Contents

1. Real Estate Management Mode in China
2. Smart Real Estate Solutions
3. SuperMap Success Stories
House

Ownership
Types of Houses

- Affordable houses for low-income people
- Commercial houses with market price
- Welfare houses by governments
- Farmers’ houses

Houses under construction
Houses completed
Types of Certificate

- Ownership certificate
- Mortgage certificate
- Advance registration certificate

Housing register book shall prevail

Recognized in law
Real estate Management Life Cycle

Land → Start Project → Presale Houses → Measure Houses → Get Houses → End

- Project Management
- Presale Contract Register
- Go through Formalities
- Presale License
- Identify Ownership
- Ownership Transfer Register
- Demolition
Four Kinds of Formalities for Real Estate Management

- House Surveying
- Presale Register
- House Mortgage
- Businesses
- Ownership Register
House Surveying (Measure the area)

Basic Surveying

Survey houses under construction

Survey houses completed

Mapping & Surveying
Presale License Register

1. Pre-survey
2. Receive application
3. Audit
4. Issue license
5. Public notice on the website

Apply for sale
Commercial House Register Online

Commercial company registers a user name and password

Sign Contract Online

Print the contract and put a stamp at housing administration, so that the administration can keep track with this house information
Ownership Identification Register

- Survey on site
- Apply
- Receive
- Audit
- Register book
- Issue certificate
- Archive
Ownership Transfer Register

Apply  Received  Audit  Register book  Issue certificate  Archive
House Mortgage

- Mortgage for house under construction
- Mortgage for the project under construction
- Mortgage after personnel recording
- Mortgage for house completed
Workflow of Commercial House Mortgage

Handing ownership certificate → Audit → Other rights certificate → Issue the loan
# Main Housing Registration Business

<table>
<thead>
<tr>
<th>Registration Type</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>General registration</td>
<td>Initial registration of collective land &amp; house ownership</td>
</tr>
<tr>
<td></td>
<td>Other rights registration</td>
</tr>
<tr>
<td></td>
<td>Mortgage registration</td>
</tr>
<tr>
<td>Change of registration</td>
<td>Mortgage change registration</td>
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<tr>
<td></td>
<td>Name change registration</td>
</tr>
<tr>
<td></td>
<td>Address change registration</td>
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<tr>
<td></td>
<td>Land and house use change registration</td>
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## Main Registration Types

<table>
<thead>
<tr>
<th>Registration Type</th>
<th>Name</th>
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<tbody>
<tr>
<td>Cancellation of registration</td>
<td>Ownership cancellation registration</td>
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<tr>
<td></td>
<td>Mortgage cancellation registration</td>
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<tr>
<td></td>
<td>Others cancellation registration</td>
</tr>
<tr>
<td>Other registration</td>
<td>Correction registration</td>
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<tr>
<td></td>
<td>Notice registration</td>
</tr>
<tr>
<td></td>
<td>Seizure registration</td>
</tr>
<tr>
<td></td>
<td>Reopened registration</td>
</tr>
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<td></td>
<td>Renewal or replacement of certificates</td>
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Registration Management Specifications in China

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<tr>
<th>Standard</th>
<th>Description</th>
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<tr>
<td>GB/T17986.1-2000</td>
<td>Real estate measurement specification. Unit 1: real estate</td>
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<tr>
<td></td>
<td>measurement specifications</td>
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<tr>
<td>CJJ/T115-2007</td>
<td>Technical specifications of real estate market information</td>
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<tr>
<td>JGJ/T252-2011</td>
<td>Data standards of real estate market information</td>
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<tr>
<td>JGJ278-2012</td>
<td>Technical specification for real estate registration</td>
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<tr>
<td>JGJ/T246-2012</td>
<td>Housing coding standards</td>
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<tr>
<td>2005</td>
<td>Registration Measures</td>
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Overall Plan of Smart Real Estate

- One Center
- One Platform
- Three Goals
- Four Effects
2. Smart Real Estate Solution
Development of Real Estate Informatization in China

1. Single User-MIS
2. Multiple Users-MIS+CAD+WORKFLOW
3. Digital Real Estate-GIS+MIS+WORKFLOW
4. Smart Real Estate-GIS+MIS+BPM+Intelligent application
Smart Real Estate

Digital Real Estate + Internet of Things + Cloud Computing = Smart Applications = Smart Real Estate
### SuperMap Smart Real Estate Solution

