

# CAR & GIS Within Cobb County



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# What is CAR?

## Cobb Address Repository

- Describes, stores and retrieves all the official addresses
- GIS is the interface for creating address database features: SQL Database
- Real time and contains nearly 100% of all valid addresses.
- Addressing standards are built into the CAR process - FGDC

# **CAR Maintenance & Responsibility: Community Development Agency**

- **County Address Coordinator**
- **Use ArcGIS Custom Toolset**
- **Address Field and Database Verification**
- **Research Address Submissions**
- **Address Assignments and Updates**



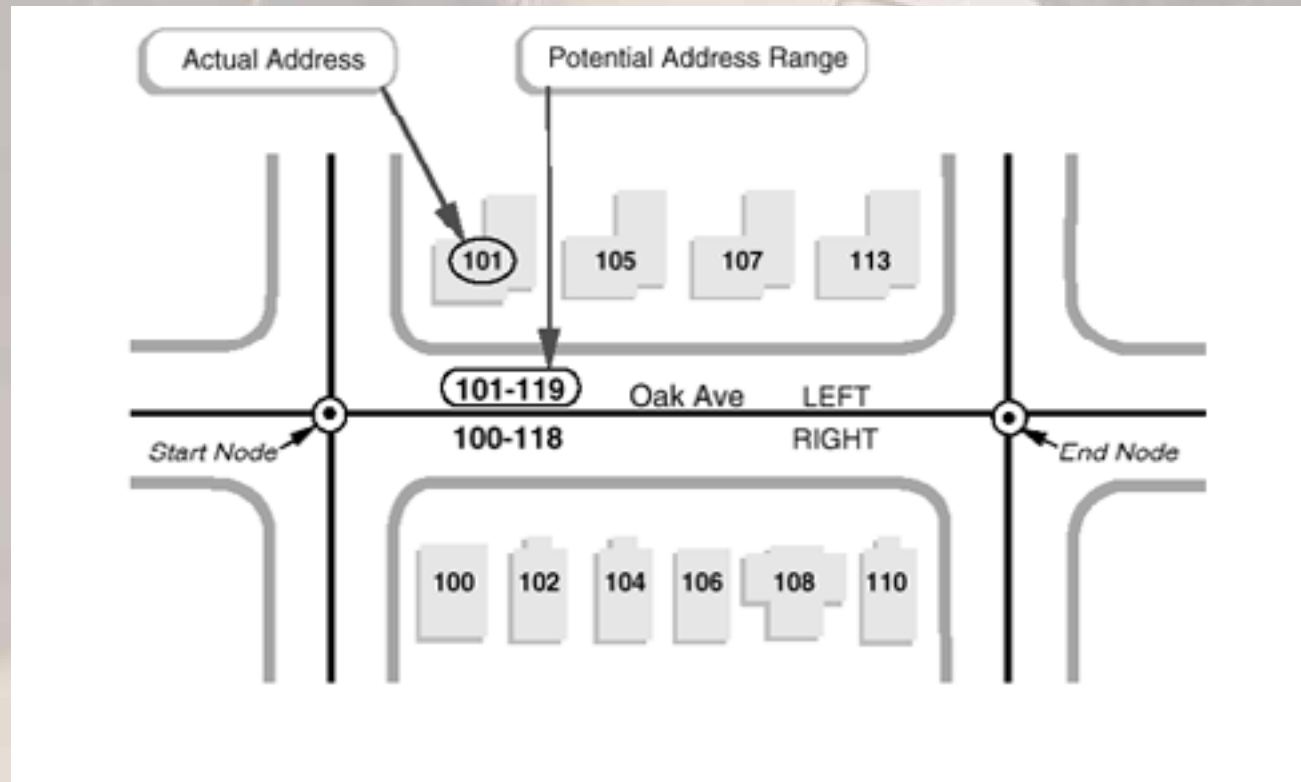
# What is an Address?

