

## Extensions



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\*Requires ArcGIS for Desktop Standard or Advanced

## ArcGIS Extensions

#### Specialized GIS Tools for Enhanced Productivity and Advanced Analysis

Esri offers a wide range of optional extensions that can dramatically expand the capabilities of ArcGIS. This common architecture gives you the flexibility to operate the same ArcGIS extensions across the ArcGIS platform, significantly reducing your acquisition, training, and operating costs.



- Analyze your data in a realistic perspective
- Conduct advanced spatial analysis to get specific answers from your data
- Use advanced statistical tools to investigate your data
- Perform complex routing, closest facility, and service area analysis
- Reveal and analyze time-based patterns and trends.
- Represent and understand your network



Use three-dimensional models and symbols with ArcGIS 3D Analyst to enhance the display and realism of your data.



Expose management and reporting functionality using Workflow Manager.

#### esri.com/extensions

Extend data quality feedback to a broad community of subject matter experts, stakeholders, and other interested parties through web services.

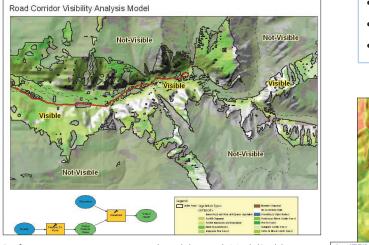
### ArcGIS Spatial Analyst

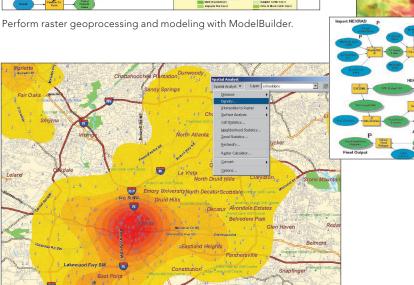
Derive Answers from Your Data Using Advanced Spatial Analysis

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. Integrated with the geoprocessing framework, ArcGIS Spatial Analyst offers easy access to numerous functions in ModelBuilder™, a graphic modeling tool.

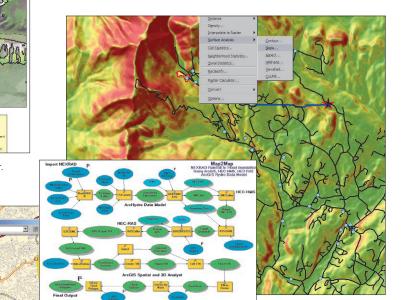
#### With ArcGIS Spatial Analyst, you can do the following:

- Convert features (point, line, or polygon) to rasters
- Create raster buffers based on distance from or proximity to features or rasters
- Generate density maps and continuous surfaces from point features
- Derive contour, slope, viewshed, aspect, and hillshades of these surfaces
- Perform map algebra (Boolean queries and algebraic calculations)
- Conduct neighborhood and zone analyses
- Carry out discrete cell-by-cell analysis •
- Perform grid classification and display





#### esri.com/spatialanalyst



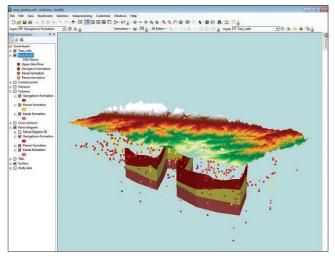
Model and analyze raster and vector data.

Perform density analysis.

### ArcGIS 3D Analyst

#### Manage and Analyze Your Data in a Realistic 3D Perspective

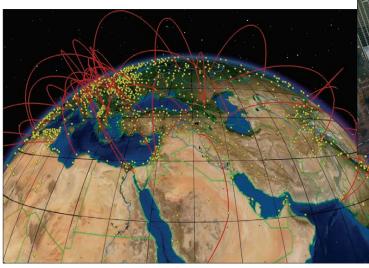
ArcGIS 3D Analyst provides powerful and advanced visualization, analysis, and surface generation tools. Using ArcGIS 3D Analyst, you can seamlessly view extremely large sets of data in three dimensions from multiple viewpoints, query a surface, and create a realistic perspective image that drapes raster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



