



AN ESRI  
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# ArcGIS® Desktop 10.6: ArcMap™ Functionality Matrix

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# ArcGIS Desktop 10.6: ArcMap Functionality Matrix

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ArcGIS® Desktop 10.6 allows you to author geographic information to examine relationships; analyze your data; test predictions; and, ultimately, make better decisions. It is available in three license levels—Basic, Standard, and Advanced. These license levels have the same integrated applications, user interfaces, and development environment.

## Mapping

| Map Interaction  | Basic | Standard | Advanced |
|--|-------|----------|----------|
| <b>Map Navigation</b>  |       |          |          |
| Pan, Zoom, and Rotate the Map  | •     | •        | •        |
| Find an X,Y (Latitude-Longitude) Location on a Map                   | •     | •        | •        |
| Zoom to the Full Study Area of the Map                               | •     | •        | •        |
| Zoom to the Extent of a Layer  | •     | •        | •        |
| Zoom to the Visible Scale of a Layer                                 | •     | •        | •        |
| Zoom to a Specific Map Scale   | •     | •        | •        |
| Use Spatial Bookmarks  | •     | •        | •        |
| Access Hyperlinks  | •     | •        | •        |
| Use Dynamic MapTips  | •     | •        | •        |
| Use Magnification Window   | •     | •        | •        |
| Interactively Reveal Areas beneath a Specific Layer (Swipe)          | •     | •        | •        |
| Save and Manage Locations for Use with Multiple Maps (My Places)     | •     | •        | •        |
| Create, Organize, and Share Spatial Bookmarks                        | •     | •        | •        |
| Pan and Zoom the Map with the Mouse Wheel                            | •     | •        | •        |
| Pan and Zoom to Selected Features                                    | •     | •        | •        |
| Switch Any Tool to a Pan/Zoom Tool Using Hot Keys                    | •     | •        | •        |
| Create Hyperlink to External Application, Macro, or URL              | •     | •        | •        |
| Use Overview Window  | •     | •        | •        |
| Use Viewer Windows for Displaying Different Parts of a Map           | •     | •        | •        |
| Use Multiple Viewer Windows for Separate Data Frames                 | •     | •        | •        |
| <b>Queries</b>   |       |          |          |
| Identify Features in the Map   | •     | •        | •        |
| Interactively Measure Distances and Areas                            | •     | •        | •        |
| Find Features in the Map   | •     | •        | •        |
| Find Places Using the ArcGIS <sup>SM</sup> Online World Gazetteer    | •     | •        | •        |
| Find North American and European Addresses Using ArcGIS Online       | •     | •        | •        |
| Find an Address by Using Local or Custom Locators                    | •     | •        | •        |
| Show Related Data with Field Properties                              | •     | •        | •        |
| View and Toggle Layer Selectability in Table of Contents             | •     | •        | •        |
| Select Data by Location  | •     | •        | •        |
| Select Data by Attribute   | •     | •        | •        |
| Interactively Select/Unselect Features                               | •     | •        | •        |
| Unselect All, Switch the Selection, or Select All Features           | •     | •        | •        |
| Access Attribute Table and Layer Properties from Identify Dialog Box | •     | •        | •        |



| <b>Map Interaction</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>Tables</b>  |              |                 |                 |
| Flash, Zoom to, Pan to, Select, and Identify Individual Features in a Map Based on a Record in the Attribute Table | •            | •               | •               |
| Interactively Highlight Selected Records/Features  | •            | •               | •               |
| Zoom to and Unselect Highlighted Records/Features  | •            | •               | •               |
| Interactively Add and Remove Records from a Selection  | •            | •               | •               |
| Copy Selected Records for Pasting into Other Applications  | •            | •               | •               |
| Turn Fields Off and On and Change Field Order and Size   | •            | •               | •               |
| Modify a Table's Appearance by Changing Cell and Field Size, Font, and Color                                       | •            | •               | •               |
| Use Field Properties of Joined Tables  | •            | •               | •               |
| Reorder Fields   | •            | •               | •               |
| See Properties of Joins and Relates from Table Properties  | •            | •               | •               |
| Sort a Table by Multiple Fields  | •            | •               | •               |
| Drag Multiple Tables into the Table Window as Tabs   | •            | •               | •               |
| Create a Graph or Report   | •            | •               | •               |
| Find and Replace Attribute Values  | •            | •               | •               |
| Open Attachment Manager for Any Record (When Attachments Are Enabled on the Layer)                                 | •            | •               | •               |
| <b>Graphs</b>  |              |                 |                 |
| Plot Data from a Variety of Datasets in a Single Graph   | •            | •               | •               |
| Create 2D and 3D Graphs  | •            | •               | •               |
| Overlay Multiple Graphs in a Single Graph  | •            | •               | •               |
| Selections Automatically Propagate between Map, Table, and Graph   | •            | •               | •               |
| <b>Graph Types</b>   |              |                 |                 |
| Horizontal and Vertical Bar, Line, and Area  | •            | •               | •               |
| Histogram Bar  | •            | •               | •               |
| Scatterplot  | •            | •               | •               |
| Scatterplot Matrix   | •            | •               | •               |
| Box Plot   | •            | •               | •               |
| Bubble   | •            | •               | •               |
| Polar  | •            | •               | •               |
| Pie  | •            | •               | •               |
| <b>Routing Using ArcGIS Online or Network Datasets (StreetMap™ USA)</b>  |              |                 |                 |
| North American and European Point-to-Point Street Routing  | •            | •               | •               |
| Add Route Stops from Addresses and Existing Features and Interactively Add Stops on the Map                        | •            | •               | •               |
| Add Route Barriers from Addresses and Existing Features and Interactively Add Stops on the Map                     | •            | •               | •               |
| Snap Stops to Closest Address Using an Address Locator   | •            | •               | •               |
| Customize the Route for Quickest or Shortest Route   | •            | •               | •               |
| Reorder the Stops to Find the Fastest Route between Unordered Stops  | •            | •               | •               |
| Modify Speed and Restriction Attributes of the Routing Service   | •            | •               | •               |
| Specify Trip Planning Timing (Start, Stop, Breaks, etc.)   | •            | •               | •               |
| Generate HTML Directions Using an Overview Map, Turn-by-Turn Maps, and Vicinity Maps                               | •            | •               | •               |

| <b>Map Display</b>  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| <b>General Mapping</b>  |              |                 |                 |
| Analyze Map for Potential Display Optimizations                                   | •            | •               | •               |
| Visualize the Map Page or a Specific Set of Data                                  | •            | •               | •               |
| Perform On-the-Fly Projection of All Data   | •            | •               | •               |
| Set Spatial Reference by Selection, Name Filter, or Spatial Filter                | •            | •               | •               |
| Set Custom/Compound Datum Transformation for Your Map Extent                      | •            | •               | •               |
| Enable Full Cartographic Visualization of Any PMF File                            | •            | •               | •               |
| Interactively Set Percent Transparency for All Data Layers                        | •            | •               | •               |
| Legends Honor Layer Transparency  | •            | •               | •               |
| Set a Minimum and Maximum Scale to Display Data                                   | •            | •               | •               |
| Create Custom Relative Scales   | •            | •               | •               |
| Clip the Map Display to a Feature or Graphic                                      | •            | •               | •               |
| Create Graticules, Measured Grids, and Reference Grids                            | •            | •               | •               |
| Create Extent Rectangles for Other Data (Reference and Overview Maps)             | •            | •               | •               |
| Create Variable Depth Layer Masking   | •            | •               | •               |
| Convert Graphics (Point, Line, Polygon, Text) to Features                         | •            | •               | •               |
| Create High-Performance Basemap Layers Computed Once for Any Area                 | •            | •               | •               |
| Add Data Menu Accesses Basemaps and Data from ArcGIS Online                       | •            | •               | •               |
| Quick Pan Mode for Continuous Navigation of Basemap and Accelerated Raster Layers | •            | •               | •               |
| <b>Tabular Data</b>   |              |                 |                 |
| Create On-the-Fly Dynamic Joins between Different Databases                       | •            | •               | •               |
| Join Dialog Box Supports Join Validation prior to Execution                       | •            | •               | •               |
| Create and Use Many-to-One and One-to-Many Relationships                          | •            | •               | •               |
| Create Statistics   | •            | •               | •               |
| Summarize Data  | •            | •               | •               |
| Calculate Field Values of All or Selected Rows                                    | •            | •               | •               |
| Interactively Change the Visibility of Fields                                     | •            | •               | •               |
| Simplify Field Names with Field Aliases   | •            | •               | •               |
| Display Numeric Fields Formatted as Currency, Direction, Percentage, etc.         | •            | •               | •               |
| Create Charts and Reports and Mailing Labels                                      | •            | •               | •               |
| Build Detailed Reports Using Esri® Report Wizard                                  | •            | •               | •               |
| Connect to and Use Remote Database Tables   | •            | •               | •               |
| Display Tabular X,Y Point Data from a File or Table on a Map                      | •            | •               | •               |
| <b>Vector Data Display</b>  |              |                 |                 |
| Control Selection Color for Each Dataset  | •            | •               | •               |
| Create MapTips  | •            | •               | •               |
| Fix Symbology to a Specific Map Scale   | •            | •               | •               |
| Create a New Layer from a Selection   | •            | •               | •               |
| Control Which Features to Display Using a SQL Query                               | •            | •               | •               |
| Control Which Data Fields Are Accessible from the Map                             | •            | •               | •               |
| <b>Thematic Vector Data Classifications</b>                                       |              |                 |                 |
| Single Symbol   | •            | •               | •               |

| <b>Map Display</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| Unique Value   | •            | •               | •               |
| Match to Predefined Style  | •            | •               | •               |
| Graduated Colors or Symbols  | •            | •               | •               |
| Proportional Symbols   | •            | •               | •               |
| Dot Density Mapping with Scale-Driven Density Management             | •            | •               | •               |
| Chart Mapping Including Pie and Bar Charts                           | •            | •               | •               |
| Bivariate and Multivariate Data Rendering                            | •            | •               | •               |
| Interactive Histogram for Data Classification                        | •            | •               | •               |
| <b>Symbology</b>   |              |                 |                 |
| Use Interactive Symbol Composer                                      | •            | •               | •               |
| Control Symbol Draw Order  | •            | •               | •               |
| Access More than 19,500 Predefined Symbols                           | •            | •               | •               |
| Search for Symbols by Descriptive Tag                                | •            | •               | •               |
| Add or Modify Symbol Search Tags                                     | •            | •               | •               |
| Use Halos and Advanced Background Symbols                            | •            | •               | •               |
| Define Symbols for Fill, Lines, Outlines, and Points                 | •            | •               | •               |
| User-Imported Picture Symbols (PNG, JPEG, GIF)                       | •            | •               | •               |
| <b>Elevation Surface Display</b>                                     |              |                 |                 |
| TIN Contour with Index Contours                                      | •            | •               | •               |
| TIN Face, Aspect, Elevation, Slope                                   | •            | •               | •               |
| Digital Elevation Model (DEM) Hillshade with Sun Position Control    | •            | •               | •               |
| DEM Shaded Relief Using Hillshade and Elevation                      | •            | •               | •               |
| Terrain Contour with Index Contours                                  | •            | •               | •               |
| Terrain Face, Aspect, Elevation, Slope                               | •            | •               | •               |
| DEM Elevation  | •            | •               | •               |
| <b>Raster Data Display</b>   |              |                 |                 |
| Display Multiband Images by Assigning Color Values to the Bands      | •            | •               | •               |
| Display Raster Products from Image Sensor Raw Data and Metadata      | •            | •               | •               |
| Use Individual Band Settings   | •            | •               | •               |
| Display Each Unique Value with a Discrete Color                      | •            | •               | •               |
| Display Image Values Using a Color Map                               | •            | •               | •               |
| Display Multiband Raster Data Using Color Values                     | •            | •               | •               |
| Save Current Display Statistics                                      | •            | •               | •               |
| Control Raster Display Contrast and Brightness                       | •            | •               | •               |
| On-the-Fly Orthorectification  | •            | •               | •               |
| On-the-Fly Panchromatic Sharpening                                   | •            | •               | •               |
| On-the-Fly Hillshade Effect for Elevation Data                       | •            | •               | •               |
| Display Raster Catalog Tiles as a Time Series                        | •            | •               | •               |
| Import Renderer or Statistics from Another Layer                     | •            | •               | •               |
| Display Raster Values While Navigating the Map with MapTips          | •            | •               | •               |
| Display Raster Resolution in Map Table of Contents                   | •            | •               | •               |
| Apply and Edit Raster Function Chains                                | •            | •               | •               |
| Accelerated Display Mode for Raster Layers                           | •            | •               | •               |
| <b>Raster Display: Gradual Color Ramp Data-Stretching Algorithms</b> |              |                 |                 |
| Standard Deviations  | •            | •               | •               |

| <b>Map Display</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| Histogram Equalize   | •            | •               | •               |
| Interactive Histogram  | •            | •               | •               |
| Minimum–Maximum  | •            | •               | •               |
| Custom   | •            | •               | •               |
| None   | •            | •               | •               |
| Esri Stretch (Modified Sigmoid)  | •            | •               | •               |
| <b>Raster Panchromatic Sharpening</b>  |              |                 |                 |
| Bovey  | •            | •               | •               |
| Esri   | •            | •               | •               |
| Gram-Schmidt   | •            | •               | •               |
| Intensity Hue Saturation (IHS)   | •            | •               | •               |
| Simple Mean  | •            | •               | •               |
| <b>Raster Display Statistics</b>   |              |                 |                 |
| Based on the Entire Raster Dataset   | •            | •               | •               |
| Based on the Display Extent  | •            | •               | •               |
| Based on a Custom Extent   | •            | •               | •               |
| Based on an Automated Sampling of Pixels   | •            | •               | •               |
| <b>Raster Display Resample Methods</b>   |              |                 |                 |
| Nearest Neighbor   | •            | •               | •               |
| Bilinear Interpolation   | •            | •               | •               |
| Cubic Convolution  | •            | •               | •               |
| Majority   | •            | •               | •               |
| <b>Raster Display Classification Methods</b>                                       |              |                 |                 |
| Manual Interval  | •            | •               | •               |
| Equal Interval   | •            | •               | •               |
| Defined Interval   | •            | •               | •               |
| Quantile Interval  | •            | •               | •               |
| Natural Breaks (Jenks)   | •            | •               | •               |
| Geometrical Interval   | •            | •               | •               |
| Standard Deviation   | •            | •               | •               |
| <b>Raster Catalog Footprint Display</b>  |              |                 |                 |
| Footprints Only  | •            | •               | •               |
| Selected Footprints  | •            | •               | •               |
| <b>Raster Tools</b>  |              |                 |                 |
| Pixel Inspector  | •            | •               | •               |
| Swipe Layer Tool   | •            | •               | •               |
| Image Analysis Window  | •            | •               | •               |
| <b>Time Animation and Temporal Data</b>  |              |                 |                 |
| Create Time Series, Layer Transition, or Map Navigation Animation                  | •            | •               | •               |
| Animate Data Change with Tabular (Charts), Vector, Raster Catalog, and NetCDF Data | •            | •               | •               |
| Export Animations as Sequential Images   | •            | •               | •               |
| Create Video from Sequential Images  | •            | •               | •               |
| View Temporal Data with the Time Slider  | •            | •               | •               |
| View Live Temporal Data in Real Time   | •            | •               | •               |

