

SuperMap Indoor Navigation Solution

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Indoor Navigation Cases

Indoor Navigation Solution



Indoor Map
iDesktop/iMobile
/Partners



Indoor Positioning
Partners



Indoor Navigation
Engine
iMobile

+

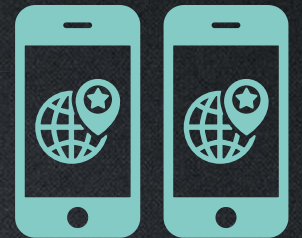
User
Customized
development



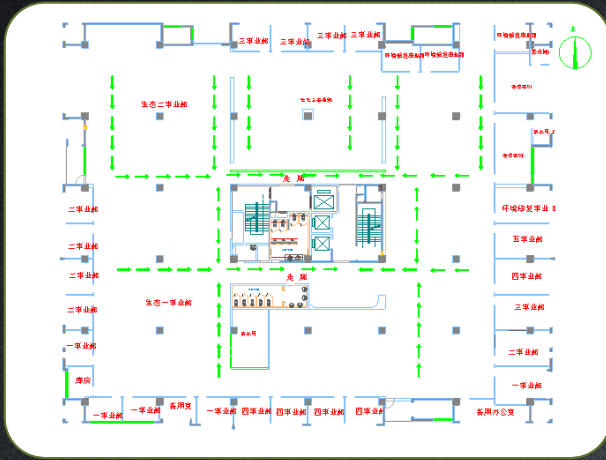
iTablet

=

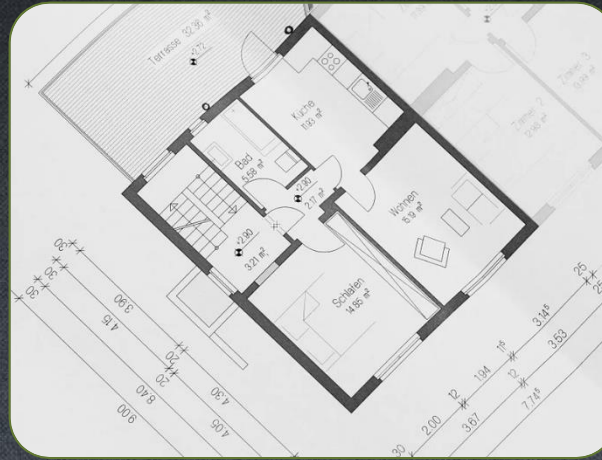
Indoor
Navigation
APP



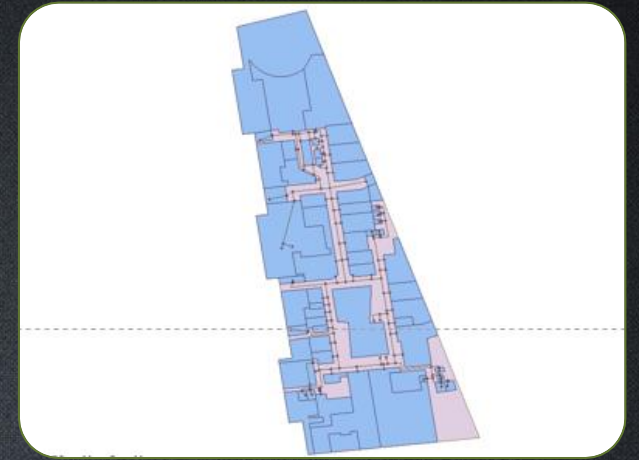
The data source of indoor maps



CAD floor plan

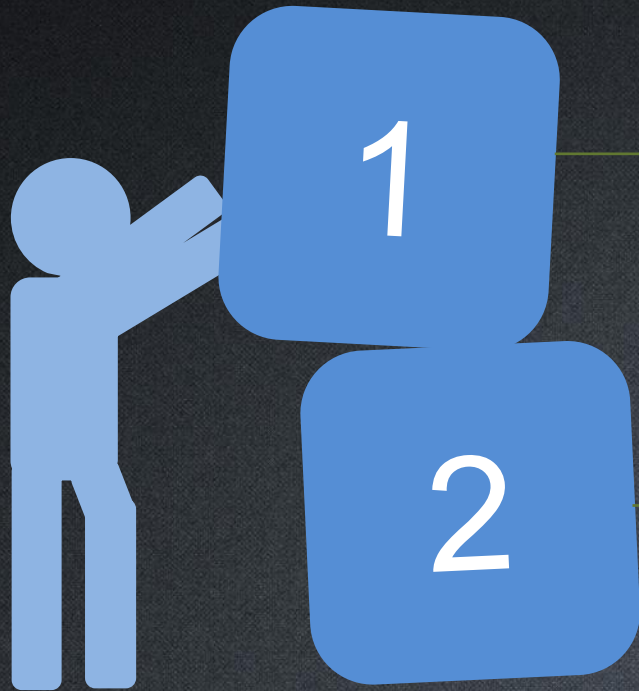


Paper map



Vector data of building

Cartography tool for indoor maps



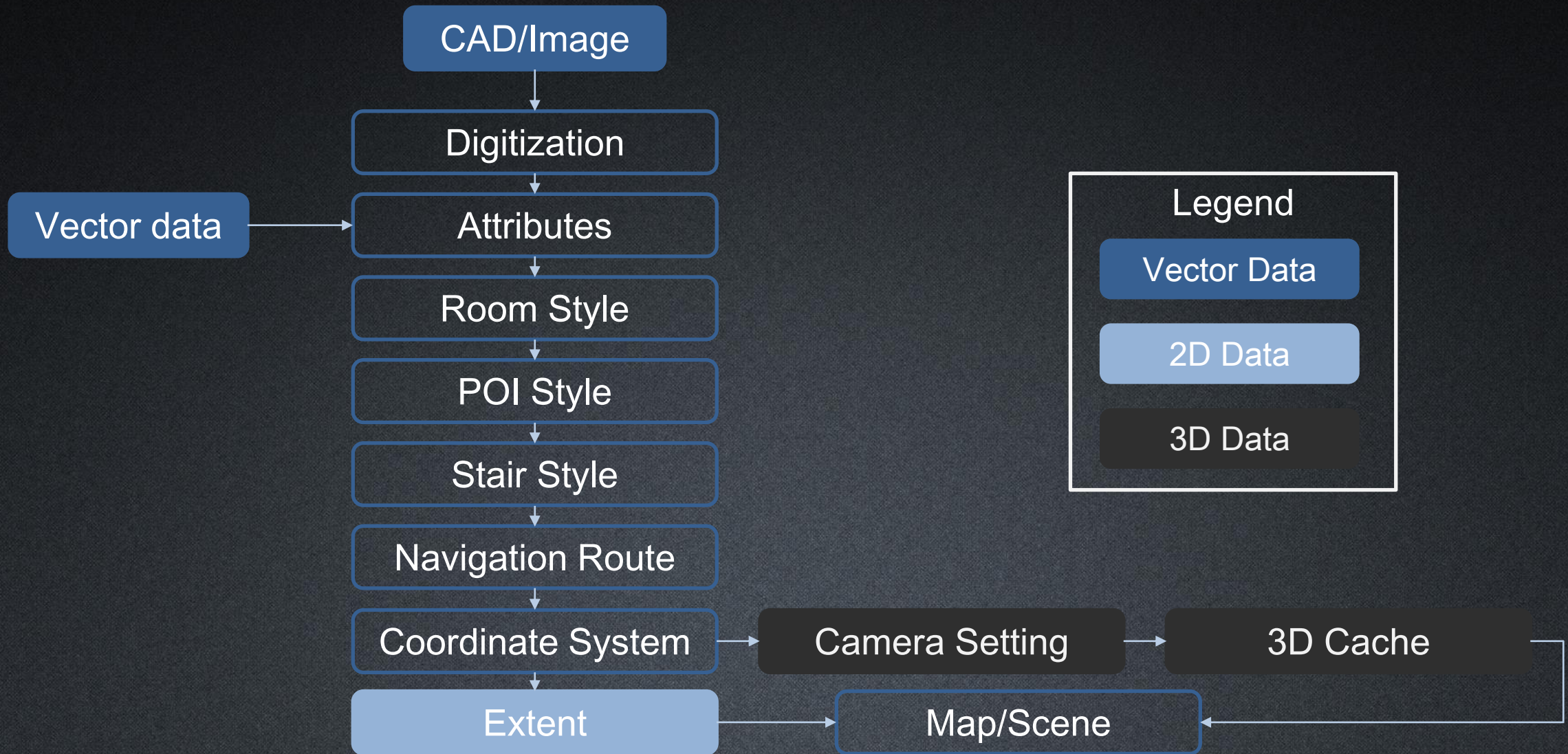
SuperMap iDesktop

Map Edit、Modelling road network、
Cross-floor editing、route plan

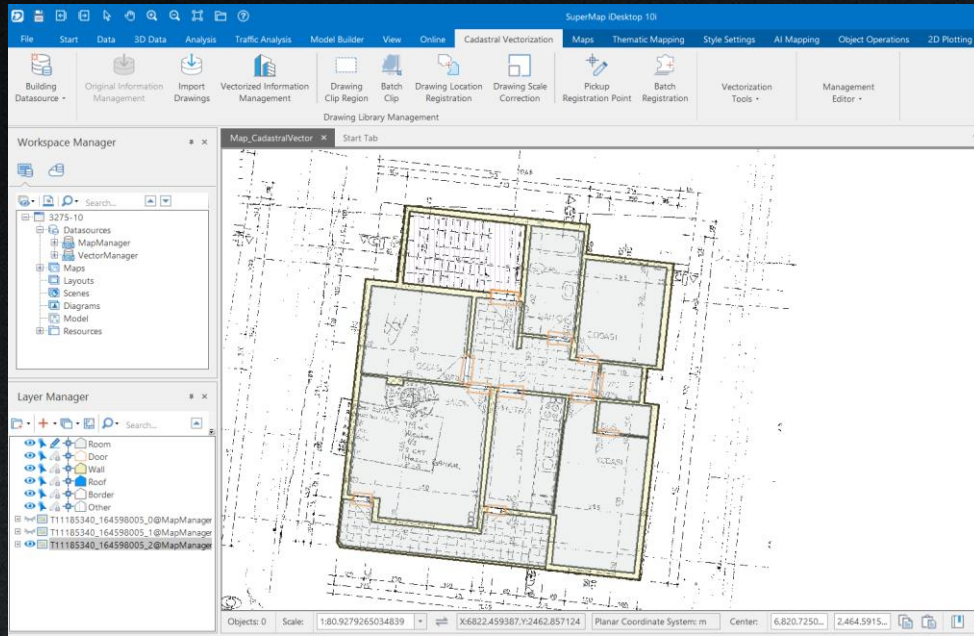
SuperMap iMobile

