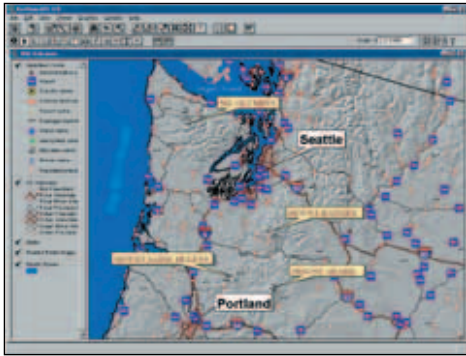# ArcView® GIS

The Geographic Information System for Everyone

ArcView GIS

The Geographic Information System for Everyone

T aking care of business means leveraging technology that helps you see the big picture, make the best decisions, and capitalize on your organization's investment in data and resources. ArcView® GIS Version 3.0 software by ESRI offers an innovative solution that will help you create, visualize, analyze, and present information better and more clearly.

The Power of Place
Hidden in most data is a geographical component that can be tied to place: an address, postal code, census block, city, region, or country. Geographic information system (GIS) software lets you see, explore, and analyze data by location, revealing hidden patterns, relationships, and trends that are not readily apparent in spreadsheets or statistical packages.
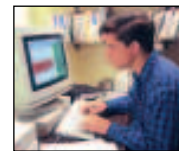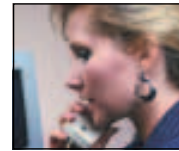
Geography Is the Key
GIS is the technology that brings it all together. Working with locational information, a GIS has the power to solve problems you encounter every day. With a GIS you can track customer sales, analyze crime patterns, route delivery trucks, display soil types, find the best location for an expanding business, and much more.

The Premier GIS Solution
ArcView GIS software is the premier solution for desktop GIS analysis and map presentation. With more than 100,000 copies in use worldwide, ArcView GIS is the most popular desktop GIS and mapping software. Using ArcView you can create intelligent, dynamic maps using data from virtually any source and across all popular computing platforms. ArcView includes tools and data you can use immediately to perform state-of-the-art analysis on key issues. It lets you work with maps, database tables, and business charts all in a single view.

Who Uses ArcView GIS?
City and county governments use ArcView to manage local zoning, land use and property tax assessments, and other municipal services. Bankers map mortgage loans. Public safety officials track crime incidents with ArcView GIS. Real estate developers locate new commercial development sites. Marketing professionals analyze demographic data to target advertising expenditures. Telecommunication companies use GIS to publish yellow pages on the Internet. In each case, communicating geographically through ArcView GIS helps everyone make better, more informed decisions that will improve services, reduce costs, or reach more customers.
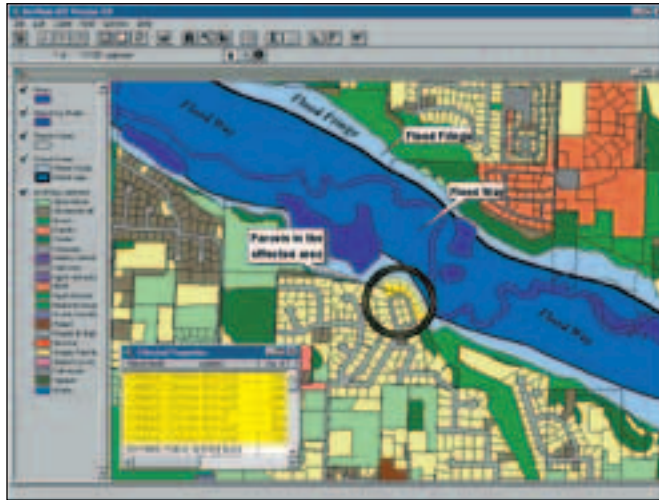
ArcView GIS at Work
- Advertising
- Aerospace
- Agriculture
- Architecture
- Automated Mapping
- Banking
- Business
- Cadastral/Tax Mapping
- Community Development
- Construction
- Crime Analysis
- Demographics
- Direct Marketing
- Education
- Emergency Services
- Engineering
- Entertainment Marketing
- Environmental Management
- Epidemiology
- Facility Management
- Financial Services
- Fleet Management
- Health Care
- Hotel Marketing
- Insurance
- Intelligence
- Land Management
- Local Government
- Logistics
- Manufacturing
- Military/Defense
- Natural Resources
- Oil and Gas
- Pipeline
- Property Management
- Public Health
- Public Information
- Public Safety
- Public Transit
- Publishing
- Real Estate
- Redistricting
- Retail Siting
- Route Planning
- Target Marketing
- Tax Assessment
- Telecommunications
- Tourism
- Transportation
- Travel
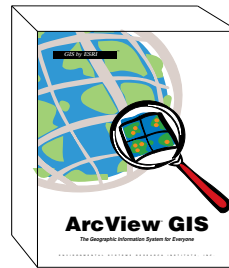- Trucking
- Utilities
- Water/Wastewater

A New Era

GIS is rapidly emerging as an integral component in nearly every type of business and government service. Once regarded as primarily "back-office" software, ArcView moves the power of GIS to the desktop, throughout the enterprise, and out to your customers and constituents via Intranet and Internet applications.

GIS for Everyone

ArcView GIS software is easy to learn and easy to use. Powerful, flexible, and intuitive, ArcView GIS is unique in that it is easy to get started quickly, yet can grow as your needs and requirements change.
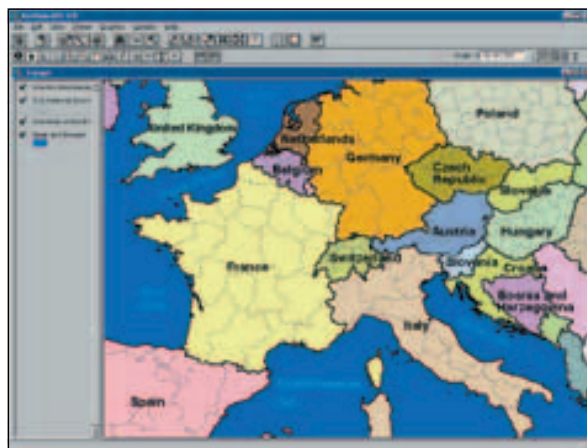
Visualization

The Value of Seeing Geographically

Working geographically reveals relationships among the forces that drive your organization. It helps you see patterns you couldn't see before, gain new insights, and make significantly better decisions.

