AeroPAmaP
Technology Systems

SuperMap

SuperMap® GIS 8C

SuperMap International Limited
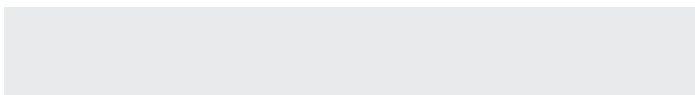
COMPANY INTRODUCTION

SuperMap is one of the global IT enterprises and is a leading provider of GIS(Geographic Information System) software products and services in Asia.
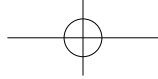
SuperMap is devoted to developing and providing the most innovative GIS platforms and solutions for Smart City, Land Management, Environmental Protection, Public Service, Statistics GIS, Real Estate, Facility Management and Urban Management, etc.

The SuperMap product line includes a full range of GIS platforms, including Service GIS, Component GIS, Desktop GIS, Mobile GIS, and also industrial application products.

SuperMap applies a variety of information technologies to improve Geospatial implementation, and makes innovation in both GIS and IT. SuperMap GIS is widely used in various fields and has become the main GIS software in China.
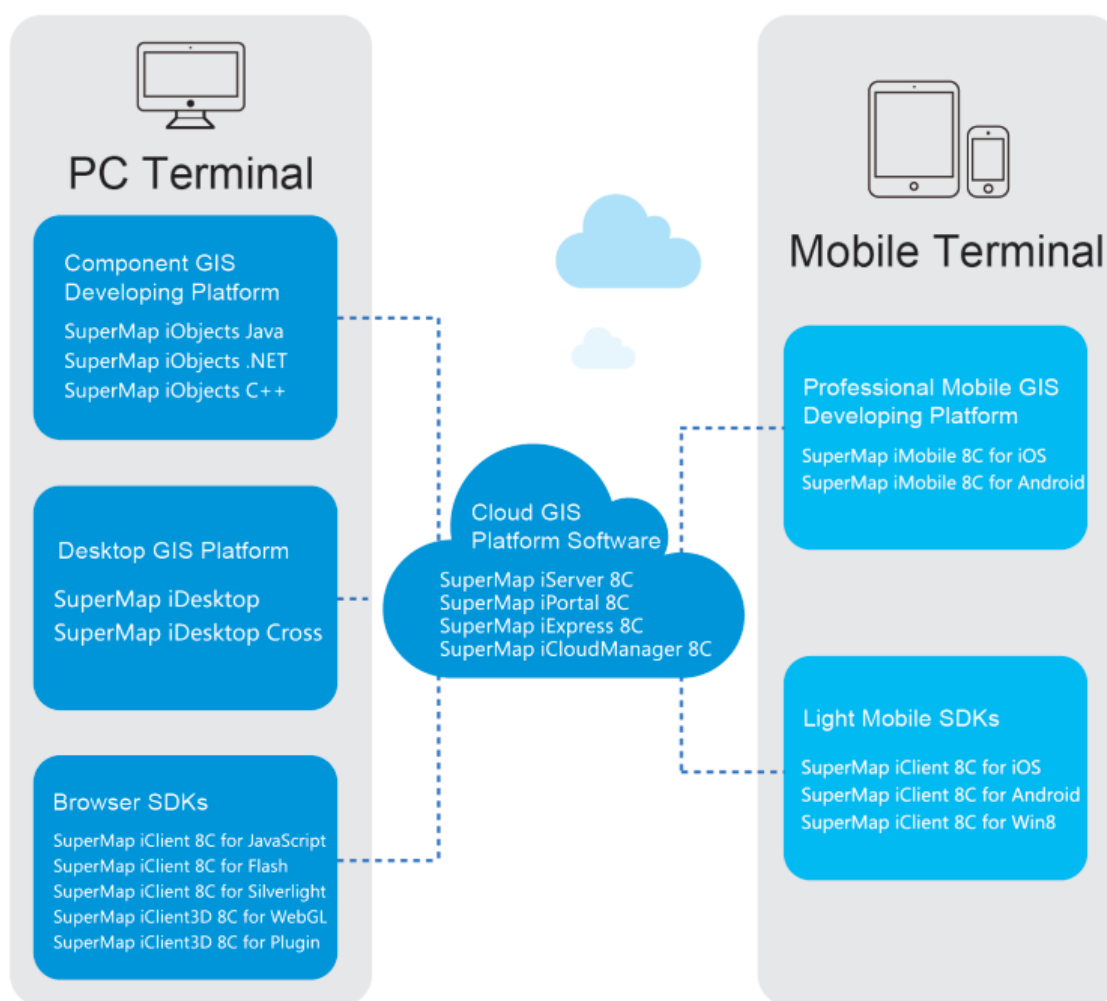
SuperMap has established companies in Hong Kong and Tokyo for international business development. Also, SuperMap has developed lots of agencies and partners all over the world including South Korea, Malaysia, etc. to make more clients benefit from our leading GIS technology.
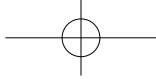
SuperMap® GIS 8C — Platform Product Series

