

Here are just a few guiding points for some common ArcMap operations. It is by no means exhaustive. You will quickly be able to expand on this list.

Tips

To map X/Y Coordinates collected from GPS	1
To copy/export a shapefile or selected features:.....	1
To Create a Shapefile:.....	1
To add a point:.....	2
To merge two polygons:.....	2
To remove line artifact from a polygon:.....	2
To move a common boundary:	2
To divide a polygon into multiple polygons where lines overlap:.....	2
To cut a polygon in half:	3
To modify polygons:	3
To cut out a polygon on the outside:	3
To Change a Polygon Perimeter:	3
To Make Buffers:	3
To Intersect two Shapefiles:	3
To Merge two Shapefiles:.....	3
To Get Lat/Long Coordinates:	3
To Join Tables:	4
To Define Projection of a shapefile:	4
To rubbersheet or georeference a jpeg map:	4
To fix a corrupted MXD project file:	4
To add a value to all cells of a raster:	4
To make a model:	4
ArchHydro.....	4
Hawth's Tools	5

To map X/Y Coordinates collected from GPS

Set up an excel file with a site description and other desired column headings. Include columns for your X-coordinate and Y-coordinate. This can be in Lat/Long or State Plane. If using Lat/Long make sure your longitude values are negative.

In ArcMap, Go to Add Data, select your saved excel file, select the tab with your data. Right click the file in your Table of Contents and select Display XY Data, specify your x and y fields, choose the coordinate system (State Plane, UTM zone 18, or lat/long (Geographic North American Datum 1983)

Points should project in the right place. Export the data to a new shapefile.

To copy/export a shapefile or selected features:

Right-click on shapefile, select Data, Export Data.

To Create a Shapefile:

Open ArcCatalogue

Right-click in space and select new shapefile

Name it, select feature type, edit coordinate system and select Projected Coordinate Systems/State Plane/NAD 1983 (Feet)-New Jersey. Then either drag and drop into view or add theme in ArcMap.

To add a point:

Click Editor bar and select Start Editing
Under Target window, select the layer or shapefile you want to edit
Under Task window, select Create New Feature
Under Sketch tool window, select the pencil
Click on map where you want the point to be, then edit attribute table.

To merge two polygons:

Click Editor bar and select Start Editing
Under Target window, select the layer or shapefile you want to edit
Select edit tool (the little triangle)
Select polygons to merge (by dragging a rectangle across common boundary)
Under Editor, select merge

To remove line artifact from a polygon:

Click Editor bar and select Start Editing
Under Target window, select the layer or shapefile you want to edit
Under Task window, select Create New Feature
Under Sketch tool window, select the pencil
Enable Snapping under Editor
Draw polygon around the artifact
Then merge the artifact polygon with the polygon surrounding it.

To move a common boundary:

Click Editor bar and select Start Editing
Under Target window, select the layer or shapefile you want to edit
Click map topology button and select layer to operate on
Click topology edit tool button
Under task select Modify edge
Select common boundary of polygons by clicking and dragging
Move points
Under tasks select Reshape edge

To divide a polygon into multiple polygons where lines overlap:

Click Editor bar and select Start Editing
Under Target window, select the layer or shapefile you want to edit
Make sure ET Geotools is activated (Right click somewhere up on toolbar to select from drop down menu)
Make sure polygon (s) are selected
Under ET commands select ET Explode Selected
ET Geotools is a separate add-in extension at <http://www.ian-ko.com/>

To cut a polygon in half:

Click Editor bar and select Start Editing

Under Target window, select the layer or shapefile you want to edit

Under Task select Cut polygon feature

Select polygon you want to cut

Select pencil under sketch tool

Change attributes of new polygon by Attribute button at far right of Editor toolbar

To modify polygons:

Click start editing under editor toolbar.

Task is Modify Feature under Modify Tasks.

Make adjustments

To cut out a polygon on the outside:

Use Auto-complete Polygon under Topology tasks.

(No need to select polygon)

To Change a Polygon Perimeter:

Select modify feature, and enable snapping under Editor.

Grab vertice with arrow tool and move.

To register change select Reshape Feature.

To add vertice, right click while cursor is over line.

To Make Buffers:

Analysis Tools\Proximity\Multiple Ring Buffer

Select none for dissolve

To Intersect two Shapefiles:

In ArcToolbox select Analysis Tools, Overlay, Intersect

To Merge two Shapefiles:

In ArcToolbox, Data Management Tools, General, Merge

To Get Lat/Long Coordinates:

Make sure point file is in State Plane or other known coordinates.

1) If the coordinate system is not set go to: ArcToolbox, Data Management Tools, Projections and Transformations, Feature, Project or ArcToolbox, Data Management Tools, Projections and Transformations, Define Projecton

Follow the prompts...for Output Coordinate System, Select Geographic Coordinate Systems, North America, North American Datum 1983 for NJ State Plane or other projection as necessary.

2) Add a field in the attribute table for both coordinates. Right click on the Column Name and select Calculate Geometry.

To Join Tables:

In ArcToolbox, Data Management Tools, Joins, Add Join

The dbf tables must have a field in common to match (typically the site name)

Then right-click on shapefile, select Data, Export Data to make join permanent.

Joins can be done just as easily in ArcMap from the Table of Contents. Right click on the layer of interest, right click and select Joins and Relates...

To Define Projection of a shapefile:

In ArcToolbox, Data Management Tools, Projections and Transformations, Define Projection, Projected Coordinate Systems, State Plane, NAD 1983 Feet, Select the one for New Jersey.

To rubbersheet or georeference a jpeg map:

Activate georeferencing toolbar (to do that, right click above view and check georeferencing)

Make a copy of the original jpeg to avoid changing the original

Add Data to load jpeg (copy) into view

Make sure layer (the jpeg) is activated

You can change the scale, rotate, shift the image by clicking the corresponding toolbar buttons

Select add control points

Note: if autoadjust is activated then the image will move automatically after each control point is selected.

When finished, select update georeferencing

To fix a corrupted MXD project file:

Make sure MXD Doctor has been installed (it's on the Arc installation disc)

On desktop select Start, Programs, ArcGIS, Developer Tools, MXD Doctor

At Diagnosis Tab browse to the MXD file that is a problem and select

After it automatically completes the Document status (a few seconds) select the Treatment Tab

Make sure Transfer all non-broken option is checked

Select Fix Document button

It will then make a new project file with the suffix "new" added.

To add a value to all cells of a raster:

In ArcToolbox, select Spatial Analyst Tools, Math, Plus. Follow prompts.

To make a model:

Right click in space in ArcToolbox, select New Toolbox, name it, right click on it, select New, Model. Drag the ArcToolbox tool (e.g., Contour) into the Model view, then doubleclick on the tool (Contour) and follow the prompts. Save model frequently. Right-click on the model output and select Add to Display, then right-click again and deselect Intermediate. You can copy down the model any number of times to save time. Run the model.

ArcHydro

Be sure to read the documentation. The extension is very sensitive to file locations.

Pour points must have the following fields included:

- o Name

- o Descript

- o BatchDone - The BatchDone option indicates whether the Batch Watershed Delineation function will perform a delineation for that point (0: delineate, 1: do not delineate).

- o SnapOn - The SnapOn option indicates whether the Batch Watershed Delineation function will try to snap the point to the closest stream.

Hawth's Tools

Files should be in shapefile and grid format to work properly. This extension is no longer maintained and is being replaced with Geospatial Modelling Environment tools. See <http://www.spataleecology.com>.