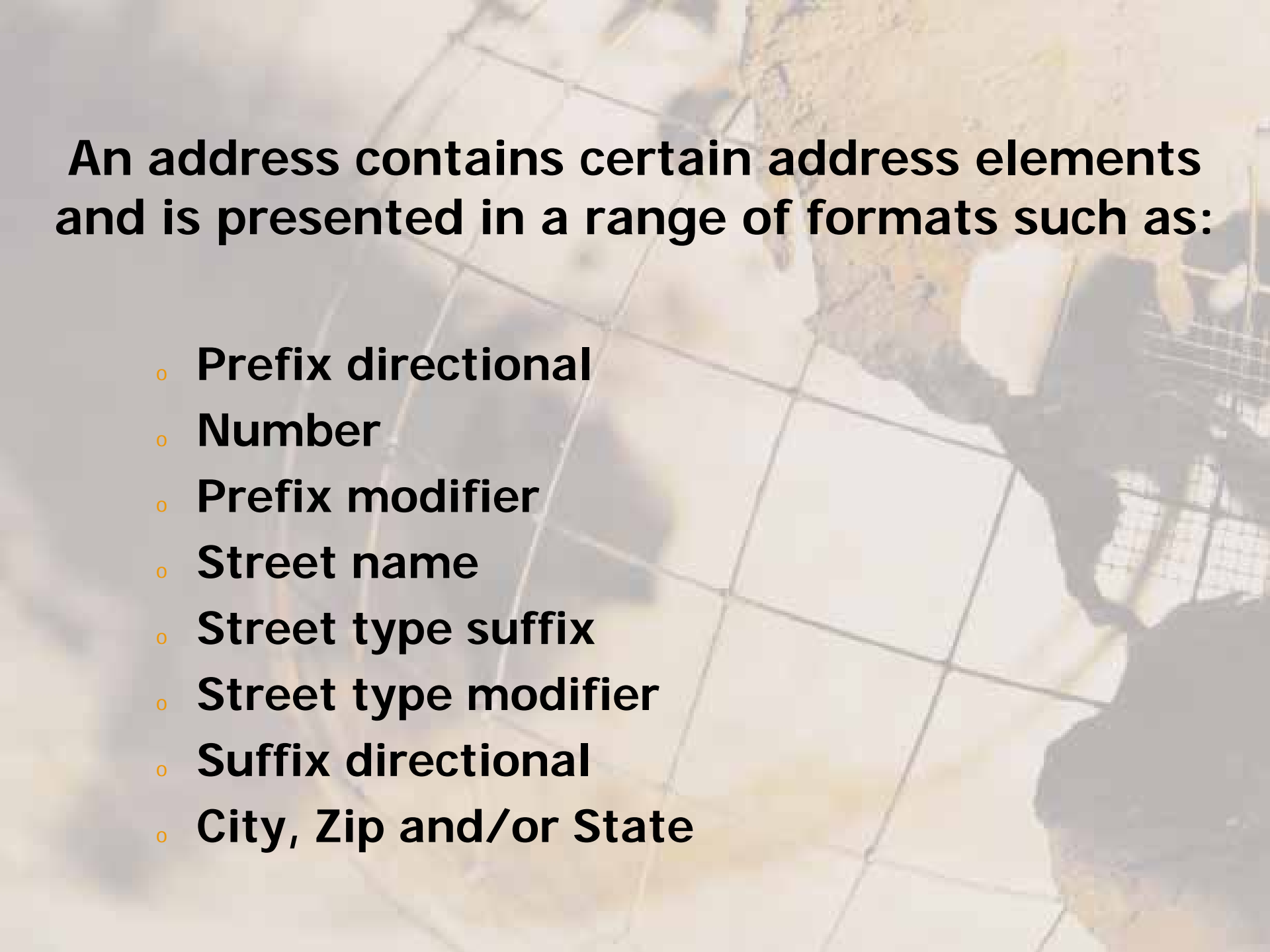
- A method used to describe a location.
- Traditionally, addresses have been assigned only to parcels, based on roads.



Every street has an address RANGE for all potential addresses . See example below: 101-119 for left and 100-118 for right side of road.

