



AN ESRI
WHITE PAPER

September 2016

ArcGIS® 10.4.1 for Desktop: ArcMap™ Functionality Matrix

380 New York Street
Redlands, California 92373-8100 usa
909 793 2853
info@esri.com
esri.com



Copyright © 2016 Esri
All rights reserved.
Printed in the United States of America.

The information contained in this document is the exclusive property of Esri. This work is protected under United States copyright law and other international copyright treaties and conventions. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or by any information storage or retrieval system, except as expressly permitted in writing by Esri. All requests should be sent to Attention: Contracts and Legal Services Manager, Esri, 380 New York Street, Redlands, CA 92373-8100 USA.

The information contained in this document is subject to change without notice.

Esri, the Esri globe logo, ArcGIS, ArcMap, ArcPress, ArcScan, ArcToolbox, ArcPy, ArcView, ArcInfo, ArcSDE, ArcObjects, ArcCatalog, 3D Analyst, SDE, PC ARC/INFO, ArcIMS, ModelBuilder, StreetMap, ArcPad, GeoEnrichment, esri.com, and @esri.com are trademarks, service marks, or registered marks of Esri in the United States, the European Community, or certain other jurisdictions. Other companies and products or services mentioned herein may be trademarks, service marks, or registered marks of their respective mark owners.

ArcGIS 10.4.1 for Desktop: ArcMap Functionality Matrix

Mapping	7
Map Interaction.....	7
Map Navigation	7
Queries.....	7
Tables.....	8
Graphs	8
Graph Types	8
Routing Using ArcGIS SM Online or Network Datasets (StreetMap USA).....	8
Map Display	9
General Mapping.....	9
Tabular Data	9
Vector Data Display	9
Thematic Vector Data Classifications	9
Symbology	10
Elevation Surface Display	10
Raster Data Display	10
Raster Display: Gradual Color Ramp Data-Stretching Algorithms	10
Raster Panchromatic Sharpening	11
Raster Display Statistics	11
Raster Display Resample Methods.....	11
Raster Display Classification Methods.....	11
Raster Catalog Footprint Display	11
Raster Tools.....	11
Time Animation and Temporal Data	11
Page Layout and Printing.....	11
Map Elements	11
Export Formats.....	12
Print with the Following Print Drivers	12
Publishing and Sharing Maps and Data.....	12
Creating High-Performance Dynamic Maps	12
Sharing Maps, Layers, and Data	12
Publishing and Sharing Analysis	13
Sharing Geoprocessing.....	13
Sharing Geocoding	13
Automating Map Workflows.....	13
Using the ArcPy Mapping Module.....	13
Map Text.....	13
Labels.....	13
Annotation	13
Annotation Editing.....	13
Annotation and Dimensions Management.....	14
Advanced Labeling	14
Advanced Label Placement Rule Set	14

Advanced Cartography	14
Cartographic Editing Tools.....	14
Point Geometric Effects	15
Line Geometric Effects.....	15
Polygon Geometric Effects	15
Interactive Symbol Editing	16
Geoprocessing Graphic Quality	16
Geoprocessing Masking Tools.....	16
Geoprocessing Representation Management	16
Geoprocessing Symbolization Refinement.....	16
Address Matching	17
Geocoding Tools.....	17
ArcGIS Online Locator	17
Geoprocessing	17
Data Support and Interoperability	17
Raster Data Support	17
Direct Read of Raster Data	17
Direct Read and Write of Raster Data	19
Geodatabase Raster Management.....	20
Document and Data Support	20
Map and Symbology Files.....	20
Direct Read of Vector and Raster Data	20
Direct Editing of Vector Data.....	21
Direct Read of Other Data	21
Coordinate Systems.....	21
CAD Support	21
CAD File Support	21
Direct Read of CAD Data	21
Editing with CAD Data.....	21
Coordinate Systems.....	22
Geoprocessing—See Geoprocessing Conversion	22
Application Framework	22
Application Customization	22
Application Look and Feel.....	22
Customization	22
Data Automation	22
Data Editing	22
General Editing	22
Snapping Types	23
Snapping to Topology Elements	23
Snapping Tolerance.....	23
Geometry Construction Options.....	23
Geometry Creation Tools	23
Feature Manipulation Tasks.....	24
Feature Editing Tools	24
Attribute Editing.....	24
Multipart Features (Point, Line, and Polygon)	24
Map Navigation While Editing	24

Vector Data Transformations	25
Generalization	25
Coordinate Geometry.....	25
Parcel Editing	25
Raster Editing and Vectorization	25
Vectorize All Raster Formats Supported in ArcGIS	25
ArcGIS Integration.....	25
Raster Snapping Geometry	26
Raster Snapping Environment	26
Vectorization Tracing	26
Automatic Vectorization	26
Vectorization Parameters.....	26
Vectorization Preview.....	26
Raster Cell Selection.....	26
Raster Cleanup Environment.....	26
Raster Cleanup Painting Tools	26
Support Tools.....	26
Mobile.....	27
GPS Support	27
Tablet PC	27
ArcGIS Mobile Support	27
Multuser Geodatabase Editing	27
General Editing	27
Administration Geoprocessing	27
Versioning Geoprocessing.....	27
Short Transaction Editing.....	28
Multuser Geodatabase Archiving	28
Display and Query.....	28
Manage	28
Distributed Geodatabases.....	28
Manage Replicas	28
Disconnected Editing Geoprocessing	28
Distributed Geodatabases Geoprocessing	28
Spatial Referencing Image Data (Georeferencing)	29
Tools.....	29
Transformation Methods	29
Save Spatial Reference Information	29
<i>Data Management and Validation</i>	<i>29</i>
Data Management	29
General	29
Search for Maps, Data, and Tools	29
Manage Coverage Data.....	29
Geodatabase and Database Administration	30
Geodatabase XML File Import/Export.....	30
Attribute Validation	30
Subtypes Geoprocessing	30
Domains Geoprocessing.....	30
Create and Edit Relationships for Features.....	30
Geodatabase Relationship Behavior	30
Relationship Class Geoprocessing.....	31