Road network edit、POI edit、the
shape and attributes of indoor things

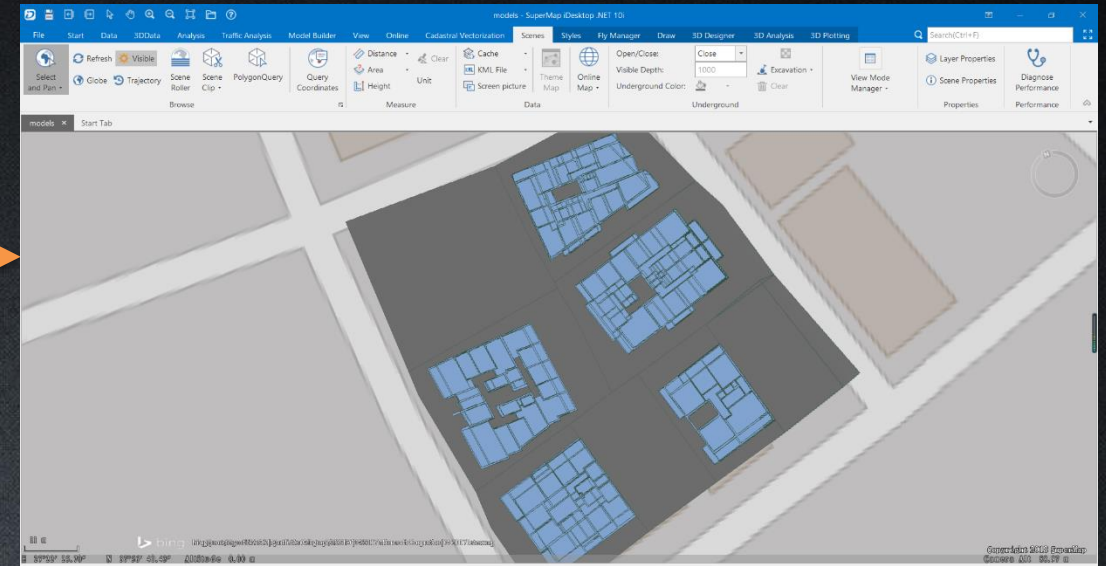
Indoor maps



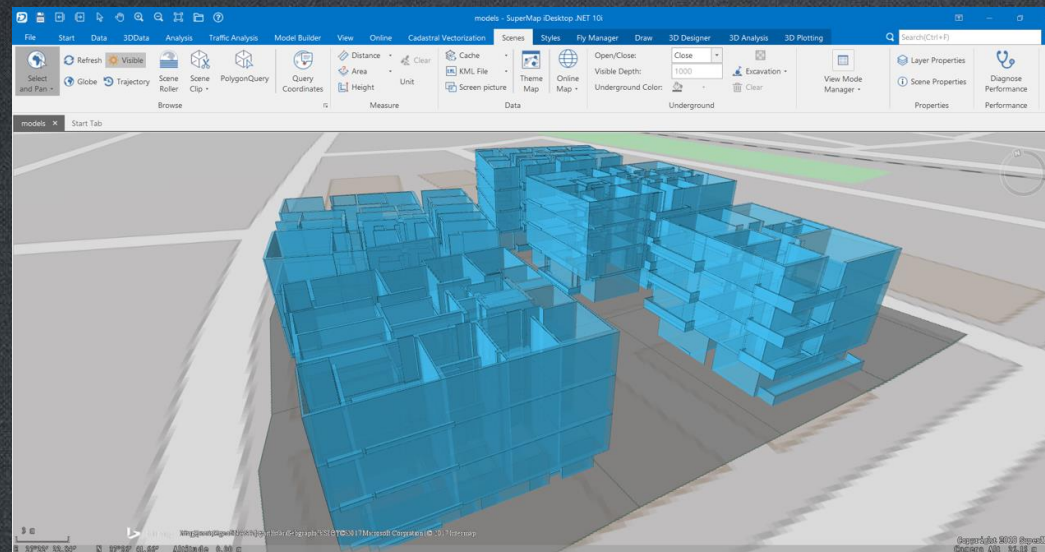
Architecture Modeling



Floor plans



Overlay



Stretch

2D&3D Display

The screenshot displays the SuperMap software interface, which is divided into several panes and toolbars. The top toolbar includes menus for File, Start, Data, 3DData, Analysis, Traffic Analysis, Model Builder, View, Online, Cadastral Vectorization, Scenes, Styles, Fly Manager, Draw, 3D Designer, 3D Analysis, and 3D Plotting. Below the toolbar, there are various tool icons for selection, measurement, and data management.

The main workspace is split into two panes. The left pane, titled 'merge_32636@VectorManager', shows a 2D vector map of a building complex with red outlines. The