SuperMap stands in a position of self–innovation, combining three major technology systems, and develops a full series of GIS platform products. SuperMap GIS 8C includes cloud GIS platform software, component GIS developing platform, desktop GIS platform, professional mobile GIS developing platform, browser end SDK, and light mobile SDK. It is also suitable for multiple brands of CPUs, enhancing the cloud maintenance and management capabilities, with strong and perfect experience on cloud end.

PC Terminal

Component GIS Developing Platform
- SuperMap iObjects Java
- SuperMap iObjects .NET
- SuperMap iObjects C++

Desktop GIS Platform
- SuperMap iDesktop
- SuperMap iDesktop Cross

Browser SDKs
- SuperMap iClient 8C for JavaScript
- SuperMap iClient 8C for Flash
- SuperMap iClient 8C for Silverlight
- SuperMap iClient3D 8C for WebGL
- SuperMap iClient3D 8C for Plugin

Cloud GIS Platform Software
- SuperMap iServer 8C
- SuperMap iPortal 8C
- SuperMap iExpress 8C
- SuperMap iCloudManager 8C

Mobile Terminal

Professional Mobile GIS Developing Platform
- SuperMap iMobile 8C for iOS
- SuperMap iMobile 8C for Android

Light Mobile SDKs
- SuperMap iClient 8C for iOS
- SuperMap iClient 8C for Android
- SuperMap iClient 8C for Win8

Three Key Technologies

SuperMap has been innovating its technologies to improve the performance of its GIS products, and 'Cloud–terminal integration GIS', '2D/3D integration GIS' and 'Cross–platform GIS' are the three key technologies that are implemented in the current SuperMap GIS 8C products.
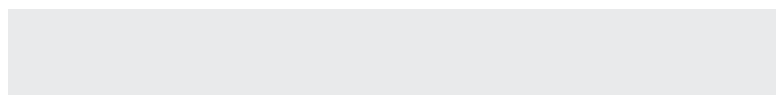
❯ Cloud-terminal Integration GIS

Cloud GIS is the inevitable trend in the development of geographic technology. SuperMap has built the Cloud–terminal integration GIS technical system including intensive GIS cloud, diversified GIS terminals, and integrated GIS system.
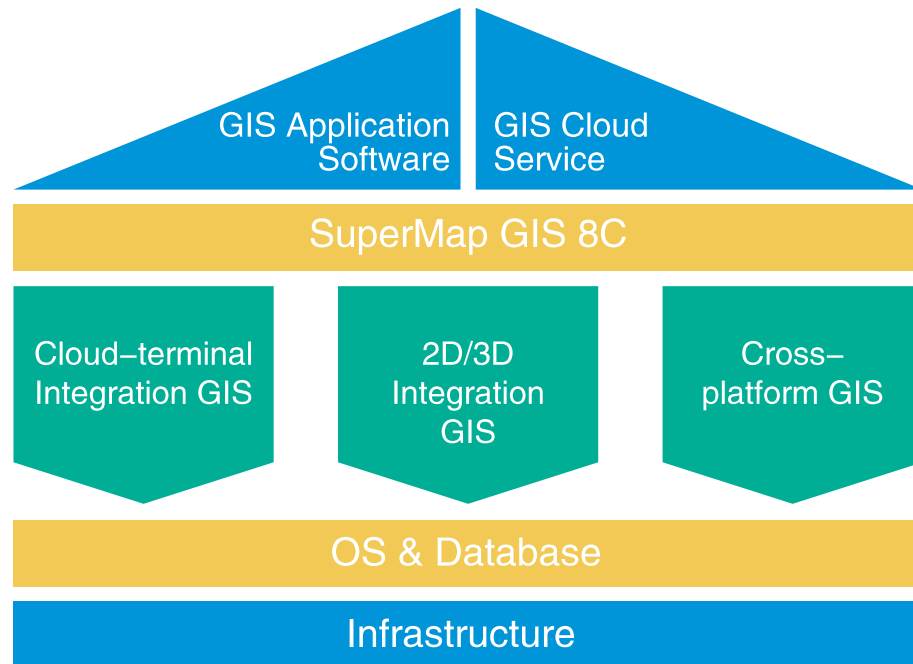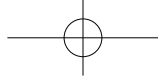
Intensive GIS cloud provides and manages GIS services, based on key techniques which include high performance cross platform, microkernel multi–process, multi–level intelligent cluster, distributed parallel caching, parallel spatial analysis, heterogeneous cloud environment operation and maintenance. This is done to realize the intensive use of the computing resources and provide high availability of GIS service.

