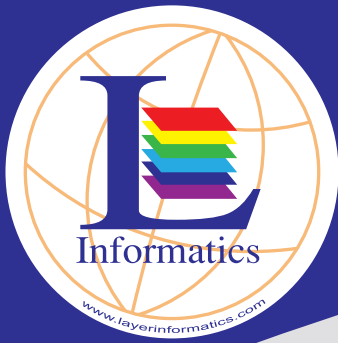




# GEO CODING

## A Case Study



### CHALLENGES:

- Geocoding describes the process of converting text-based postal address data into digital geographic coordinate specifically latitude and longitude. The following challenges make geo-coding a quite essential pre-requisite for spatial record linkage: Shorter names pose greater challenges for geo-coding as they are more likely to yield false positives or multiple locations with the same name. Lack of any inherent scale in either the socially-generated data or the results for a geo-coder, and the ambiguous nature of place names.

### Head Office:

Layer Informatics Pvt.Ltd.  
#48/49, Sathyams, 3rd  
Floor, 9th Cross, Sarakki  
Main Road, J.P Nagar, 1st  
Phase, Bangalore-560078.



Layer Informatics Pvt. Ltd.  
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### INTRODUCTION:

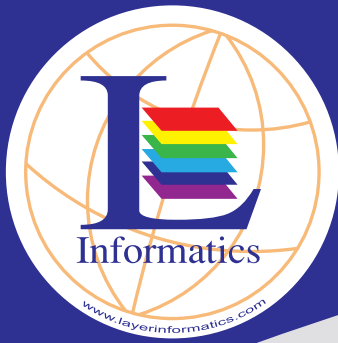
Objective of this project is to geo-code the addresses to the street centerline by creating address points for each parcel & address range points for condominium or apartments as per fire run maps with digital parcel datasets as a backdrop.

### KEY ASPECTS:

- To create address & Address range point for each parcel and codes.
- To spatially position addresses points so that they are within the correct parcel or building footprint (if available).
- All address points were rotated so that labeled point should be perpendicular to the street it is associated with.
- Check address with respect to fire run maps and place missing points.
- There will be approximately 1,000,000 address points.

### METHODOLOGY:

- **Input collection and preprocessing**
  - During this process, all the inputs such as Digital parcel data, Street centerline data, Fire run maps, & Address table etc. are collected from Client and verified for correctness and completeness.
  - Inventory database is created and anomalies will be reported to the client and resolved.
  - Detailed Statement of Work (SOW) has been prepared along with all check lists and Acceptance Criteria.
- **Create Address Points & Address range points**
  - Building Road Blocks & creating street centerlines with attribute information.
  - Closing Building Polygons.
  - Integrating Proposed CDP landuse on to the NRSA Map.
  - Integrating Eicher Shopping areas information onto the NRSA Map.
- **Create Address Points & Address range points**
  - All the roads were digitized with reference to Toposheet, Satellite Imagery and attributed as per their classification, importance and usage. All the information including the directions were captures as a part of the street network database
  - During next stage, street database was cleaned-up and topology was created and network was built
  - All roads were attributed appropriately with values such as Road Number, Road Name, Road Direction Information, Tunnel/Bridge Information, Node and Level Information etc.



# GEO CODING

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## TESTIMONIALS:

We're very pleased with the results. Please extend our thanks to the rest of the team at Layer for a job well done.

## TECHNOLOGY:

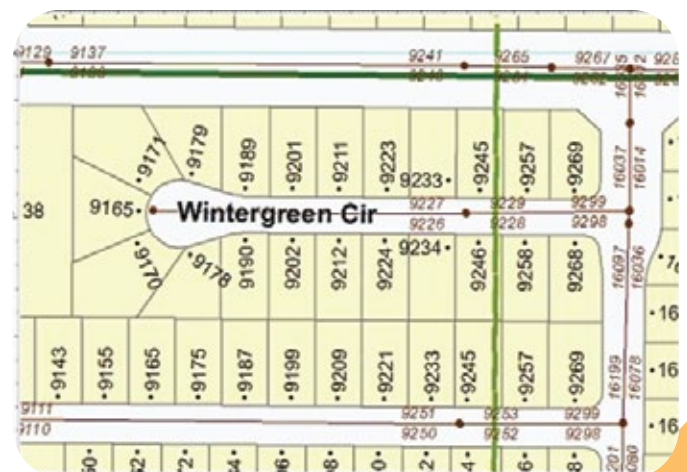
- AutoCAD Map 2004
- ESRI ArcGIS 9.3
- Microsoft Access

## APPLICATION:

- Over 2 Million Address points were Captured and loaded onto Geodatabase for Emergency
- Dispatch system services (9-1-1) for various counties in the US.

Geo-coding data improves program performance and supports policy and decision making. Geo-code Service Center provides a single source across the Department, reducing costs, increasing quality, and providing opportunities to create new products and services

## SCREEN SHOTS:



### UK Office:

Edinburgh EH2 4AT,  
Scotland, UK.

### US Office:

Scranton, PA 18505

### Middle East Office:

Doha, Qatar.



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