1. Smart Data Model
2. Smart Surveying
3. Smart Business System
4. 2D&3D Integration
5. Interconnection and Intelligence Services
6. Intelligent Devices and Mobile Applications
1. Design of Smart Real Estate Data Model
Housing is the core, the only object unchanged. The other four parts are related to the Housing core.
Key Data Objects

- Housing
  - Room
  - Floor
  - Building

- Land
  - Parcel

- Certificate
  - House ownership
  - Other rights
  - Land use rights

- Agency, Development Enterprises

- Property, white ant
  - Cancel
  - Transfer
  - Establish

- Funds Management

- Owner

- GIS
  - Housing table
  - Spatial location

- Layered household map

- Manage houses based on maps
- Purchase management (people)
System Data Structure

Non-spatial data

Spatial data

Real estate business data

Real estate GIS data

Basic terrain data

Housing Ownership Data
Finance Management Data

Housing Surveying Map
2D Housing data
3D Housing models

Road, rivers, vegetation, etc.
Image Data
Housing Table as the Core in Database Design

- Presale data
- Graphic data
- Ownership data
- Archive data
- Property maintenance fund data

Market management → Project surveying → Ownership management → Archive management → Property fund management

Real estate basic surveying

Transaction management
Data Integration with Housing-centered

Integrate all real estate business data with GIS to ensure data consistency, accuracy and timeliness.
“Houses management on maps → Leaklessness → Precise management”
Graphics, Attributes, Archive Data Integration
2. Smart Real Estate Surveying Software
Smart Real Estate Surveying Applications

- Real estate basic surveying
  - SuperMap D-Producer

- Real estate project surveying
  - SuperMap Floor

- Data production process management
  - Process management
  - Database entry management

- Surveying service platform with 2D&3D integration feature
Support Importing Multiple Formats of Data
Automatically Create Allocation Model
Automatically Labeling the Size
Automatically Assigning the Room Number
Output the Surveying Report with One Click
Print multiple houses simultaneously
Support Printing Different Types of Graphics Simultaneously
3. Smart Real Estate Business Systems
GIS-based Smart Real Estate Business Systems

Transaction
- New housing online filing system
- Existing houses online filing system
- Project Management
- Housing security management system
- Housing maintenance fund management system
- Property Management System

Management
- Individual housing information system
- Statistical analysis and information dissemination system
- Data Exchange Platform

Services
- Real Estate GIS application service platform
- Surveying and mapping results management system
- Real Estate E-government Information Network

Registration
- Housing Registration and Management System
- House archives management system

Survey and GIS
- GIS+Supporting Platform
- GIS-based Smart Real Estate Business Systems
- SuperMap
Business Configuration & Management
Real Estate Market Information System

- Initial registration of real estate
- Online filing of houses for sale
- Project Management System
Surveying and Mapping Results Management system
### New Commercial Residential Building

### Online Signing System

####连云港市商品房买卖合同

**编号:**GF-2000-0171

####合同双方当事人

<table>
<thead>
<tr>
<th>出卖人</th>
<th>九龙房地产有限公司</th>
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<tr>
<td>注册地址</td>
<td>连云港市新浦区解放中路23号</td>
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<td>3207000000642591</td>
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<td>企业资质证书号</td>
<td>淮开企【2006】976号</td>
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<td>法定代表人</td>
<td>陈建安</td>
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<tr>
<td>联系电话</td>
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| 委托代理人 |  | 地址 |  |
|-------------|-----------------|------|
| 邮政编码  |  | 联系电话 |
| 委托代理机构 |  |  |
| 注册地址 |  |  |
| 营业执照注册号 |  |  |
| 法定代表人 |  |  |

#### Housing table as the core
Property Maintenance Fund Management System

益阳市房地产管理局
物业专项维修资金档案

档案类别：
档案号：00-2013-00053
受理编号：
申请人：
项目名称：维新广场小区
测量号：56.75-60.00 2 5

制表时间：2013/08/21
制表单位：物业维修资金管理中心
Statistical Analysis and Information Publishing System
4. Smart 2D & 3D Integration
Real Estate GIS
2D Layered Household Map Stretching into 3D Models
3D House Models after Stretching
3D Online House Trading Application
Room Change Comparison

1-102  1-103  1-101

1-202  1-201

1-102  1-104  1-103  1-101

1-202  1-201
GIS-based Statistical Analysis and Publication
completion rates of projects under construction