right pane, titled 'merge_32636@VectorManager1', shows a 3D perspective view of the same building complex, rendered in blue and white. The 3D view includes a scale bar (2 m) and coordinates (E 27°22' 31.43", N 37°56' 44.70", Altitude 0.00 m). The bottom status bar shows 'Objects: 0', 'Scale: 1:181.48776123083', and 'Center: 5,432.7788..., 4,214.647...'. The bottom right corner of the interface features a 'Cadastral Filter Display' panel with a table of field names and filter values.

Field Name	Filter Value
Parcel	
Build	
Unit	
Floor	
Family	
Info	

Copyright 2018 SuperMap
Camera Alt 18.72 m

Indoor positioning



Bluetooth+
iBeacon

- ◆ Hardware required
- ◆ Applied for limited area



Wi-Fi

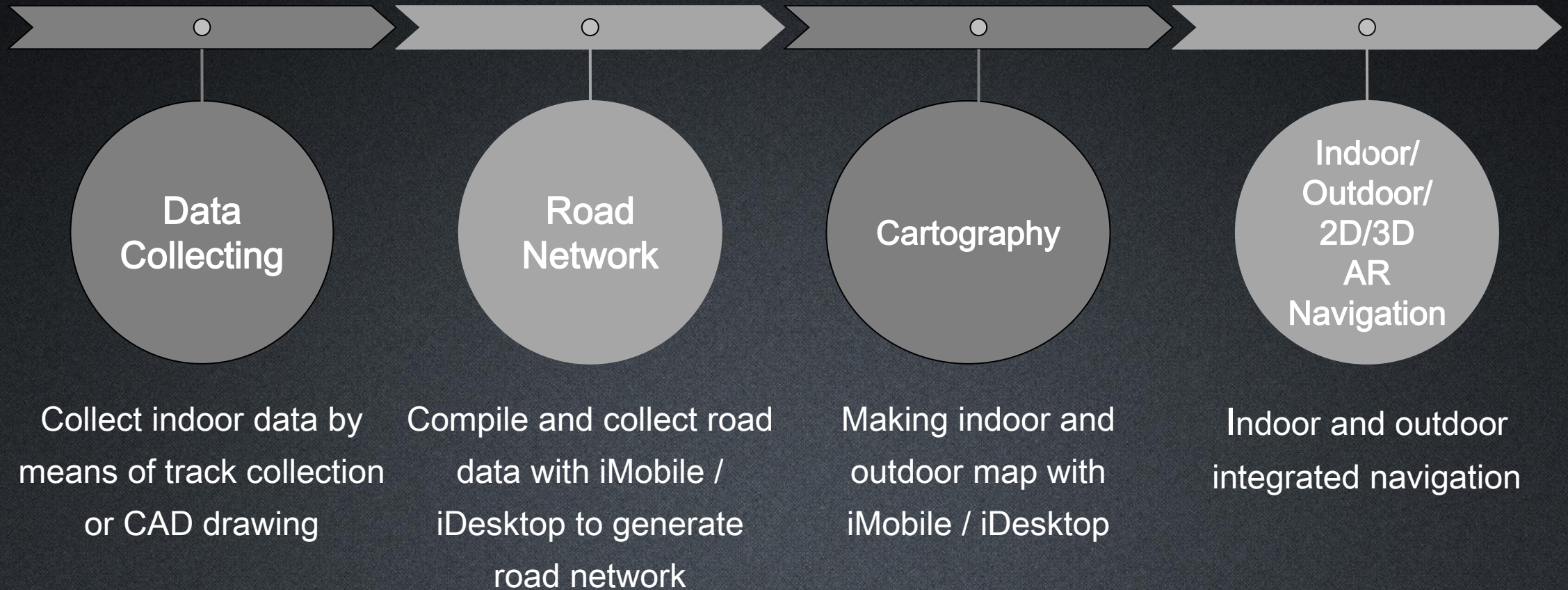
- ◆ Covering area with a radius of about 90 meters, to be interfered by other signals