Topology	31
Map Display	31
Editing	31
Geodatabase Topology Rule Violation Fix Operations	31
Geodatabase Topology Management.....	31
Geodatabase Topology Rules	32
Geoprocessing	32
Networks	33
Utility (Geometric) Network Analysis.....	33
Data Management.....	33
Geometric Network Connectivity Rules	33
Geometric Network Editing	33
Linear Referencing (Routes)	33
Display.....	33
Editing	33
Geoprocessing	34
Metadata	34
General	34
Managing Metadata Using a Variety of Styles	34
Geoprocessing	34
<i>Data Manipulation and Analysis</i>	34
Coverage Geoprocessing	34
Application Framework.....	34
Analysis	35
Conversion	35
Aggregation.....	35
Composite Features.....	35
Generalization	35
Table Management	35
Projections	36
Topology	36
General	36
Geoprocessing	36
Environment	36
Supported Scripting Environments	36
General Data Management.....	36
Data Comparison	37
Archiving	37
Attachments	37
Table Management	37
Editing	37
Conflation	37
Field Management	38
Feature Class Management.....	38
Feature Management.....	38
File Geodatabase	39
Generalization	39
Projections and Transformations	39
Vector Data Projection	39
Raster Management.....	39
Raster Mosaics	40

Raster Conversion	41
Raster Transformation/Projection	41
LAS Datasets	41
Conversion	41
Layers and Table Views	42
Packaging	42
Photos	42
Parcel Fabric Tools	43
Core Analysis	43
Space-Time Pattern Mining	43
Spatial Statistics Tools—Analyzing Patterns	43
Spatial Statistics Tools—Mapping Clusters	43
Spatial Statistics Tools—Measuring Geographic Distributions	43
Spatial Statistics Tools—Modeling Spatial Relationships	44
Spatial Statistics Tools—Rendering	44
Spatial Statistics Tools—Utilities	44
Multidimensional Tools	44
Workspace Management	44
Geodatabase Administration	44
Geometric Networks	45
Table Joins	45
Data Indexing	45
ArcGIS for Server Management	45
Data	46
ArcGIS Online Services	46
Basemap Services (via Add Basemap Menu)	46
ArcGIS Online Data and Map Services (via Add Data from ArcGIS Online Menu)	46
ArcGIS Online Tasks	46
Portal for ArcGIS	47
Data and Maps for ArcGIS	47
Esri Data and Maps (Most Datasets Also Online)	47
Data Appliance for ArcGIS	47
StreetMap Premium for ArcGIS	47

ArcGIS® for Desktop 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
Map Navigation			
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	•	•	•
Queries			
Identify Features in the Map	•	•	•
Interactively Measure Distances and Areas	•	•	•
Find Features in the Map	•	•	•
Find Places Using the ArcGIS SM 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	•	•	•

Map Interaction	Basic	Standard	Advanced
Tables			
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)	•	•	•
Graphs			
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	•	•	•
Graph Types			
Horizontal and Vertical Bar, Line, and Area	•	•	•
Histogram Bar	•	•	•
Scatterplot	•	•	•
Scatterplot Matrix	•	•	•
Box Plot	•	•	•
Bubble	•	•	•
Polar	•	•	•
Pie	•	•	•
Routing Using ArcGIS Online or Network Datasets (StreetMap™ USA)			
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	•	•	•

Map Display	Basic	Standard	Advanced
General Mapping			
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	•	•	•
Tabular Data			
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	•	•	•
Vector Data Display			
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	•	•	•
Thematic Vector Data Classifications			
Single Symbol	•	•	•
Unique Value	•	•	•
Match to Predefined Style	•	•	•
Graduated Colors or Symbols	•	•	•
Proportional Symbols	•	•	•

Map Display	Basic	Standard	Advanced
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	•	•	•
Symbology			
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)	•	•	•
Elevation Surface Display			
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	•	•	•
Raster Data Display			
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	•	•	•
Raster Display: Gradual Color Ramp Data-Stretching Algorithms			
Standard Deviations	•	•	•
Histogram Equalize	•	•	•
Interactive Histogram	•	•	•
Minimum–Maximum	•	•	•
Custom	•	•	•
None	•	•	•
Esri Stretch (Modified Sigmoid)	•	•	•

Map Display	Basic	Standard	Advanced
Raster Panchromatic Sharpening			
Bovey	•	•	•
Esri	•	•	•
Gram-Schmidt	•	•	•
IHS (Intensity Hue Saturation)	•	•	•
Simple Mean	•	•	•
Raster Display Statistics			
Based on the Entire Raster Dataset	•	•	•
Based on the Display Extent	•	•	•
Based on a Custom Extent	•	•	•
Based on an Automated Sampling of Pixels	•	•	•
Raster Display Resample Methods			
Nearest Neighbor	•	•	•
Bilinear Interpolation	•	•	•
Cubic Convolution	•	•	•
Majority	•	•	•
Raster Display Classification Methods			
Manual Interval	•	•	•
Equal Interval	•	•	•
Defined Interval	•	•	•
Quantile Interval	•	•	•
Natural Breaks (Jenks)	•	•	•
Geometrical Interval	•	•	•
Standard Deviation	•	•	•
Raster Catalog Footprint Display			
Footprints Only	•	•	•
Selected Footprints	•	•	•
Raster Tools			
Pixel Inspector	•	•	•
Swipe Layer Tool	•	•	•
Image Analysis Window	•	•	•
Time Animation and Temporal Data			
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	•	•	•

Page Layout and Printing	Basic	Standard	Advanced
Map Elements			
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)	•	•	•