Terrain and Subsurface Modeling

## With ArcGIS 3D Analyst, you can do the following:

- Create spherical 3D visualizations, fly-throughs, and animations
- Build and visualize surface, subsurface, terrain, and draped features
- Manage 3D GIS data by editing in a 3D view
- Perform viewshed, corridor, line-of-sight, and 3D volumetric analyses; spot height interpolation profiling; and steepest path determination
- View and create KML and view lidar data
- Create contours and terrains
- Import Collaborative Design Activity (COLLADA), SketchUp<sup>®</sup>, 3D Studio, and OpenFlight files
- Use free 3D globes and imagery from ArcGIS<sup>™</sup> Online services
- Calculate surface area, volume, slope, aspect, hillshade, and contours



Whole-Earth Visualization



Volumetric Shadow Analysis

#### esri.com/3danalyst

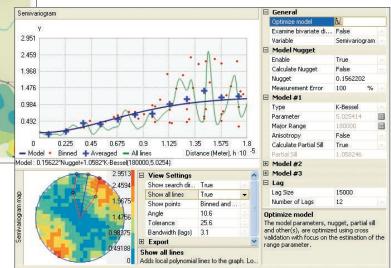
### ArcGIS Geostatistical Analyst

Use Advanced Statistical Tools to Investigate Your Data

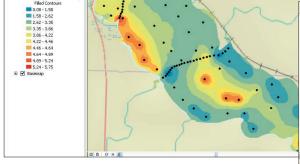
ArcGIS Geostatistical Analyst provides a powerful suite of statistical models and tools for spatial data exploration and optimal surface generation. It allows you to create a statistically valid prediction surface, along with prediction uncertainties, from a limited number of data measurements. From determining whether an environmental safety threshold has been exceeded to locating mineral deposits, ArcGIS Geostatistical Analyst lets you model spatial data in a reliable and intelligent way. ArcGIS Geostatistical Analyst enables you to take advantage of these tools and techniques in an interactive graphical user interface (GUI) and as web services.

# With ArcGIS Geostatistical Analyst, you can do the following:

- Explore data variability and spatial relationships, look for unusual data values, and examine global and local trends
- Utilize multivariate analysis to create optimal statistical models to produce reliable maps of predictions, prediction errors, quantiles, and probabilities for improved decision making
- Modify model parameters interactively or automatically optimize them using cross validation
- Determine optimal locations to create or update a monitoring network
- Prepare for worst-case scenarios by simulating many possible realizations of an environmental process



Semivariogram Modeling



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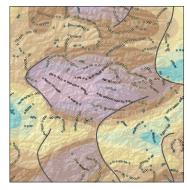
Kriging Predictions for Silt Thickness in Powers Lake, North Dakota

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Powers Lake

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dicted Thickness Prediction Map [inside\_Jake].[SILTTHKFT]



Interpolation with Barriers

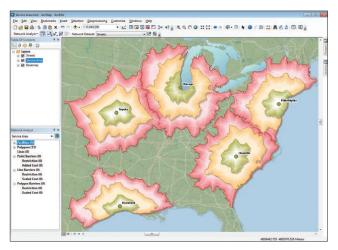
#### esri.com/geostatisticalanalyst

## ArcGIS Network Analyst

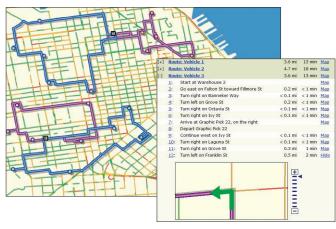
Solve Sophisticated Vehicle Routing, Closest Facility, Service Area, and Location-Allocation Problems

ArcGIS Network Analyst provides network-based spatial analysis, such as routing, fleet routing, travel directions, closest facility, service area, and location-allocation. Using a sophisticated network data model, users can easily build networks from their GIS data.

ArcGIS Network Analyst enables users to dynamically model realistic network conditions, including one-way streets, turn restrictions, height restrictions, speed limits, and variable travel speeds based on traffic.



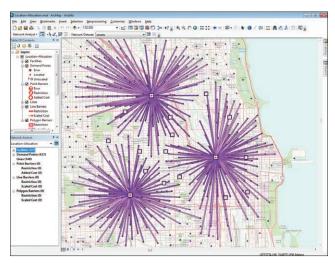
Analyze service areas.