Vision
Positioning

- ◆ Hardware free
- ◆ Meter-level accuracy

Indoor Navigation App Production Flow



Indoor Navigation Features

01

Integration of Indoor and Outdoor

Automatic connection of indoor and outdoor navigation

02

Integration of 2D and 3D Navigation

Connect 2D and 3D data with road network, easy switching between indoor 2D and 3D maps

03

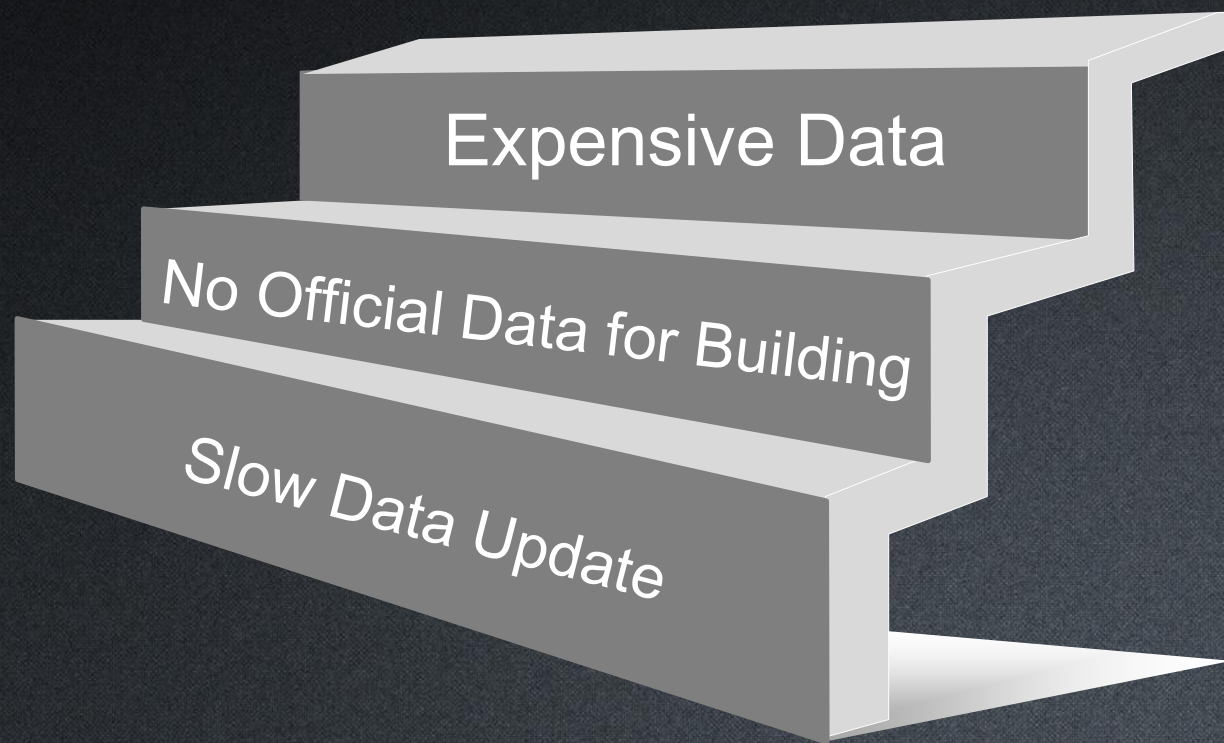
Incremental Data Navigation

Collect navigation road network data and poi, generates map and road network in real time in PC / mobile terminal

Indoor Navigation Functions

- Provide 2D and 3D indoor map display
- Support cross floor, multi-path planning
- Support switching 2D & 3D View
- Provide indoor real and analog navigation
- Support audio/text instructions for navigation
- Support multiple modes of route planning