How ArcView Can Help

ArcView GIS makes it easy to create maps using your own data. With ArcView GIS software, you can access records from many types of existing databases and see them on a map.
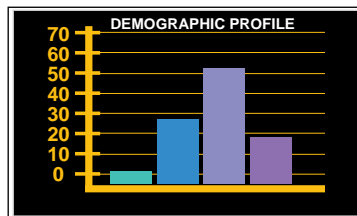
Seeing the Big Picture

Spreadsheets list numbers in columns and summarize data in charts. With ArcView GIS software you can visualize categories of information right on a map. If you're looking at consumer buying habits in your region, for example, in an instant you can see clusters or groups based on criteria that matter to you. Each category is represented by its own color. You can even add to or change the criteria to see how the big picture changes. This is the power of geographic-based analysis.

Moving up to the Next Level

If your organization is like most, you've already made a significant investment in collecting and organizing information. GIS helps you leverage this investment. ArcView GIS provides a solid, reliable system for integrating data, performing expert analysis on key issues, and visualizing your results on presentation-quality maps and data displays. You can even link multimedia or Internet data to your map, providing the next level of visual context for your data. Not only will your results be better understood, but they can also be easily integrated into many different types of analyses, empowering better decision making throughout your organization.

Maps

Charts

Spreadsheets/Databases

Pictures/Videos

Images

CAD

"Using ArcView GIS, we profile and visualize the trade areas of our branches based on point data about customers who conduct their banking transactions at each branch. This enables us to determine the degree of overlap between neighboring branches, which we've used in the planning of over 100 branch

ArcView

ArcView GIS 3.0

File Help

5 of   23 selected

Persons per sq. Mile, based on Zip Codes

Canada

Major Cities (Ethnic Breakd
- White
- Black
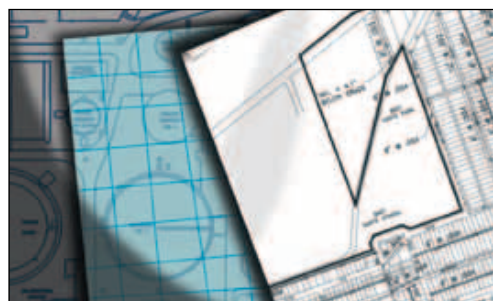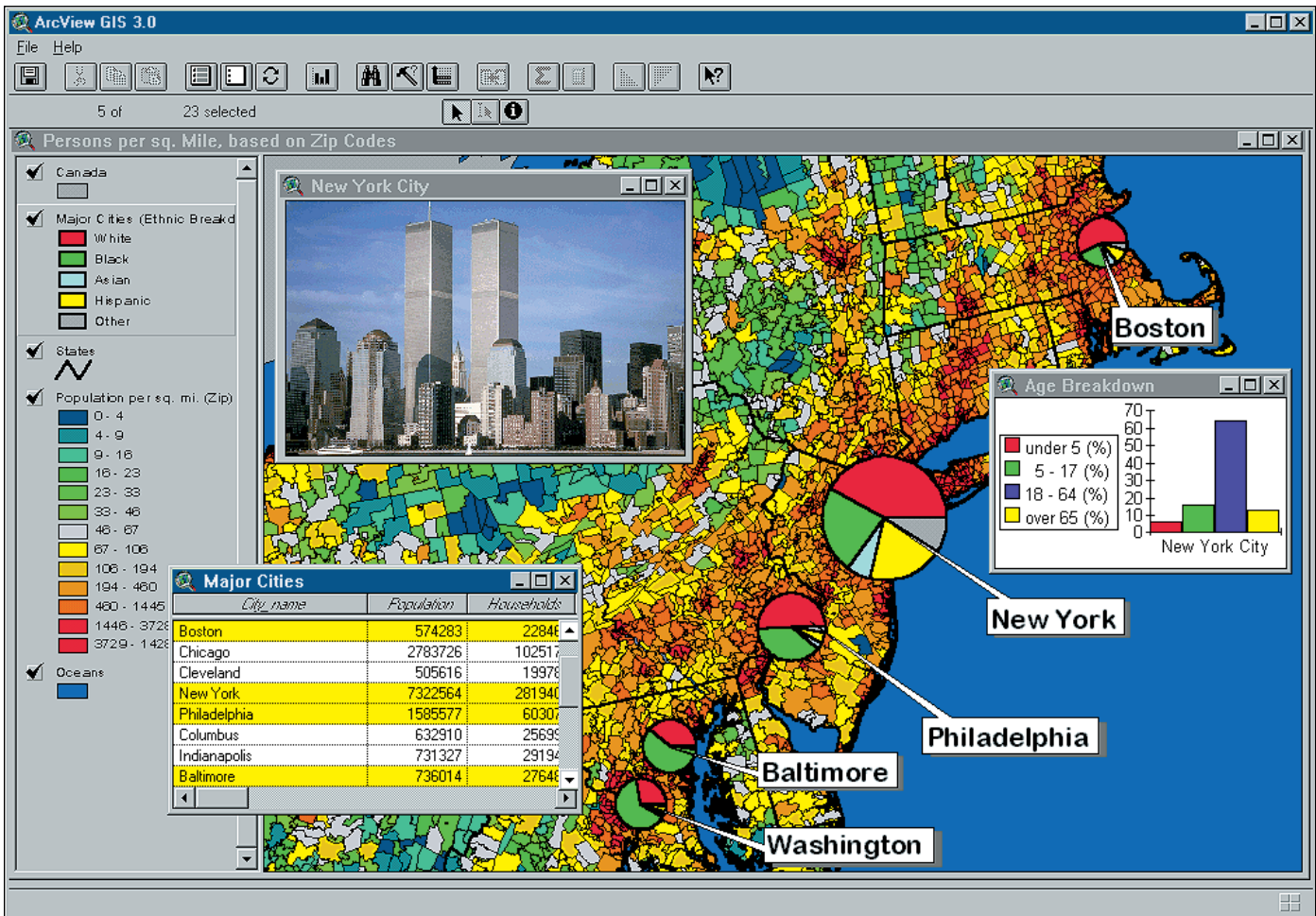- Asian
- Hispanic
- Other