Generate efficient routes for vehicles given dynamic traffic speeds.

# With ArcGIS Network Analyst, you can do the following:

- Find shortest routes
- Produce the most efficient routes for a fleet of vehicles that must visit many locations
- Use time windows to limit when vehicles can arrive at locations
- Locate closest facilities
- Determine optimal locations for facilities by performing a location-allocation analysis
- Define service areas based on travel time or distance
- Use your existing GIS data to quickly create a network
- Generate a matrix of network travel costs from each origin to all destinations



Choose the best facility locations (location-allocation).

#### esri.com/networkanalyst

## **ArcGIS Schematics**

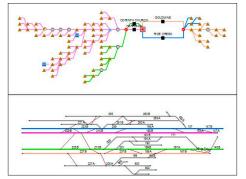
#### Represent and Understand Your Networks to Shorten Decision Cycles

ArcGIS Schematics provides a powerful suite of tools to automate schematic representations of spatial or nonspatial data by taking advantage of core ArcGIS symbology and labeling. It allows you to schematically represent any kind of physical network including utilities (telecommunication, electric, gas) and transportation (railways, aviation, roads) and visualize virtually any logical network including social and economic networks.

ArcGIS Schematics lets you rapidly visualize and check your data connectivity, quickly understand network architecture, and shorten the decision cycle by presenting focused views of the data.

# With ArcGIS Schematics, you can do the following:

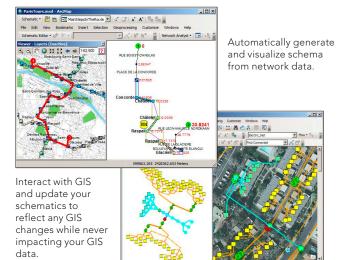
- Generate synthetic schematics from complex physical or logical networks, XML data coming from external applications, and queries on spatial or nonspatial data
- Optimize network design and analysis and perform quality control of data
- Generate multiple graphical representations of a network for a better understanding of its organization
- Dynamically interact with GIS through your schematics
- Share your schematic diagrams with people inside or outside your organization

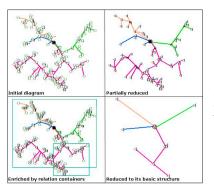


Apply schematic layout algorithms and use schematic refining tools to clarify and normalize spacing between features and understand how the network is organized.



 $\ensuremath{\mathsf{Expose}}$  schematic content on the web in client applications using the ArcGIS web APIs.





During a diagram generation, automatically simplify or enrich its content to keep essential or highlight relations.

#### esri.com/schematics

## ArcGIS Tracking Analyst

Visualize and Analyze Your Assets and Resources in Time and Space

ArcGIS Tracking Analyst extends the time-aware capabilities of ArcGIS with advanced functions to let you view, analyze, and understand spatial patterns and trends in the context of time. By providing tools for time-dependent symbolization and time-based analysis, Tracking Analyst automates and enables the tracking and discovery of time-related trends and patterns.

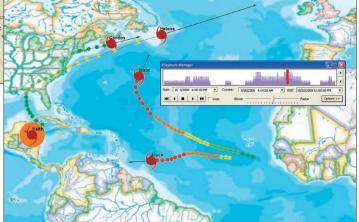
When combined with Tracking Server or GeoEvent Processor for Server, ArcGIS Tracking Analyst can be used to create a real-time GIS tracking system.

## With ArcGIS Tracking Analyst, you can do the following:

- Create geofences to detect when people, assets, or vehicles go outside an allowable area or enter a restricted area
- Be notified of important events and report on patterns related to time and space based on rules you define
- Monitor your mobile resources and visualize patterns in their movement
- Identify trends over time and make better decisions with advanced time-based symbols and analysis tools



ArcGIS Tracking Analyst allows you to visualize and analyze the movement of resources. This example shows a geofence event for a vehicle arriving at a location.



ArcGIS Tracking Analyst maps paths of people, assets, vehicles, or events. In this case, hurricane tracks in the Atlantic Ocean are visualized. Current locations are easily distinguished from past locations, allowing you to see where the hurricanes have traveled from, and directional vectors (arrows) show their likely paths.