Incremental Data Update

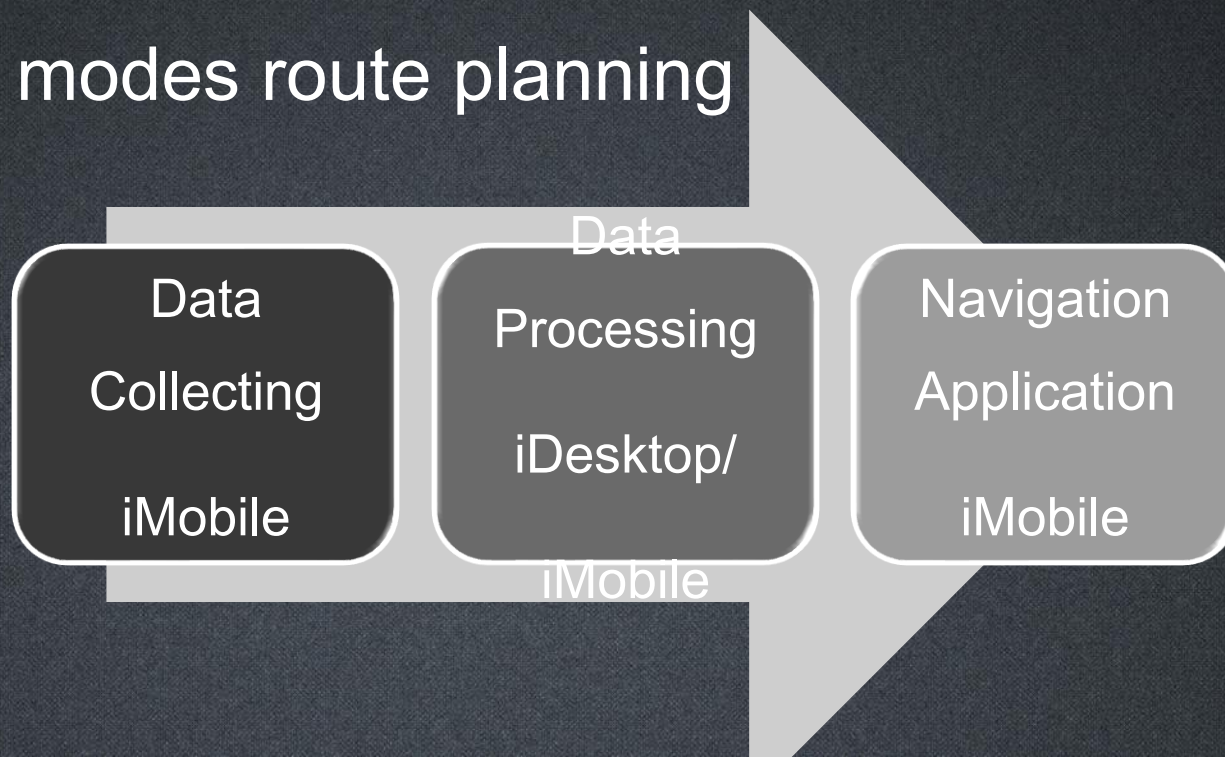


Through the support of autonomous navigation data production, multi-mode route planning and complete traffic rules are fully supported, so that the industry navigation application can be better realized.



Data Production

- Easy to create road network and customized road data collecting
- Support complete traffic rules
- Support multi modes route planning



What About Indoor Mapping?



Indoor Map Sweeper

Is There Any Way with **Lower Cost** and
Higher Portability?

1 Phone + 1 App

DONE!

Mobile Phone Monocular “Fusion of IMU and Vision” Technology



Based on Fusion of IMU and Vision (AR+AI Survey & Mapping)

当前长度: 0.0m

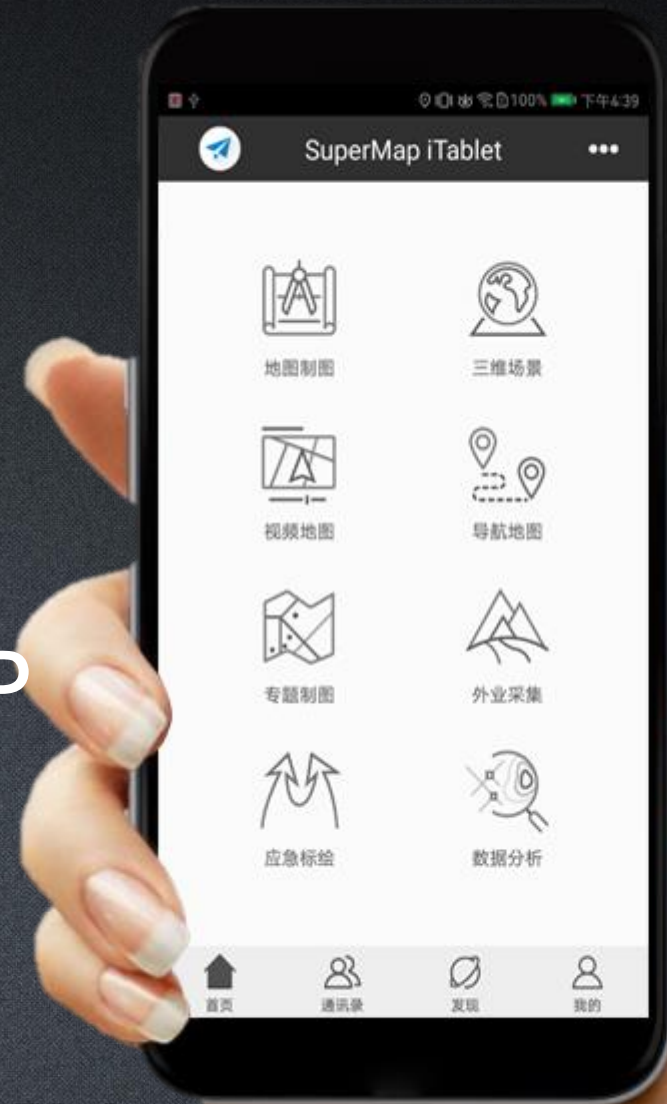
总长度: 0.0m



Any APP for Indoor Survey & Mapping?

