

Introducing GeoAuthor® Integrated Mapping



Providing the tools to manage the map that works with your applications.

GeoAuthor® from International Computer Works, powered by MapInfo Professional, delivers the correct measure of ease-of-use and sophistication to leverage investments made in existing GIS data. Edit and update the latest TIGER/Line Shape Files as a single network of lines using locale data to improve the integrity and accuracy of Census data for use with your other ICW applications.

Build from TIGER and local base maps to obtain best results.

GeoAuthor® provides object based tools making it easier for you to manage, edit and update your base map starting with data that other agencies have already built. With capabilities such as:

- Manage street names with up to five aliases
- Create intersections with auto-distribution of addresses
- Add new streets using either precise or distributed address ranges
- Realign a lengthy shoreline as easily as drawing a polyline
- Easily edit addresses and ZIP codes for all the roads in the county
- Use Build Layers to create map layers including:
 - Roads and points for geocoding
 - Boundaries including Blocks, Block Groups, Tracts City Limits, Congressional, etc.
 - Shorelines of water bodies.
 - Streams, creeks, ditches, etc.
 - Fence lines, power lines, etc.
 - Railroads and Airports

Designed for ease-of-use, GeoAuthor® is strategically positioned to help you use the power of GIS data in concert with other ICW applications to address the mission critical needs of your office.

Map data built with GeoAuthor® can be used with:

Traditional GIS

1. Maintain your center street line file with tools designed to manage the data.
2. Create closed boundaries that share the same geometry as local data.
3. Distribute the enhanced data (17 to 30 layers) to users who can benefit from a shared map library.
4. Use the enhanced data for redistricting school zones, election precincts, or 911 dispatch.
5. Geocode data using ZIP5 as an attribute of the street segment.

Expanding Technologies

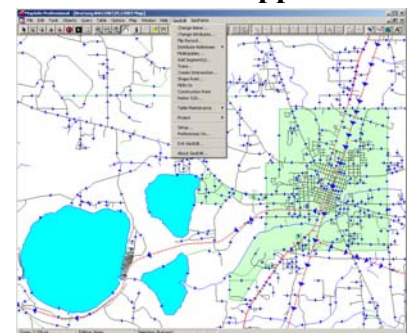
1. Use the enhanced data for GPS driven automated vehicle location (AVL).
2. Populate your map enabled web site with data whether you serve up GIS or display maps for your end-users.
3. Use the enhanced data with vertically integrated applications such as **GeoElections, GeoSchools, GeoPoints SQL, GeoBuilder,** or **GeoElections** also from ICW.
4. Link the demographics of your target audience to the enhanced boundaries using the positional accuracy of your geocoded data.



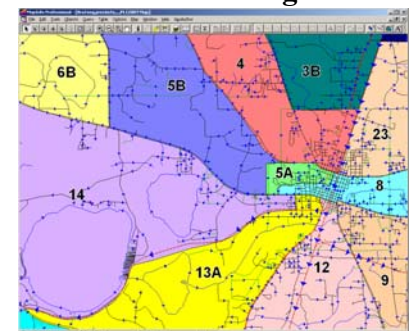
Intuitive, Menu driven

GeoSchools Assists the user to create attendance zones, builds street dictionaries and other tasks.	GeoChoice Facilitates the use of a lottery system to allocate classroom resources.	GeoElections Provides a GIS interface which streamlines and automates numerous aspects of the elections process.	GeoBuilder Integrates the creation of maps for desktop deployment and geocodes for emergency dispatch.
GeoAuthor		TIGER/Line Files	Import Census Data or:
		GIS Data	Use Local GIS Data

Use with other Applications



Convenient Editing Tools



Boundaries

GeoAuthor® delivers the correct measure of power!

Following is a list of items in the **GeoAuthor®** pull down menu along with a brief overview of the functionality that each tool or command option offers. This is simply an overview and not an exhaustive list.