#### esri.com/trackinganalyst

### ArcGIS Publisher

Freely Share Your Maps and Data with a Wide Range of Users

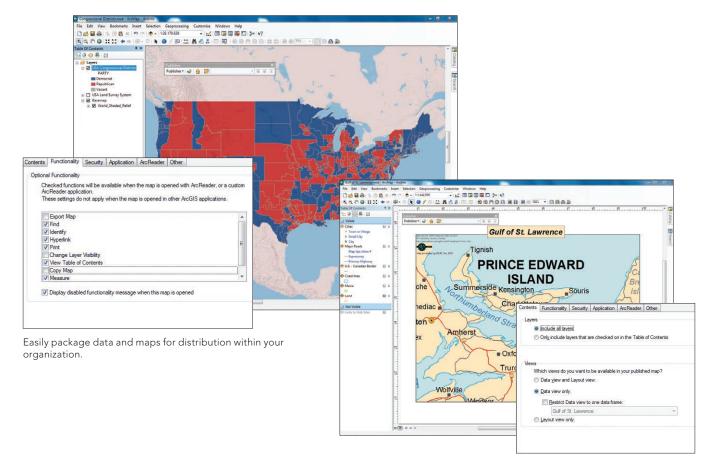
ArcGIS Publisher gives you the freedom to easily share and distribute your GIS maps, globes, and data with anyone.

ArcGIS Publisher converts ArcGIS map and globe documents to Published Map Files (PMFs). PMFs are viewable through ArcGIS for Desktop products including ArcReader<sup>™</sup>, a free downloadable application from Esri.

PMFs contain instructions about the location and symbology of data layers (rendering rules, scale dependencies, etc.) so you can quickly, easily, and securely share dynamic electronic maps locally, over networks, or via the Internet. ArcGIS Publisher also enables you to easily package PMFs together with their data, if desired. Developers can use the ArcGIS Publisher extension's ArcReaderControl to create and distribute royalty-free, customized ArcReader application 2D or 3D maps.

# With ArcGIS Publisher, you can do the following:

- Easily provide interactive maps and 3D globes to your users
- Protect your maps and data from inappropriate use
- Create rich, interactive maps that meet your users' needs
- Provide efficient and controlled access to enterprise GIS data
- Easily package the required data and maps for distribution
- Build custom viewers for your maps with ArcReaderControl



Publish map files for use with the free ArcReader application.

#### esri.com/publisher

### ArcGIS Data Interoperability

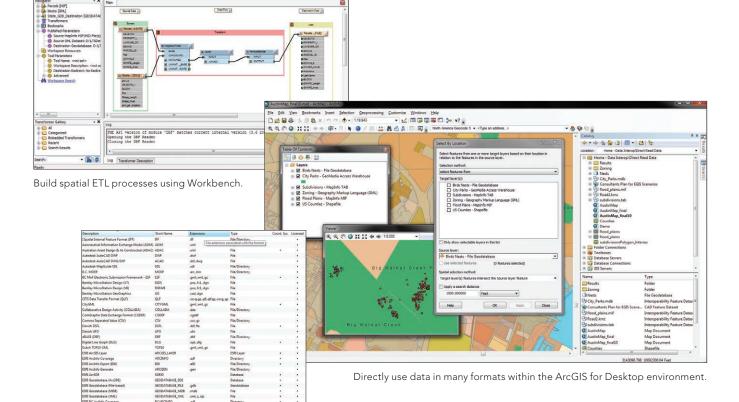
Eliminate Format Barriers to Data Use and Distribution

ArcGIS Data Interoperability eliminates barriers to data sharing by providing state-of-the-art direct data access; data translation tools; and the ability to build complex spatial extraction, transformation, and loading (ETL) processes. Jointly developed by Esri and Safe Software an Esri corporate alliance—this extension is built on Safe Software's industry-standard FME technology. ArcGIS Data Interoperability allows you to use any standard GIS data, regardless of format, within the ArcGIS for Desktop environment for mapping, visualization, and analysis. The Workbench application, included with the extension, enables you to build complex spatial ETL tools for data validation, migration, and distribution.