SuperMap iTablet

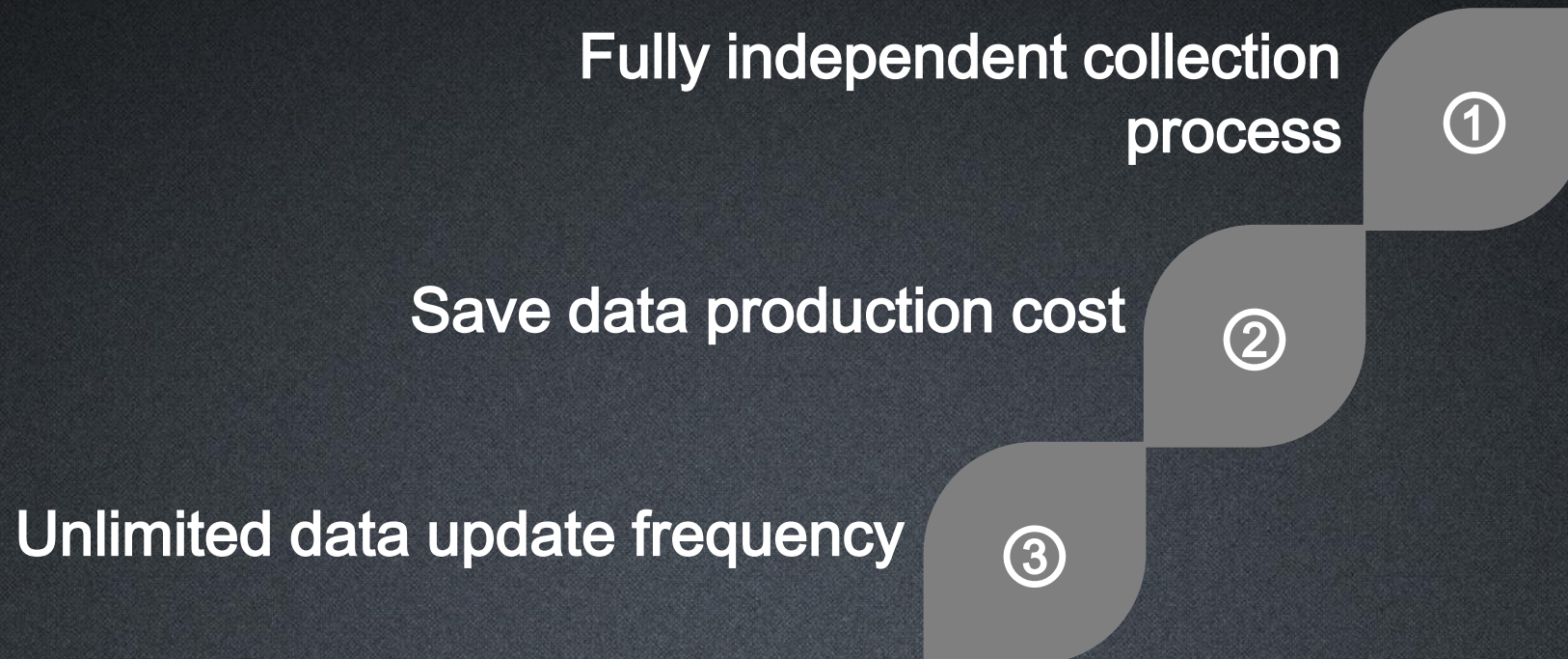
2D&3D Integrated Mobile GIS APP



Incremental Navigation Data Production