Page Layout and Printing	Basic	Standard	Advanced
Scale Text	•	•	•
Pictures	•	•	•
OLE Objects	•	•	•
Measured Reference Grid	•	•	•
Graticules	•	•	•
Export Formats			
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)	•	•	•
Print with the Following Print Drivers			
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	•	•	•

Publishing and Sharing Maps and Data	Basic	Standard	Advanced
Creating High-Performance Dynamic Maps			
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 for Server ¹	•	•	•
Sharing Maps, Layers, and Data			
Consolidate Layers, Maps, Locators, or Results ² 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	•	•	•
Extract a Map Package	•	•	•
Share a Map as a Service ³ to an Enterprise ¹ or Cloud ⁴ Server	•	•	•
Search for Maps, Data, and Tools in Local, Enterprise ¹ , or Cloud ⁴ Sources	•	•	•
Share Map Tile Caches to Local, Enterprise ¹ , or Cloud ⁴ Users	•	•	•

¹Requires ArcGIS for Server

²Geoprocessing Results

³Feature Service or Cached Map Tile Service

⁴ArcGIS Online, Portal for ArcGIS, or Cloud-Hosted ArcGIS for Server Instance

Publishing and Sharing Analysis	Basic	Standard	Advanced
Sharing Geoprocessing			
Create and Share ⁵ Geoprocessing Results as Packages	•	•	•
Create and Share ⁵ Geoprocessing Results as Services	•	•	•
Sharing Geocoding			
Create and Share ⁵ Locator Packages	•	•	•

⁵Share locally or to an ArcGIS Online or Portal for ArcGIS Instance.

Automating Map Workflows	Basic	Standard	Advanced
Using the ArcPy™ Mapping Module			
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	•	•	•

Map Text	Basic	Standard	Advanced
Labels			
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 Symbolology	•	•	•
Add Logic to Label Expressions with JScript, Python, and VBScript	•	•	•
Annotation			
Use Interactive Label Tools (Callout, Label, Spline, and Paragraph Text)	•	•	•
Create Text Annotation Data from Labels	•	•	•
Annotation Editing			
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	•	•	•

Map Text	Basic	Standard	Advanced
Annotation and Dimensions Management			
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 Labeling⁶	Basic	Standard	Advanced
Advanced Label Placement Rule Set			
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	•	•	•
Graticule 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	•	•	•
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	•	•	•

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

Advanced Cartography	Basic	Standard	Advanced
Cartographic Editing Tools			
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		•	•

Advanced Cartography	Basic	Standard	Advanced
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)		•	•
Point Geometric Effects			
Buffer		•	•
Radial from Point		•	•
Regular Polygon		•	•
Line Geometric Effects			
Add Control Points		•	•
Arrow		•	•
Buffer		•	•
Cut		•	•
Dashes		•	•
Enclosing Polygon		•	•
Extension		•	•
Jog		•	•
Move		•	•
Offset		•	•
Offset Tangent		•	•
Reverse		•	•
Rotate		•	•
Scale		•	•
Simplify		•	•
Smooth		•	•
Suppress		•	•
Tapered Polygon		•	•
Wave		•	•
Polygon Geometric Effects			
Add Control Points		•	•
Buffer		•	•
Cut		•	•
Dashes		•	•
Donut		•	•
Enclosing Polygon		•	•
Move		•	•
Offset		•	•
Rotate		•	•
Scale		•	•
Simplify		•	•
Smooth		•	•
Wave		•	•

Advanced Cartography	Basic	Standard	Advanced
Interactive Symbol Editing			
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		•	•
Geoprocessing Graphic Quality			
Detect Graphic Conflict			•
Propagate Displacement			•
Resolve Building Conflicts			•
Resolve Road Conflicts			•
Geoprocessing Masking Tools			
Cul-de-Sac Masks			•
Feature Outline Masks			•
Intersecting Layers Masks			•
Geoprocessing Representation Management			
Add Representation		•	•
Calculate Representation Rule		•	•
Drop Representation		•	•
Remove Override		•	•
Select Feature by Override		•	•
Set Layer Representation		•	•
Update Override		•	•
Geoprocessing Symbolization Refinement			
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			•

Address Matching	Basic	Standard	Advanced
Geocoding Tools			
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 for Server for Server-Based Geocoding	•	•	•
Use Multiple Geocoding Locators per Data Source	•	•	•
Geocode Using Alternate Street 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		•	•
ArcGIS Online Locator			
World Locator Service	•	•	•
Geoprocessing			
Consolidate Locator	•	•	•
Create Address Locator	•	•	•
Create Composite Address Locator	•	•	•
Geocode Addresses	•	•	•
Package Locator	•	•	•
Reverse Geocode Point Features	•	•	•
Rebuild Address Locator	•	•	•
Rematch Addresses	•	•	•
Standardize Addresses	•	•	•

Data Support and Interoperability

Raster Data Support	Basic	Standard	Advanced
Direct Read of Raster Data			
AIRSAR Polarimetric	•	•	•
Applanix DSS	•	•	•
ARC Digitized Raster Graphics (ADRG)	•	•	•
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	•	•	•

Raster Data Support	Basic	Standard	Advanced
BSB Nautical Charts	•	•	•
Committee on Earth Observing Sensors (CEOS) SAR		•	•
Compressed ARC Digitized Raster Graphics (CADRG)	•	•	•
Controlled Image Base (CIB)	•	•	•
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	•	•	•
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, and RAW	•	•	•
Extensible N-Dimensional Data Format (NDF)	•	•	•
Floating Point Raster (FLT)	•	•	•
FORMOSAT-2	•	•	•
Geospatial Data Abstraction Library (GDAL) Virtual Format (VRT)	•	•	•
GeoEye Satellite	•	•	•
Grid Exchange File (GXF)	•	•	•
Gridded Binary Format (GRIB)	•	•	•
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)	•	•	•
IDRISI Raster Format (RST)	•	•	•
IKONOS Satellite	•	•	•
ILWIS Raster Map	•	•	•
Image Display and Analysis (IDA)	•	•	•
Image Service (from ArcGIS for 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)	•	•	•
KOMPSAT-2	•	•	•
Landsat Satellites (1–7)	•	•	•
Landsat 8 Raster Type	•	•	•
LAS (Lidar Data Files)	•	•	•
LAS Dataset	•	•	•
LASZ Compressed LAS	•	•	•
Magellan MapSend (BLX/XLB)	•	•	•
Match-AT	•	•	•
MAP	•	•	•

