# SPATIAL**MAP 911**

SpatialMap 911 is an advanced address maintenance application for users of Esri's ArcGIS Desktop. Leveraging the powerful ArcObjects application programming interface, automation tools are used to maximize the efficiency of data creation and ensure the data integrity required by 911 centers. The SpatialMap 911 extension to ArcGIS improves the consistency of assigning addresses and facilitates the ongoing chore of maintaining topologically correct attributed street centerlines for use by emergency operations and responders. SpatialMap 911 goes beyond the basic editing capabilities of ArcMap and is specific to the detailed needs of address editing:

- **Support of "city-style" addressing »** Distance based, grid based, century based and hybrid based systems

- **Improve Address Maintenance Workflow »** Increasing the accuracy of house numbers for individual structures and address ranges for individual street segments using automation tools, all while saving money and time

- **Prevent errors »** Invalid street names and incorrect number sequencing are checked during the development and maintenance process

- **Flexibility »** Users retain the ability to make decisions and override system suggestions; supporting custom addressing schemes

- **Maintain street centerlines »** Discover overlapping address ranges, automatically maintain attributes, and automatically allocate address ranges after splitting a street
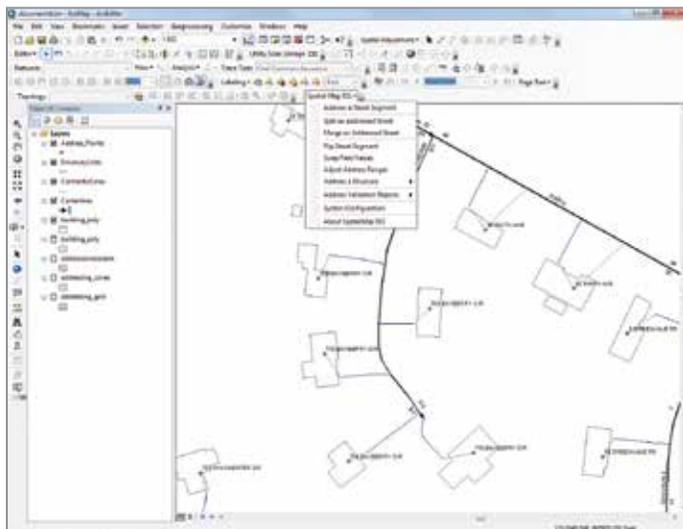
Using SpatialMap 911, street segment and address features can be stored in a geodatabase or shapefile format. SpatialMap 911 allows for flexible geodatabase design and typically can utilize existing schemas avoiding costly redesign or the adoption of a "proprietary" vendor schema. This is all facilitated by convenient configuration wizards that make system setup easy. The configuration information can be stored on a network and thus multi-user implementations are a snap.

SpatialMap 911 supports standardized and hybrid address ranging systems. Such systems as grid based, distance based, and century systems can easily be implemented and maintained. Through the use of an addressing system polygon layer, different geographic regions within the same dataset can easily follow different addressing rules.

SpatialMap 911 allows the user to make informed decisions based upon their expertise and the existing information. When adding an address range to a road, or assigning a new address to a building, the user always has the ability to review and override the system recommended address values. This is not uncommon when unexpected development occurs or a need arises to accommodate legacy addressing errors that cannot be corrected.

The software automatically recognizes which addressing system is being utilized in the current street centerline file, and provides the ability to select another addressing system when exceptions are encountered.

SpatialMap 911 improves the address maintenance workflow process by reducing errors and increasing efficiencies while the user:

- Assigns/suggests address ranges for individual street segments
- Assigns/suggests house numbers to be assigned to individual structures
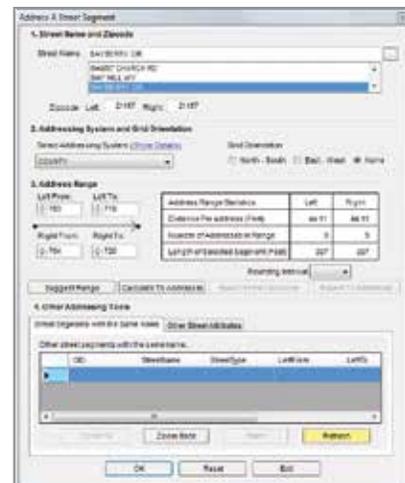
Typical errors that can be avoided through the use of SpatialMap 911 include:

- Creation of non-unique address ranges
- Assigning an odd or even number range to the wrong side of the street
- Assigning a street an invalid (i.e. misspelled) street name
- Not allowing for enough addresses along a new street segment
- Manual data entry errors
- Incorrect interpolation from an established addressing grid

In addition, SpatialMap 911 improves efficiency of the individual(s) responsible for maintaining street centerlines and addresses by:

- Automatically discovering overlapping address ranges
- Automatically allocating address ranges when splitting a street into multiple segments
- Establishing a GIS-aware address grid along with a database of "valid" street names
- Automatically correcting and updating misspelled street names in the attribute tables
- Providing the ability to automatically maintain attributes, i.e. swapping field values such as left ZIP code and right ZIP code without manual entry.
- Simultaneously assigning house numbers to structures from multiple feature classes

SpatialMap 911 utilizes a "road name list" to ensure that road names are spelled consistently throughout the dataset. This greatly reduces the potential for keying errors during data entry.

SpatialMap 911 street segment maintenance tools assist in managing the addressing attributes including road name, address range, ZIP code, and other user defined fields. Operations such as splitting an addressed street segment are simplified because the application automatically suggests the new address values of the resulting features, and allows the user to adjust the suggested address values efficiently and accurately.

In addition, SpatialMap 911 provides a mechanism to quantitatively measure the quality of the resulting data. Evaluations can be performed on individual streets, subdivisions, or the entire jurisdiction.

SpatialMap 911 has been designed based on the input of our county and municipal clients. It is licensed on a per user basis, but most jurisdictions only have a need for a single license.

SpatialMap 911 is a tool that allows a single individual within a county or municipal jurisdiction to develop, manage, and maintain addresses and attributed street centerline layers in an Esri GIS environment consistent with local standards.
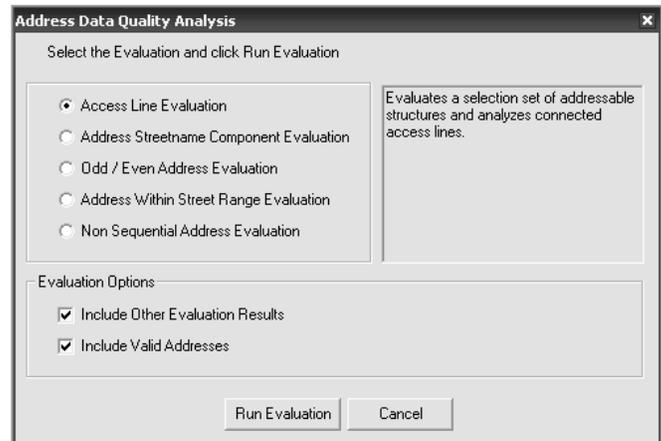
SpatialMap 911 User Guide Version 3

Please visit our web site to learn more about SpatialMap 911 and to download the User Guide: www.spatialsys.com/GIS/Products/SpatialMap911

Contact Us

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