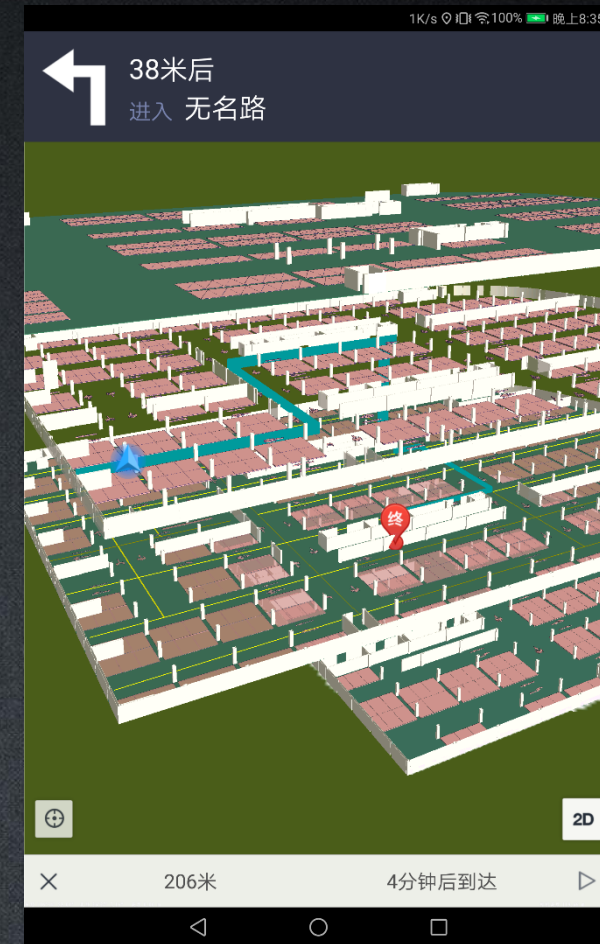
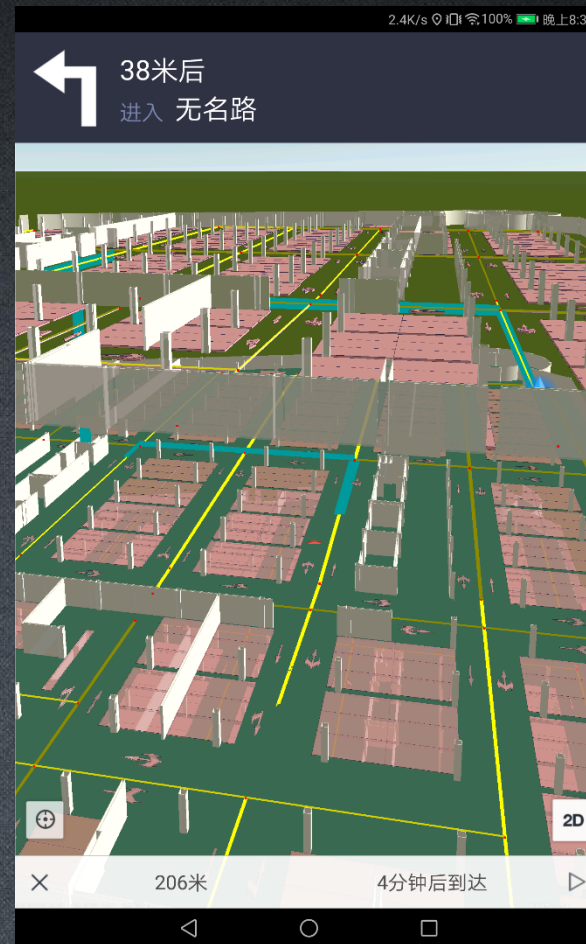
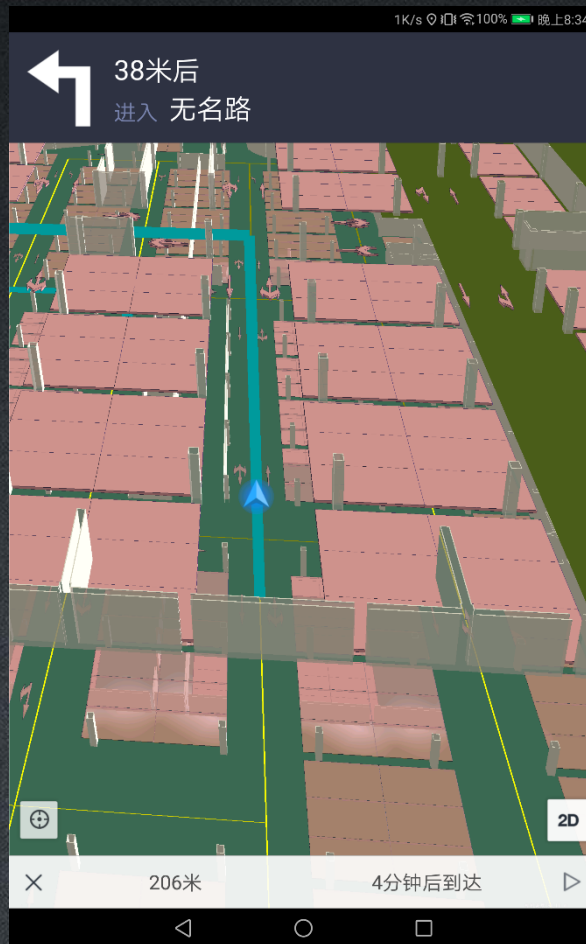
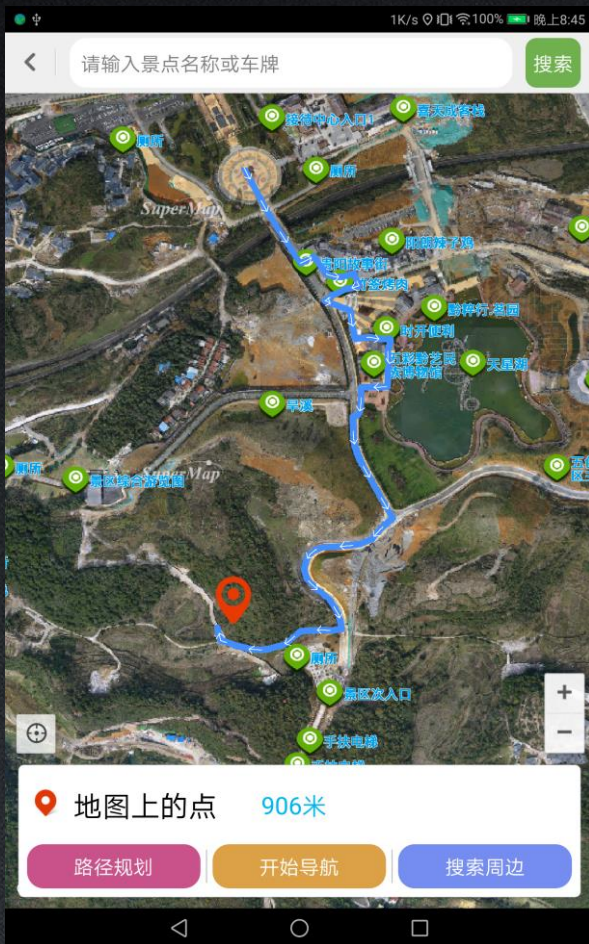
1: 数据采集