States

Population per sq. mi. (Zip)
- 0 - 4
- 4 - 9
- 9 - 16
- 16 - 23
- 23 - 33
- 33 - 46
- 46 - 67
- 67 - 106
- 106 - 194
- 194 - 460
- 460 - 1445
- 1446 - 3728
- 3729 - 1428

Oceans

New York City

Age Breakdown
- under 5 (%)
- 5 - 17 (%)
- 18 - 64 (%)
- over 65 (%)

70
60
50
40
30
20
10
0

New York City

Major Cities

City_name	Population	Households
Boston	574283	2284
Chicago	2783726	10251
Cleveland	505616	19978
New York	7322564	281940
Philadelphia	1585577	60307
Columbus	632910	25699
Indianapolis	731327	29194
Baltimore	736014	27648

Boston

New York

Philadelphia

Baltimore

Washington

consolidations following our recent merger (the largest in U.S. banking history). We also develop maps that pinpoint the census tracts offering the most opportunity (as defined by something we call financial buying power) for each of our branches."

Craig Zarider
Vice-President
Chase Manhattan Bank

Quality Mapping

Produce Professional-Quality Maps and Data Displays

When most people think of geographic information systems, they're visualizing richly detailed, beautiful maps. ArcView GIS software's advanced layout and editing tools provide a complete system for creating publication-quality maps and reports that communicate the full power of your analysis and show the world your results and ideas.

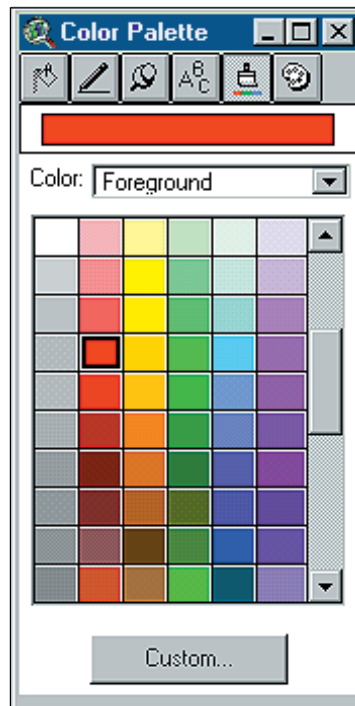## Solid Technology; Stunning Results

ArcView GIS software provides a rich set of intuitive map composition tools that let you quickly create outstanding presentation-quality maps. The wide variety of map presentation capabilities ranges from extensive color and pattern palettes to predesigned templates you can use again and again.

Creating Attractive Layouts

ArcView GIS mapping tools enhance communication with built-in map composition features such as on-screen map elements and prebuilt color ramps. Use ArcView GIS software's automatic data-driven classifications, color ramp shading of data, graduated symbols, chart symbols, and business graphics to create professional-quality maps.

To save time and create a consistent look and feel in all of your map reports, you can start with one of ArcView GIS software's predesigned map templates. Templates are easily customized by adding corporate logos or other special map elements.

From simple maps to complex map compositions, ArcView includes the tools you need to produce stunning, presentation-quality map graphics.

Dot Density

Graduated Symbols

Custom Graphics

Snap Grids

Fonts

Color Palette

Into the Heart of Africa

U.S. Forest Type Groups
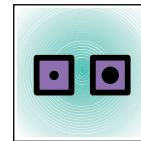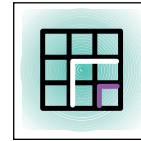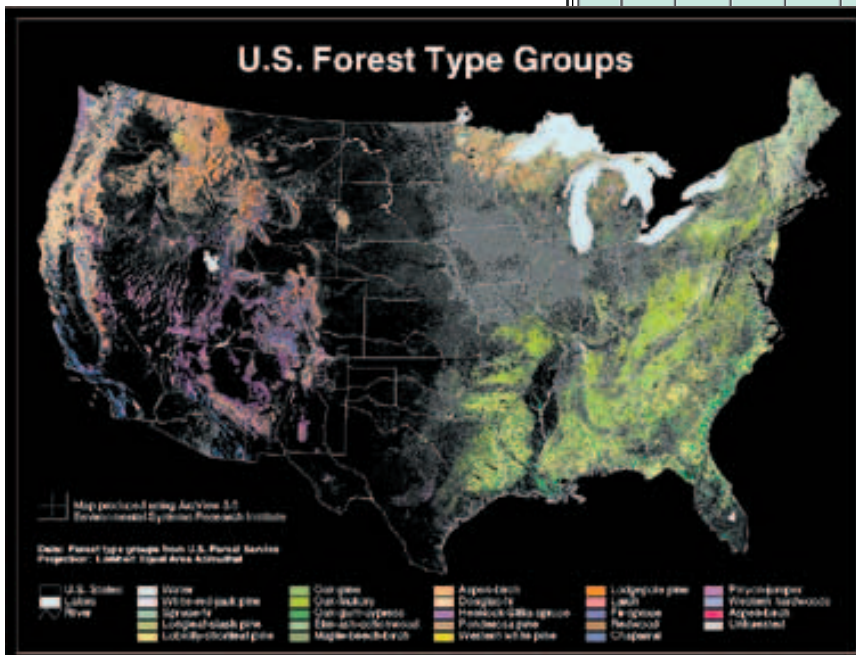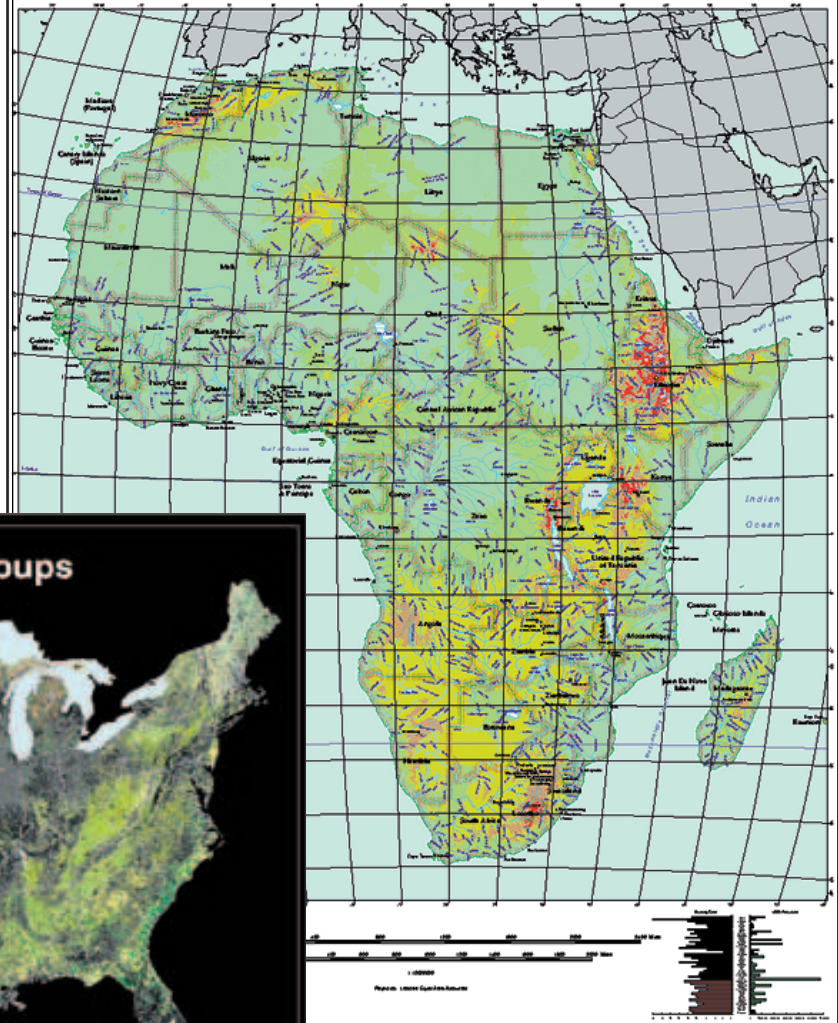