| <b>Page Layout and Printing</b>                                | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>Map Elements</b>  |              |                 |                 |
| Title  | •            | •               | •               |
| Text   | •            | •               | •               |
| Neatlines  | •            | •               | •               |
| Legend (May Be Dynamically Generated from Features in the Map) | •            | •               | •               |
| North Arrows   | •            | •               | •               |
| Scale Bar (May Be Multiple Scales with a Common Zero Anchor)   | •            | •               | •               |
| Scale Text   | •            | •               | •               |
| Pictures   | •            | •               | •               |
| OLE Objects  | •            | •               | •               |
| Measured Reference Grid  | •            | •               | •               |
| Graticules   | •            | •               | •               |
| <b>Export Formats</b>  |              |                 |                 |
| Enhanced Metafile (EMF)  | •            | •               | •               |
| Windows Bitmap (BMP)   | •            | •               | •               |
| Encapsulated PostScript (EPS)                                  | •            | •               | •               |
| Tagged Image File Format (TIFF)                                | •            | •               | •               |
| Portable Document Format (PDF)                                 | •            | •               | •               |
| Joint Photographic Experts Group (JPEG)                        | •            | •               | •               |
| Portable Network Graphics (PNG)                                | •            | •               | •               |
| Graphic Interchange Format (GIF)                               | •            | •               | •               |
| Scalable Vector Graphics (SVG)                                 | •            | •               | •               |
| Adobe Illustrator (AI)   | •            | •               | •               |
| PostScript Color Separates (with Page Marks)                   | •            | •               | •               |
| <b>Print with the Following Print Drivers</b>                  |              |                 |                 |
| Windows  | •            | •               | •               |
| PostScript   | •            | •               | •               |
| ArcPress™ HP RTL (RGB, CMYK, and Monochrome)                   | •            | •               | •               |
| ArcPress Epson Universal                                       | •            | •               | •               |
| ArcPress HP Universal  | •            | •               | •               |
| Process Print Jobs on the Local Machine for Faster Printing    | •            | •               | •               |

| <b>Publishing and Sharing Maps and Data</b>                               | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| <b>Creating High-Performance Dynamic Maps</b>                             |              |                 |                 |
| Analyze Maps for Errors, Unsupported Content, Performance Tips            | •            | •               | •               |
| Create Basemap Layers for Static Background Data                          | •            | •               | •               |
| Preview Your Maps and Estimated Rendering Time                            | •            | •               | •               |
| Publish a Map to ArcGIS Server <sup>1</sup>                               | •            | •               | •               |
| <b>Sharing Maps, Layers, and Data</b>                                     |              |                 |                 |
| Consolidate Layers, Maps, Locators, or Results <sup>2</sup> into a Folder | •            | •               | •               |
| Create a Layer Package File   | •            | •               | •               |
| Upload a Layer Package File to ArcGIS Online and Share It                 | •            | •               | •               |
| Extract a Layer Package   | •            | •               | •               |
| Create a Map Package File   | •            | •               | •               |
| Upload a Map Package File to ArcGIS Online and Share It                   | •            | •               | •               |

| <b>Publishing and Sharing Maps and Data</b>  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| Extract a Map Package  | •            | •               | •               |
| Share a Map as a Service <sup>3</sup> to an Enterprise <sup>1</sup> or Cloud <sup>4</sup> Server   | •            | •               | •               |
| Search for Maps, Data, and Tools in Local, Enterprise <sup>1</sup> , or Cloud <sup>4</sup> Sources | •            | •               | •               |
| Share Map Tile Caches to Local, Enterprise <sup>1</sup> , or Cloud <sup>4</sup> Users              | •            | •               | •               |

<sup>1</sup>Requires ArcGIS Server

<sup>2</sup>Geoprocessing Results

<sup>3</sup>Feature Service or Cached Map Tile Service

<sup>4</sup>ArcGIS Online, Portal for ArcGIS, or Cloud-Hosted ArcGIS Server Instance

| <b>Publishing and Sharing Analysis</b>                          | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| <b>Sharing Geoprocessing</b>                                    |              |                 |                 |
| Create and Share <sup>5</sup> Geoprocessing Results as Packages | •            | •               | •               |
| Create and Share <sup>5</sup> Geoprocessing Results as Services | •            | •               | •               |
| <b>Sharing Geocoding</b>  |              |                 |                 |
| Create and Share <sup>5</sup> Locator Packages                  | •            | •               | •               |

<sup>5</sup>Share locally or in an ArcGIS Online or Portal for ArcGIS instance.

| <b>Automating Map Workflows</b>            | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>Using the ArcPy™ Mapping Module</b>     |              |                 |                 |
| Export and Print Maps                      | •            | •               | •               |
| Manage Documents and Layers                | •            | •               | •               |
| Create and Manage Map Series and Books     | •            | •               | •               |
| Export Reports                             | •            | •               | •               |
| Create and Analyze Map Service Definitions | •            | •               | •               |
| Convert Web Map JSON to Map Document       | •            | •               | •               |

| <b>Map Text</b>  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>Labels</b>  |              |                 |                 |
| Set Default Label Engine and Font Name for Your Map Document             | •            | •               | •               |
| Creating Dynamic On-the-Fly Labels                                       | •            | •               | •               |
| Automatic Conflict Detection and Label Placement                         | •            | •               | •               |
| Label Placement Rules for Setting Priority between Layers                | •            | •               | •               |
| Placement Rules for Setting Importance of Labels vs. Features            | •            | •               | •               |
| Many Predefined Label Styles (e.g., Highway Shields)                     | •            | •               | •               |
| Labels Rotate from an Attribute Field                                    | •            | •               | •               |
| Multiple Dynamic Labeling Schemes Built for Each Map Layer               | •            | •               | •               |
| Control Which Features in a Layer Display Labels                         | •            | •               | •               |
| Advanced Text Formatting Tags for Dynamic Label Symbology                | •            | •               | •               |
| Add Logic to Label Expressions with JScript, Python, and VBScript        | •            | •               | •               |
| <b>Annotation</b>  |              |                 |                 |
| Use Interactive Label Tools (Callout, Label, Spline, and Paragraph Text) | •            | •               | •               |
| Create Text Annotation Data from Labels                                  | •            | •               | •               |

| Map Text   | Basic | Standard | Advanced |
|--|-------|----------|----------|
| <b>Annotation Editing</b>  |       |          |          |
| Interactively Move, Rotate, and Scale Annotation   | •     | •        | •        |
| Add Horizontal or Angled Annotation  | •     | •        | •        |
| Add Annotation with a Leader Line  | •     | •        | •        |
| Create Annotation That Follows a Curved Line or the Shape of an Existing Feature                     | •     | •        | •        |
| Dynamically Pull Annotation Values from Layers in the Map  | •     | •        | •        |
| Interactively Manage Annotation That Could Not Be Placed during Initial Annotation Creation          | •     | •        | •        |
| Edit Each Word in an Annotation String Independently   | •     | •        | •        |
| Interactively Stack and Unstack Annotation   | •     | •        | •        |
| Flip Annotation Strings  | •     | •        | •        |
| Interactively Modify the Curvature and Orientation of a Line   | •     | •        | •        |
| Edit the Symbolology of a Single Annotation Feature or a Group of Annotation Features Simultaneously | •     | •        | •        |
| <b>Annotation and Dimensions Management</b>  |       |          |          |
| Store Annotation in a Geodatabase or a Map Document  | •     | •        | •        |
| Create Annotation Subclasses   | •     | •        | •        |
| Create Aligned Dimensions Displaying the True Distance between Points                                |       | •        | •        |
| Create Linear Dimensions Displaying Horizontal, Vertical, or an Angled Distance between Points       |       | •        | •        |
| Create and Edit Feature-Linked Annotation Feature Classes in a Geodatabase                           |       | •        | •        |

| Advanced Labeling <sup>6</sup>                             | Basic | Standard | Advanced |
|--|-------|----------|----------|
| <b>Advanced Label Placement Rule Set</b>                   |       |          |          |
| Create Advanced Labels                                     | •     | •        | •        |
| Advanced Python Expression Parser                          | •     | •        | •        |
| Street Placement   | •     | •        | •        |
| Customizable Dynamic Stacking                              | •     | •        | •        |
| Font Reduction   | •     | •        | •        |
| Customizable Abbreviation and Label White Space Management | •     | •        | •        |
| Polygon Boundary Placement                                 | •     | •        | •        |
| Repeated Labeling  | •     | •        | •        |
| Character Spreading  | •     | •        | •        |
| Word Spreading for Polyline and Polygon Labels             | •     | •        | •        |
| Label Overrun on Features                                  | •     | •        | •        |
| Curved Polygon Placement                                   | •     | •        | •        |
| Groticule Labeling Alignment                               | •     | •        | •        |
| User-Defined Point Label Zones                             | •     | •        | •        |
| Background Labeling  | •     | •        | •        |
| Land Parcel Placement                                      | •     | •        | •        |
| Advanced Feature Weighting                                 | •     | •        | •        |
| Advanced Label Offsets                                     | •     | •        | •        |
| Advanced Line Label Positions                              | •     | •        | •        |
| Advanced Curved Label Placement                            | •     | •        | •        |
| Watermark-Style Background Labels                          | •     | •        | •        |

| <b>Advanced Labeling<sup>6</sup></b>                             | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| Geologic Strike and Dip Symbology                                | •            | •               | •               |
| Asian Vertical Text Metric Support                               | •            | •               | •               |
| Polygon Hole Avoidance for Callouts                              | •            | •               | •               |
| Polygon Zone (Internal, External) Placement                      | •            | •               | •               |
| Long Boundary Label Repetition                                   | •            | •               | •               |
| Logically Continuous Feature (Street, River, Contour) Placements | •            | •               | •               |
| Label Fitting by Key Numbering into an Overflow Table            | •            | •               | •               |

<sup>6</sup>The advanced labeling functionality is available as a setting on the Data View tab in the ArcMap™ Options dialog box.

| <b>Advanced Cartography</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| <b>Cartographic Editing Tools</b>   |              |                 |                 |
| Store Multiple Representations of GIS Features in a Geodatabase for Use in a Variety of Map Products    |              | •               | •               |
| Create Rules That Dynamically Manipulate the Geometry and Symbology of a Feature (Representation Rules) |              | •               | •               |
| Share Representation Rules through Style Files  |              | •               | •               |
| Change the Shape or Symbology for a Single Feature without Changing the GIS Data It Represents          |              | •               | •               |
| Define Feature Visibility and Transparency for Each Feature or Based on an Attribute                    |              | •               | •               |
| Mask Individual Features or Parts of Features without Masking All Features in a Layer                   |              | •               | •               |
| Dynamically Place Point Symbols along Lines or Polygons   |              | •               | •               |
| Dynamically Modify the Geometry That Is Displayed for a Feature (Geometric Effects)                     |              | •               | •               |
| <b>Point Geometric Effects</b>  |              |                 |                 |
| Buffer  |              | •               | •               |
| Radial from Point   |              | •               | •               |
| Regular Polygon   |              | •               | •               |
| <b>Line Geometric Effects</b>   |              |                 |                 |
| Add Control Points  |              | •               | •               |
| Arrow   |              | •               | •               |
| Buffer  |              | •               | •               |
| Cut   |              | •               | •               |
| Dashes  |              | •               | •               |
| Enclosing Polygon   |              | •               | •               |
| Extension   |              | •               | •               |
| Jog   |              | •               | •               |
| Move  |              | •               | •               |
| Offset  |              | •               | •               |
| Offset Tangent  |              | •               | •               |
| Reverse   |              | •               | •               |
| Rotate  |              | •               | •               |
| Scale   |              | •               | •               |
| Simplify  |              | •               | •               |
| Smooth  |              | •               | •               |
| Suppress  |              | •               | •               |



| <b>Advanced Cartography</b>  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| Tapered Polygon  |              | •               | •               |
| Wave   |              | •               | •               |
| <b>Polygon Geometric Effects</b>   |              |                 |                 |
| Add Control Points   |              | •               | •               |
| Buffer   |              | •               | •               |
| Cut  |              | •               | •               |
| Dashes   |              | •               | •               |
| Donut  |              | •               | •               |
| Enclosing Polygon  |              | •               | •               |
| Move   |              | •               | •               |
| Offset   |              | •               | •               |
| Rotate   |              | •               | •               |
| Scale  |              | •               | •               |
| Simplify   |              | •               | •               |
| Smooth   |              | •               | •               |
| Wave   |              | •               | •               |
| <b>Interactive Symbol Editing</b>  |              |                 |                 |
| Use the Marker Editor to Edit the Characteristics of a Point Symbol              |              | •               | •               |
| Edit the Entire Representation or a Small Portion of One or More Representations |              | •               | •               |
| Move an Entire Symbol  |              | •               | •               |
| Move Line Symbols Parallel   |              | •               | •               |
| Tool Dialog Boxes Accept Multiple Units of Measurement                           |              | •               | •               |
| Add, Delete, or Move Symbol Vertices   |              | •               | •               |
| Modify the Geometric Effects of a Symbol: Line Width, Hatch Size                 |              | •               | •               |
| Move Linear Geometries Parallel  |              | •               | •               |
| Reshape and Move a Feature to Align One Specified Point with Another (Warp)      |              | •               | •               |
| Erase All or Part of a Symbol  |              | •               | •               |
| Resize a Feature Symbol by Resizing Its Bounding Box                             |              | •               | •               |
| Resize a Feature and Its Geometric Effects Simultaneously Using a Ratio          |              | •               | •               |
| Rotate Feature Symbols Interactively or by a Specific Angle                      |              | •               | •               |
| Orient a Symbol to a Specific Angle  |              | •               | •               |
| Reshape Symbols with Bézier Curves   |              | •               | •               |
| Specify Locations along a Symbol Where a Pattern Must Apply (Control Points)     |              | •               | •               |
| WYSIWYG Feedback   |              | •               | •               |
| <b>Geoprocessing Graphic Quality</b>   |              |                 |                 |
| Detect Graphic Conflict  |              |                 | •               |
| Propagate Displacement   |              |                 | •               |
| Resolve Building Conflicts   |              |                 | •               |
| Resolve Road Conflicts   |              |                 | •               |
| <b>Geoprocessing Masking Tools</b>   |              |                 |                 |
| Cul-de-Sac Masks   |              |                 | •               |
| Feature Outline Masks  |              |                 | •               |
| Intersecting Layers Masks  |              |                 | •               |