Raster Data Support	Basic	Standard	Advanced
Map Service (from ArcGIS for Server or ArcGIS.com)	•	•	•
Multiresolution Seamless Image Database (MrSID) Generations 2, 3, and 4	•	•	•
MrSID (MG4) Lidar	•	•	•
National Imagery Transmission Format (NITF), Including Subdatasets	•	•	•
National Land Archive Production System (NLAPS)	•	•	•
National Oceanic and Atmospheric Administration (NOAA) GTX Vertical Datum Shift	•	•	•
New Labeled US Geological Survey (USGS) Digital Orthophoto Quadrangle (DOQ2)	•	•	•
NOAA Polar Orbiter Level 1b Dataset (AVHRR)	•	•	•
Oracle Spatial GeoRaster ⁷	•	•	•
OrbView-3 Satellite	•	•	•
PCI aux Labeled Raw Format (PAux)	•	•	•
PCI Geomatics PCIDSK (PIX) ⁸	•	•	•
Planetary Data System (PDS)—National Aeronautics and Space Administration (NASA) (IMG/LBL)	•	•	•
Portable Network Graphics	•	•	•
QuickBird Satellite	•	•	•
PCRaster (MAP) ⁸	•	•	•
RADARSAT-2	•	•	•
RapidEye Satellite	•	•	•
Raster Catalog	•	•	•
Raster Process Definition (RPDef)	•	•	•
Raster Product Format (RPF)	•	•	•
SAGA GIS Binary Grid	•	•	•
Sandia Synthetic Aperture (GFF)	•	•	•
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	•	•	•
USGS ASCII Digital Elevation Model ⁸	•	•	•
USGS DOQ	•	•	•
Web Coverage Service (WCS; Open Geospatial Consortium, Inc. [OGC], Standard)	•	•	•
Web Map Service (WMS, OGC Standard)	•	•	•
WorldView Satellites	•	•	•
XPixMap (XPM) ⁸	•	•	•
Direct Read and Write of Raster Data			
ERDAS IMAGINE	•	•	•
Esri Grid, Grid Stack, and Grid Stack File	•	•	•
Geodatabase Raster ⁹	•	•	•
Graphic Interchange Format (GIF)	•	•	•
Joint File Interchange Format (JFIF)	•	•	•
Joint Photographic Experts Group	•	•	•
JPEG 2000 (JP2)	•	•	•

Raster Data Support	Basic	Standard	Advanced
Portable Network Graphics	•	•	•
Tagged Image File Format (GeoTIFF tags are supported.)	•	•	•
Oracle Spatial GeoRaster ⁷		•	•
Geodatabase Raster Management			
Create and Edit Raster Attribute Tables for All Supported Single Band Raster Formats ⁹	•	•	•
Create and Manage Rasters in Personal and File Geodatabases	•	•	•
Compress Geodatabase Rasters with LZ77, JPEG, or JPEG 2000 Compression Algorithms ⁹	•	•	•
Create and Manage Raster Data in a Multiuser Geodatabase		•	•
Create Raster Mosaics		•	•

⁷Oracle Spatial GeoRaster requires the data to be registered with the geodatabase or created using ArcGIS for Desktop.

⁸These formats can be written to through programming with the ArcObjects™ API.

⁹Basic 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.

Document and Data Support	Basic	Standard	Advanced
Map and Symbology Files			
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	•	•	•
Direct Read of Vector and Raster Data			
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 for Server Services	•	•	•
ArcIMS® Services	•	•	•
ArcGIS for Server Feature Services	•	•	•
OGC WCS	•	•	•
OGC WMS	•	•	•
OGC GML Simple Features Access ¹⁰	•	•	•
OGC GML Simple Features Import/Export ¹⁰	•	•	•
OGC GML Web Feature Service Access for Simple Features-Based Services ¹⁰	•	•	•
Network Common Data Form (NetCDF)	•	•	•

Document and Data Support	Basic	Standard	Advanced
Direct Editing of Vector Data			
Personal Geodatabase	•	•	•
File Geodatabase	•	•	•
Shapefiles	•	•	•
ArcSDE® for SQL Express and Enterprise Geodatabases		•	•
ArcGIS for Server Feature Services		•	•
Direct Read of Other Data			
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	•	•	•
Coordinate Systems			
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	•	•	•

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

CAD Support	Basic	Standard	Advanced
CAD File Support			
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	•	•	•
Direct Read of CAD Data			
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 Symbology 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	•	•	•
Editing with CAD Data			
Copy and Paste CAD Features Directly into Other GIS Feature Classes	•	•	•
Snap to CAD Data While Editing	•	•	•
CAD Features Save Directly to GIS Feature Classes	•	•	•

CAD Support	Basic	Standard	Advanced
Coordinate Systems			
Select and Save Coordinate System Definitions with CAD Data	•	•	•
Graphically Align CAD Data with Other GIS Data and Store the Transformation Definition (Georeferencing)	•	•	•
Geoprocessing—See Geoprocessing Conversion			

Application Framework

Application Customization	Basic	Standard	Advanced
Application Look and Feel			
Dockable/Floating Toolbars	•	•	•
Dockable and Auto Hiding Windows	•	•	•
Unicode Support for Multilanguage Attributes	•	•	•
Installations for Chinese, Japanese, French, German, Spanish Languages	•	•	•
Complies with Microsoft Windows Display Settings	•	•	•
Layer (LYR) Files Registered in Windows to ArcGIS Applications	•	•	•
Customization			
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