"ArcView GIS has paved the way for our company to offer a new product: TDG SuperBase Digital Lease/Ownership Data. The existence of ArcView GIS allows our petroleum land management customers to tap the full power and true complexity of the data for the first time, both on the desktop and in the field. When our sales staff demonstrates the data with ArcView GIS, it almost sells the product for us, and if the customer does not already have ArcView GIS, they want it! It is truly a symbiotic relationship."

Pauline Jacobson
Vice-President
Tobin Data Graphics

Quality Mapping Key Features

- Data-driven classifications (equal-area, equal-interval, natural breaks, standard deviation, data normalization, and many more).
- Graduated symbols.
- On-screen map elements.
- Prebuilt color ramps.
- Predesigned map templates.
- Thousands of fonts and graphic symbols.
- Rotate symbols.
- Hundreds of projections.
- Automatic map feature labeling (overlap control, duplicate label control, scale content).
- All common data classification methods.
- Add points, lines, or polygons to existing maps.
- Edit, rotate, or hide individual labels.
- Custom legend editor.
- Many types of supported output devices such as printers, plotters, and film output devices.
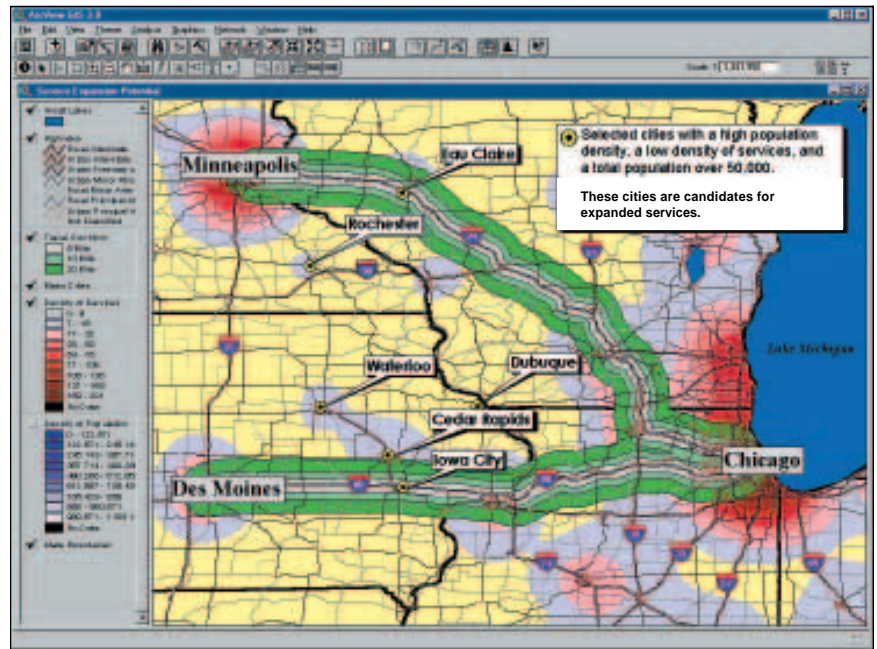
Spatial Analysis

Enabling Better Decision Making

S patial analysis—the process of finding hidden patterns in your data—is the real power of GIS. ArcView GIS gives you hundreds of ways to query and analyze your data. You can perform this complex analysis of geographic data from your desktop, all within the intuitive, easy-to-use ArcView graphic user interface.

You can find answers according to location, content, proximity, and inter-section. As you add data to maps, find the geographic factors that drive trends and distributions. Add different data layers, and then find locations where particular characteristics coincide. Identify the places where most of your current business occurs, then find places similar to these in which to expand. Aggregate data geographically by summarizing them based on areas such as census tracts, states, or sales territories.

You'll literally start to see things in a new light. Furthermore, the output from one analysis can be used as the input to the next analysis, enabling you to refine your analysis for better results.