| <b>Advanced Cartography</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| <b>Geoprocessing Representation Management</b>  |              |                 |                 |
| Add Representation  |              | •               | •               |
| Calculate Representation Rule   |              | •               | •               |
| Drop Representation   |              | •               | •               |
| Remove Override   |              | •               | •               |
| Select Feature by Override  |              | •               | •               |
| Set Layer Representation  |              | •               | •               |
| Update Override   |              | •               | •               |
| <b>Geoprocessing Symbolization Refinement</b>   |              |                 |                 |
| Align Marker to Stroke or Fill  |              |                 | •               |
| Calculate Grid Convergence Angle  |              |                 | •               |
| Calculate Line Caps   |              |                 | •               |
| Calculate Polygon Main Angle  |              |                 | •               |
| Create Overpass   |              |                 | •               |
| Create Underpass  |              |                 | •               |
| Disperse Markers  |              |                 | •               |
| Set Representation Control Point at Intersect   |              |                 | •               |
| Set Representation Control Point by Angle   |              |                 | •               |
| <b>Address Matching</b>   |              |                 |                 |
| <b>Geocoding Tools</b>  |              |                 |                 |
| Geocoding Toolbar for Locator Management and Use  | •            | •               | •               |
| Single Line Input for ArcGIS 10.x Locators  | •            | •               | •               |
| Geocode Single or Batch Addresses   | •            | •               | •               |
| Find Address within Current Map Extent  | •            | •               | •               |
| Real-Time Batch Geocoding Match Rate Feedback   | •            | •               | •               |
| Use Tools for Processing Result Sets, Including Custom Queries                                  | •            | •               | •               |
| Use ArcGIS Enterprise for Server-Based Geocoding  | •            | •               | •               |
| Use Multiple Geocoding Locators per Data Source   | •            | •               | •               |
| Geocode Using Alternate Street Names, Alternate City Names, Intersection, or Place-Name Aliases | •            | •               | •               |
| Aggregate Multiple Geocoding Locators into a Single Geocoding Locator (Composite Locator)       | •            | •               | •               |
| Distribute Geocoding Locators without the Reference Data  | •            | •               | •               |
| Edit Runtime Properties with Address Locator Properties Dialog                                  | •            | •               | •               |
| Address Inspector Finds Address by Map Click  | •            | •               | •               |
| Create Locators with Suggestions Capability   | •            | •               | •               |
| Create USA Locators with Subaddress Identifiers   | •            | •               | •               |
| Drag Locators into ArcMap from the Catalog Window   | •            | •               | •               |
| Built-in Dataless Military Grid Reference System (MGRS) Locator                                 | •            | •               | •               |
| Create Dynamic Features from Geocoded Locations   |              | •               | •               |
| <b>ArcGIS Online Locator</b>  |              |                 |                 |
| World Locator Service   | •            | •               | •               |
| <b>Geoprocessing</b>  |              |                 |                 |
| Consolidate Locator   | •            | •               | •               |
| Create Address Locator  | •            | •               | •               |

| <b>Address Matching</b>          | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|----------------------------------|--------------|-----------------|-----------------|
| Create Composite Address Locator | •            | •               | •               |
| Geocode Addresses                | •            | •               | •               |
| Package Locator                  | •            | •               | •               |
| Reverse Geocode Point Features   | •            | •               | •               |
| Rebuild Address Locator          | •            | •               | •               |
| Rematch Addresses                | •            | •               | •               |
| Standardize Addresses            | •            | •               | •               |

## Data Support and Interoperability

| <b>Raster Data Support</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>Direct Read of Raster Data</b>  |              |                 |                 |
| Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER)   | •            | •               | •               |
| AIRSAR Polarimetric  | •            | •               | •               |
| Applanix DSS   | •            | •               | •               |
| ARC Digitized Raster Graphics (ADRG)   | •            | •               | •               |
| ArcSDE® Raster   | •            | •               | •               |
| ASCII Grid   | •            | •               | •               |
| Band Interleaved by Line (Esri BIL), Band Interleaved by Pixel (Esri BIP), or Band Sequential (Esri BSQ)   | •            | •               | •               |
| Bathymetric Attributed Grid (BAG)  | •            | •               | •               |
| Big TIFF   |              | •               | •               |
| Binary Terrain (BT)  | •            | •               | •               |
| Bitmap, Device Independent Bitmap (DIB) Format, or Microsoft Windows Bitmap  | •            | •               | •               |
| BSB Nautical Charts  | •            | •               | •               |
| Committee on Earth Observing Sensors (CEOS) SAR  |              | •               | •               |
| Compressed ARC Digitized Raster Graphics (CADRG)   | •            | •               | •               |
| Controlled Image Base (CIB)  | •            | •               | •               |
| DEIMOS-2   | •            | •               | •               |
| Digital Geographic Information Exchange Standard (DIGEST), ARC Standard Raster Product (ASRP), or Universal Transverse Mercator (UTM)/Universal Polar Stereographic (UPS) Standard Raster Product (USRP) | •            | •               | •               |
| Digital Image Map (DIMAP)  | •            | •               | •               |
| Digital Terrain Elevation Data (DTED) Levels 0, 1, and 2   | •            | •               | •               |
| DMC International Imaging (DMCii)  | •            | •               | •               |
| DubaiSat-2   | •            | •               | •               |
| Earth Resources Laboratory Applications Software (ELAS)  | •            | •               | •               |
| Enhanced Compression Raster Graphic (ECRG)   | •            | •               | •               |
| Enhanced Compression Wavelet (ECW)   | •            | •               | •               |
| Envisat Image Product (ESAT)   | •            | •               | •               |
| ENVI Header Format   | •            | •               | •               |
| EOSAT FAST (FST)   | •            | •               | •               |
| ER Mapper's ECW  | •            | •               | •               |
| ERDAS 7.5 GIS, 7.5 LAN, RAW, IMAGINE   | •            | •               | •               |

## ArcGIS Desktop 10.6: ArcMap Functionality Matrix

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| <b>Raster Data Support</b>  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| Esri Grid, Grid Stack, Grid Stack File                                  | •            | •               | •               |
| Extensible N-Dimensional Data Format (NDF)                              | •            | •               | •               |
| Floating Point Raster (FLT)   | •            | •               | •               |
| FORMOSAT-2  | •            | •               | •               |
| Geospatial Data Abstraction Library (GDAL) Virtual Format (VRT)         | •            | •               | •               |
| GeoEye-1 Satellite  | •            | •               | •               |
| GF-1 PMS  | •            | •               | •               |
| GF-1 WFV  | •            | •               | •               |
| GF-2 PMS  | •            | •               | •               |
| GF-4  | •            | •               | •               |
| Grid Exchange File (GXF)  | •            | •               | •               |
| Gridded Binary Format (GRIB, GRIB2)                                     | •            | •               | •               |
| Golden Software Format (GSAG, GSBG, GS7GB)                              | •            | •               | •               |
| Golden Software Grid (GRD)  | •            | •               | •               |
| Hierarchical Data Format (HDF) –4, Including Subdatasets                | •            | •               | •               |
| Heightfield Raster (HF2)  | •            | •               | •               |
| HGT   | •            | •               | •               |
| High-Resolution Elevation (HRE)   | •            | •               | •               |
| HJ 1A/1B CCD  | •            | •               | •               |
| IDA   | •            | •               | •               |
| IDRISI Raster Format (RST)  | •            | •               | •               |
| IKONOS Satellite  | •            | •               | •               |
| ILWIS Raster Map  | •            | •               | •               |
| Image Display and Analysis (IDA)  | •            | •               | •               |
| Image Service (from ArcGIS Server)                                      | •            | •               | •               |
| Image Service Definition (ISDef)  | •            | •               | •               |
| Image Service Reference (ISRef)   | •            | •               | •               |
| Intergraph Raster Files: CIT™ Binary Data; COT™ Grayscale Data          | •            | •               | •               |
| Integrated Software for Imagers and Spectrometers (ISIS)                | •            | •               | •               |
| Japanese Aerospace Exploration Agency (1.1 GUD, 1.5 GUD)                | •            | •               | •               |
| Jilin-1   | •            | •               | •               |
| JPEG, JFIF, JPEG 2000   | •            | •               | •               |
| KOMPSAT-2   | •            | •               | •               |
| KOMPSAT-3   | •            | •               | •               |
| Landsat Satellites (1–7)  | •            | •               | •               |
| Landsat 8 Raster Type   | •            | •               | •               |
| LAS (Lidar Data Files)  | •            | •               | •               |
| LAS Dataset   | •            | •               | •               |
| LASZ Compressed LAS   | •            | •               | •               |
| Magellan MapSend (BLX/XLB)  | •            | •               | •               |
| Match-AT  | •            | •               | •               |
| MAP   | •            | •               | •               |
| Map Service Cache (from ArcGIS Enterprise or ArcGIS Online)             | •            | •               | •               |
| Multiresolution Seamless Image Database (MrSID) Generations 2, 3, and 4 | •            | •               | •               |
| MrSID (MG4) Lidar   | •            | •               | •               |
| National Imagery Transmission Format (NITF), Including Subdatasets      | •            | •               | •               |

| <b>Raster Data Support</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| National Land Archive Production System (NLAPS)  | •            | •               | •               |
| National Oceanic and Atmospheric Administration (NOAA) GTX Vertical Datum Shift            | •            | •               | •               |
| NCDRD  | •            | •               | •               |
| New Labeled US Geological Survey (USGS) Digital Orthophoto Quadrangle (DOQ2)               | •            | •               | •               |
| NOAA Polar Orbiter Level 1b Dataset (AVHRR)  | •            | •               | •               |
| Oracle Spatial GeoRaster <sup>7</sup>  | •            | •               | •               |
| OrbView-3 Satellite  | •            | •               | •               |
| PCI aux Labeled Raw Format (PAux)  | •            | •               | •               |
| PCI Geomatics PCIDSK (PIX) <sup>8</sup>  | •            | •               | •               |
| Planetary Data System (PDS)—National Aeronautics and Space Administration (NASA) (IMG/LBL) | •            | •               | •               |
| Portable Network Graphics  | •            | •               | •               |
| QuickBird Satellite  | •            | •               | •               |
| PCRaster (MAP) <sup>8</sup>  | •            | •               | •               |
| Pleiades   | •            | •               | •               |
| QuickBird  | •            | •               | •               |
| RADARSAT-2   | •            | •               | •               |
| RapidEye Satellite   | •            | •               | •               |
| Raster Catalog   | •            | •               | •               |
| Raster Process Definition (RPDef)  | •            | •               | •               |
| Raster Product Format (RPF)  | •            | •               | •               |
| SAGA GIS Binary Grid   | •            | •               | •               |
| Sandia Synthetic Aperture (GFF)  | •            | •               | •               |
| Sentinel-1, Sentinel-2   | •            | •               | •               |
| Shuttle Radar Topography Mission (SRTM)  | •            | •               | •               |
| Spatial Data Transfer Standard (SDTS)  | •            | •               | •               |
| SPOT Satellites  | •            | •               | •               |
| Tables   | •            | •               | •               |
| Tagged Image File Format (TIFF)  | •            | •               | •               |
| Terragen Terrain (TER/TERRAIN)   | •            | •               | •               |
| Terrain  | •            | •               | •               |
| TerraSAR-X   | •            | •               | •               |
| TH-01  | •            | •               | •               |
| USGS ASCII Digital Elevation Model <sup>8</sup>  | •            | •               | •               |
| USGS DOQ   | •            | •               | •               |
| Web Coverage Service (WCS; Open Geospatial Consortium, Inc. [OGC], Standard)               | •            | •               | •               |
| Web Map Service (WMS, OGC Standard)  | •            | •               | •               |
| WorldView Satellites   | •            | •               | •               |
| XPixMap (XPM) <sup>8</sup>   | •            | •               | •               |
| ZY02C HRC, PMS   | •            | •               | •               |
| ZY3-CRESDA, SASMAC   | •            | •               | •               |
| <b>Direct Read and Write of Raster Data</b>  |              |                 |                 |
| ERDAS IMAGINE  | •            | •               | •               |
| Esri Grid, Grid Stack, and Grid Stack File   | •            | •               | •               |
| Geodatabase Raster <sup>9</sup>  | •            | •               | •               |

ArcGIS Desktop 10.6: ArcMap Functionality Matrix

| <b>Raster Data Support</b>  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| Graphic Interchange Format (GIF)  | •            | •               | •               |
| Joint File Interchange Format (JFIF)  | •            | •               | •               |
| Joint Photographic Experts Group  | •            | •               | •               |
| JPEG 2000 (JP2)   | •            | •               | •               |
| Portable Network Graphics   | •            | •               | •               |
| Tagged Image File Format (GeoTIFF tags are supported.)  | •            | •               | •               |
| Oracle Spatial GeoRaster <sup>7</sup>   |              | •               | •               |
| <b>Geodatabase Raster Management</b>  |              |                 |                 |
| Create and Edit Raster Attribute Tables for All Supported Single Band Raster Formats <sup>9</sup> | •            | •               | •               |
| Create and Manage Rasters in Personal and File Geodatabases                                       | •            | •               | •               |
| Compress Geodatabase Rasters with LZ77, JPEG, or JPEG 2000 Compression Algorithms <sup>9</sup>    | •            | •               | •               |
| Create and Manage Raster Data in a Multiuser Geodatabase  |              | •               | •               |
| Create Raster Mosaics   |              | •               | •               |

<sup>7</sup>Oracle Spatial GeoRaster requires the data to be registered with the geodatabase or created using ArcGIS Desktop.

<sup>8</sup>These formats can be written to through programming with the ArcObjects™ API.

