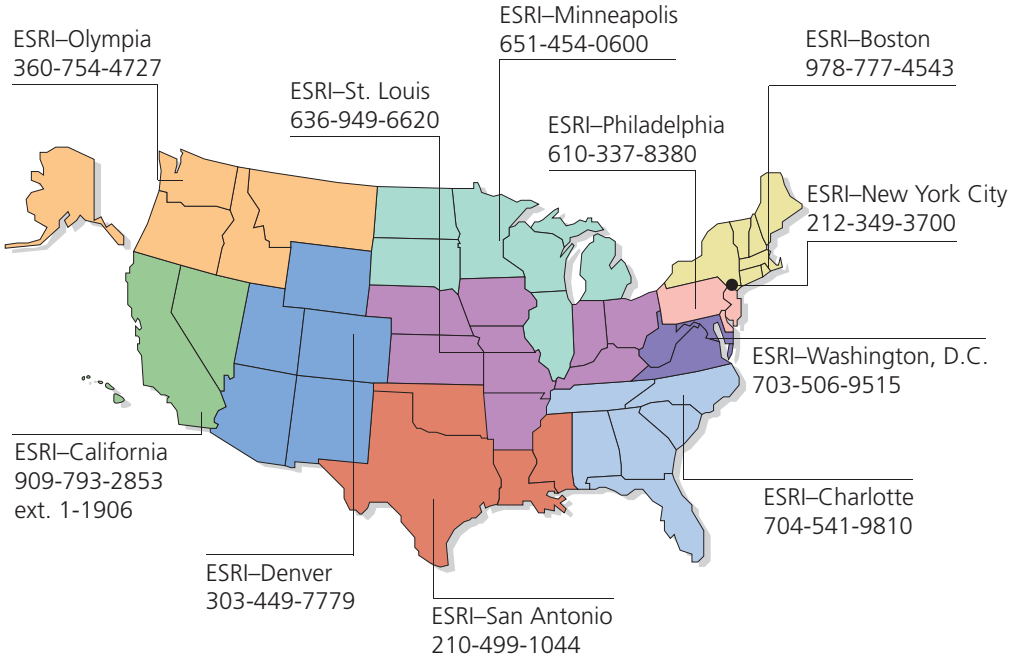

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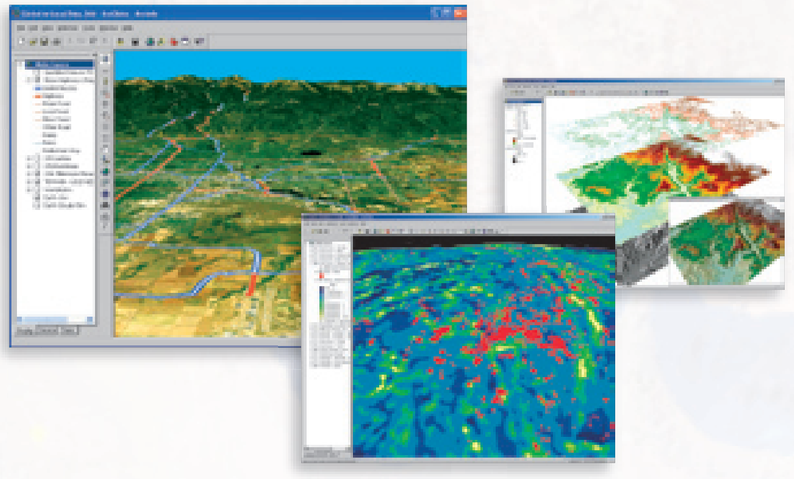
ArcGIS® 3D Analyst™ *Featuring ArcGlobe™*

Three-Dimensional Visualization and Analysis

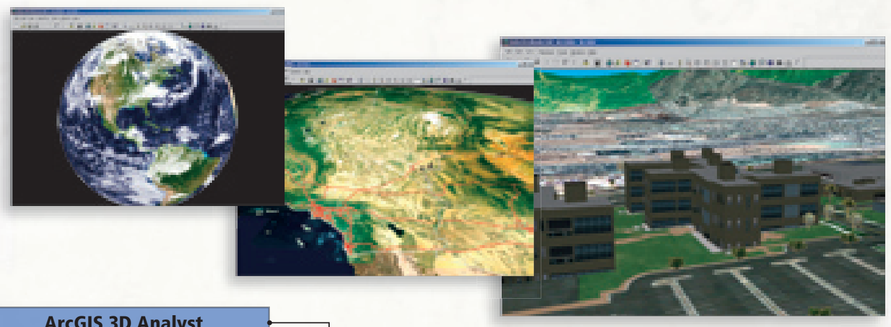
Visualization and Navigation

Whole Earth Visualization

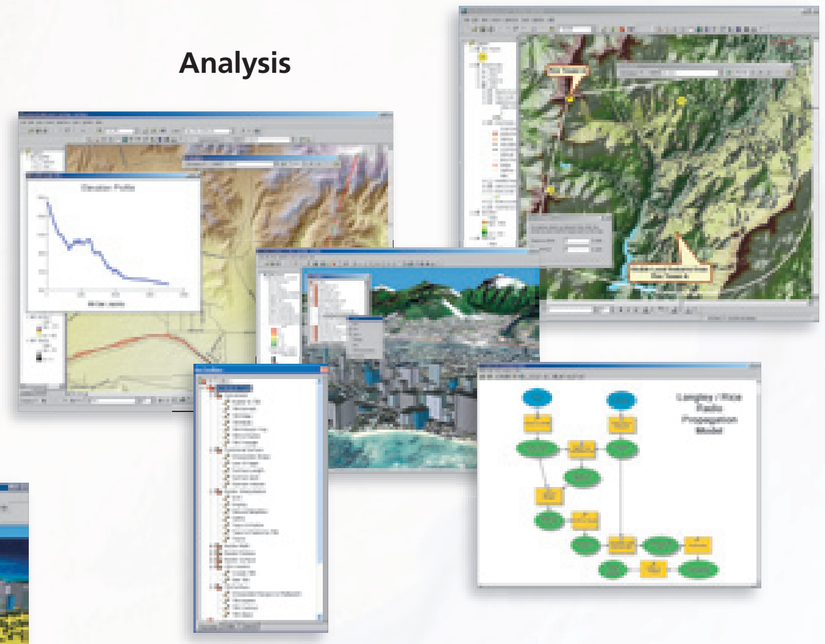
Surface Creation



Fly-Through Animation



Analysis



3D Symbology

ArcGIS 3D Analyst

The following Extensions work with ArcGIS 3D Analyst

ArcGIS Spatial Analyst

ArcGIS Data Interoperability

ArcGIS StreetMap™

- View data from a global to local perspective.
- Navigate and manage terabytes of data seamlessly.
- Easily integrate raster, vector, terrain, and image data sets.
- Extrude two-dimensional representations to three dimensions.
- Perform viewshed and line-of-sight analyses, spot height interpolation, profiling, and steepest path determination.
- Construct models via ModelBuilder™ and analyze results in three dimensions.
- Add three-dimensional symbology and texture to enhance scientific visualizations.
- Create user-defined, photo-realistic fly-through animations.

ArcGIS 3D Analyst

To view a demo of ArcGIS 3D Analyst, visit **www.esri.com/3danalyst**

ArcGIS™ ESRI®