For more information about ArcView GIS software's analysis tools visit the ESRI Web site at www.esri.com

"GIS technology enables us to create an intuitive and effective environment to explore various market information. The GIS enhanced data visualization and data mining capabilities help to speed up the underwriting and due diligence process. Also, the technology gives us a competitive edge to improve our portfolio performance and advance our products and services to clients."

Fred Lieblich
Director of Research
MetLife Realty Group, Inc.

...and More

ArcView GIS is the most adaptable geographical analysis system for the desktop. Advanced analysis extensions* provide even more power to analyze and solve real-world problems. Simply plug in to unprecedented analysis capabilities available only through ArcView GIS.

Environmental Analysis

ArcView Spatial Analyst**
Integrate raster data for advanced analysis

The ArcView Spatial Analyst lets users create, query, map, and analyze cell-based raster data and perform integrated vector–raster analysis using feature-based and grid-based themes.

Routing Analysis

ArcView Network Analyst**
Powerful routing and service area analysis

The ArcView Network Analyst extension enables you to solve a variety of problems involving geographic networks (i.e., streets, highways, rivers, pipelines, electrical infrastructure, etc.) such as finding the most efficient route, generating directions, finding the closest facility, or defining service areas based on travel time.

* ArcView Analyst extensions licensed separately.
**ArcView Spatial Analyst and ArcView Network Analyst extensions available on Windows (NT, '95) and UNIX.

ArcView Spatial Analyst Features

- Convert feature themes (point, line, or polygon) to grids.
- Create raster buffers based on distance from any raster or vector feature.
- Create density maps of point features.
- Create continuous surfaces from point features.
- Generate slope, aspect, hill shade, and contour from surface maps.
- Create hydrological and topological relief maps.
- Perform distance and density mapping.
- Do neighborhood and zone analysis.
- Do discrete cell-by-cell analysis.
- Display and reclassify grid data.
- Import data from standard formats: TIFF, BIL, Sun™ Raster, USGS DEM, and DTED.
- Display your data using advanced rendering methods.
- Access a set of even more advanced raster analysis tools through Avenue™ requests.

ArcView Network Analyst Features

- Access geographic network data based on ARC/INFO® coverages, shapefiles, or CAD drawings.
- Find the most direct route between two locations, or find the best way to visit several locations.
- Generate clear, concise directions including landmarks.
- Create service area territories based on travel time or distance.
- Find the nearest facility.
- Perform drive-time analyses.
- Use Avenue classes and requests to automate tasks, add new capabilities, and build applications.
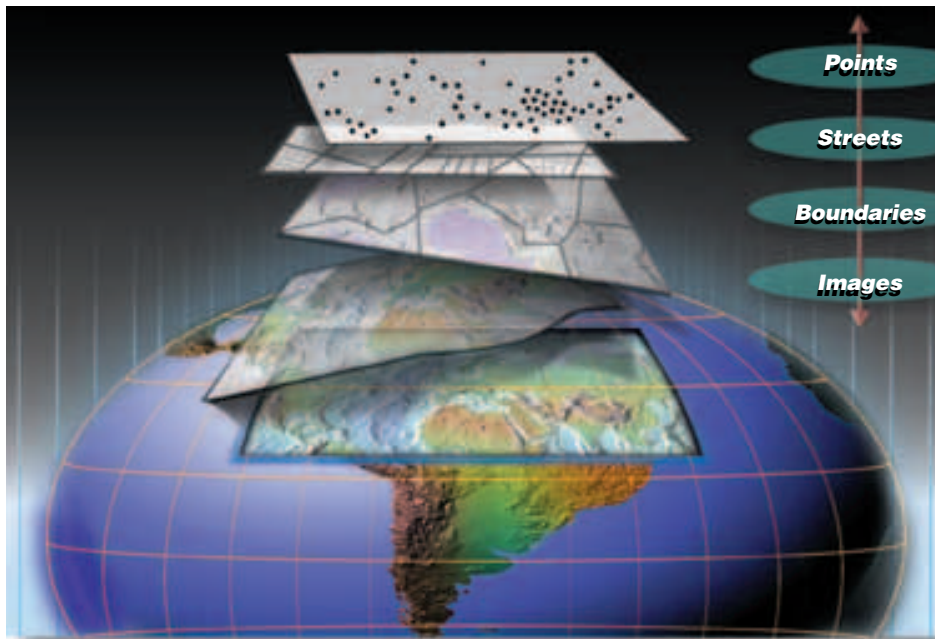
Data Integration

ArcView GIS Provides Direct Access to All Types of Geographic Data

I t has been estimated that 80 percent of all data contain a geographic component such as a country, state, ZIP Code, or street address. With ArcView GIS software, it's simple to use this information to link your data directly to a map.

ArcView GIS is the system that brings it all together.
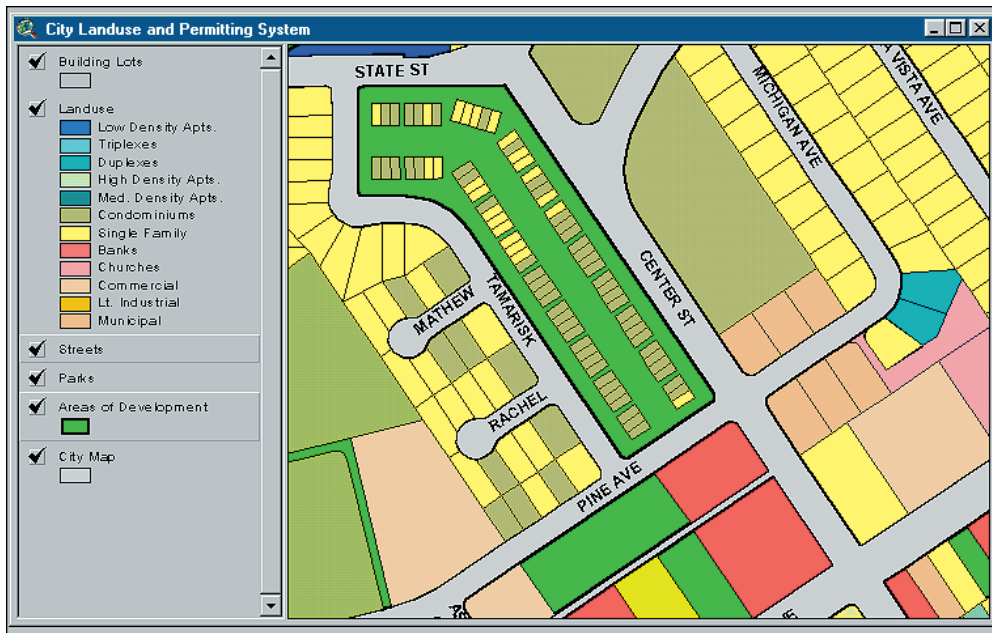