<sup>9</sup>Basic can only create geodatabase rasters or raster attribute tables in personal or file geodatabases. Standard and Advanced can create and manage geodatabase rasters in personal, file, and multiuser geodatabases.

| <b>Document and Data Support</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>Map and Symbology Files</b>   |              |                 |                 |
| Read Published Map Files (from ArcGIS Publisher)   | •            | •               | •               |
| Create and Edit Map Documents (MXD)  | •            | •               | •               |
| Save Layer Files (LYR) and Map Documents (MXD) in ArcGIS 8.3, 9, 9.1, 9.2, 9.3, or 10 Format | •            | •               | •               |
| Use Map Documents (MXD) to Standardize Maps  | •            | •               | •               |
| Import ArcView® 3.x ArcView Legend (AVL) Files   | •            | •               | •               |
| <b>Direct Read of Vector and Raster Data</b>   |              |                 |                 |
| Personal Geodatabase for Microsoft® Access™  | •            | •               | •               |
| File Geodatabase   | •            | •               | •               |
| Personal, Workgroup, and Enterprise Geodatabases   | •            | •               | •               |
| Shapefiles   | •            | •               | •               |
| SQLite Database Using ST Geometry or Spatialite Geometry Types                               | •            | •               | •               |
| ArcInfo® Coverages   | •            | •               | •               |
| PC ARC/INFO™ Coverages   | •            | •               | •               |
| Smart Data Compression (SDC) Data  | •            | •               | •               |
| Vector Product Format (VPF) Data   | •            | •               | •               |
| ArcGIS Server Services   | •            | •               | •               |
| ArcIMS® Services   | •            | •               | •               |
| ArcGIS Server Feature Services   | •            | •               | •               |
| OGC WCS  | •            | •               | •               |
| OGC WMS  | •            | •               | •               |
| OGC GML Simple Features Access <sup>10</sup>   | •            | •               | •               |
| OGC GML Simple Features Import/Export <sup>10</sup>  | •            | •               | •               |
| OGC GML Web Feature Service Access for Simple Features-Based Services <sup>10</sup>          | •            | •               | •               |

| <b>Document and Data Support</b>                        | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| Network Common Data Form (NetCDF)                       | •            | •               | •               |
| <b>Direct Editing of Vector Data</b>                    |              |                 |                 |
| Personal Geodatabase                                    | •            | •               | •               |
| File Geodatabase  | •            | •               | •               |
| Shapefiles  | •            | •               | •               |
| ArcSDE for SQL Express and Enterprise Geodatabases      |              | •               | •               |
| ArcGIS Server Feature Services                          |              | •               | •               |
| <b>Direct Read of Other Data</b>                        |              |                 |                 |
| Geodatabase Terrains                                    | •            | •               | •               |
| Microsoft Excel Worksheets                              | •            | •               | •               |
| Esri TIN  | •            | •               | •               |
| dBASE (DBF)   | •            | •               | •               |
| Text (TXT, CSV)   | •            | •               | •               |
| Esri INFO Files   | •            | •               | •               |
| Query Layers Defined in a DBMS with SQL                 | •            | •               | •               |
| Database Connections                                    | •            | •               | •               |
| Microsoft Access  | •            | •               | •               |
| <b>Coordinate Systems</b>                               |              |                 |                 |
| More than 800 Predefined Geographic Coordinate Systems  | •            | •               | •               |
| More than 4,800 Predefined Projected Coordinate Systems | •            | •               | •               |
| More than 150 Predefined Vertical Coordinate Systems    | •            | •               | •               |
| Ability to Create and Use Custom Coordinate Systems     | •            | •               | •               |

<sup>10</sup>These features require the installation of the ArcGIS Data Interoperability extension, but a license for this extension is not required.

| <b>CAD Support</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>CAD File Support</b>  |              |                 |                 |
| Autodesk Drawing Exchange Format (DXF)   | •            | •               | •               |
| AutoCAD Drawing File (DWG)   | •            | •               | •               |
| MicroStation Design Files (DGN, etc.)  | •            | •               | •               |
| Mapping Specification for CAD—Import from CAD  | •            | •               | •               |
| Mapping Specification for CAD—Export to CAD  | •            | •               | •               |
| <b>Direct Read of CAD Data</b>   |              |                 |                 |
| Display CAD Features and Annotation Based on CAD File's Display Properties                   | •            | •               | •               |
| Display Block Attributes and Tags as CAD Annotation Features                                 | •            | •               | •               |
| Display Entire CAD Drawing or Individual CAD Features by Geometric Type and Definition Query | •            | •               | •               |
| Override CAD Symbolology with Standard ArcGIS Display Tools                                  | •            | •               | •               |
| Control CAD Layer Visibility   | •            | •               | •               |
| Access CAD Entity Properties and Attributes through a CAD Feature Attribute Table            | •            | •               | •               |
| Directly Use CAD Data for Display, Query, Analysis, or Geoprocessing                         | •            | •               | •               |
| <b>Editing with CAD Data</b>   |              |                 |                 |
| Copy and Paste CAD Features Directly into Other GIS Feature Classes                          | •            | •               | •               |

| <b>CAD Support</b>  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| Snap to CAD Data While Editing  | •            | •               | •               |
| CAD Features Save Directly to GIS Feature Classes   | •            | •               | •               |
| <b>Coordinate Systems</b>   |              |                 |                 |
| Select and Save Coordinate System Definitions with CAD Data   | •            | •               | •               |
| Graphically Align CAD Data with Other GIS Data and Store the Transformation Definition (Georeferencing) | •            | •               | •               |
| <b>Geoprocessing—See Geoprocessing Conversion</b>   |              |                 |                 |

## Application Framework

| <b>Application Customization</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>Application Look and Feel</b>   |              |                 |                 |
| Dockable/Floating Toolbars   | •            | •               | •               |
| Dockable and Auto Hiding Windows   | •            | •               | •               |
| Unicode Support for Multilanguage Attributes                                 | •            | •               | •               |
| Installations for Chinese, Japanese, French, German, and Spanish Languages   | •            | •               | •               |
| Complies with Microsoft Windows Display Settings                             | •            | •               | •               |
| Layer (LYR) Files Registered in Windows to ArcGIS Applications               | •            | •               | •               |
| <b>Customization</b>   |              |                 |                 |
| Drag and Drop to Rearrange Tools/Toolbars                                    | •            | •               | •               |
| Add Geoprocessing Tools to Any Menu  | •            | •               | •               |
| Create New Toolbars or Menus without Programming                             | •            | •               | •               |
| Extend the Applications with Add-ins Built with .NET, Java, or Python        | •            | •               | •               |
| Build New ArcGIS Components with .NET or Java and the ArcObjects SDK         | •            | •               | •               |
| Script Analysis, Conversion, Data Management, and Map Automation with Python | •            | •               | •               |

## Data Automation

| <b>Data Editing</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| <b>General Editing</b>  |              |                 |                 |
| Simultaneously Edit Multiple Layers   | •            | •               | •               |
| Use Feature Templates to Predefine Editing Tasks per Layer                          | •            | •               | •               |
| Perform Unlimited Undo/Redo Operations  | •            | •               | •               |
| Integrate with ArcPad® for Field Editing  | •            | •               | •               |
| Provide Digitizer Support for Devices with Wintab-Compliant Drivers                 | •            | •               | •               |
| Make Measurements Using Any Units, Including Custom Units                           | •            | •               | •               |
| Optionally Scale Features When Individual Vertices Are Moved                        | •            | •               | •               |
| Automatically Correct Ground Measures Appropriately in the GIS                      | •            | •               | •               |
| Multiple Snap Environments Available  | •            | •               | •               |
| Dockable Snapping Toolbar Makes It Quick and Easy to Control Snapping While Editing | •            | •               | •               |



| <b>Data Editing</b>  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| SnapTips Give Feedback on Snap Agent Used  | •            | •               | •               |
| Optionally Snap to Basemap Layers  | •            | •               | •               |
| Simple Editing of Multipatch (3D) Features   | •            | •               | •               |
| <b>Snapping Types</b>  |              |                 |                 |
| Edge   | •            | •               | •               |
| End  | •            | •               | •               |
| Intersection   | •            | •               | •               |
| Midpoint   | •            | •               | •               |
| Point  | •            | •               | •               |
| Tangent  | •            | •               | •               |
| Vertex   | •            | •               | •               |
| <b>Snapping to Topology Elements</b>   |              |                 |                 |
| Topology Nodes   | •            | •               | •               |
| <b>Snapping Tolerance</b>  |              |                 |                 |
| By Pixels  | •            | •               | •               |
| By Map Units   | •            | •               | •               |
| Interactively  | •            | •               | •               |
| <b>Geometry Construction Options</b>   |              |                 |                 |
| Constrain the Next Segment by Direction  | •            | •               | •               |
| Constrain the Next Segment with a Deflection Angle from Last Segment                     | •            | •               | •               |
| Constrain the Next Segment by Length   | •            | •               | •               |
| Specify an Exact X,Y Location  | •            | •               | •               |
| Specify an X,Y Difference from the Last Vertex   | •            | •               | •               |
| Constrain the Next Segment to Be Parallel to the Last Segment                            | •            | •               | •               |
| Constrain the Next Segment to Be Perpendicular to the Last Segment                       | •            | •               | •               |
| Constrain the Next Segment Based on an Angle from an Existing Feature Segment in the Map | •            | •               | •               |
| Create Geometry from Existing Features in the Map  | •            | •               | •               |
| Create a Curve Tangent to the Last Segment   | •            | •               | •               |
| Finish a Polygon by Generating Perpendicular Segments from the First and Last Segment    | •            | •               | •               |
| Flip the Orientation of the Geometry   | •            | •               | •               |
| Trim Geometry to a Specific Length   | •            | •               | •               |
| <b>Geometry Creation Tools</b>   |              |                 |                 |
| Point and Click On-Screen Digitizing   | •            | •               | •               |
| Use Stream Digitizing  | •            | •               | •               |
| Autocomplete Construction (Polygon Border, Freehand Curve)                               | •            | •               | •               |
| Create Freehand Bézier Splines   | •            | •               | •               |
| Add a Coordinate Based on an Angle from One Location and a Distance from Another         | •            | •               | •               |
| Add a Coordinate Based on the Implied Intersection of Two Segments                       | •            | •               | •               |
| Add a Coordinate in Decimal Degree (DD, DMS, DDM) Format                                 | •            | •               | •               |
| Construct a Bézier Curve   | •            | •               | •               |
| Construct a True Circular Curve  | •            | •               | •               |

## ArcGIS Desktop 10.6: ArcMap Functionality Matrix

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| <b>Data Editing</b>  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| Construct a Tangent Curve  | •            | •               | •               |
| Construct Rectangles and Circles   | •            | •               | •               |
| Add a Coordinate Based on a Distance from Two Known Locations  | •            | •               | •               |
| Add a Coordinate at the Midpoint between Two Known Locations   | •            | •               | •               |
| Add Coordinates along Existing Coordinates   | •            | •               | •               |
| Create a Curved Line at the Intersection of Two Existing Lines (Fillet)                                    | •            | •               | •               |
| <b>Feature Manipulation Tasks</b>  |              |                 |                 |
| Create Features Using New Geometry   | •            | •               | •               |
| Create New Polygons Using the Geometry of Existing Features (Autocomplete Polygons)                        | •            | •               | •               |
| Reshape Existing Features  | •            | •               | •               |
| Cut Polygon Features   | •            | •               | •               |
| Create Mirror Copies of Existing Features  | •            | •               | •               |
| Extend or Trim Existing Features   | •            | •               | •               |
| Split Existing Lines at Their Explicit or Implicit Intersection  | •            | •               | •               |
| Add, Delete, Interactively Move, or Modify the Coordinate Values for Vertex Locations of Existing Features | •            | •               | •               |
| <b>Feature Editing Tools</b>   |              |                 |                 |
| Move, Rotate, Delete, Copy, and Paste  | •            | •               | •               |
| Split a Line at a Distance or Percentage   | •            | •               | •               |
| Divide a Line Based on a Distance, a Number of Segments, or a Measure Value (M-coordinate)                 | •            | •               | •               |
| Buffer Features  | •            | •               | •               |
| Copy Lines Parallel to Their Existing Location   | •            | •               | •               |
| Merge Existing Features  | •            | •               | •               |
| Create New Features by Merging Features in the Same or Another Layer (Union)                               | •            | •               | •               |
| Create New Features from the Buffer of Existing Features   | •            | •               | •               |
| Create New Polygons by Intersecting Existing Feature Classes   | •            | •               | •               |
| Clip One or More Polygons with Another Polygon   | •            | •               | •               |
| Extend and Trim Lines with Other Features in the Map   | •            | •               | •               |
| Align to Edge or Shape   | •            | •               | •               |
| Replace Geometry   | •            | •               | •               |
| <b>Attribute Editing</b>   |              |                 |                 |
| Modify Each Selected Row Individually or as a Group (Attributes Dialog)                                    | •            | •               | •               |
| Copy Attributes to One or More Rows Simultaneously   | •            | •               | •               |
| Calculate Attribute Values Using Scripts (Field Calculator)  | •            | •               | •               |
| Calculate Attribute Values from a Feature's Geometric Properties (Calculate Geometry)                      | •            | •               | •               |
| Validate Attribute Values Using Rules Defining Valid Values (Domains)                                      | •            | •               | •               |
| Enter Attributes for New Feature as They Are Created   | •            | •               | •               |
| Edit Attributes in the Attributes or Table Window  | •            | •               | •               |
| Use Navigation Shortcuts in the Attribute Window   | •            | •               | •               |
| <b>Multipart Features (Point, Line, and Polygon)</b>   |              |                 |                 |
| Add and Delete Parts   | •            | •               | •               |
| Zoom to Parts  | •            | •               | •               |

| <b>Data Editing</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| Add, Delete, and Edit Vertex Locations  | •            | •               | •               |
| Create Separate Features from Each Part (Explode)   | •            | •               | •               |
| <b>Map Navigation While Editing</b>   |              |                 |                 |
| Zoom to Feature Vertices  | •            | •               | •               |
| Zoom to Feature Parts   | •            | •               | •               |
| Pan and Zoom to Unplaced Annotation or the Feature Associated with the Unplaced Annotation                                  | •            | •               | •               |
| Continuous Pan/Zoom   | •            | •               | •               |
| <b>Vector Data Transformations</b>  |              |                 |                 |
| Rubber Sheeting Transformation  | •            | •               | •               |
| Affine Transformation   | •            | •               | •               |
| Similarity Transformation   | •            | •               | •               |
| Projective Transformation   | •            | •               | •               |
| Edgematching Transformation   | •            | •               | •               |
| Transfer Accurate Attributes from Features with Inaccurate Geometry to Features with Accurate Geometry (Conflation)         | •            | •               | •               |
| Copy Feature Geometry from One Location/Layer to a New Location/Layer   | •            | •               | •               |
| <b>Generalization</b>   |              |                 |                 |
| Smooth Line Features  | •            | •               | •               |
| Simplify the Shape of Line Features (Generalize)  | •            | •               | •               |
| <b>Coordinate Geometry</b>  |              |                 |                 |
| Automatically Modify Field Measures to the GIS (Ground to Grid) with Interactive Tools or by Specifying an Offset and Scale |              | •               | •               |
| Create Fields to Store Coordinate Geometry (COGO) Measurements  |              | •               | •               |
| Add New Features by Specifying Courses along a Traverse   |              | •               | •               |
| Create Two-Point Line Features with a Variety of Curve and Straight-Line Construction Methods                               |              | •               | •               |
| Create New Lines from a Strip Description (Offset Line)   |              | •               | •               |
| Construct Symmetrical or Asymmetrical Cul-de-Sacs from a Street Centerline  |              | •               | •               |
| Split a Line at Specific Intervals (Proportion)   |              | •               | •               |
| Merge Multiple Straight Lines into a Single Two-Point Line with Updated COGO Attributes                                     |              | •               | •               |
| Populate COGO Measurements from the Geometry of a Feature (Inverse)   |              | •               | •               |
| Examine COGO Characteristics of Existing Features (COGO Report)   |              | •               | •               |
| Calculate All Missing Measurements of a Curve from Any Two Measurements   |              | •               | •               |
| Compare Measured Polygon Area with Legal Polygon Area (COGO Area)   |              | •               | •               |
| Split Existing Lines into COGO Lines  |              | •               | •               |
| <b>Parcel Editing</b>   |              |                 |                 |
| Create Parcel Fabric Features   |              | •               | •               |
| Perform Least-Squares Adjustment of Parcel Fabric Features  |              | •               | •               |
| Adjust Associated Layers  |              | •               | •               |