Data Editing	Basic	Standard	Advanced
General Editing			
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	•	•	•
SnapTips Give Feedback on Snap Agent Used	•	•	•
Optionally Snap to Basemap Layers	•	•	•
Simple Editing of Multipatch (3D) Features	•	•	•

Data Editing	Basic	Standard	Advanced
Snapping Types			
Edge	•	•	•
End	•	•	•
Intersection	•	•	•
Midpoint	•	•	•
Point	•	•	•
Tangent	•	•	•
Vertex	•	•	•
Snapping to Topology Elements			
Topology Nodes	•	•	•
Snapping Tolerance			
By Pixels	•	•	•
By Map Units	•	•	•
Interactively	•	•	•
Geometry Construction Options			
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	•	•	•
Geometry Creation Tools			
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	•	•	•
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)	•	•	•

Data Editing	Basic	Standard	Advanced
Feature Manipulation Tasks			
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	•	•	•
Feature Editing Tools			
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	•	•	•
Attribute Editing			
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	•	•	•
Multipart Features (Point, Line, and Polygon)			
Add and Delete Parts	•	•	•
Zoom to Parts	•	•	•
Add, Delete, and Edit Vertex Locations	•	•	•
Create Separate Features from Each Part (Explode)	•	•	•
Map Navigation While Editing			
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	•	•	•

Data Editing	Basic	Standard	Advanced
Vector Data Transformations			
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	•	•	•
Generalization			
Smooth Line Features	•	•	•
Simplify the Shape of Line Features (Generalize)	•	•	•
Coordinate Geometry			
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		•	•
Parcel Editing			
Create Parcel Fabric Features		•	•
Perform Least-Squares Adjustment of Parcel Fabric Features		•	•
Adjust Associated Layers		•	•

Raster Editing and Vectorization¹¹	Basic	Standard	Advanced
Vectorize All Raster Formats Supported in ArcGIS			
1-Bit Raster Data	•	•	•
8-Bit Raster Data (with Bilevel Classification Applied)	•	•	•
ArcGIS Integration			
Vectorization into Any Editable Vector Dataset	•	•	•
Seamless Integration with Vector Data Editing Environment	•	•	•

Raster Editing and Vectorization¹¹	Basic	Standard	Advanced
Raster Snapping Geometry			
Centerline	•	•	•
Corner	•	•	•
Intersection	•	•	•
Ends	•	•	•
Solid	•	•	•
Raster Snapping Environment			
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	•	•	•
Vectorization Tracing			
Interactively Trace Raster Lines	•	•	•
Ignore Holes in Raster Linear Features	•	•	•
Automatic Vectorization			
Vectorize Entire Raster	•	•	•
Vectorize Specific Raster Area	•	•	•
Simultaneously Capture Line and Polygon Vectors	•	•	•
Vectorization Parameters			
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	•	•	•
Vectorization Preview			
Use Dynamic Vectorization Preview	•	•	•
Change Preview Symbology	•	•	•
Raster Cell Selection			
Select Foreground or Background Cells	•	•	•
Select Connected Cells Interactively	•	•	•
Select Connected Cells by Count	•	•	•
Select Connected Cells by Diagonal Area	•	•	•
Raster Cleanup Environment			
Undo/Redo Raster Cleanup Operations	•	•	•
Erase or Fill Selected Cells	•	•	•
Save Selected Cells to New Raster	•	•	•
Raster Cleanup Painting Tools			
Brush	•	•	•
Erase	•	•	•
Basic Shapes (Line, Square, Ellipse, and Polygon)	•	•	•
Erase Connected Cells	•	•	•
Support Tools			
Discover Raster Line Width	•	•	•
Discover Raster Solid Diameter	•	•	•

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

Mobile	Basic	Standard	Advanced
GPS Support			
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	•	•	•
Tablet PC			
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	•	•	•
ArcGIS Mobile Support			
Create Mobile Map	•	•	•
Synchronize Mobile Cache	•	•	•

Multuser Geodatabase Editing	Basic	Standard	Advanced
General Editing			
Multiple Editors Can Simultaneously Edit the Same Feature Classes in a Multuser Geodatabase		•	•
Isolate Editing Projects in Separate Versions (Create Version) 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		•	•
Administration Geoprocessing			
Modify Data Privileges for Data in a Multuser Geodatabase		•	•
Migrate Storage		•	•
Register SDE™ Data with the Geodatabase		•	•
Clean Up Versioning Tables (Compress)		•	•
Add and Remove Tables and Feature Class from the Versioning Environment (Register and Unregister as Versioned)		•	•
Versioning Geoprocessing			
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		•	•

Multuser Geodatabase Editing	Basic	Standard	Advanced
Short Transaction Editing			
Edit Nonversioned Simple Features		•	•
Create Features and Enter Attributes for That Feature within a Single Database Transaction		•	•

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

Distributed Geodatabases	Basic	Standard	Advanced
Manage Replicas			
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		•	•
Disconnected Editing Geoprocessing			
Check In		•	•
Check Out		•	•
Check In from Delta		•	•
Export to Delta		•	•
Distributed Geodatabases Geoprocessing			
Add Global IDs		•	•
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		•	•
Re-export Unacknowledged Messages		•	•
Synchronize Changes		•	•

Spatial Referencing Image Data (Georeferencing)¹²	Basic	Standard	Advanced
Tools			
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	•	•	•
Transformation Methods			
First-, Second-, and Third-Order Polynomial	•	•	•
Adjust	•	•	•
Spline	•	•	•
Save Spatial Reference Information			
Create a New Dataset (Rectify)	•	•	•
Save Reference Information with the Image	•	•	•