Incremental Data Navigation Value

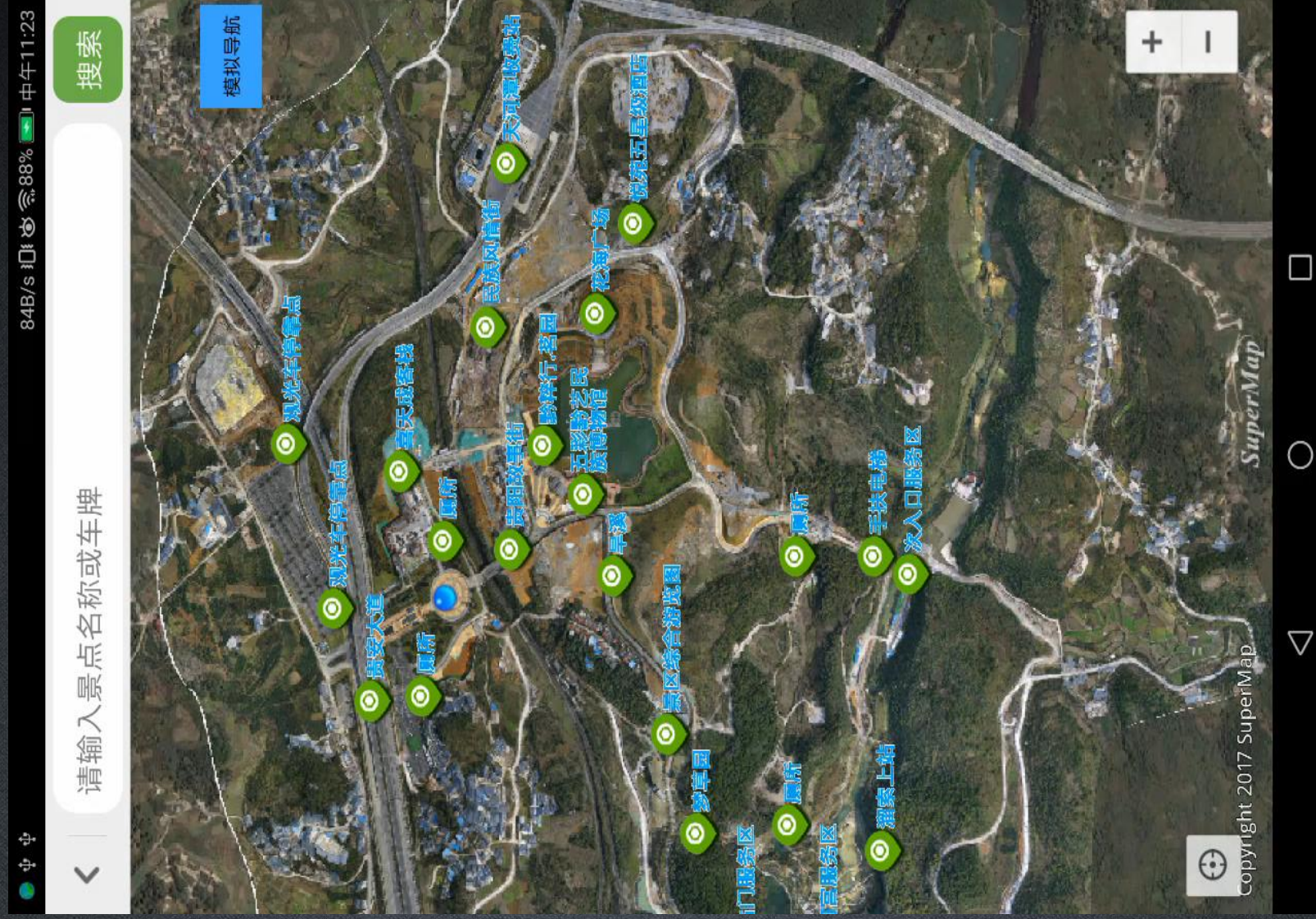


Application Cases

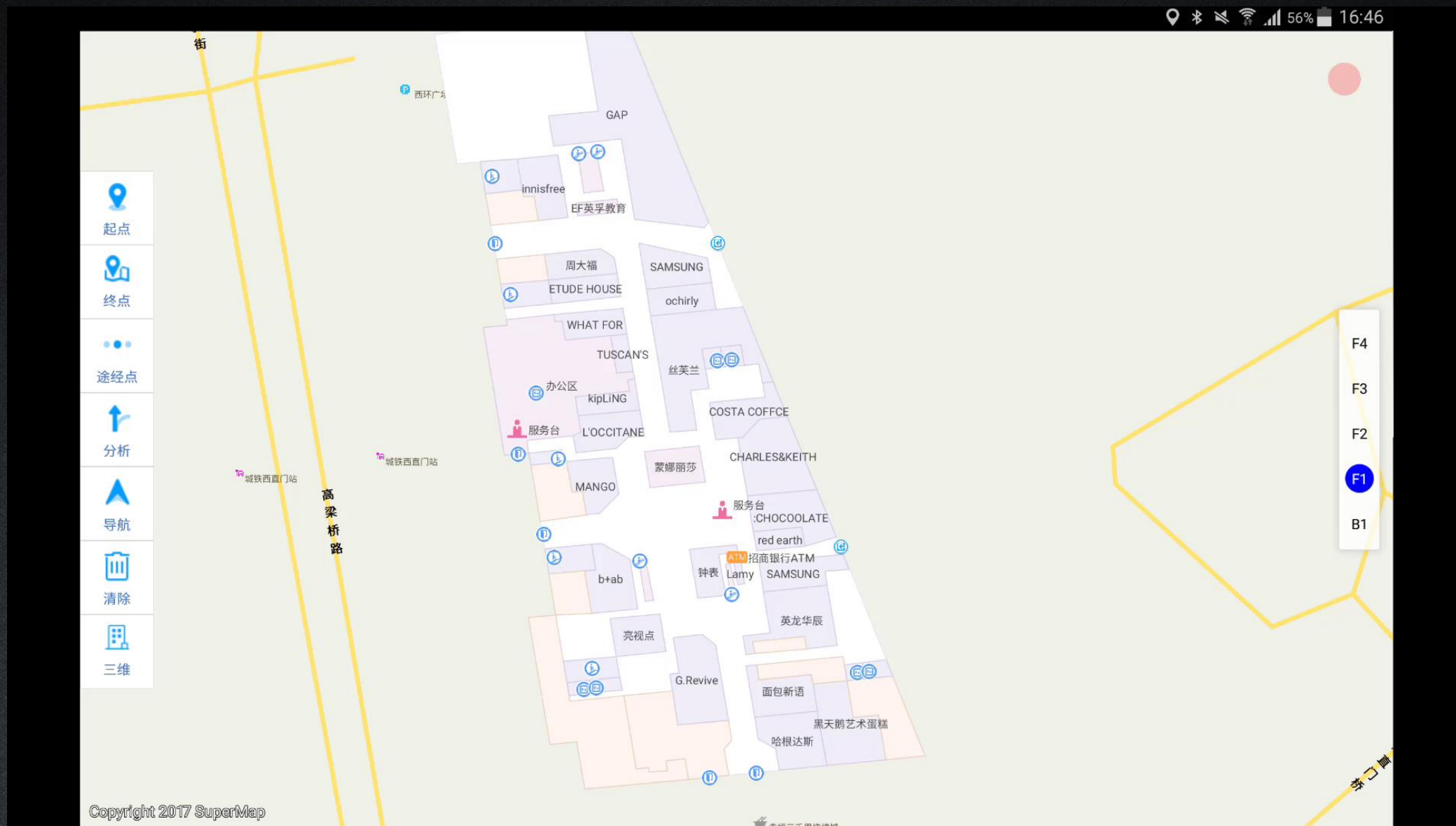
Indoor Parking Lot——Find your car



Indoor & Outdoor Integrated Navigation



2D & 3D Navigation



Indoor navigation of Beijing West Railway Station



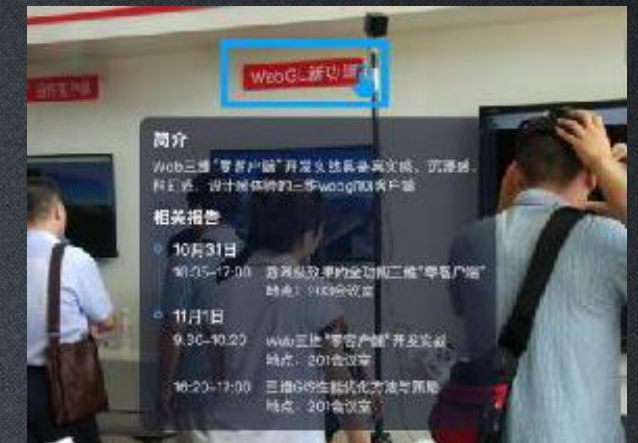
Indoor Emergency Rescue



AR Navigation



AR Navigation



Thanks!



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