| <b>Raster Editing and Vectorization<sup>11</sup></b>         | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>Vectorize All Raster Formats Supported in ArcGIS</b>      |              |                 |                 |
| 1-Bit Raster Data  | •            | •               | •               |
| 8-Bit Raster Data (with Bilevel Classification Applied)      | •            | •               | •               |
| <b>ArcGIS Integration</b>                                    |              |                 |                 |
| Vectorization into Any Editable Vector Dataset               | •            | •               | •               |
| Seamless Integration with Vector Data Editing Environment    | •            | •               | •               |
| <b>Raster Snapping Geometry</b>                              |              |                 |                 |
| Centerline   | •            | •               | •               |
| Corner   | •            | •               | •               |
| Intersection   | •            | •               | •               |
| Ends   | •            | •               | •               |
| Solid  | •            | •               | •               |
| <b>Raster Snapping Environment</b>                           |              |                 |                 |
| Available to All Editor Sketch Tools                         | •            | •               | •               |
| Snap to Raster Linear Feature of Specified Width or Less     | •            | •               | •               |
| Snap to Solids within Specified Diameter                     | •            | •               | •               |
| Ignore Holes in Data While Snapping                          | •            | •               | •               |
| <b>Vectorization Tracing</b>                                 |              |                 |                 |
| Interactively Trace Raster Lines                             | •            | •               | •               |
| Ignore Holes in Raster Linear Features                       | •            | •               | •               |
| <b>Automatic Vectorization</b>                               |              |                 |                 |
| Vectorize Entire Raster                                      | •            | •               | •               |
| Vectorize Specific Raster Area                               | •            | •               | •               |
| Simultaneously Capture Line and Polygon Vectors              | •            | •               | •               |
| <b>Vectorization Parameters</b>                              |              |                 |                 |
| Vectorize Raster Lines Less than or Equal to Specified Width | •            | •               | •               |
| Reduce Vectors (Compression) on Creation                     | •            | •               | •               |
| Smooth Vectors on Creation                                   | •            | •               | •               |
| Jump Gaps (Dashes) within Raster                             | •            | •               | •               |
| Use Variable Methods for Resolving Intersections             | •            | •               | •               |
| Save and Load Parameters                                     | •            | •               | •               |
| <b>Vectorization Preview</b>                                 |              |                 |                 |
| Use Dynamic Vectorization Preview                            | •            | •               | •               |
| Change Preview Symbology                                     | •            | •               | •               |
| <b>Raster Cell Selection</b>                                 |              |                 |                 |
| Select Foreground or Background Cells                        | •            | •               | •               |
| Select Connected Cells Interactively                         | •            | •               | •               |
| Select Connected Cells by Count                              | •            | •               | •               |
| Select Connected Cells by Diagonal Area                      | •            | •               | •               |
| <b>Raster Cleanup Environment</b>                            |              |                 |                 |
| Undo/Redo Raster Cleanup Operations                          | •            | •               | •               |
| Erase or Fill Selected Cells                                 | •            | •               | •               |
| Save Selected Cells to New Raster                            | •            | •               | •               |

| <b>Raster Editing and Vectorization<sup>11</sup></b> | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>Raster Cleanup Painting Tools</b>                 |              |                 |                 |
| Brush  | •            | •               | •               |
| Erase  | •            | •               | •               |
| Basic Shapes (Line, Square, Ellipse, and Polygon)    | •            | •               | •               |
| Erase Connected Cells                                | •            | •               | •               |
| <b>Support Tools</b>                                 |              |                 |                 |
| Discover Raster Line Width                           | •            | •               | •               |
| Discover Raster Solid Diameter                       | •            | •               | •               |

<sup>11</sup>The vectorization functionality is available through ArcScan™ for ArcGIS in ArcMap, which can be enabled from the Customize > Extensions menu.

| <b>Mobile</b>  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>GPS Support</b>                                     |              |                 |                 |
| Display Real-Time Location Points from a GPS Receiver  | •            | •               | •               |
| Dynamically Center the Map on the Current GPS Point    | •            | •               | •               |
| Store GPS Locations in a Log File                      | •            | •               | •               |
| Filter by GPS Input by Time, Distance, or Deflection   | •            | •               | •               |
| <b>Tablet PC</b>                                       |              |                 |                 |
| Export Ink Markups to ArcMap                           | •            | •               | •               |
| Support Windows XP Tablet PC Edition                   | •            | •               | •               |
| Edit Features or Graphics with a Stylus                | •            | •               | •               |
| Use Ink Gestures to Perform Common Mapping Tasks       | •            | •               | •               |
| Annotate the Map with Redlining and Highlighting Tools | •            | •               | •               |
| Find Handwritten Notes within the Map                  | •            | •               | •               |
| Convert Redlining Handwriting to Text                  | •            | •               | •               |
| <b>ArcGIS Mobile Support</b>                           |              |                 |                 |
| Create Mobile Map                                      | •            | •               | •               |
| Synchronize Mobile Cache                               | •            | •               | •               |

| <b>Multuser Geodatabase Editing</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| <b>General Editing</b>  |              |                 |                 |
| Multiple Editors Can Simultaneously Edit the Same Feature Classes in a Multuser Geodatabase       |              | •               | •               |
| Isolate Editing Projects in Separate Versions (Create Version)<br>Enabling a Variety of Workflows |              | •               | •               |
| Merge Versions (Reconcile and Post)   |              | •               | •               |
| Manage Conflicts between Editors by Row or Column   |              | •               | •               |
| Manage Conflicts between Editors Interactively or Automatically                                   |              | •               | •               |
| Delete Versions   |              | •               | •               |
| Simultaneously View and Edit Versioned GIS Data in ArcGIS and Non-ArcGIS Applications             |              | •               | •               |
| <b>Administration Geoprocessing</b>   |              |                 |                 |
| Modify Data Privileges for Data in a Multuser Geodatabase   |              | •               | •               |
| Migrate Storage   |              | •               | •               |
| Register SDE™ Data with the Geodatabase   |              | •               | •               |
| Clean Up Versioning Tables (Compress)   |              | •               | •               |

| <b>Multuser Geodatabase Editing</b>  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| Add and Remove Tables and Feature Class from the Versioning Environment (Register and Unregister as Versioned) |              | •               | •               |
| <b>Versioning Geoprocessing</b>  |              |                 |                 |
| Add Field Conflict Filter  |              | •               | •               |
| Alter Version  |              | •               | •               |
| Change Version   |              | •               | •               |
| Create Version   |              | •               | •               |
| Create Versioned View  |              | •               | •               |
| Delete Version   |              | •               | •               |
| Post Version   |              | •               | •               |
| Reconcile Versions   |              | •               | •               |
| Register as Versioned  |              | •               | •               |
| Remove Field Conflict Filter   |              | •               | •               |
| Unregister as Versioned  |              | •               | •               |
| <b>Short Transaction Editing</b>   |              |                 |                 |
| Edit Nonversioned Simple Features  |              | •               | •               |
| Create Features and Enter Attributes for Those Features within a Single Database Transaction                   |              | •               | •               |

| <b>Multuser Geodatabase Archiving</b>                             | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| <b>Display and Query</b>  |              |                 |                 |
| View the Geodatabase at a Specific Point in Time                  | •            | •               | •               |
| Query Archived Data Directly                                      | •            | •               | •               |
| <b>Manage</b>   |              |                 |                 |
| Enable and Disable Archiving for a Table or Feature Class         |              | •               | •               |
| Create Saved Views of the Geodatabase at a Specific Point in Time |              | •               | •               |

| <b>Distributed Geodatabases</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| <b>Manage Replicas</b>  |              |                 |                 |
| Create Replicas of Vector and Raster Data Using a Filter                                    |              | •               | •               |
| Create and Manage Checkout/Check-in, One-Way, or Two-Way Geodatabase Replicas               |              | •               | •               |
| Synchronize Connected Replicas  |              | •               | •               |
| Exchange Edits between Disconnected Replicas with an XML, ZIP, Z, or Geodatabase Delta File |              | •               | •               |
| Compare Schemas between Replicas  |              | •               | •               |
| Exchange Schema Changes between Replicas  |              | •               | •               |
| Generate a Feature Class Containing the Rectangular Extent of a Replica                     |              | •               | •               |
| <b>Disconnected Editing Geoprocessing</b>   |              |                 |                 |
| Check In  |              | •               | •               |
| Check Out   |              | •               | •               |
| Check In from Delta   |              | •               | •               |
| Export to Delta   |              | •               | •               |
| <b>Distributed Geodatabases Geoprocessing</b>   |              |                 |                 |
| Add Global IDs  |              | •               | •               |

| <b>Distributed Geodatabases</b>  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|----------------------------------|--------------|-----------------|-----------------|
| Compare Replica Schema           |              | •               | •               |
| Create Replica                   |              | •               | •               |
| Create Replica from Server       |              | •               | •               |
| Create Replica Footprints        |              | •               | •               |
| Export Acknowledgment Message    |              | •               | •               |
| Export Data Change Message       |              | •               | •               |
| Export Replica Schema            |              | •               | •               |
| Export XML Workspace Document    |              | •               | •               |
| Import Message                   |              | •               | •               |
| Import Replica Schema            |              | •               | •               |
| Import XML Workspace Document    |              | •               | •               |
| Reexport Unacknowledged Messages |              | •               | •               |
| Synchronize Changes              |              | •               | •               |

| <b>Spatial Referencing Image Data (Georeferencing)<sup>12</sup></b> | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| <b>Tools</b>  |              |                 |                 |
| Shift, Flip, Rotate, or Fit Image to Display                        | •            | •               | •               |
| Interactively Specify From and To Control Points                    | •            | •               | •               |
| Save and Load Control Points with Error and Accuracy Information    | •            | •               | •               |
| <b>Transformation Methods</b>                                       |              |                 |                 |
| First-, Second-, and Third-Order Polynomial                         | •            | •               | •               |
| Adjust  | •            | •               | •               |
| Spline  | •            | •               | •               |
| <b>Save Spatial Reference Information</b>                           |              |                 |                 |
| Create a New Dataset (Rectify)                                      | •            | •               | •               |
| Save Reference Information with the Image                           | •            | •               | •               |

<sup>12</sup>Spatial referencing of rasters stored in an ArcSDE workspace requires the Standard or Advanced license level.

## Data Management and Validation

| <b>Data Management</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>General</b>   |              |                 |                 |
| Manage GIS Data and All Associated Files from a Single Tree View Application (ArcCatalog™)       | •            | •               | •               |
| Manage GIS Data and All Associated Files from the Catalog Window in ArcMap                       | •            | •               | •               |
| Manage Raster Datasets and Raster Catalogs in a Personal Geodatabase                             | •            | •               | •               |
| Create Single-User (Personal or File) Geodatabase Feature Classes                                | •            | •               | •               |
| Create Shapefiles  | •            | •               | •               |
| Administer ArcGIS Server   | •            | •               | •               |
| Connect to Multiuser Geodatabases or Databases Using Operating System or Database Authentication | •            | •               | •               |

| <b>Data Management</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>Search for Maps, Data, and Tools</b>                              |              |                 |                 |
| By Author  | •            | •               | •               |
| By Name  | •            | •               | •               |
| By Type  | •            | •               | •               |
| By Path  | •            | •               | •               |
| By Keyword Tag   | •            | •               | •               |
| By Spatial Extent  | •            | •               | •               |
| From Enterprise and Cloud Search Services                            | •            | •               | •               |
| <b>Manage Coverage Data</b>  |              |                 |                 |
| Add/Modify Tic Locations   |              | •               | •               |
| Set Coordinate System  |              | •               | •               |
| Change the Data Extent   |              | •               | •               |
| Create Coverage Relationship Classes                                 |              | •               | •               |
| Create a New Coverage  |              | •               | •               |
| Create a New INFO File   |              | •               | •               |
| Modify Coverage Tolerances   |              | •               | •               |
| <b>Geodatabase and Database Administration</b>                       |              |                 |                 |
| Use a Database Connection to Read Spatial and Tabular Data           | •            | •               | •               |
| Create a Query Layer   | •            | •               | •               |
| Create a Database Connection to Any Supported Database               | •            | •               | •               |
| Delete or Rename Tables in a Database Connection                     | •            | •               | •               |
| Add, Delete, or Rename Fields in a Database Connection               | •            | •               | •               |
| Create and Load Vector Data into a Multiuser Geodatabase or Database |              | •               | •               |
| Create and Load Raster Data into a Multiuser Geodatabase             |              | •               | •               |
| Create Users or Roles for a Database Connection                      |              | •               | •               |
| Grant or Revoke Privileges to Users or Groups in a Connection        |              | •               | •               |
| Create a Database View   |              | •               | •               |
| Create Tables/Feature Classes That Store Custom Objects/Features     |              | •               | •               |
| Analyze Datasets to Update RDBMS Statistics for GIS Data             |              | •               | •               |
| <b>Geodatabase XML File Import/Export</b>                            |              |                 |                 |
| Export and Import XML (Binary or Normalized)                         |              | •               | •               |
| ZIP (Compressed Text File with 4 GB File Size Limit)                 |              | •               | •               |
| Z (Compressed Text File with No File Size Limit)                     |              | •               | •               |

| <b>Attribute Validation</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|-------------------------------|--------------|-----------------|-----------------|
| <b>Subtypes Geoprocessing</b> |              |                 |                 |
| Add Subtype                   | •            | •               | •               |
| Remove Subtype                | •            | •               | •               |
| Set Default Subtype           | •            | •               | •               |
| Set Subtype Field             | •            | •               | •               |
| <b>Domains Geoprocessing</b>  |              |                 |                 |
| Add Coded Value to Domain     | •            | •               | •               |
| Assign Domain to Field        | •            | •               | •               |
| Create Domain                 | •            | •               | •               |



| <b>Attribute Validation</b>                                 | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| Delete Coded Value from Domain                              | •            | •               | •               |
| Delete Domain   | •            | •               | •               |
| Domain to Table   | •            | •               | •               |
| Remove Domain from Field                                    | •            | •               | •               |
| Set Value for Range Domain                                  | •            | •               | •               |
| Sort Coded Value Domain                                     | •            | •               | •               |
| Table to Domain   | •            | •               | •               |
| <b>Create and Edit Relationships for Features</b>           |              |                 |                 |
| One to One  |              | •               | •               |
| One to Many   |              | •               | •               |
| Many to Many  |              | •               | •               |
| Specify Cardinality Rules for Relationships                 |              | •               | •               |
| Store Attributes for Relationships                          |              | •               | •               |
| Enable Attachments for a Feature Class (Multimedia Support) |              | •               | •               |
| Create and Edit Attachments for a Feature Class             |              | •               | •               |
| <b>Geodatabase Relationship Behavior</b>                    |              |                 |                 |
| Moving a Feature Moves the Related Feature                  |              | •               | •               |
| Deleting One Feature Deletes the Related Feature            |              | •               | •               |
| <b>Relationship Class Geoprocessing</b>                     |              |                 |                 |
| Create Relationship Class                                   |              | •               | •               |
| Table to Relationship Class                                 |              | •               | •               |
| Migrate Relationship Class                                  |              | •               | •               |