RANGE is based on length of road and location within county (grid alignment)





**An address contains certain address elements and is presented in a range of formats such as:**

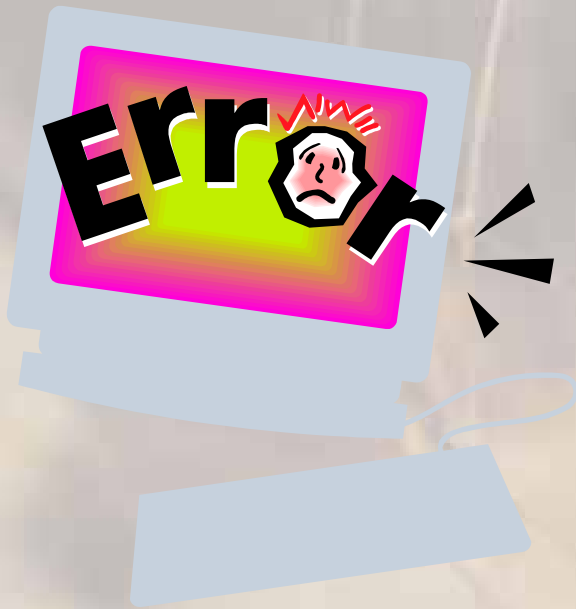
- **Prefix directional**
- **Number**
- **Prefix modifier**
- **Street name**
- **Street type suffix**
- **Street type modifier**
- **Suffix directional**
- **City, Zip and/or State**

# Addressing History; Pre-2007

- **Format and quality varied considerably across the departments**
- **Nearly impossible to identify all of the activity, such as building permits or police reports, associated with a given address**
- **No formal coordination in the assignment process with other departments (Assessor, Transportation, Utilities, E-911, Fire Department, etc.)**
- **Different datasets maintained throughout the county**

**Process was not well defined, causing lots of frustration... for staff and citizens!**

- **Creation of the MAD (Master Address Database)**
  - Very basic point feature class with status attributes
  - Not connected to any other systems outside ArcGIS





## RFP Issued in 2007

- **Contract awarded to Spatial Focus in early 2008; it was a 2 year project**
- **Compared the different datasets, and majority ruled**
- **Historical plats, databases, maps and files were used to create initial database**
- **Each database record also had a GIS point created, using relational d-base links.**



# Continuous Updates

**Examples of address anomalies:**

- Number out of sequence**
- Address point far from its associated street name**
- Missing addresses on developed parcels**
- Even addresses on the odd side of the street (& vice versa)**
- Historic address validation**
- Interaction with cities and other municipalities**

**Of the 250,000 active addresses within Cobb County, we are down to less than 500 with errors. Creating a 99% accuracy rate!**



# Street Naming Guidelines

- Patterned after FGDC standards
- New streets will be named during the site plan review process.
- Names which may be offensive (slang, double meanings, etc.) shall be avoided.
- Cobb County is divided into four street number quadrants designated by NE, NW, SE, and SW. All streets shall bear the proper quadrant suffix.
- Do not use special characters in road names such as hyphens, apostrophes or dashes.

*The Full list of standards is much more extensive than these.*

# Street Addressing Guidelines

- Numbers assigned according to access (driveway) to the property
- Numbers are assigned by referencing the standard county grid. Address numbers will increase sequentially as they move away from the zero point.

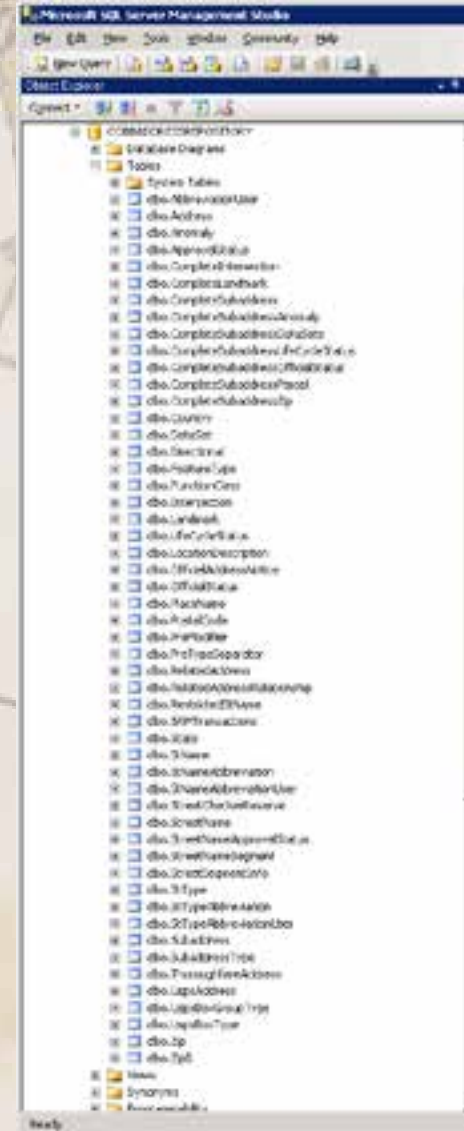
*What is the ZERO-POINT LOCATION in Cobb?*