<table>
<thead>
<tr>
<th>图标</th>
<th>类型</th>
<th>数值</th>
<th>比例</th>
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<tr>
<td>建设完成20%</td>
<td>1710</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>建设完成40%</td>
<td>1400</td>
<td>17.43%</td>
<td></td>
</tr>
<tr>
<td>建设完成60%</td>
<td>1279</td>
<td>14.96%</td>
<td></td>
</tr>
<tr>
<td>建设完成80%</td>
<td>2010</td>
<td>23.51%</td>
<td></td>
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<tr>
<td>建设完成100%</td>
<td>2810</td>
<td>32.67%</td>
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</tr>
</tbody>
</table>

图中数字表示销售完成率 单位：万

各个小区建设完成率进度（%）
5. Interconnection and Intelligence Services
Online Integrated Service Platform

- Provide inquiry services about mortgage risk for banks
- Provide inquiry service of the constructions in progress for land department
- Provide business status inquiry services for agency
- Provide contract information to the tax authorities
- Provide the public with micro-channel, SMS, voice inquiry

provide presale services for development enterprises
Interconnection with Funds Management and Banks
Payment of Regulatory Funds, Property Maintenance Funds by POSE Machine
Information Sharing for Taxing

Taxes & Fees Networking
6. Intelligent Devices and Mobile Applications
Intelligent Devices used in Business Applications

1. 2D barcode technology
2. CA electronic signature technology
3. Voice call query
4. SMS auto notices
5. Unified Time management
6. USB-KEY authentication
7. Electronic big screen publication
8. Fingerprint recognition technology
9. Scanning and digital imaging technology
10. IC card & ID card identification
11. …
Field Survey based on Handheld Devices and PADs
Mobile Application & Public Services

Business systems

VPN network

Property Management

App for selling houses

Micro-channel APP

Self-payment

Filing of the selected housing contract

Personalized service
Social Public Account and APP for Inquiry Services

- Query business progress
- House price inquiry
- Policies and regulations inquiry
- Rental information inquiry
- Taxes calculation
- Housing opening information

APP
Real Estate Location and Sales Information using APP
3. Smart Real Estate GIS Success Stories

2D & 3D Integration ------ Lianyungang Real Estate
Intelligent Surveying & Mapping ------ Jinan Real Estate
Interconnection ------ Yiyang Real Estate
2D&3D Integration Application
- Lianyungang Real Estate GIS
Real Estate Presale Fund Supervision System
– Lianyungang Real Estate GIS

Full supervision

Fund supervision departments, banks, development enterprises

2010, excellent science and technology demonstration projects

2012, acceptance by experts
Yiyang Real Estate Application

Yiyang Real Estate Market Information Management System

- Ownership trading business subsystem
- Statistical analysis and information publication subsystem
- Housing surveying and geographic information system
- Real Estate project management subsystem
- Property maintenance fund management subsystem
- Property regulatory business subsystem
- Demolition business management subsystem
- Security identification business subsystem
- Administrative office subsystem (OA)
- ...
Public Exchange Platform for Banks

Unified Standards

Real-time Exchange

Data exchange platform

XML

Multithread
Jinan Real Estate Application

First SOA-based business system in China for Real Estate Industry

First Real Estate GIS system adopted 2D&3D Integration GIS technology

Process-oriented management for mapping & surveying (basics + project)

2009, Golden Awards

China's geographic information industry Outstanding Engineering Award
Integrated management of graphics and attributes based on housing tables, to achieve dynamic update of housing tables.
The Matching and Verification between the Demolition of Houses and Remote Sensing Image
Fully support SOA architecture, achieve integration of GIS, CAD, MIS, WEB and OA, and achieve changes on demand.
Mortgage Risk Prevention Query System
SuperMap Real Estate GIS Success Stories

<table>
<thead>
<tr>
<th>Level</th>
<th>Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provincial level</td>
<td>Hangzhou, Jinan, Changchun, Lanzhou, …</td>
</tr>
<tr>
<td>City level</td>
<td>Yichun, Yulin, Jilin, Hengyang, Yiyang, Zhoushan, Fuyang, Lianyungang, Xingtao, Wuzhou, Wuhu, Yingtan, Hengshui,…</td>
</tr>
<tr>
<td>County level</td>
<td>Yiwu, Chaohu, Longquan, Dongyang, Ruian, Dinghai, Putuo, Daishan, Tengxian, Guixi, Yujiang, Shangrao, Dunhua, …</td>
</tr>
</tbody>
</table>
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Youtube: https://www.youtube.com/channel/UCA4K8YKTVxoz6dDW0nMGxg
Thank You!

GIS CREATES VALUE, WE INNOVATE GIS