Points

Streets

Boundaries

Images

You can integrate data from a wide variety of sources including business data, customer demographics, facilities data, CAD data, and images. Built-in SQL connectivity gives you client/server database access that enables you to add data residing almost anywhere in your organization to your map. You can map tabular data from Access, dBASE®, FoxPro®, ASCII, INFO™, or any SQL or Open Database Connectivity (ODBC) database.
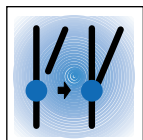
ArcView GIS lets you get more from your investment in data by bringing the data all together in exciting new ways.
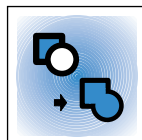

ArcData™

For information on data available for use with ArcView GIS, call

in the United States **1-800-447-9778.**
Outside the United States, contact your local distributor (see back page).
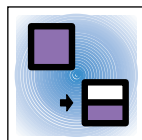
City Landuse and Permitting System

Building Lots
Landuse
- Low Density Apts.
- Triplexes
- Duplexes
- High Density Apts.
- Med. Density Apts.
- Condominiums
- Single Family
- Banks
- Churches
- Commercial
- Lt. Industrial
- Municipal

Streets
Parks
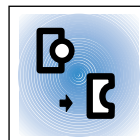Areas of Development
City Map

Editing Tools

| Snap | Merge | Split | Intersect | Clip |

Create Your Own Geography

ArcView GIS provides a rich environment for data capture (digitizing) and editing. These tools let you add new features to a map or modify existing features to accurately represent change or reflect new information.

Editing

- Edit both attributes and geographic features.
- Use either mouse or digitizer to enter/edit your data.*
- Perform complex vertex editing (add, move, delete, snap).
- Use powerful shape operations (split, union, combine, intersect).
- Update attributes automatically when editing.
- Calculate new values for your databases based on other information.

* Digitizer support available only on Windows (3.x, NT, 95).

Advanced Address Matching and Geocoding

ArcView GIS has a powerful geocoding feature that automatically plots street addresses and other address data on a map and helps you manage incorrect or misspelled addresses. It can match to any level of geography from world, state, or county, down to city, ZIP Code, and street address.

Data Access

Read **map data** directly from
- Shapefiles.
- ARC/INFO coverages.
- PC ARC/INFO® coverages.
- AutoCAD® (DXF™ and DWG).*
- MicroStation® (DGN).
- VPF.**

Import **map data** from MapInfo®, Atlas GIS™, and ASCII.

Open **image data** from GIF, RLC, EPS, TIFF, BIL, PICT, Landsat, BIP, JPEG, BSQ, BMP, SPOT®, WMF, Sun Raster, or ERDAS® IMAGINE®.***

Use **database** tables directly from dBASE, INFO, Spatial Database Engine™ (SDE™), and ASCII. Access other databases through ODBC including ACCESS, Paradox®, FoxPro, Oracle®, SYBASE®, INFORMIX®, DB2®, INGRES, or any ODBC/SQL-compliant database.

Access **spatial data** in an RDBMS with SDE*** as a client.

Included Data

A CD full of data including

• United States

States, counties, census tracts, 5-digit ZIP Codes, major roads, highways, cities, lakes, rivers, and topographic image. Additional demographic attributes supplied for states, counties, cities, ZIP Codes, and census tracts.

• Canada and Mexico

Provinces/States, highways, cities, lakes, rivers, and demographic attributes.

• World

Countries of the world (including a detailed level), rivers, lakes, world gazetteer points, cities, subnational boundaries, and demographic attributes.

* AutoCAD DWG support only on Windows.
** VPF available on Windows and UNIX.
*** Not available for Windows 3.1 or Macintosh.

Building ArcView Solutions

ArcView GIS—A Stand-alone Solution or Part of an Integrated Solution

Do It Your Way

ArcView GIS-based analysis can be performed by individuals, project teams, departments, divisions, or throughout entire organizations. ArcView GIS can be used as a stand-alone software or as part of a network-based application.

Project GIS

- Everything you need is on your desktop.
- Use ArcView GIS to perform project-level mapping and analysis.
- Use the data that come with ArcView GIS software or create your own.
- Link data from other applications to these maps.

Departmental GIS

- Link your organization's data to your maps.
- Integrate data from different departments.
- GIS data sets are maintained and managed centrally.
- Build desktop applications that let people work with shared data.
- Deploy your shared data throughout your organization to leverage your existing investments.

Enterprise GIS

- GIS data sets are managed as a core information resource in the enterprise.
- GIS databases are stored in your enterprise relational database management system (RDBMS) using ESRI's Spatial Database Engine (SDE), allowing maps to be managed like any other data.
- ArcView GIS is used as a client to get rapid desktop access to these very large GIS databases.
- Lets you build client/server desktop mapping applications.

Internet GIS

- Out-of-the-box, ready-to-use map server for the World Wide Web.*
- Publish any ArcView GIS map.
- Easy to set up (Setup Wizard).
- Ready-to-use Java™ applet included.

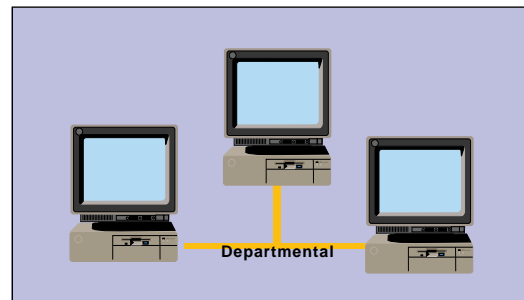*Requires the ArcView Internet Map Server extension licensed separately; not available for Macintosh.*

"The use of GIS technology is viewed as a staple tool in the City of Ontario, extending itself to over 12 departments and 34 disciplines."