| <b>Topology</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| <b>Map Display</b>  |              |                 |                 |
| Display a Summary of the Errors and Exceptions in the Topology                                      | •            | •               | •               |
| Display the Feature Classes and Rules in the Topology   | •            | •               | •               |
| Display Errors, Exceptions, and Dirty Areas in the Map  | •            | •               | •               |
| <b>Editing</b>  |              |                 |                 |
| Construct and Edit Topologies Created from Layers in the Map <sup>13</sup>                          | •            | •               | •               |
| Move Topological Edges and Nodes <sup>13</sup>  | •            | •               | •               |
| Show or Select Adjacent or Connected Features <sup>13</sup>   | •            | •               | •               |
| Reshape Shared Edges between Features <sup>13</sup>   | •            | •               | •               |
| Modify the Coordinates of Shared Edges or Nodes <sup>13</sup>                                       | •            | •               | •               |
| Split Shared Edges at a Specific Point, Distance, or Percentage along the Edge <sup>13</sup>        | •            | •               | •               |
| Move Edges and Nodes to a Specific Location <sup>13</sup>   | •            | •               | •               |
| Shift Edges and Nodes Based on an Offset from Their Current Location <sup>13</sup>                  | •            | •               | •               |
| Merge Connected Edges <sup>13</sup>   | •            | •               | •               |
| Control Which Adjacent or Connected Features Move When a Shared Edge or Node Is Moved <sup>13</sup> | •            | •               | •               |
| Create/Split Polygons from Lines or Create Lines from Polygons                                      |              | •               | •               |
| Split Lines Where They Intersect  |              | •               | •               |
| Validate a Specific Area or the Entire Topology   |              | •               | •               |
| Search for Errors of a Specific Type within One Area or the Entire Topology                         |              | •               | •               |

| <b>Topology</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| Inspect Errors by Zooming, Panning, or Selecting the Features                             |              | •               | •               |
| <b>Geodatabase Topology Rule Violation Fix Operations</b>                                 |              |                 |                 |
| Delete Features   |              | •               | •               |
| Subtract Features   |              | •               | •               |
| Create Features   |              | •               | •               |
| Merge Features  |              | •               | •               |
| Snap Features   |              | •               | •               |
| Extend Lines  |              | •               | •               |
| Trim Lines  |              | •               | •               |
| Split Lines   |              | •               | •               |
| Explode Features  |              | •               | •               |
| Simplify Features   |              | •               | •               |
| <b>Geodatabase Topology Management</b>  |              |                 |                 |
| Create and Manage Geodatabase Topology  |              | •               | •               |
| Add or Remove Individual Feature Classes in a Topology                                    |              | •               | •               |
| Add or Remove a Rule in a Topology  |              | •               | •               |
| Specify a Hierarchy for Vertex Snapping during Topology Creation                          |              | •               | •               |
| Change the Rank of a Feature Class in a Topology  |              | •               | •               |
| <b>Geodatabase Topology Rules</b>   |              |                 |                 |
| Polygons Contain Points   |              | •               | •               |
| Polygon Contains One Point  |              | •               | •               |
| Polygons Must Not Overlap   |              | •               | •               |
| Polygons Must Not Have Gaps   |              | •               | •               |
| Polygons Must Not Overlap with Polygons in Another Feature Class                          |              | •               | •               |
| Polygons Must Be Covered by One Polygon in Another Feature Class                          |              | •               | •               |
| Polygons Must Be Covered by One or More Polygons in Another Feature Class                 |              | •               | •               |
| Polygons from Two Feature Classes Must Cover Each Other                                   |              | •               | •               |
| Polygon Boundaries Must Be Covered by Lines of Another Feature Class                      |              | •               | •               |
| Polygon Boundaries Must Be Covered by the Boundaries of Polygons in Another Feature Class |              | •               | •               |
| Lines Must Not Overlap  |              | •               | •               |
| Lines Must Be Inside  |              | •               | •               |
| Lines Must Be Single Part   |              | •               | •               |
| Lines Must Not Self-Overlap   |              | •               | •               |
| Lines Must Not Overlap with Lines in Another Feature Class                                |              | •               | •               |
| Lines Must Not Have Dangles   |              | •               | •               |
| Lines Must Not Have Pseudonodes   |              | •               | •               |
| Lines Must Not Intersect  |              | •               | •               |
| Lines Must Not Intersect With   |              | •               | •               |
| Lines Must Not Self-Intersect   |              | •               | •               |
| Line Endpoints Must Be Covered by Points of Another Feature Class                         |              | •               | •               |
| Lines Must Be Covered by Polygon Boundaries of Another Feature Class                      |              | •               | •               |

| <b>Topology</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| Lines Must Not Intersect or Touch Interior With                             |              | •               | •               |
| Lines Must Be Covered by Lines of Another Feature Class                     |              | •               | •               |
| Points Must Be Coincident With  |              | •               | •               |
| Points Must Be Covered by Lines of Another Feature Class                    |              | •               | •               |
| Points Must Be Disjoint   |              | •               | •               |
| Points Must Be Inside Polygons  |              | •               | •               |
| Points Must Be Covered by the Endpoints of Lines                            |              | •               | •               |
| Points Must Be Covered by the Boundary of Polygons of Another Feature Class |              | •               | •               |
| <b>Geoprocessing</b>  |              |                 |                 |
| Export Topology Errors  | •            | •               | •               |
| Add Feature Class to Topology   |              | •               | •               |
| Add Rule to Topology  |              | •               | •               |
| Create Topology   |              | •               | •               |
| Remove Feature Class from Topology  |              | •               | •               |
| Remove Rule from Topology   |              | •               | •               |
| Set Cluster Tolerance   |              | •               | •               |
| Validate Topology   |              | •               | •               |

<sup>13</sup>Only available with simple features in map-based topologies

| <b>Networks</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| <b>Utility (Geometric) Network Analysis</b>   |              |                 |                 |
| Trace Upstream  | •            | •               | •               |
| Trace Downstream  | •            | •               | •               |
| Determine Flow Direction of Edges   | •            | •               | •               |
| Find Common Ancestors   | •            | •               | •               |
| Find Connected or Disconnected Network Features                                       | •            | •               | •               |
| Find Loops in Network   | •            | •               | •               |
| Find Disconnected Network Features  | •            | •               | •               |
| Find Path   | •            | •               | •               |
| Find Shortest Path Using Weighting  | •            | •               | •               |
| Find Path Upstream  | •            | •               | •               |
| Find Upstream Accumulation  | •            | •               | •               |
| Isolate a Point on the Network  | •            | •               | •               |
| <b>Data Management</b>  |              |                 |                 |
| Create and Manage Utility Networks  |              | •               | •               |
| Create Complex Edge Features That Maintain Connectivity without Splitting the Feature |              | •               | •               |
| <b>Geometric Network Connectivity Rules</b>   |              |                 |                 |
| Edge—Junction   |              | •               | •               |
| Edge—Edge via Junction  |              | •               | •               |
| <b>Geometric Network Editing</b>  |              |                 |                 |
| Connect and Disconnect Network Features   |              | •               | •               |
| Enable and Disable Network Features   |              | •               | •               |
| Set Flow Direction for a Network  |              | •               | •               |

| <b>Networks</b>                                       | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| Verify, Repair, and Rebuild Connectivity in a Network |              | •               | •               |
| Verify the Geometry of Network Features               |              | •               | •               |
| Review and Repair Network Creation Errors             |              | •               | •               |

| <b>Linear Referencing (Routes)</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>Display</b>   |              |                 |                 |
| Find and Display Dynamic Segmentation Events (Point, Linear, and Continuous) on Routes                             | •            | •               | •               |
| <b>Editing</b>   |              |                 |                 |
| Interactively Modify M-coordinate Values   | •            | •               | •               |
| Interactively Drop M-coordinates   | •            | •               | •               |
| Create Routes for Selected Lines Using the Length of the Features, a Field Value, or Specific From and To Measures | •            | •               | •               |
| Edit a Portion of a Line without Affecting the Measures on the Rest of the Line                                    | •            | •               | •               |
| Adjust One Route Using Points along the Routes (Calibrate)   | •            | •               | •               |
| Calculate Measures Using From and To Measures for a Line   | •            | •               | •               |
| Set the Digitized Direction of the Line to Match Measure Values  | •            | •               | •               |
| Calculate Measures Based on Length of Line   | •            | •               | •               |
| Drop All the Measures for a Line   | •            | •               | •               |
| Calculate Unknown Measures Using Interpolation Based on Existing Measures  | •            | •               | •               |
| Add a Value to All Measures on a Line  | •            | •               | •               |
| Multiply All Measures on a Line by a Factor  | •            | •               | •               |
| Add a Vertex at a Specific Measure   | •            | •               | •               |
| <b>Geoprocessing</b>   |              |                 |                 |
| Make Route Event Layer   | •            | •               | •               |
| Create Routes  | •            | •               | •               |
| Calibrate Routes (Adjust All Route Measures Using Points along the Routes)   | •            | •               | •               |
| Dissolve Route Events  | •            | •               | •               |
| Locate Features along Routes   | •            | •               | •               |
| Overlay Route Events   | •            | •               | •               |
| Transform Route Events   | •            | •               | •               |

| <b>Metadata</b>  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>General</b>   |              |                 |                 |
| Automatically or Manually Generate Metadata for All Items  | •            | •               | •               |
| Import/Export Metadata   | •            | •               | •               |
| Export Metadata to ISO 19139   | •            | •               | •               |
| Export Metadata to Federal Geographic Data Committee (FGDC) Content Standard for Digital Geospatial Metadata (CSDGM) | •            | •               | •               |
| Create XML Files for Metadata Templates  | •            | •               | •               |
| <b>Managing Metadata Using a Variety of Styles</b>   |              |                 |                 |
| Item Description   | •            | •               | •               |
| Infrastructure for Spatial Information in Europe (INSPIRE) Metadata Directive  | •            | •               | •               |

| <b>Metadata</b>                                 | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| ISO 19139 Metadata Implementation Specification | •            | •               | •               |
| North American Profile of ISO 19139 2003        | •            | •               | •               |
| <b>Geoprocessing</b>                            |              |                 |                 |
| Esri Metadata Translator                        | •            | •               | •               |
| Export Metadata                                 | •            | •               | •               |
| Export Metadata Multiple                        | •            | •               | •               |
| Import Metadata                                 | •            | •               | •               |
| Metadata Importer                               | •            | •               | •               |
| Metadata Publisher                              | •            | •               | •               |
| Synchronize Metadata                            | •            | •               | •               |
| Upgrade Metadata                                | •            | •               | •               |
| Validate Metadata                               | •            | •               | •               |
| Validate Metadata Multiple                      | •            | •               | •               |
| USGS MP Metadata Translator                     | •            | •               | •               |
| XML Schema Validation                           | •            | •               | •               |
| XSLT Transformation                             | •            | •               | •               |

## Data Manipulation and Analysis

| <b>Coverage Geoprocessing<sup>14</sup></b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>Application Framework</b>   |              |                 |                 |
| Full-Featured Management and Analysis Environment for ArcInfo Coverage Data Format (All tools require that ArcInfo Workstation be installed and licensed.) |              |                 | •               |
| <b>Analysis</b>  |              |                 |                 |
| Clip   |              |                 | •               |
| Select   |              |                 | •               |
| Split  |              |                 | •               |
| Erase  |              |                 | •               |
| Identity   |              |                 | •               |
| Intersect  |              |                 | •               |
| Union  |              |                 | •               |
| Update   |              |                 | •               |
| Buffer   |              |                 | •               |
| Near   |              |                 | •               |
| Point Distance   |              |                 | •               |
| Point Node   |              |                 | •               |
| Thiessen   |              |                 | •               |
| <b>Conversion</b>  |              |                 |                 |
| Export to DLG  |              |                 | •               |
| Export to Interchange File   |              |                 | •               |
| Export to S57  |              |                 | •               |
| Export to SDTS   |              |                 | •               |
| Export to VPF  |              |                 | •               |
| Ungenerate   |              |                 | •               |

| <b>Coverage Geoprocessing<sup>14</sup></b> | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| Advanced TIGER Conversion                  |              |                 | •               |
| Basic TIGER Conversion                     |              |                 | •               |
| Generate                                   |              |                 | •               |
| Import from DLG                            |              |                 | •               |
| Import from Interchange File               |              |                 | •               |
| Import from S57                            |              |                 | •               |
| Import from SDTS                           |              |                 | •               |
| Import from VPF                            |              |                 | •               |
| <b>Aggregation</b>                         |              |                 |                 |
| Append                                     |              |                 | •               |
| <b>Composite Features</b>                  |              |                 |                 |
| Line Coverage to Region                    |              |                 | •               |
| Line Coverage to Route                     |              |                 | •               |
| Polygon Coverage to Region                 |              |                 | •               |
| Region to Polygon Coverage                 |              |                 | •               |
| <b>Generalization</b>                      |              |                 |                 |
| Aggregate Polygons                         |              |                 | •               |
| Simplify Building                          |              |                 | •               |
| Collapse Dual Lines to Centerline          |              |                 | •               |
| Dissolve                                   |              |                 | •               |
| Eliminate                                  |              |                 | •               |
| Find Conflicts                             |              |                 | •               |
| Simplify Line or Polygon                   |              |                 | •               |
| <b>Table Management</b>                    |              |                 |                 |
| Drop Index                                 |              |                 | •               |
| Index Item                                 |              |                 | •               |
| Add Item                                   |              |                 | •               |
| Drop Item                                  |              |                 | •               |
| Join Info Tables                           |              |                 | •               |
| Add X,Y Coordinates                        |              |                 | •               |
| ReNUMBER Nodes                             |              |                 | •               |
| Update IDs                                 |              |                 | •               |
| <b>Projections</b>                         |              |                 |                 |
| Define Projection                          |              |                 | •               |
| Project                                    |              |                 | •               |
| Transform                                  |              |                 | •               |
| <b>Topology</b>                            |              |                 |                 |
| Build                                      |              |                 | •               |
| Clean                                      |              |                 | •               |
| Create Labels                              |              |                 | •               |
| VPF File Topology                          |              |                 | •               |
| <b>General</b>                             |              |                 |                 |
| Create Coverage                            |              |                 | •               |
| Tolerance                                  |              |                 | •               |

<sup>14</sup>Coverage geoprocessing tools require the installation of ArcInfo Workstation 10.