Diversified terminals use the unified service interface to connect the GIS cloud services, and realize GIS application development and GIS resources access by different terminals, and provide multiple GIS SDKs in PC, web and mobile to integrate with common applications.

This integrated GIS system achieves high–efficiency interconnection and a cooperative GIS application model on the cloud side through online collaboration based on portal, Geo–CDN acceleration, 2D and 3D caching, service aggregation technologies.

Based on Cloud–terminal integration GIS technology, SuperMap provides a powerful cloud GIS platform and rich GIS terminal products, helping customers to more a GIS system to meet different requirements.

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            GIS Application    GIS Cloud
            Software           Service
         ┌──────────────────────────────────┐
         │         SuperMap GIS 8C           │
         └──────────────────────────────────┘
         Cloud–terminal   2D/3D         Cross–
         Integration GIS  Integration   platform GIS
                          GIS
         ┌──────────────────────────────────┐
         │          OS & Database            │
         └──────────────────────────────────┘
         ┌──────────────────────────────────┐
         │          Infrastructure           │
         └──────────────────────────────────┘
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❯ 2D/3D Integration GIS

SuperMap builds the product family with 2D/3D integration GIS technology from the kernel level, and provides GIS platform and technical support for the industrial solutions in oblique photography model, BIM and 3D pipelines. It makes a breakthrough in reading massive oblique photography model data and representing single model information to support applying large–scale oblique photography model data in practical projects. Another breakthrough is to quickly importing various types of high–density BIM data, extending the GIS from macro to micro. It also supports rapid building of 3D pipelines to attack the limitation of massive high density pipe nodes and pipelines data in providing 3D facility network analysis, a powerful platform support for the application of 3D pipelines.

SuperMap offers several 3D terminal products, providing strong backing to cloud services. These 3D terminal products include the 3D client product based on plug–in, 3D plug–in–free client based on WebGL and 3D mobile products, so as to bring a more broad application space for users.

❯ Cross-platform GIS

In 2001, based on the accurate prediction in the development trend of GIS application, SuperMap reconstructed the GIS kernel using standard C++ to establish a high performance, cross platform GIS technical system. Now, SuperMap products support a variety of CPUs including X86, IBM POWER, Itanium, ARM (Feiteng 1500A), MIPs (Loongson), to run on various operating systems like Windows, Linux, AIX, and K–UX. In addition, SuperMap releases mobile GIS products with complete GIS functions, support for iOS and Android, with powerful offline functions and 2D/3D integration ability, which are adapted to the mobile GIS applications that require data confidentiality, limited network flow or without network.

SuperMap GIS 8C

SuperMap iServer 8C

This is a robust GIS cloud application server with high performance core based cloud GIS, which has 2D&3D integration service publishing, management and clustering functions to provide developing capability on multiple levels. It can be used in construction of SOA application systems and exclusive GIS cloud systems.

Positioning:

◇ Publishes the maps

◇ Full GIS functions

◇ Supports flexible extension capability

Advantages:

◇ Supports cross−platform, multiple Operating System (OS), middleware and databases

◇ Supports 2D&3D integration
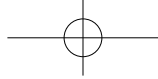
◇ Supports the parallel computing

SuperMap iPortal 8C

It is a cloud GIS portal platform, supporting integration, discovery, sharing and management on multiple GIS resources. iPortal 8C also provides online mapping, data and service hosting, portal customization, system O&M and monitoring functions, and a full set of REST APIs.

New features

◇ Supports multiple GIS server service hosting and monitoring

◇ Supports proxy on sign−up service, and realize access control on portal level

◇ Supports customized classification content on register resource demonstration, and increase retrieval efficiency dramatically

◇ Comprehensive heterogeneous GIS service access capabilities, in order to manage GIS resources in different platforms