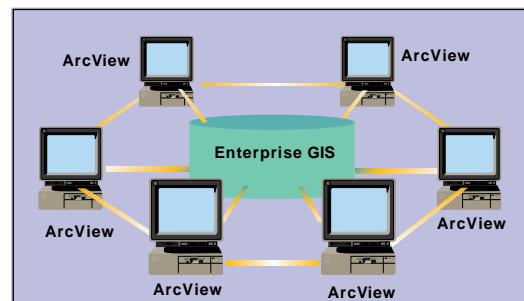Christopher Thomas
GIS Coordinator
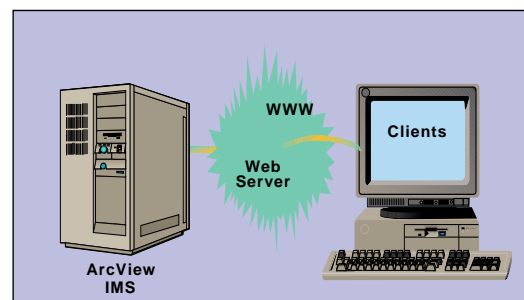City of Ontario, California

The Four Architectures of GIS

Project GIS

Departmental GIS
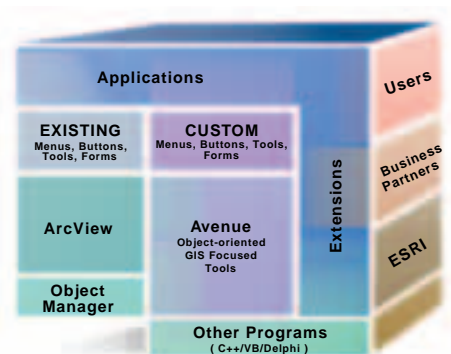

Enterprise GIS

Internet GIS

Application Development
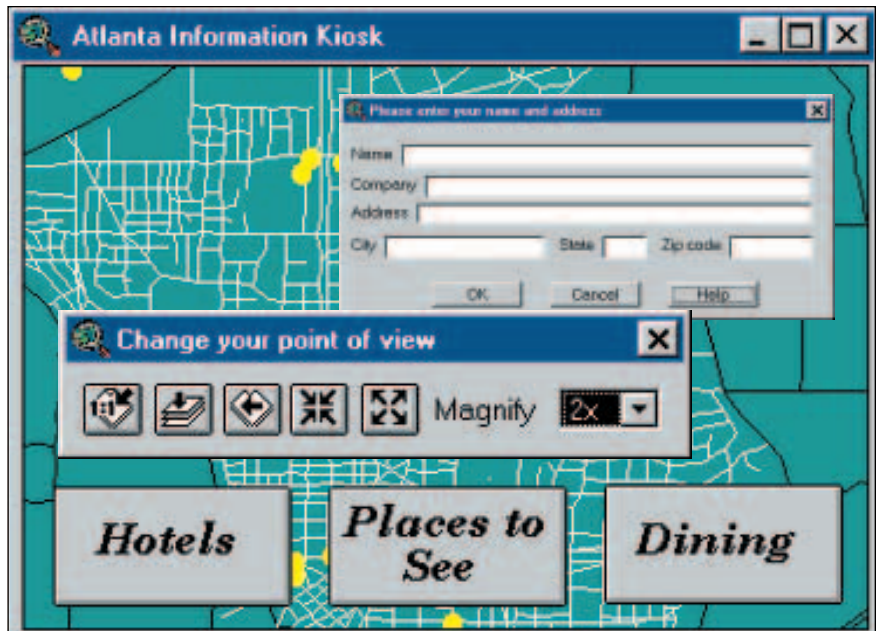
Customize ArcView GIS for Yourself and Others

M ore mapping and GIS professionals every day are discovering the power of ArcView GIS software as the ideal platform for developing custom applications.

ArcView GIS provides the tools you need to create specialized solutions for your mapping and GIS applications. Using Avenue, ArcView GIS software's built-in, object-oriented scripting language, application developers and in-house programmers can quickly modify the user interface, create programmed scripts, build custom tools, and complete solutions to support specific departments or applications in an organization.

With Avenue, you can customize part or all of ArcView GIS to meet the needs of end users. For example, you might add a new tool to the ArcView GIS interface that performs a function specific to your business, or you may want to create a complete turnkey application based on ArcView GIS software.

Customizable pulldown menus

Build a system specific to your business

Avenue Features

- Object-oriented scripting language specifically for GIS.
- Interactive GUI editing tools.
- User automation of routine or repetitive tasks.
- Deliver custom interfaces or applications as self-contained extensions.
- Direct support for Dynamic Link Libraries (DLL), Remote Procedure Calls (RPC), Dynamic Data Exchange (DDE), AppleScripts®, and Apple Events.

Extensible Architecture

Introducing Unprecedented Functionality for Desktop Users

ArcView GIS features an extensible software architecture that delivers a scalable platform for GIS computing. This new architecture works as a series of "plug-in" modules that can be mixed and matched to dramatically extend the functional capabilities of ArcView GIS, taking desktop GIS to an entirely new level.

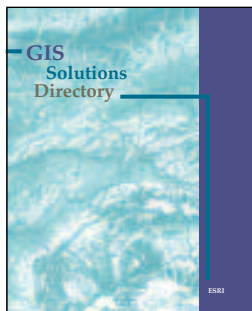The new extension architecture for ArcView GIS provides an exceptionally flexible environment. The appropriate extension functionality can be selected from a variety of internal, external, and even user-defined options, tailoring applications solutions to best meet your needs. These extensions can be loaded as necessary. When an extension is loaded, the features of the extension automatically display on the ArcView GIS user interface.

ArcView GIS

Included Extensions	
	CAD Data Integration
	Digitizing
	Spatial Database Access
	Image Data Integration

Optional Extensions	
	ArcView Spatial Analyst
	ArcView Network Analyst
	ArcView Internet Map Server
	ArcView StreetMap
	ArcPress for ArcView

Business Partner Extensions	
	Hundreds Available

Create Your Own Extensions	
	Build Your Own Solutions

GIS Solutions Directory

ESRI

Our Business Partner Catalog lists hundreds of applications and services for ArcView GIS.