| <b>Geoprocessing</b>  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| <b>Environment</b>  |              |                 |                 |
| String Together Geoprocessing Tools Using a Visual Development Environment (ModelBuilder™)                  | •            | •               | •               |
| Use Python Window to Run Geoprocessing Tools and ArcPy Functions  | •            | •               | •               |
| Use Toolboxes Tree in ArcCatalog or Catalog Window  | •            | •               | •               |
| Use ArcToolbox™ Window  | •            | •               | •               |
| Use Search Window to Find Tools   | •            | •               | •               |
| Use My Toolboxes Geoprocessing Tool View  | •            | •               | •               |
| Create and Share New Geoprocessing Tools Using Models, Scripts, or Python Toolboxes                         | •            | •               | •               |
| Save Tools in a Geodatabase or on the File System   | •            | •               | •               |
| Display the Results and Intermediate Data from a Model in a Map   | •            | •               | •               |
| Execute Tools, Models, and Scripts Multiple Times with Different Inputs in One Operation (Batch Processing) | •            | •               | •               |
| Build Looping Models Using Model Iterators  | •            | •               | •               |
| <b>Supported Scripting Environments</b>   |              |                 |                 |
| C++   | •            | •               | •               |
| JavaScript  | •            | •               | •               |
| Perl  | •            | •               | •               |
| Python 2.7  | •            | •               | •               |
| VBScript  | •            | •               | •               |
| Visual Studio .NET  | •            | •               | •               |
| <b>General Data Management</b>  |              |                 |                 |
| Append  | •            | •               | •               |
| Copy  | •            | •               | •               |
| Delete  | •            | •               | •               |
| Merge   | •            | •               | •               |
| Merge Branch  | •            | •               | •               |
| Rename  | •            | •               | •               |
| Select Data   | •            | •               | •               |
| Calculate Value   | •            | •               | •               |
| Sort  | •            | •               | •               |
| Delete Identical  |              | •               | •               |
| Find Identical  |              |                 | •               |
| <b>Data Comparison</b>  |              |                 |                 |
| Feature Compare   | •            | •               | •               |
| File Compare  | •            | •               | •               |
| Raster Compare  | •            | •               | •               |
| Table Compare   | •            | •               | •               |
| TIN Compare   | •            | •               | •               |
| Detect Feature Changes  |              |                 | •               |

| <b>Geoprocessing</b>  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| <b>Archiving</b>  |              |                 |                 |
| Enable Archiving  |              | •               | •               |
| Disable Archiving   |              | •               | •               |
| <b>Attachments</b>  |              |                 |                 |
| Add Attachments   |              | •               | •               |
| Disable Attachments   |              | •               | •               |
| Remove Attachments  |              | •               | •               |
| Generate Attachment Match Table   |              | •               | •               |
| <b>Table Management</b>   |              |                 |                 |
| Copy Rows   | •            | •               | •               |
| Create Table  | •            | •               | •               |
| Create Unregistered Table   | •            | •               | •               |
| Delete Rows   | •            | •               | •               |
| Get Count   | •            | •               | •               |
| Truncate Table  | •            | •               | •               |
| Analyze   |              | •               | •               |
| Pivot Table   |              |                 | •               |
| <b>Editing</b>  |              |                 |                 |
| Densify   |              | •               | •               |
| Erase Point   |              | •               | •               |
| Extend Line   |              | •               | •               |
| Flip Line   |              | •               | •               |
| Generalize  |              | •               | •               |
| Snap  |              | •               | •               |
| Trim Line   |              | •               | •               |
| <b>Conflation</b>   |              |                 |                 |
| Align Features  |              |                 | •               |
| Calculate Transformation Errors   |              |                 | •               |
| Edgematch Features  |              |                 | •               |
| Generate Edgematch Links  |              |                 | •               |
| Generate Rubbersheet Links  |              |                 | •               |
| Rubbersheet Features  |              |                 | •               |
| Transfer Attributes   |              |                 | •               |
| Transform Features  |              |                 | •               |
| <b>Field Management</b>   |              |                 |                 |
| Add Field   | •            | •               | •               |
| Add Incrementing ID Field (Altibase, DB2, Oracle, PostgreSQL, SQL Server) |              | •               | •               |
| Alter Field   | •            | •               | •               |
| Assign Default to Field   | •            | •               | •               |
| Calculate End Time  | •            | •               | •               |
| Calculate Field   | •            | •               | •               |
| Convert Time Field  | •            | •               | •               |
| Convert Time Zone   | •            | •               | •               |
| Delete Field  | •            | •               | •               |
| Disable Editor Tracking   | •            | •               | •               |
| Enable Editor Tracking  | •            | •               | •               |



| <b>Geoprocessing</b>                      | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| Transpose Fields                          | •            | •               | •               |
| <b>Feature Class Management</b>           |              |                 |                 |
| Append Annotation Feature Classes         | •            | •               | •               |
| Calculate Default Cluster (X,Y) Tolerance | •            | •               | •               |
| Calculate Default Spatial Grid Index      | •            | •               | •               |
| Create Feature Classes                    | •            | •               | •               |
| Create Fishnet                            | •            | •               | •               |
| Integrate                                 | •            | •               | •               |
| Update Annotation Feature Classes         | •            | •               | •               |
| Create Random Points <sup>15</sup>        |              |                 | •               |
| <b>Feature Management</b>                 |              |                 |                 |
| Add Geometry Attributes                   | •            | •               | •               |
| Add X,Y Coordinates                       | •            | •               | •               |
| Adjust 3D Z                               | •            | •               | •               |
| Bearing Distance to Line                  | •            | •               | •               |
| Check Geometry                            | •            | •               | •               |
| Copy Features                             | •            | •               | •               |
| Delete Features                           | •            | •               | •               |
| Multipart to Single Part                  | •            | •               | •               |
| Repair Geometry                           | •            | •               | •               |
| Points to Line                            | •            | •               | •               |
| Table to Ellipse                          | •            | •               | •               |
| X,Y to Line                               | •            | •               | •               |
| Geodetic Densify                          |              | •               | •               |
| Dice                                      |              |                 | •               |
| Minimum Bounding Geometry                 |              |                 | •               |
| Feature Envelope to Polygon               |              |                 | •               |
| Feature to Line                           |              |                 | •               |
| Feature to Point                          |              |                 | •               |
| Feature to Polygon                        |              |                 | •               |
| Feature Vertices to Points                |              |                 | •               |
| Polygon to Line                           |              |                 | •               |
| Split Line at Point                       |              |                 | •               |
| Split Line at Vertices                    |              |                 | •               |
| Unsplit Line                              |              |                 | •               |
| <b>File Geodatabase</b>                   |              |                 |                 |
| Compact File Geodatabase                  | •            | •               | •               |
| Compress File Geodatabase Data            | •            | •               | •               |
| Generate File Geodatabase License         | •            | •               | •               |
| Generate Licensed File Geodatabase        | •            | •               | •               |
| Uncompress File Geodatabase Data          | •            | •               | •               |
| <b>Generalization</b>                     |              |                 |                 |
| Dissolve                                  | •            | •               | •               |
| Simplify Line (Cartography)               |              | •               | •               |
| Smooth Line (Cartography)                 |              | •               | •               |
| Smooth Polygon (Cartography)              |              | •               | •               |

| <b>Geoprocessing</b>                            | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| Collapse Road Details (Cartography)             |              |                 | •               |
| Create Cartographic Partitions (Cartography)    |              |                 | •               |
| Delineate Built-Up Areas (Cartography)          |              |                 | •               |
| Aggregate Polygons (Cartography)                |              |                 | •               |
| Aggregate Points (Cartography)                  |              |                 | •               |
| Collapse Dual Lines to Centerline (Cartography) |              |                 | •               |
| Eliminate                                       |              |                 | •               |
| Eliminate Polygon Part                          |              |                 | •               |
| Merge Divided Roads (Cartography)               |              |                 | •               |
| Simplify Building (Cartography)                 |              |                 | •               |
| Simplify Polygon (Cartography)                  |              |                 | •               |
| Thin Road Network (Cartography)                 |              |                 | •               |
| <b>Projections and Transformations</b>          |              |                 |                 |
| Convert Coordinate Notation                     | •            | •               | •               |
| Create Custom Geographic Transformation         | •            | •               | •               |
| Create Spatial Reference                        | •            | •               | •               |
| Define Projection (Single Input)                | •            | •               | •               |
| <b>Vector Data Projection</b>                   |              |                 |                 |
| Batch Project                                   | •            | •               | •               |
| Project   | •            | •               | •               |
| <b>Raster Management</b>                        |              |                 |                 |
| Add Color Map                                   | •            | •               | •               |
| Batch Build Pyramids                            | •            | •               | •               |
| Batch Calculate Statistics                      | •            | •               | •               |
| Build Pyramids                                  | •            | •               | •               |
| Build Pyramids and Statistics                   | •            | •               | •               |
| Build Raster Attribute Table                    | •            | •               | •               |
| Calculate Statistics                            | •            | •               | •               |
| Clip  | •            | •               | •               |
| Composite Bands                                 | •            | •               | •               |
| Compute Pan-Sharpened Weights                   | •            | •               | •               |
| Copy Raster                                     | •            | •               | •               |
| Copy Raster Catalog Items                       | •            | •               | •               |
| Create Orthorectified Raster Dataset            | •            | •               | •               |
| Create Pan-Sharpened Raster Dataset             | •            | •               | •               |
| Create Raster Catalog                           | •            | •               | •               |
| Create Raster Dataset                           | •            | •               | •               |
| Download Rasters                                | •            | •               | •               |
| Delete Color Map                                | •            | •               | •               |
| Delete Raster Attribute Table                   | •            | •               | •               |
| Delete Raster Catalog Items                     | •            | •               | •               |
| Export Raster Catalog Paths                     | •            | •               | •               |
| Export Raster World File                        | •            | •               | •               |
| Extract Subdataset                              | •            | •               | •               |
| Repair Raster Catalog Paths                     | •            | •               | •               |
| Get Cell Value                                  | •            | •               | •               |

ArcGIS Desktop 10.6: ArcMap Functionality Matrix

| <b>Geoprocessing</b>  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| Get Raster Properties                                       | •            | •               | •               |
| Set Raster Properties                                       | •            | •               | •               |
| Mosaic (with Optional Color Balancing)                      | •            | •               | •               |
| Mosaic to New Raster  | •            | •               | •               |
| Raster Catalog to Raster Dataset                            | •            | •               | •               |
| Raster to DTED  | •            | •               | •               |
| Resample  | •            | •               | •               |
| Split Raster  | •            | •               | •               |
| Workspace to Raster Catalog                                 | •            | •               | •               |
| Workspace to Raster Dataset (with Optional Color Balancing) | •            | •               | •               |
| Create Random Raster <sup>15</sup>                          |              |                 | •               |
| <b>Raster Mosaics</b>                                       |              |                 |                 |
| Add Rasters to Mosaic Dataset                               |              | •               | •               |
| Alter Mosaic Dataset Schema                                 |              | •               | •               |
| Analyze Control Points                                      |              | •               | •               |
| Analyze Mosaic Dataset                                      |              | •               | •               |
| Append Control Points                                       |              | •               | •               |
| Apply Block Adjustment                                      |              | •               | •               |
| Build Boundary  |              | •               | •               |
| Build Footprints  |              | •               | •               |
| Build Mosaic Dataset Item Cache                             |              | •               | •               |
| Build Overviews   |              | •               | •               |
| Build Seamlines   |              | •               | •               |
| Calculate Cell Size Ranges                                  |              | •               | •               |
| Color Balance Mosaic Dataset                                |              | •               | •               |
| Compute Block Adjustments                                   |              | •               | •               |
| Compute Control Points                                      |              | •               | •               |
| Compute Dirty Area  |              | •               | •               |
| Compute Tie Points  |              | •               | •               |
| Create Mosaic Dataset                                       |              | •               | •               |
| Create Referenced Mosaic Dataset                            |              | •               | •               |
| Define Mosaic Dataset NoData                                |              | •               | •               |
| Define Overviews  |              | •               | •               |
| Delete Mosaic Dataset                                       |              | •               | •               |
| Edit Raster Function  |              | •               | •               |
| Export Mosaic Dataset Geometry                              |              | •               | •               |
| Export Mosaic Dataset Items                                 |              | •               | •               |
| Export Mosaic Dataset Paths                                 |              | •               | •               |
| Generate Exclude Area                                       |              | •               | •               |
| Generate Raster Collection                                  |              | •               | •               |
| Import Mosaic Dataset Geometry                              |              | •               | •               |
| Merge Mosaic Dataset Items                                  |              | •               | •               |
| Remove Rasters from Mosaic Dataset                          |              | •               | •               |
| Repair Mosaic Dataset Paths                                 |              | •               | •               |
| Set Mosaic Dataset Properties                               |              | •               | •               |
| Split Mosaic Dataset Items                                  |              | •               | •               |
| Synchronize Mosaic Dataset                                  |              | •               | •               |

| <b>Geoprocessing</b>                         | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| Build Stereo Model                           |              |                 | •               |
| Compute Camera Model                         |              |                 | •               |
| Compute Mosaic Candidates                    |              |                 | •               |
| Generate Point Cloud                         |              |                 | •               |
| Interpolate From Point Cloud                 |              |                 | •               |
| <b>Raster Conversion</b>                     |              |                 |                 |
| ASCII to Raster                              | •            | •               | •               |
| DEM to Raster                                | •            | •               | •               |
| Feature to Raster                            | •            | •               | •               |
| Float to Raster                              | •            | •               | •               |
| Raster to ASCII                              | •            | •               | •               |
| Raster to Float                              | •            | •               | •               |
| Raster to Other Format (Multiple)            | •            | •               | •               |
| Raster to Point                              | •            | •               | •               |
| Raster to Polygon                            | •            | •               | •               |
| Raster to Polyline                           | •            | •               | •               |
| Raster to Video                              | •            | •               | •               |
| Point to Raster <sup>15</sup>                |              |                 | •               |
| Polygon to Raster <sup>15</sup>              |              |                 | •               |
| Polyline to Raster <sup>15</sup>             |              |                 | •               |
| <b>Raster Transformation/Projection</b>      |              |                 |                 |
| Flip   | •            | •               | •               |
| Mirror                                       | •            | •               | •               |
| Project Raster (Single Input)                | •            | •               | •               |
| Rescale                                      | •            | •               | •               |
| Rotate                                       | •            | •               | •               |
| Shift  | •            | •               | •               |
| Warp   | •            | •               | •               |
| Warp from File                               | •            | •               | •               |
| <b>LAS Datasets</b>                          |              |                 |                 |
| Create LAS Dataset <sup>16</sup>             |              | •               | •               |
| Add Files to LAS Dataset <sup>16</sup>       |              | •               | •               |
| Remove Files from LAS Dataset <sup>16</sup>  |              | •               | •               |
| LAS Dataset Statistics <sup>16</sup>         |              | •               | •               |
| LAS Point Statistics as Raster <sup>16</sup> |              | •               | •               |
| <b>Conversion</b>                            |              |                 |                 |
| Excel to Table                               | •            | •               | •               |
| Feature Class to Feature Class               | •            | •               | •               |
| Feature Class to Geodatabase (Multiple)      | •            | •               | •               |
| Feature Class to Shapefile (Multiple)        | •            | •               | •               |
| Features to JSON                             | •            | •               | •               |
| GPX to Features                              | •            | •               | •               |
| Import CAD Annotation to Geodatabase         | •            | •               | •               |
| Import Coverage Annotation to Geodatabase    | •            | •               | •               |
| Import from CAD to Geodatabase               | •            | •               | •               |
| Copy Runtime Geodatabase to File Geodatabase | •            | •               | •               |