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

Data Management and Validation

Data Management	Basic	Standard	Advanced
General			
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 for Server	•	•	•
Connect to Multiuser Geodatabases or Databases Using Operating System or Database Authentication	•	•	•
Search for Maps, Data, and Tools			
By Author	•	•	•
By Name	•	•	•
By Type	•	•	•
By Path	•	•	•
By Keyword Tag	•	•	•
By Spatial Extent	•	•	•
From Enterprise and Cloud Search Services	•	•	•
Manage Coverage Data			
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		•	•

Data Management	Basic	Standard	Advanced
Geodatabase and Database Administration			
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		•	•
Geodatabase XML File Import/Export			
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)		•	•

Attribute Validation	Basic	Standard	Advanced
Subtypes Geoprocessing			
Add Subtype	•	•	•
Remove Subtype	•	•	•
Set Default Subtype	•	•	•
Set Subtype Field	•	•	•
Domains Geoprocessing			
Add Coded Value to Domain	•	•	•
Assign Domain to Field	•	•	•
Create Domain	•	•	•
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	•	•	•
Create and Edit Relationships for Features			
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		•	•
Geodatabase Relationship Behavior			
Moving a Feature Moves the Related Feature		•	•
Deleting One Feature Deletes the Related Feature		•	•

Attribute Validation	Basic	Standard	Advanced
Relationship Class Geoprocessing			
Create Relationship Class		•	•
Table to Relationship Class		•	•
Migrate Relationship Class		•	•

Topology	Basic	Standard	Advanced
Map Display			
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	•	•	•
Editing			
Construct and Edit Topologies Created from Layers in the Map ¹³	•	•	•
Move Topological Edges and Nodes ¹³	•	•	•
Show or Select Adjacent or Connected Features ¹³	•	•	•
Reshape Shared Edges between Features ¹³	•	•	•
Modify the Coordinates of Shared Edges or Nodes ¹³	•	•	•
Split Shared Edges at a Specific Point, Distance, or Percentage along the Edge ¹³	•	•	•
Move Edges and Nodes to a Specific Location ¹³	•	•	•
Shift Edges and Nodes Based on an Offset from Their Current Location ¹³	•	•	•
Merge Connected Edges ¹³	•	•	•
Control Which Adjacent or Connected Features Move When a Shared Edge or Node Is Moved ¹³	•	•	•
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		•	•
Inspect Errors by Zooming, Panning, or Selecting the Features		•	•
Geodatabase Topology Rule Violation Fix Operations			
Delete Features		•	•
Subtract Features		•	•
Create Features		•	•
Merge Features		•	•
Snap Features		•	•
Extend Lines		•	•
Trim Lines		•	•
Split Lines		•	•
Explode Features		•	•
Simplify Features		•	•
Geodatabase Topology Management			
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		•	•

Topology	Basic	Standard	Advanced
Geodatabase Topology Rules			
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		•	•
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		•	•
Geoprocessing			
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		•	•

¹³Only available with simple features in map-based topologies

Networks	Basic	Standard	Advanced
Utility (Geometric) Network Analysis			
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	•	•	•
Data Management			
Create and Manage Utility Networks		•	•
Create Complex Edge Features That Maintain Connectivity without Splitting the Feature		•	•
Geometric Network Connectivity Rules			
Edge—Junction		•	•
Edge—Edge via Junction		•	•
Geometric Network Editing			
Connect and Disconnect Network Features		•	•
Enable and Disable Network Features		•	•
Set Flow Direction for a Network		•	•
Verify, Repair, and Rebuild Connectivity in a Network		•	•
Verify the Geometry of Network Features		•	•
Review and Repair Network Creation Errors		•	•

Linear Referencing (Routes)	Basic	Standard	Advanced
Display			
Find and Display Dynamic Segmentation Events (Point, Linear, and Continuous) on Routes	•	•	•
Editing			
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	•	•	•

Linear Referencing (Routes)	Basic	Standard	Advanced
Geoprocessing			
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	•	•	•

Metadata	Basic	Standard	Advanced
General			
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	•	•	•
Managing Metadata Using a Variety of Styles			
Item Description	•	•	•
Infrastructure for Spatial Information in Europe (INSPIRE) Metadata Directive	•	•	•
ISO 19139 Metadata Implementation Specification	•	•	•
North American Profile of ISO 19139 2003	•	•	•
Geoprocessing			
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

Coverage Geoprocessing¹⁴	Basic	Standard	Advanced
Application Framework			
Full-Featured Management and Analysis Environment for ArcInfo Coverage Data Format (All tools require that ArcInfo Workstation be installed and licensed.)			•

Coverage Geoprocessing¹⁴	Basic	Standard	Advanced
Analysis			
Clip			•
Select			•
Split			•
Erase			•
Identity			•
Intersect			•
Union			•
Update			•
Buffer			•
Near			•
Point Distance			•
Point Node			•
Thiessen			•
Conversion			
Export to DLG			•
Export to Interchange File			•
Export to S57			•
Export to SDTS			•
Export to VPF			•
Ungenerate			•
Advanced TIGER Conversion			•
Basic TIGER Conversion			•
Generate			•
Import from DLG			•
Import from Interchange File			•
Import from S57			•
Import from SDTS			•
Import from VPF			•
Aggregation			
Append			•
Composite Features			
Line Coverage to Region			•
Line Coverage to Route			•
Polygon Coverage to Region			•
Region to Polygon Coverage			•
Generalization			
Aggregate Polygons			•
Simplify Building			•
Collapse Dual Lines to Centerline			•
Dissolve			•
Eliminate			•
Find Conflicts			•
Simplify Line or Polygon			•
Table Management			
Drop Index			•
Index Item			•
Add Item			•

Coverage Geoprocessing¹⁴	Basic	Standard	Advanced
Drop Item			•
Join Info Tables			•
Add X,Y Coordinates			•
ReNUMBER Nodes			•
Update IDs			•
Projections			
Define Projection			•
Project			•
Transform			•
Topology			
Build			•
Clean			•
Create Labels			•
VPF File Topology			•
General			
Create Coverage			•
Tolerance			•

¹⁴Coverage geoprocessing tools require the installation of ArcInfo Workstation 10.