1. **Change Name** Change the name of a single segment or for all segments with the same Reference Number. For roadway features the user may edit a primary name and up to 5 alternate feature names.
2. **Change Attributes** Permits the user to have direct edit control over the left and right address information for a segment (to and from addresses and 5 digit zip codes) and the MTFCC for that segment.
3. **Flip Record** Reverse the line direction for a road segment converting the line to a forward encoded segment while maintaining the left and right attributes on the correct side of the line.
4. **Distribute Addresses** Provides two methods of assigning address ranges to multiple road segments (**Proportionate** and **Unit Length**).
5. **MultiUpdate** Update the name, ZIP Codes, MTFCC and Revert Graphics for a group of selected segments. For roadway features the user may edit a primary name and up to 5 alternate feature names.
6. **Add Segment** The user can add a new line then with a dialog box enter the name and other attributes.
7. **Trace** Assists the user to keep track of edits to the geometry made using MapInfo Tools.
8. **Create Intersection** When the user adds a new linear feature (i.e. street or road, railroad, airstrip, creek, stream, etc.) and it intersects an existing line, an intersection must be created and where necessary addresses distributed.
9. **Shape Point** The user can modify the shape of a segment as easily as redrawing the feature. This can result in the addition of shape points, deletion of shape points all transparent to the end user.
10. **MDN** Is a simple toggle between the setting "Move Duplicate Nodes in the Same Layer or None of the Layers". If two or more lines intersect at the same location they are said to share a node. With MDN on, the user can select a line and move the shared node and all of the lines will move with the first line. This is also referred to as rubber banding.
11. **Construction Point** This command allows the user to snap a point to a line.
13. **Retire TLID** In the TIGER system, **TLIDs do not get deleted**, they get retired. This tool allows the user to tag an object and **GeoAuthor** will assign a standard MTFCC value that indicates the new status of the line.
14. **Table Maintenance** Consists of a group of submenus that provide access to **GeoAuthor®** functions which manage files as opposed to manipulating individual or groups of objects in a table. Following is a list of the items and a brief overview of the functionality represented by this menu group.
 - Save Tables** will save multiple tables relieving the user from the need to perform multiple saves.
 - Revert Tables** will revert multiple tables relieving the user from the need to perform multiple revert table commands.
 - Pack Tables** will pack multiple tables relieving the user from the need to perform multiple packing operations.
 - GeoAuthor QC** is a set of diagnostic tools designed to make it easier to complete the task of creating the best map data possible. Following is a brief description of each of the menu items:
 - Missing ZIPCodes** will create a file that contains a list of records that are missing a 5-digit ZIP Code.
 - Duplicate Addresses** operation will generate a file that contains a list of records that have duplicate or overlapping addresses for both primary and alternate feature names.
 - Check Snap** operation will generate a map table of points that identify the end points of lines that are not connected to an adjacent line, but fall within a user specified snap tolerance.
 - Intersection Points** will build a table of points that are snapped to the intersections of the segments within a table of linear features (i.e. lines and polylines).
 - Compact Name List** operation is designed to eliminate names that entered into the **GeoAuthor®** database and subsequently modified, leaving the initial name unused.
 - Degenerate Objects** will analyze the contents of TGR1 for zero length line objects and present the user with a table of points that mark the location of the objects to be repaired.
 - Duplicate New TLIDs** detects multiple occurrences of records and reduces the set to one, additionally, it creates a list of records that have duplication of the three fields used for geocoding.
 - Foreign Objects** detects and removes none linear objects from a table such as text or points. Additionally, it creates a list of multi-section polylines if present to be corrected by the user.
 - Import Data** TIGER/Line Shape Files. These files can be edited with the **GeoAuthor®** and **GeoPoints®**.
 - Build Layers** will generate enhanced layers of linear features and polygons.
 - Revert Graphics** will restore the symbology of a file edited with Preferences on to the original styles.
15. **Project** The Project menu options create and manage directories and files. A **GeoAuthor®** database consists of many directories and files. For the user's convenience the database is managed as a project. Following is a brief overview of this functionality.
 - Create** allows the user to register and create a project.
 - Add** allows the user to register an existing project.
 - Rename** allows the user to rename a registered project.
 - Delete** allows the user to remove a project from the system.
16. **Setup** This feature allows the user to select a project to work with.
17. **Preferences** Allows the user to change the graphical representation for features that are edited, or verified. Also, permits specifying the number of feet in a unit for incrementing addresses in Unit Length addressing.
18. **Exit GeoAuthor** This option exits **GeoAuthor®** and removes it from the MapInfo Menu Bar. To get **GeoAuthor®** back the user must launch MapInfo from the **GeoAuthor®** Icon or execute the Tools>Run MapBasic Application.
19. **About GeoAuthor** This menu item displays a dialog box with the version and serial number of the active copy of **GeoAuthor®**.