- Property located on the right side of a street when moving away from the zero-point is given an even number. (Vice versa for odd numbers)
- There should be no use of fractional addresses, alphanumeric address numbers, nor hyphenated address numbers.

# CAR Database

Over 40 tables within SQL, such as:

- Address
- AddressAnomaly
- AddressZip
- CompleteIntersection
- CompleteSubaddressOfficialStatus
- CompleteStreetNameTable
- Directional
- LifeCycleStatus
- OfficialAddressNotice
- OfficialStatus
- PostalCode
- RelatedAddress
- StName
- UspsAddress

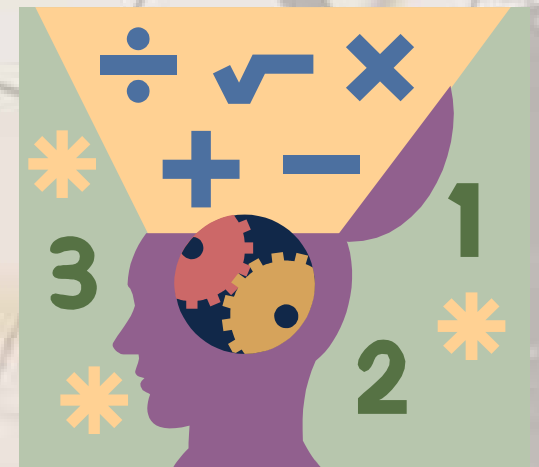


# SQLRelational Database

- **Addresses in CAR are based and linked in d-base to road segments (roadsegID)**
- **Addresses in CAR are LINKED to road Parcels (PIN).**
- **We track all POTENTIAL, PROPOSED, ACTIVE and DELETED Addresses.**
- **All points have their own Unique CAR ID**

# Cobb Addresses... by the numbers

- Potential Points: over 2.5 million
- Active Points: over 250,000
- We have 15,947 Different Road Names in Cobb County





# Over 250 approved Street Types

The screenshot displays a SQL Server Enterprise Manager window with a table of street types. The table is titled 'Results' and contains the following data:

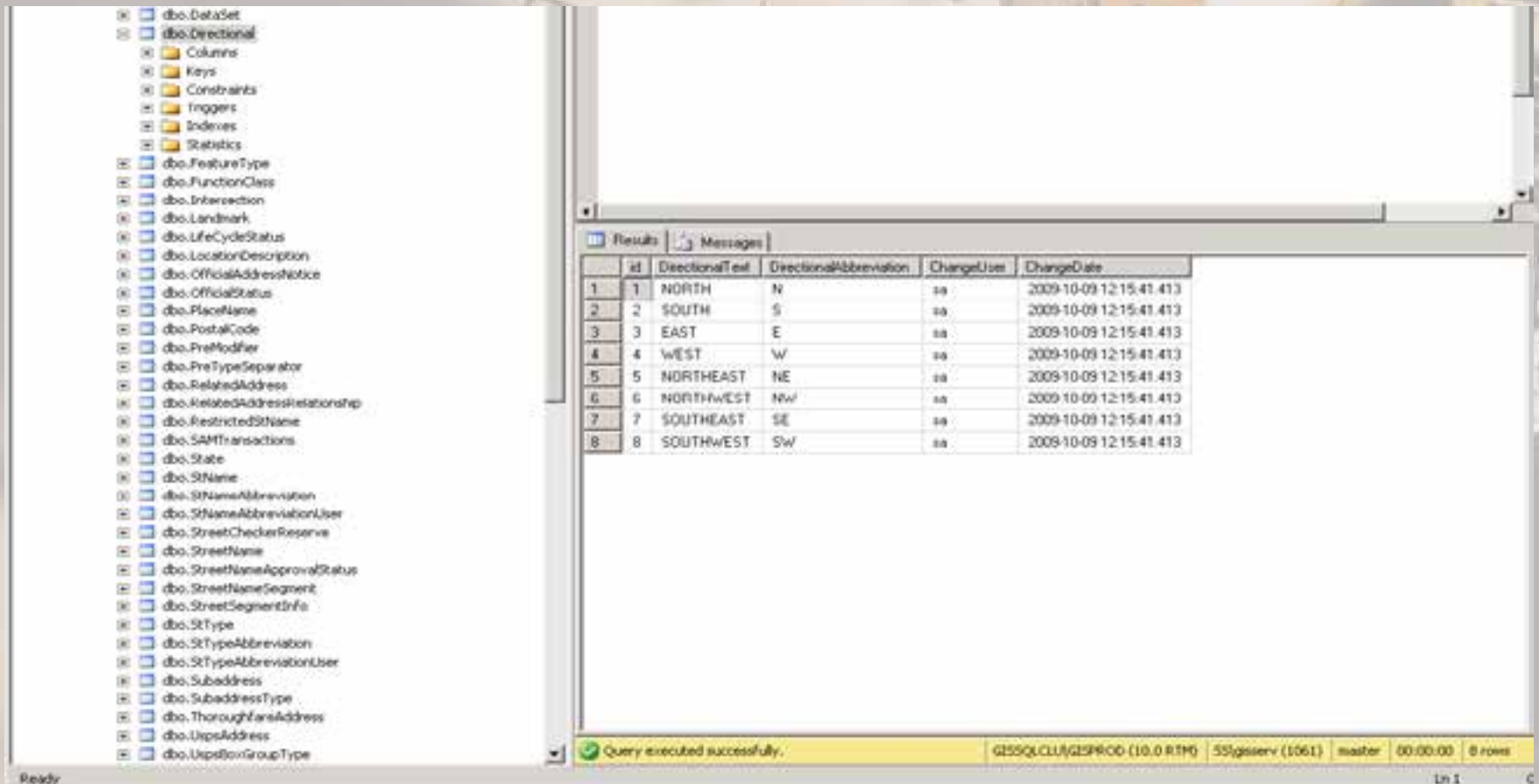
	id	STTypeText	Standard	Allowed	ChangeUser	ChangeDate
1	1	ALLEY	NULL	1	sa	2010-07-23 08:44:25.950
2	2	ANNEX	NULL	0	sa	2010-07-23 08:44:25.950
3	3	ARCADE	NULL	0	sa	2010-07-23 08:44:25.950
4	4	AVENUE	NULL	1	sa	2010-07-23 08:44:25.950
5	5	BAYDO	NULL	0	sa	2010-07-23 08:44:25.950
6	6	BEACH	NULL	0	sa	2010-07-23 08:44:25.950
7	7	BEND	NULL	1	sa	2010-07-23 08:44:25.950
8	8	BLUFF	NULL	1	sa	2010-07-23 08:44:25.950
9	9	BLUFFS	NULL	0	sa	2010-07-23 08:44:25.950
10	10	BOTTOM	NULL	0	sa	2010-07-23 08:44:25.950
11	11	BOULEVARD	NULL	1	sa	2010-07-23 08:44:25.950
12	12	BRANCH	NULL	1	sa	2010-07-23 08:44:25.950
13	13	BRIDGE	NULL	1	sa	2010-07-23 08:44:25.950
14	14	BROOK	NULL	1	sa	2010-07-23 08:44:25.950
15	15	BROOKS	NULL	0	sa	2010-07-23 08:44:25.950
16	16	BURG	NULL	0	sa	2010-07-23 08:44:25.950
17	17	BURGS	NULL	0	sa	2010-07-23 08:44:25.950
18	18	BYPASS	NULL	0	sa	2010-07-23 08:44:25.950
19	19	CAMP	NULL	0	sa	2010-07-23 08:44:25.950
20	20	CANYON	NULL	0	sa	2010-07-23 08:44:25.950
21	21	CARP	NULL	0	sa	2010-07-23 08:44:25.950

The interface also shows a tree view on the left with the following items expanded:

- dbo.Placename
- dbo.PostalCode
- dbo.PreModifier
- dbo.PreTypeSeparator
- dbo.RelatedAddress
- dbo.RelatedAddressRelationship
- dbo.RestrictedStName
- dbo.SAMTransactions
- dbo.State
- dbo.StName
- dbo.StNameAbbreviation
- dbo.StNameAbbreviationUser
- dbo.StreetCheckerReserve
- dbo.StreetName
- dbo.StreetNameApprovalStatus
- dbo.StreetNameSegment
- dbo.StreetSegmentInfo
- dbo.STType
  - Columns
  - Keys
  - Constraints
  - Triggers
  - Indexes
  - Statistics
- dbo.STTypeAbbreviation
  - Columns
  - Keys
  - Constraints
  - Triggers
  - Indexes
  - Statistics

The status bar at the bottom indicates: Query executed successfully, GISSQLCLUGISPROD (10.0 RTM), SSISserv (1753), master, 00:00:00, 244 rows.

# 8 approved directional components



The screenshot shows a SQL Server Enterprise Manager interface. On the left, a tree view displays a list of database objects under the 'dbo' schema. The 'dbo.Directionals' folder is expanded, showing a list of 8 objects. On the right, a 'Results' window displays the following table:

	id	DirectionalText	DirectionalAbbreviation	ChangeUser	ChangeDate
1	1	NORTH	N	sa	2009-10-09 12:15:41.413
2	2	SOUTH	S	sa	2009-10-09 12:15:41.413
3	3	EAST	E	sa	2009-10-09 12:15:41.413
4	4	WEST	W	sa	2009-10-09 12:15:41.413
5	5	NORTHEAST	NE	sa	2009-10-09 12:15:41.413
6	6	NORTHWEST	NW	sa	2009-10-09 12:15:41.413
7	7	SOUTHEAST	SE	sa	2009-10-09 12:15:41.413
8	8	SOUTHWEST	SW	sa	2009-10-09 12:15:41.413

At the bottom of the interface, a status bar indicates: 'Query executed successfully. GISSQLCLU\GISPR00 (10.0 R1M) SS\gisserv (1061) master 00:00:00 0 rows'. The status bar also shows 'ln 1' and a small 'c' icon.

# 11 Status Codes

The screenshot displays the SQL Server Enterprise Manager interface. On the left, the 'Server Enterprise' tree is expanded to show the 'dbo.OfficialStatus' table. The main pane shows the 'Results' tab with a table containing 11 rows of data. The table has four columns: 'id', 'OfficialStatusName', 'ChangeUser', and 'ChangeDate'. The data is as follows:

id	OfficialStatusName	ChangeUser	ChangeDate
1	Official	sa	2009-10-09 12:15:12.473
2	Alternate or alias	sa	2009-10-09 12:15:12.473
3	Official alternate or alias	sa	2009-10-09 12:15:12.490
4	Official renaming action of the address authority	sa	2009-10-09 12:15:12.490
5	Alternate established by an address authority	sa	2009-10-09 12:15:12.490
6	Unofficial alternate or alias	sa	2009-10-09 12:15:12.490
7	Alternate established by colloquial use in the co...	sa	2009-10-09 12:15:12.490
8	Unofficial alternate frequently encountered	sa	2009-10-09 12:15:12.490
9	Unofficial alternate in use by an agency or entity	sa	2009-10-09 12:15:12.490
10	Posted or vanity address	sa	2009-10-09 12:15:12.490
11	Verified invalid	sa	2009-10-09 12:15:12.490

At the bottom of the window, a status bar indicates 'Query executed successfully.' and shows the server name 'GISSQLCLU\GISPROD (10.0 RTM)', user 'SSJgsserv (1246)', and session information 'master 00:00:00 11 rows'.