If you would like a copy, inside the United States call
1-800-447-9778.
Outside the United States call the local distributor listed on the back of this brochure.

Photo courtesy of the LA Group, Saratoga Springs, N.Y.
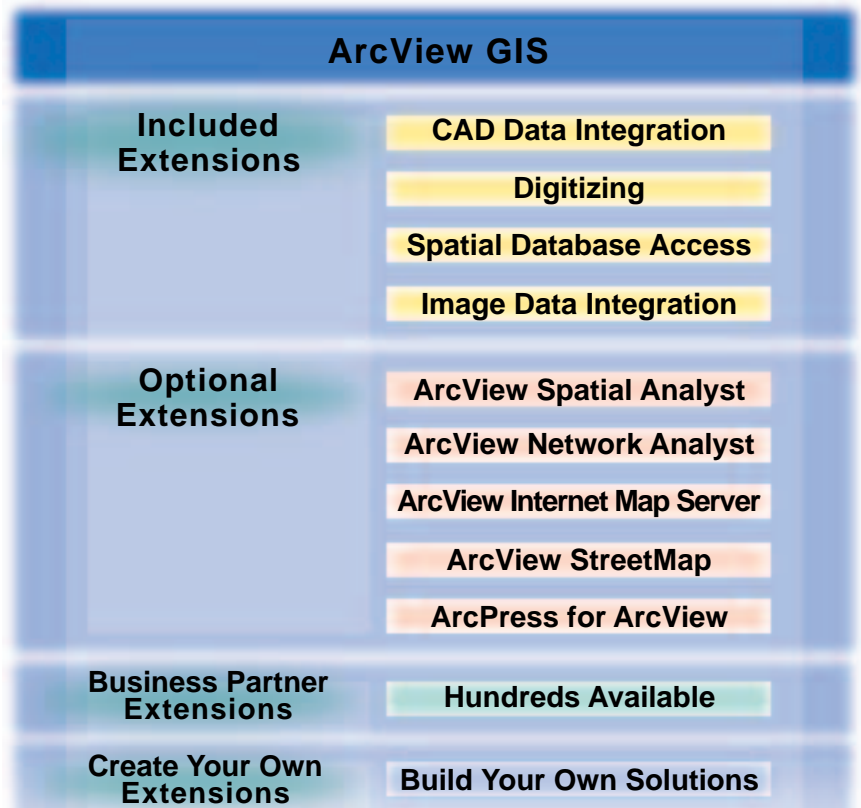
Business Partner Extensions

- Oil and Gas
- Public Safety/E-911
- Forestry
- Electric and Gas Utility
- Pipeline/Petroleum
- Site Analysis
- Transportation
- Natural Resources
- Local Government
- Land Use Planning
- Engineering
- Environmental
- Data Conversion
- Telecommunications
- Water/Wastewater
- Insurance
- Global Positioning Systems
- Defense/Intelligence

You Are Important to Us

It is our goal to help you use our GIS tools successfully. Comprehensive educational and technical assistance programs are available to all ESRI users.

• **Comprehensive Technical Assistance.** ESRI offers quick and convenient assistance, with a team of highly trained GIS analysts to help you. Choose from a variety of solutions to fit your needs.

• **Free On-line Support.** Desktop software users can access announcements and frequently asked questions, download technical information, and exchange messages with other users and ESRI staff via

◆ CompuServe® for Worldwide User-to-User Support: Type GO ESRI
◆ The World Wide Web: www.esri.com
◆ Internet Discussion Groups: ARCVIEW-L and ESRI-L

• **Tutorial Included.** ArcView GIS includes a self-paced quick start tutorial that gets you up and running in 10 minutes, a full color user manual that steps you through the key tasks, and a comprehensive on-line help.

• **Extra Support.** ESRI and ESRI international distributors offer extended, fee-based support programs. Call for details.

Comprehensive ArcView GIS Training

ESRI offers several instructor-led courses that cover introductory and advanced topics related to using ArcView GIS, Avenue, and ArcView Spatial Analyst software. Class participants take home a course notebook complete with lecture notes, exercises, and training data.
• *Introduction to ArcView GIS*
• *Introduction to Avenue*
• *Programming with Avenue*
• *Working with ArcView Spatial Analyst*

For information on technical support in the United States, call
1-800-447-9778
1-800-GIS-XPRT.
In other countries contact your local distributor. (See back of this brochure.)

For more than 25 years ESRI has been helping people manage and analyze geographic information. ESRI offers a framework for implementing GIS 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.

CORPORATE HEADQUARTERS	REGIONAL OFFICES	INTERNATIONAL CONTACTS
ESRI	Alaska	Australia
380 New York Street	907-344-6613	61-9-242-1005
Redlands, California		
92373-8100 USA	Boston	Canada
Telephone: 909-793-2853	508-777-4543	416-441-6035
Fax: 909-793-5953		
	California	France
	909-793-2853,	33-1-46-23-6060
For more information or to	ext. 1-1906	
order ArcView GIS, contact		Germany
ESRI or your authorized	Charlotte	49-8166-380
ArcView GIS Desktop Reseller.	704-541-9810	
		Italy
1-800-447-9778	Denver	39-6-406-961
(1-800-GIS-XPRT)	303-449-7779	
		Poland
	Minneapolis	48-22-25-6482
Outside the United States,	612-454-0600	
contact your local ESRI office		South Asia
or international distributor.	Olympia	65-735-8755
For contact information call	360-754-4727	
909-793-2853, ext.1-1235		Spain
	San Antonio	341-559-4375
	210-340-5762	
Send E-mail inquiries to		Sweden
info@esri.com	St. Louis	46-23-84094
	314-949-6620	
Visit ESRI's home page at		Thailand
www.esri.com		66-2-678-0707
	Washington, D.C.	
In Europe send inquiries to	703-506-9515	United Kingdom
europe@esri.com		44-1923-210450
		Venezuela
		58-2-954-1060/0947
		For other countries, call
		909-793-2853, ext. 1-1235

72372
1/97 60M PT

Printed in USA