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# With ArcGIS Data Interoperability, you can do the following:

- Directly read more than 100 spatial data formats, including GML, XML, WFS, Autodesk<sup>®</sup>, DWG<sup>™</sup>/DXF<sup>™</sup>, MicroStation<sup>®</sup> Design, MapInfo<sup>®</sup>, MID/MIF and TAB, Oracle<sup>®</sup> and Oracle Spatial, and Intergraph<sup>®</sup> GeoMedia<sup>®</sup> Warehouse, and export to more than 70 spatial data formats
- Perform automated conversion between source and destination formats
- Create, manipulate, and convert geometry and attributes using spatial ETL tools built with the Workbench application
- Enjoy full integration with the ArcGIS geoprocessing environment including the ModelBuilder framework



Work directly with more than 100 data formats.

#### esri.com/datainteroperability

### ArcGIS Data Reviewer

#### Automate, Simplify, and Improve Management of Data Quality Control

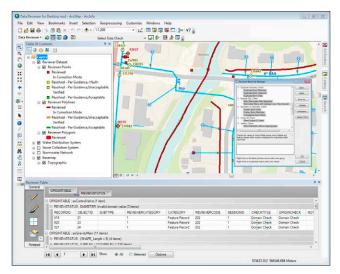
ArcGIS Data Reviewer allows you to automate and simplify your data quality control process to lower the total cost of data management and create higher-quality data. You can centrally manage the error life cycle process by reviewing your data for errors through automated or visual means and managing the correction and verification processes. ArcGIS Data Reviewer provides over 40 out-of-the-box checks with the ability to extend validation by building checks specific to your organization using custom code or geoprocessing models/scripts.



Store and rerun QC tests and distribute them throughout the organization for consistent validation.

## With ArcGIS Data Reviewer, you can do the following:

- Significantly reduce the error tracking time by managing data review information in a geodatabase
- Configure unlimited checks to meet your requirements and run them individually or as a group in a batch job
- Implement a consistent data review process by sharing batch jobs throughout the organization or with contractors
- Shorten your production cycle by using a simplified data review process with tools for error identification, logging, correction, and verification



Log, group, and categorize review results easily and accurately in the Reviewer Table and use it to manage the life cycle of errors.

#### esri.com/datareviewer

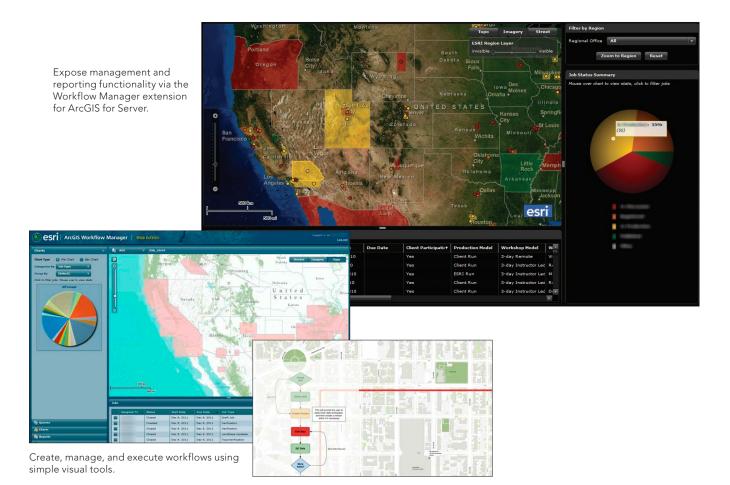
### ArcGISWorkflow Manager

Better Manage GIS Tasks and Resources

ArcGIS Workflow Manager lets you develop and enforce standard, repeatable GIS workflows throughout the enterprise, ensuring that the right work is completed correctly by the right person or team at the right time. This greatly improves the efficiency of your GIS operations and the productivity of your teams, including contractors. By organizing and automating the relationships between the activities in a GIS project, including non-GIS activities that are required, ArcGIS Workflow Manager helps you reduce errors and optimize staff time.