# **So far we have discussed:**

- **What is CAR?**
- **What is an Address?**
- **CAR SQL database overview**

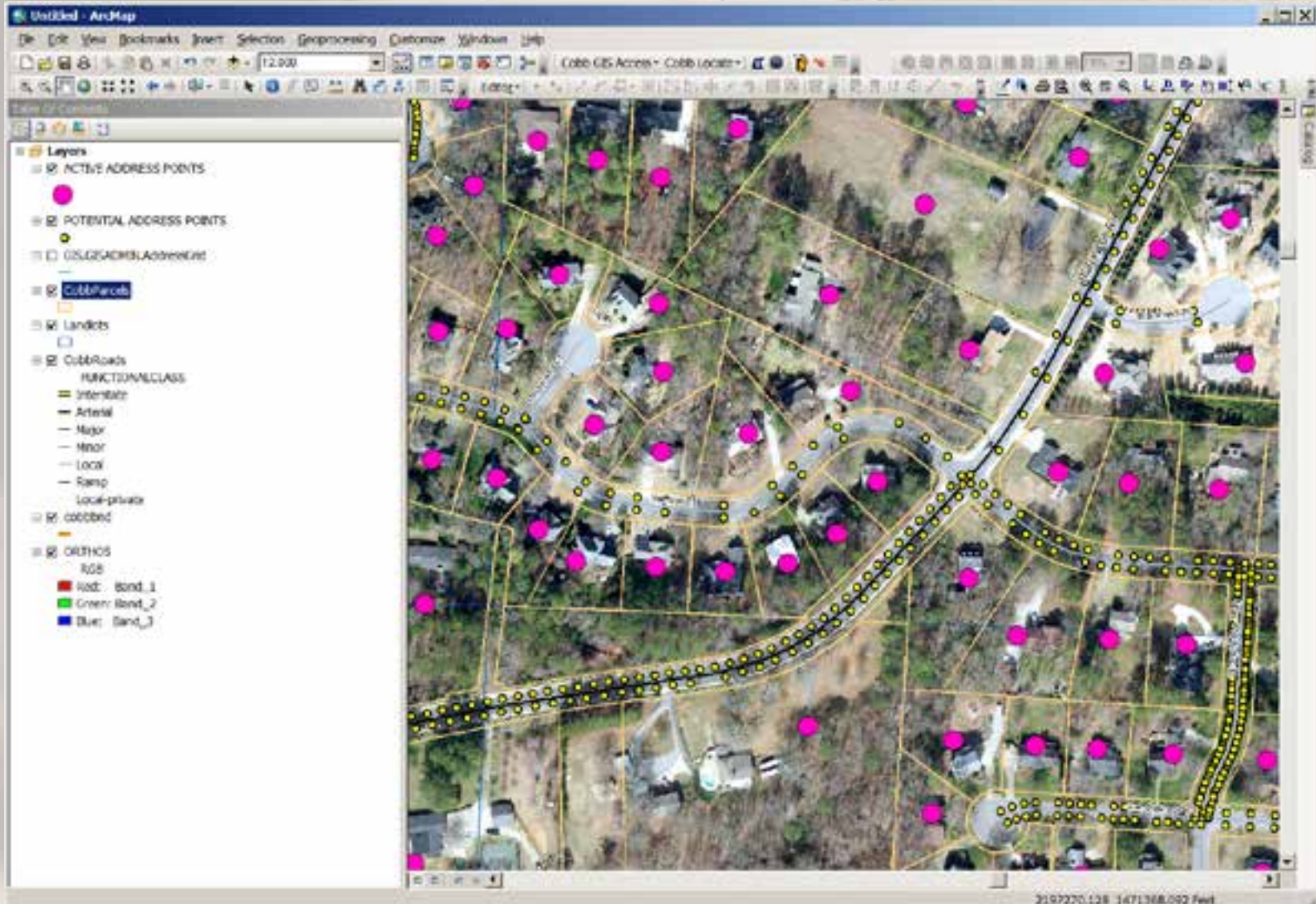
**Now lets look at how addresses are created within GIS....**

# Creating Addresses within CAR

- Utilize GIS, ArcMap, version 10.1
- Custom toolkit was developed to automate creation and maintenance of point addresses
- Updates are done by staff in Community Development

**YOU ARE GIS**  
*You always pack the where factor.*

# ArcMap Software – Project Showing POTENTIAL & ACTIVE addresses



# CAR is Mending Broken Fences!

- **Implementation throughout multiple agencies and software programs (Accela, IAS World, Firehouse, etc.)**
- **One central source for addresses**
- **Less chaos!!**





# Thank you for your time!

## Questions?

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