Geoprocessing	Basic	Standard	Advanced
Environment			
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	•	•	•
Supported Scripting Environments			
C++	•	•	•
JavaScript	•	•	•
Perl	•	•	•
Python 2.7	•	•	•
VBScript	•	•	•
Visual Studio .NET	•	•	•
General Data Management			
Append	•	•	•
Copy	•	•	•
Delete	•	•	•
Merge	•	•	•
Merge Branch	•	•	•

Geoprocessing	Basic	Standard	Advanced
Rename	•	•	•
Select Data	•	•	•
Calculate Value	•	•	•
Sort	•	•	•
Delete Identical			•
Find Identical			•
Data Comparison			
Feature Compare	•	•	•
File Compare	•	•	•
Raster Compare	•	•	•
Table Compare	•	•	•
TIN Compare	•	•	•
Detect Feature Changes			•
Archiving			
Enable Archiving		•	•
Disable Archiving		•	•
Attachments			
Add Attachments		•	•
Disable Attachments		•	•
Remove Attachments		•	•
Generate Attachment Match Table		•	•
Table Management			
Copy Rows	•	•	•
Create Table	•	•	•
Create Unregistered Table	•	•	•
Delete Rows	•	•	•
Get Count	•	•	•
Truncate Table	•	•	•
Analyze		•	•
Pivot Table			•
Editing			
Densify		•	•
Erase Point		•	•
Extend Line		•	•
Flip Line		•	•
Generalize		•	•
Snap		•	•
Trim Line		•	•
Conflation			
Edgematch Features			•
Generate Edgematch Links			•
Generate Rubbersheet Links			•
Rubbersheet Features			•
Transfer Attributes			•
Transform Features			•

Geoprocessing	Basic	Standard	Advanced
Field Management			
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	•	•	•
Transpose Fields	•	•	•
Feature Class Management			
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 ¹⁵			•
Feature Management			
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			•

Geoprocessing	Basic	Standard	Advanced
File Geodatabase			
Compact File Geodatabase	•	•	•
Compress File Geodatabase Data	•	•	•
Generate File Geodatabase License	•	•	•
Generate Licensed File Geodatabase	•	•	•
Uncompress File Geodatabase Data	•	•	•
Generalization			
Dissolve	•	•	•
Simplify Line (Cartography)		•	•
Smooth Line (Cartography)		•	•
Smooth Polygon (Cartography)		•	•
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)			•
Projections and Transformations			
Convert Coordinate Notation	•	•	•
Create Custom Geographic Transformation	•	•	•
Create Spatial Reference	•	•	•
Define Projection (Single Input)	•	•	•
Vector Data Projection			
Batch Project	•	•	•
Project	•	•	•
Raster Management			
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-Sharpener Weights	•	•	•
Copy Raster	•	•	•
Copy Raster Catalog Items	•	•	•
Create Orthorectified Raster Dataset	•	•	•
Create Pan-Sharpener Raster Dataset	•	•	•
Create Raster Catalog	•	•	•
Create Raster Dataset	•	•	•

Geoprocessing	Basic	Standard	Advanced
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	•	•	•
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 ¹⁵			•
Raster Mosaics			
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		•	•
Import Mosaic Dataset Geometry		•	•

Geoprocessing	Basic	Standard	Advanced
Merge Mosaic Dataset Items		•	•
Remove Rasters from Mosaic Dataset		•	•
Repair Mosaic Dataset Paths		•	•
Set Mosaic Dataset Properties		•	•
Split Mosaic Dataset Items		•	•
Synchronize Mosaic Dataset		•	•
Raster Conversion			
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 ¹⁵			•
Polygon to Raster ¹⁵			•
Polyline to Raster ¹⁵			•
Raster Transformation/Projection			
Flip	•	•	•
Mirror	•	•	•
Project Raster (Single Input)	•	•	•
Rescale	•	•	•
Rotate	•	•	•
Shift	•	•	•
Warp	•	•	•
Warp from File	•	•	•
LAS Datasets			
Create LAS Dataset ¹⁶		•	•
Add Files to LAS Dataset ¹⁶		•	•
Remove Files from LAS Dataset ¹⁶		•	•
LAS Dataset Statistics ¹⁶		•	•
LAS Point Statistics as Raster ¹⁶		•	•
Conversion			
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	•	•	•
JSON to Features	•	•	•

Geoprocessing	Basic	Standard	Advanced
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 ¹⁵			•
Feature Class to Coverage			•
Layers and Table Views			
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	•	•	•
Packaging			
Consolidate Layer	•	•	•
Consolidate Locator	•	•	•
Consolidate Map	•	•	•
Consolidate Result	•	•	•
Create Map Tile Package	•	•	•
Extract Package	•	•	•
Package Layer	•	•	•
Package Locator	•	•	•
Package Map	•	•	•
Package Result	•	•	•
Share Package	•	•	•
Photos			
Geotagged Photos to Points ¹⁷	•	•	•
Match Photos to Row by Time ¹⁷	•	•	•

Geoprocessing	Basic	Standard	Advanced
Parcel Fabric Tools			
Make Parcel Fabric Layer		•	•
Make Parcel Fabric Table View		•	•
Load a Topology to a Parcel Fabric		•	•
Append Parcel Fabric		•	•
Copy Parcel Fabric		•	•
Core Analysis			
Buffer	•	•	•
Clip	•	•	•
Intersect	•	•	•
Multiple Ring Buffer	•	•	•
Select	•	•	•
Spatial Join	•	•	•
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			•
Space-Time Pattern Mining (Unavailable in ArcGIS Engine for Linux)			
Create Space-Time Cube	•	•	•
Emerging Hot-Spot Analysis	•	•	•
Visualize Space-Time Cube in 2D	•	•	•
Visualize Space-Time Cube in 3D	•	•	•
Spatial Statistics Tools—Analyzing Patterns			
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)	•	•	•
Spatial Statistics Tools—Mapping Clusters			
Cluster/Outlier Analysis (Anselin Local Moran's I)	•	•	•
Grouping Analysis	•	•	•
Hot-Spot Analysis (Getis-Ord Gi*)	•	•	•
Optimized Hot-Spot Analysis	•	•	•
Similarity Search	•	•	•
Spatial Statistics Tools—Measuring Geographic Distributions			
Central Feature	•	•	•
Directional Distribution (Standard Deviational Ellipse)	•	•	•