# With ArcGIS Workflow Manager, you can do the following:

- Improve user productivity by automating common activities and reducing repetition of production procedures
- Ensure standardization and consistency in operations by creating workflows using simple visual tools
- Centralize, automate, and simplify workflow management using out-of-the-box, user-configurable tools
- Use reports to easily track workflow status
- Integrate your GIS and other business applications by incorporating non-GIS activities into your GIS workflows
- Manage a dispersed work force, including contractors, and assign activities by geography



esri.com/workflowmanager

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## Esri Production Mapping

Standardize and Optimize Your GIS Data and Cartographic Production

Esri Production Mapping helps organizations that produce authoritative geospatial content achieve economies of scale by managing and publishing accurate GIS data and cartographic products with fewer resources. It provides a shared work environment for teams of any size to improve the quality and value of geospatial data and cartographic products through standardization, repeatability, and configuration of your production processes.

For organizations in the aeronautical, nautical, and defense communities, the following solutions are available to help you manage data: you can produce maps, charts, and databases and streamline quality control and workflow management processes that adhere to industryand

organization-specific requirements.

- ArcGIS for Aviation: esri.com/arcgisforaviation
- Esri Defense Mapping: esri.com/defensemapping
- ArcGIS for Maritime: esri.com/maritime

# With Esri Production Mapping, you can do the following:

- Centralize GIS workflow creation and management to ensure consistency throughout operations
- Enhance user productivity by standardizing feature collection and validation, cartography, workflows, and data management
- Streamline database development with additional templates, construction tools, and on-the-fly feature attribution and validation
- Implement an efficient and consistent review process by automating tasks for spatial data quality control
- Standardize and centralize detailed cartographic production with tools for creating and maintaining derived data, symbology, page elements, and maps



#### esri.com/productionmapping

# Try ArcGIS for Desktop Extensions Free for 60 Days

#### **Evaluate ArcGIS for Desktop Extensions**

You can evaluate any ArcGIS for Desktop extension at no cost and with no obligation for 60 days. Follow the instructions below based on the software you have.

#### **Existing Customers**

#### Single Use License (Basic, Standard, or Advanced)

1. Go to Start ⇔ All Programs ⇔ ArcGIS ⇔ ArcGIS Administrator.

Make sure you have the appropriate desktop single use product selected, click Authorize Now, and follow the instructions.

Select Register Single Use and Extensions and follow the instructions.

2. After installation, go to ArcMap  $\Rightarrow$  Customize  $\Rightarrow$ Extensions. Check the box next to the extension name.

#### Concurrent Use License (Basic, Standard, or Advanced)

E-mail service@esri.com to request a 60-day evaluation code.

#### **New Customers**

If you do not have ArcGIS for Desktop software (Basic, Standard, or Advanced), visit esri.com/evaluate to download a trial. You will receive a full copy of ArcGIS for Desktop at the advanced license level and selected ArcGIS extensions at no cost for 60 days.

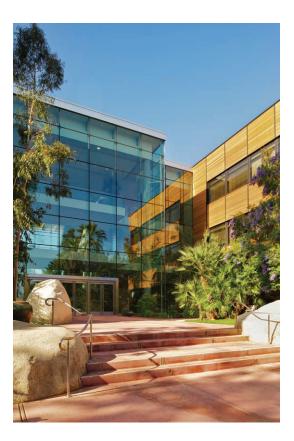
ArcGIS Extensions	Available as an ArcGIS for Desktop Extension	Available as an ArcGIS for Server Extension	Available as an ArcGIS Engine Extension
ArcGIS Spatial Analyst	х	х	х
ArcGIS 3D Analyst	х	х	х
ArcGIS Geostatistical Analyst	х	х	
ArcGIS Network Analyst	х	х	х
ArcGIS Schematics	х	х	х
ArcGIS Tracking Analyst	х		х
ArcGIS Publisher	х		
ArcGIS Data Interoperability	x	x	х
ArcGIS Data Reviewer	х	х	
ArcGIS Workflow Manager	х	x	
Esri Production Mapping	х		



Understanding our world.

Esri inspires and enables people to positively impact their future through a deeper, geographic understanding of the changing world around them.

Governments, industry leaders, academics, and nongovernmental organizations trust us to connect them with the analytic knowledge they need to make the critical decisions that shape the planet. For more than 40 years, Esri has cultivated collaborative relationships with partners who share our commitment to solving earth's most pressing challenges with geographic expertise and rational resolve. Today, we believe that geography is at the heart of a more resilient and sustainable future. Creating responsible products and solutions drives our passion for improving quality of life everywhere.



#### **Contact Esri**

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