| <b>Geoprocessing</b>                                  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| JSON to Features                                      | •            | •               | •               |
| Raster to Geodatabase (Multiple)                      | •            | •               | •               |
| Table to dBASE (Multiple)                             | •            | •               | •               |
| Table to Excel  | •            | •               | •               |
| Table to Geodatabase (Multiple)                       | •            | •               | •               |
| Table to Table  | •            | •               | •               |
| Add CAD Fields  | •            | •               | •               |
| Create CAD XData                                      | •            | •               | •               |
| Export to CAD   | •            | •               | •               |
| Import from E00                                       | •            | •               | •               |
| KML to Layer  | •            | •               | •               |
| Layer to KML  | •            | •               | •               |
| Map to KML  | •            | •               | •               |
| Multipatch to Collaborative Design Activity (COLLADA) | •            | •               | •               |
| Multipatch to Raster                                  | •            | •               | •               |
| PDF to TIFF   | •            | •               | •               |
| WFS to Feature Class                                  |              | •               | •               |
| LAS Dataset to Raster <sup>15</sup>                   |              |                 | •               |
| Feature Class to Coverage                             |              |                 | •               |
| <b>Layers and Table Views</b>                         |              |                 |                 |
| Apply Symbology from Layer                            | •            | •               | •               |
| Make Feature Layer                                    | •            | •               | •               |
| Make Image Server Layer                               | •            | •               | •               |
| Make Mosaic Layer                                     | •            | •               | •               |
| Make Query Table                                      | •            | •               | •               |
| Make Raster Catalog Layer                             | •            | •               | •               |
| Make Raster Layer                                     | •            | •               | •               |
| Make Query Layer                                      | •            | •               | •               |
| Make Table View                                       | •            | •               | •               |
| Make WCS Layer  | •            | •               | •               |
| Make X,Y Event Layer                                  | •            | •               | •               |
| Save to Layer File                                    | •            | •               | •               |
| Select Layer by Attribute                             | •            | •               | •               |
| Select Layer by Location                              | •            | •               | •               |
| <b>Packaging</b>                                      |              |                 |                 |
| Consolidate Layer                                     | •            | •               | •               |
| Consolidate Locator                                   | •            | •               | •               |
| Consolidate Map                                       | •            | •               | •               |
| Consolidate Result                                    | •            | •               | •               |
| Create Map Tile Package                               | •            | •               | •               |
| Extract Package                                       | •            | •               | •               |
| Package Layer   | •            | •               | •               |
| Package Locator                                       | •            | •               | •               |
| Package Map   | •            | •               | •               |
| Package Result  | •            | •               | •               |
| Share Package   | •            | •               | •               |

| <b>Geoprocessing</b>  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| <b>Photos</b>   |              |                 |                 |
| Geotagged Photos to Points <sup>17</sup>                                  | •            | •               | •               |
| Match Photos to Row by Time <sup>17</sup>                                 | •            | •               | •               |
| <b>Parcel Fabric Tools</b>  |              |                 |                 |
| Make Parcel Fabric Layer  |              | •               | •               |
| Make Parcel Fabric Table View   |              | •               | •               |
| Load a Topology to a Parcel Fabric  |              | •               | •               |
| Append Parcel Fabric  |              | •               | •               |
| Copy Parcel Fabric  |              | •               | •               |
| <b>Core Analysis</b>  |              |                 |                 |
| Buffer  | •            | •               | •               |
| Graphic Buffer  | •            | •               | •               |
| Clip  | •            | •               | •               |
| Intersect   | •            | •               | •               |
| Multiple Ring Buffer  | •            | •               | •               |
| Select  | •            | •               | •               |
| Spatial Join  | •            | •               | •               |
| Split by Attributes   | •            | •               | •               |
| Summary Statistics  | •            | •               | •               |
| Table Select  | •            | •               | •               |
| Union   | •            | •               | •               |
| Create Thiessen Polygons  |              |                 | •               |
| Erase   |              |                 | •               |
| Frequency   |              |                 | •               |
| Identity  |              |                 | •               |
| Near  |              |                 | •               |
| Generate Near Table   |              |                 | •               |
| Point Distance  |              |                 | •               |
| Polygon Neighbors   |              |                 | •               |
| Split   |              |                 | •               |
| Symmetrical Difference  |              |                 | •               |
| Tabulate Intersection   |              |                 | •               |
| Update  |              |                 | •               |
| <b>Space-Time Pattern Mining (Unavailable in ArcGIS Engine for Linux)</b> |              |                 |                 |
| Create Space-Time Cube  | •            | •               | •               |
| Emerging Hot-Spot Analysis  | •            | •               | •               |
| Local Outliner Analysis   | •            | •               | •               |
| Visualize Space-Time Cube in 2D   | •            | •               | •               |
| Visualize Space-Time Cube in 3D   | •            | •               | •               |
| <b>Spatial Statistics Tools—Analyzing Patterns</b>                        |              |                 |                 |
| Average Nearest Neighbor  | •            | •               | •               |
| High/Low Clustering (Getis-Ord General G)                                 | •            | •               | •               |
| Incremental Spatial Autocorrelation                                       | •            | •               | •               |
| Multidistance Spatial Cluster Analysis (Ripley's K Function)              | •            | •               | •               |
| Spatial Autocorrelation (Moran's I)                                       | •            | •               | •               |

| <b>Geoprocessing</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>Spatial Statistics Tools—Mapping Clusters</b>                   |              |                 |                 |
| Cluster/Outlier Analysis (Anselin Local Moran's I)                 | •            | •               | •               |
| Grouping Analysis  | •            | •               | •               |
| Hot-Spot Analysis (Getis-Ord Gi*)                                  | •            | •               | •               |
| Optimized Hot-Spot Analysis  | •            | •               | •               |
| Similarity Search  | •            | •               | •               |
| <b>Spatial Statistics Tools—Measuring Geographic Distributions</b> |              |                 |                 |
| Central Feature  | •            | •               | •               |
| Directional Distribution (Standard Deviational Ellipse)            | •            | •               | •               |
| Linear Directional Mean  | •            | •               | •               |
| Mean Center  | •            | •               | •               |
| Median Center  | •            | •               | •               |
| Standard Distance  | •            | •               | •               |
| <b>Spatial Statistics Tools—Modeling Spatial Relationships</b>     |              |                 |                 |
| Exploratory Regression   | •            | •               | •               |
| Generate Spatial Weights Matrix                                    | •            | •               | •               |
| Ordinary Least-Squares Regression                                  | •            | •               | •               |
| Generate Network Spatial Weights <sup>18</sup>                     |              |                 | •               |
| Geographically Weighted Regression <sup>19</sup>                   |              |                 | •               |
| <b>Spatial Statistics Tools—Rendering</b>                          |              |                 |                 |
| Cluster/Outlier Analysis with Rendering                            | •            | •               | •               |
| Collect Events with Rendering                                      | •            | •               | •               |
| Count Rendering  | •            | •               | •               |
| Hot-Spot Analysis with Rendering                                   | •            | •               | •               |
| Z-Score Rendering  | •            | •               | •               |
| <b>Spatial Statistics Tools—Utilities</b>                          |              |                 |                 |
| Calculate Areas  | •            | •               | •               |
| Calculate Distance Band from Neighbor Count                        | •            | •               | •               |
| Collect Events   | •            | •               | •               |
| Convert Spatial Weights Matrix to Table                            | •            | •               | •               |
| Export Feature Attribute to ASCII                                  | •            | •               | •               |
| <b>Multidimensional Tools</b>                                      |              |                 |                 |
| Feature to NetCDF  | •            | •               | •               |
| Make NetCDF Feature Layer  | •            | •               | •               |
| Make NetCDF Raster Layer   | •            | •               | •               |
| Make NetCDF Table View   | •            | •               | •               |
| Make OPeNDAP Raster Layer  | •            | •               | •               |
| Raster to NetCDF   | •            | •               | •               |
| Select by Dimension  | •            | •               | •               |
| Table to NetCDF  | •            | •               | •               |
| <b>Workspace Management</b>  |              |                 |                 |
| Clear Workspace Cache (ArcSDE Workspaces)                          | •            | •               | •               |
| Create Feature Dataset   | •            | •               | •               |
| Create File Geodatabase  | •            | •               | •               |
| Create Folder  | •            | •               | •               |

| <b>Geoprocessing</b>                                     | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| Create Personal Geodatabase                              | •            | •               | •               |
| Create SQLite Database                                   | •            | •               | •               |
| Create ArcSDE Connection File                            |              | •               | •               |
| Create Database Connection                               |              | •               | •               |
| Create Spatial Type                                      |              | •               | •               |
| Create ArcInfo Workspace                                 |              |                 | •               |
| <b>Geodatabase Administration</b>                        |              |                 |                 |
| Analyze Datasets   | •            | •               | •               |
| Upgrade Dataset  | •            | •               | •               |
| Upgrade Geodatabase                                      | •            | •               | •               |
| Upgrade Spatial Reference                                | •            | •               | •               |
| Recover File Geodatabase                                 | •            | •               | •               |
| Uncompress File Geodatabase Data                         | •            | •               | •               |
| Compact (File or Personal Geodatabase)                   | •            | •               | •               |
| Change Privileges  |              | •               | •               |
| Compress (Enterprise Geodatabase)                        |              | •               | •               |
| Configure Geodatabase Log File Tables                    |              | •               | •               |
| Create Database User                                     |              | •               | •               |
| Create Enterprise Geodatabase                            |              | •               | •               |
| Create Raster Type                                       |              | •               | •               |
| Create Role  |              | •               | •               |
| Delete Schema Geodatabase                                |              | •               | •               |
| Diagnose Version Metadata                                |              | •               | •               |
| Diagnose Version Tables                                  |              | •               | •               |
| Enable Enterprise Geodatabase                            |              | •               | •               |
| Export Geodatabase Configuration Keyword                 |              | •               | •               |
| Import Geodatabase Configuration Keyword                 |              | •               | •               |
| Migrate Storage  |              | •               | •               |
| Rebuild Indexes  |              | •               | •               |
| Register with Geodatabase                                |              | •               | •               |
| Repair Version Metadata                                  |              | •               | •               |
| Repair Version Tables                                    |              | •               | •               |
| Update Enterprise Geodatabase License                    |              | •               | •               |
| <b>Geometric Networks</b>                                |              |                 |                 |
| Add Edge-Edge Connectivity Rule to Geometric Network     |              | •               | •               |
| Add Edge-Junction Connectivity Rule to Geometric Network |              | •               | •               |
| Create Geometric Network                                 |              | •               | •               |
| Find Disconnected Features in Geometric Network          |              | •               | •               |
| Rebuild Geometric Network                                |              | •               | •               |
| Remove Connectivity Rule from Geometric Network          |              | •               | •               |
| Remove Empty Feature Class from Geometric Network        |              | •               | •               |
| Trace Geometric Network                                  |              | •               | •               |
| Set Flow Direction                                       |              | •               | •               |
| Verify and Repair Geometric Network Connectivity         |              | •               | •               |
| <b>Table Joins</b>                                       |              |                 |                 |
| Add Join   | •            | •               | •               |



| <b>Geoprocessing</b>                    | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| Join Field                              | •            | •               | •               |
| Remove Join                             | •            | •               | •               |
| <b>Data Indexing</b>                    |              |                 |                 |
| Add Attribute Index                     | •            | •               | •               |
| Add Spatial Index                       | •            | •               | •               |
| Remove Attribute Index                  | •            | •               | •               |
| Remove Spatial Index                    | •            | •               | •               |
| <b>ArcGIS Server Management</b>         |              |                 |                 |
| Convert Map Server Cache Storage Format | •            | •               | •               |
| Create Map Server Cache                 | •            | •               | •               |
| Delete Globe Server Cache               | •            | •               | •               |
| Delete Map Server Cache                 | •            | •               | •               |
| Export Map Server Cache                 | •            | •               | •               |
| Generate Map Server Cache Tiling Scheme | •            | •               | •               |
| Import Map Server Cache                 | •            | •               | •               |
| Manage Globe Server Cache Tiles         | •            | •               | •               |
| Manage Map Server Cache Scales          | •            | •               | •               |
| Manage Map Server Cache Status          | •            | •               | •               |
| Manage Map Server Cache Tiles           | •            | •               | •               |
| Extract Data                            | •            | •               | •               |
| Extract Data and E-mail Task            | •            | •               | •               |
| Extract Data Task                       | •            | •               | •               |
| Send Email with ZIP File Attachment     | •            | •               | •               |
| Export Web Map                          | •            | •               | •               |
| MXD to Web Map                          | •            | •               | •               |
| Sign In to Portal                       | •            | •               | •               |
| Sign Out from Portal                    | •            | •               | •               |
| Stage Service                           | •            | •               | •               |
| Upload Service Definition               | •            | •               | •               |

<sup>15</sup>Also available to Basic or Standard license level users who have the ArcGIS 3D Analyst™ or ArcGIS Spatial Analyst extension

<sup>16</sup>Also available to Basic license level users who have the ArcGIS 3D Analyst or ArcGIS Spatial Analyst extension

<sup>17</sup>Basic license level users cannot create photo attachments.

<sup>18</sup>Requires the ArcGIS Network Analyst extension

<sup>19</sup>Also available to Basic or Standard license level users who have the ArcGIS Spatial Analyst or ArcGIS Geostatistical Analyst extension

## Data

| <b>ArcGIS Online Services</b>                  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>Basemap Services (via Add Basemap Menu)</b> |              |                 |                 |
| Imagery Basemap                                | •            | •               | •               |
| Imagery with Labels                            | •            | •               | •               |
| Streets Basemap                                | •            | •               | •               |
| Topographic Basemap                            | •            | •               | •               |
| Terrain with Labels                            | •            | •               | •               |

| <b>ArcGIS Online Services</b>   | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|---|--------------|-----------------|-----------------|
| Light Gray Canvas   | •            | •               | •               |
| Dark Gray Canvas  | •            | •               | •               |
| Additional Basemaps from ArcGIS Living Atlas of the World   | •            | •               | •               |
| <b>ArcGIS Living Atlas of the World</b>   |              |                 |                 |
| Thousands of Map Services and Data Layers Published by Esri and Other Contributors, Searchable by Keyword, Extent, and Author | •            | •               | •               |
| <b>ArcGIS Online Tasks</b>  |              |                 |                 |
| World Geocoding, Routing, Elevation, and GeoEnrichment <sup>SM</sup> Services Published by Esri                               | •            | •               | •               |
| <b>Portal for ArcGIS</b>  |              |                 |                 |
| Host Map, Feature, Geocode, and Print Services for Your Organization <sup>21</sup>  | •            | •               | •               |

<sup>20</sup>Requires a license key from Microsoft or a connection to an ArcGIS Online organizational account with a registered key

<sup>21</sup>Requires Portal for ArcGIS

| <b>Data and Maps for ArcGIS</b>  | <b>Basic</b> | <b>Standard</b> | <b>Advanced</b> |
|--|--------------|-----------------|-----------------|
| <b>Esri Data and Maps (Also Available in ArcGIS Living Atlas of the World)</b>   |              |                 |                 |
| Downloadable Data and Layers for Offline Use   | •            | •               | •               |
| Over 120 Presymbolized Vector Layers for North America, Europe, and the World, with Scale-Dependent Rendering and Labeling | •            | •               | •               |
| <b>StreetMap Premium for ArcGIS</b>  |              |                 |                 |
| Street-Level Geocoding, Routing, and Cartography for North America and over 100 Other Countries                            | •            | •               | •               |



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