Geoprocessing	Basic	Standard	Advanced
Linear Directional Mean	•	•	•
Mean Center	•	•	•
Median Center	•	•	•
Standard Distance	•	•	•
Spatial Statistics Tools—Modeling Spatial Relationships			
Exploratory Regression	•	•	•
Generate Spatial Weights Matrix	•	•	•
Ordinary Least-Squares Regression	•	•	•
Generate Network Spatial Weights ¹⁸			•
Geographically Weighted Regression ¹⁹			•
Spatial Statistics Tools—Rendering			
Cluster/Outlier Analysis with Rendering	•	•	•
Collect Events with Rendering	•	•	•
Count Rendering	•	•	•
Hot-Spot Analysis with Rendering	•	•	•
Z-Score Rendering	•	•	•
Spatial Statistics Tools—Utilities			
Calculate Areas	•	•	•
Calculate Distance Band from Neighbor Count	•	•	•
Collect Events	•	•	•
Convert Spatial Weights Matrix to Table	•	•	•
Export Feature Attribute to ASCII	•	•	•
Multidimensional Tools			
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	•	•	•
Workspace Management			
Clear Workspace Cache (ArcSDE Workspaces)	•	•	•
Create Feature Dataset	•	•	•
Create File Geodatabase	•	•	•
Create Folder	•	•	•
Create Personal Geodatabase	•	•	•
Create SQLite Database	•	•	•
Create ArcSDE Connection File		•	•
Create Database Connection		•	•
Create Spatial Type		•	•
Create ArcInfo Workspace			•
Geodatabase Administration			
Analyze Datasets	•	•	•
Upgrade Dataset	•	•	•
Upgrade Geodatabase	•	•	•
Upgrade Spatial Reference	•	•	•
Recover File Geodatabase	•	•	•

Geoprocessing	Basic	Standard	Advanced
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		•	•
Geometric Networks			
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		•	•
Table Joins			
Add Join	•	•	•
Join Field	•	•	•
Remove Join	•	•	•
Data Indexing			
Add Attribute Index	•	•	•
Add Spatial Index	•	•	•
Remove Attribute Index	•	•	•
Remove Spatial Index	•	•	•
ArcGIS for Server Management			
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	•	•	•

Geoprocessing	Basic	Standard	Advanced
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	•	•	•

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

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

¹⁷Basic license level users cannot create photo attachments.

¹⁸Requires the ArcGIS Network Analyst extension

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

Data

ArcGIS Online Services	Basic	Standard	Advanced
Basemap Services (via Add Basemap Menu)			
Imagery Basemap	•	•	•
Imagery with Labels	•	•	•
Streets Basemap	•	•	•
Topographic Basemap	•	•	•
Terrain with Labels	•	•	•
Light Gray Canvas	•	•	•
Dark Gray Canvas	•	•	•
Bing Maps Aerial ²⁰	•	•	•
Bing Maps Hybrid ²⁰	•	•	•
Bing Maps Road ²⁰	•	•	•
National Geographic World Map	•	•	•
Ocean Basemap	•	•	•
OpenStreetMap	•	•	•
USGS National Map	•	•	•
ArcGIS Online Data and Map Services (via Add Data from ArcGIS Online Menu)			
Thousands of Map Services and Data Layers Published by Esri and Other Contributors, Searchable by Keyword, Extent, and Author	•	•	•
ArcGIS Online Tasks			
Geocoding, Routing, Elevation, and GeoEnrichment SM Services Published by Esri	•	•	•

ArcGIS Online Services	Basic	Standard	Advanced
Portal for ArcGIS			
Host Map, Feature, Geocode, and Print Services for Your Organization ²¹	•	•	•

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

²¹Requires Portal for ArcGIS

Data and Maps for ArcGIS	Basic	Standard	Advanced
Esri Data and Maps (Most Datasets Also Online)			
Downloadable Data and Layers for Offline Use (DVD ships with ArcGIS for Desktop.)	•	•	•
Over 120 Presymbolized Vector Layers for North America, Europe, and the World, with Scale-Dependent Rendering and Labeling	•	•	•
Basemap and Thematic Map Documents	•	•	•
Commercial Data from TomTom, DeLorme, Michael Bauer Research, and Esri	•	•	•
Government and NGO Data from US Census, USGS, US National Transportation Atlas, and World Wildlife Fund (WWF) (WWF DVD Only)	•	•	•
US Census 2000 Geography and ZIP Codes with Projected Current Year Population	•	•	•
TomTom 2005 StreetMap North America with Routing and Geocoding (US & Canada)	•	•	•
Data Provided in Smart Data Compression Format	•	•	•
Data Appliance for ArcGIS			
Data, High Cartographic Quality Map Caches, Geocoding, and Routing Tasks for Your Internal Network	•	•	•
StreetMap Premium for ArcGIS			
Street-Level Geocoding, Routing, and Cartography for North America and over 60 Other Countries	•	•	•



Understanding our world.

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

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



Contact Esri

380 New York Street
Redlands, California 92373-8100 USA

1 800 447 9778
T 909 793 2853
F 909 793 5953
info@esri.com
esri.com

Offices worldwide
esri.com/locations

For more information, visit
esri.com/desktop.