◇ Embedded with WebApp for 3D scene browsing to support online view

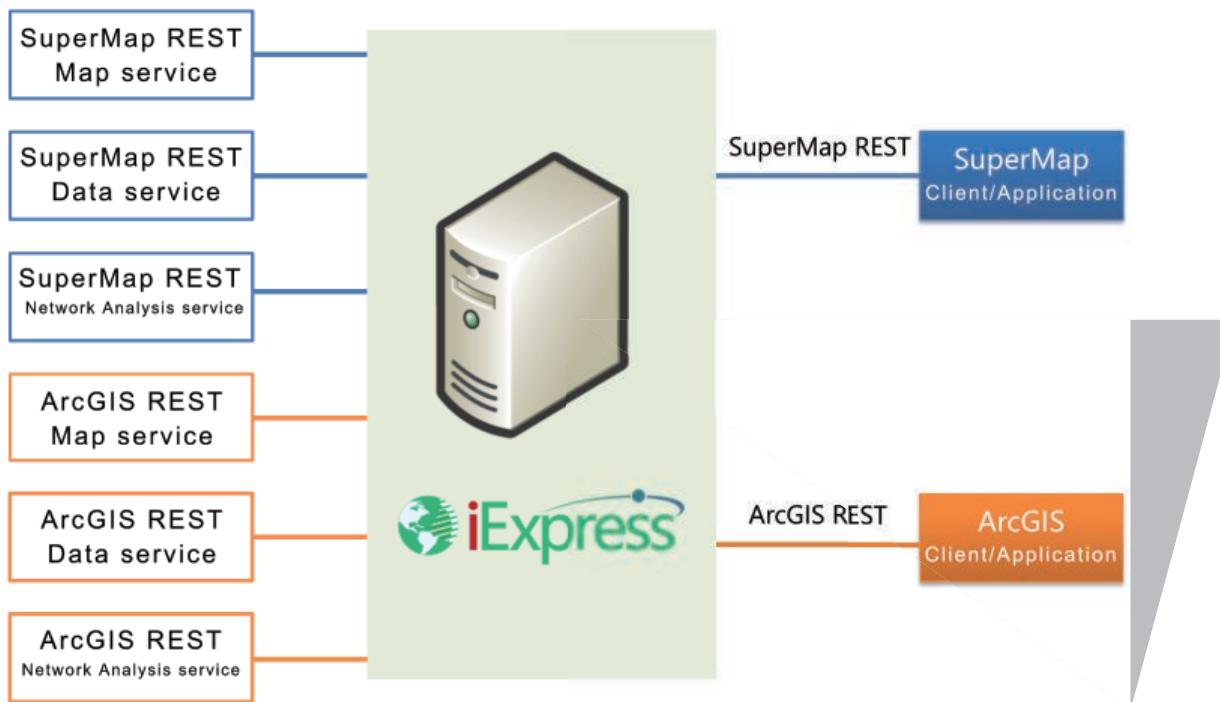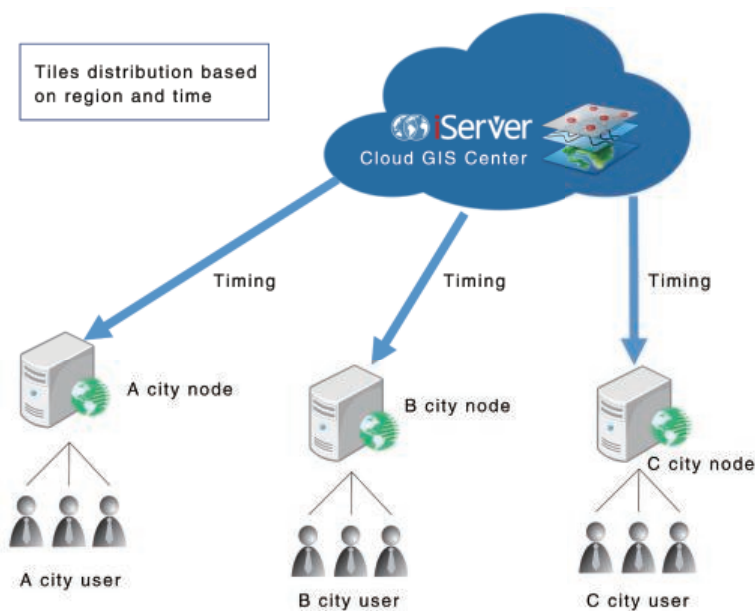Tiles distribution based on region and time

SuperMap iExpress 8C

This is a GIS distribution server working as the intermediary of GIS cloud and terminal to increase the visiting experience on cloud GIS by service proxy and cache acceleration. It can also be used on fast construction of multi–department, multi–level, cross–platform and low cost WebGIS application systems.

New features

◇ Support intelligent distribution and update of 2D&3D tiles, and is able to register directional, timing, batch and increment strategies

◇ Support proxy acceleration on scenes, images, terrains, models and 3D analysis operations in 3D service

◇ Support proxy on more third–party GIS services to make connectivity between services possible

SuperMap iCloudManager 8C

SuperMap GIS 8C is a cloud GIS management system used on the cloud computing platform for deploying the operation and maintenance of GIS business environment to solve difficulties in GIS platform management and compose a complete cloud GIS solution with other products of SuperMap GIS 8C.

New Features

◇ Various virtualization platforms supported

Platforms, such as VMware vSphere, Huawei FusionCompute, OpenStack are supported to meet users' demands in different industries.

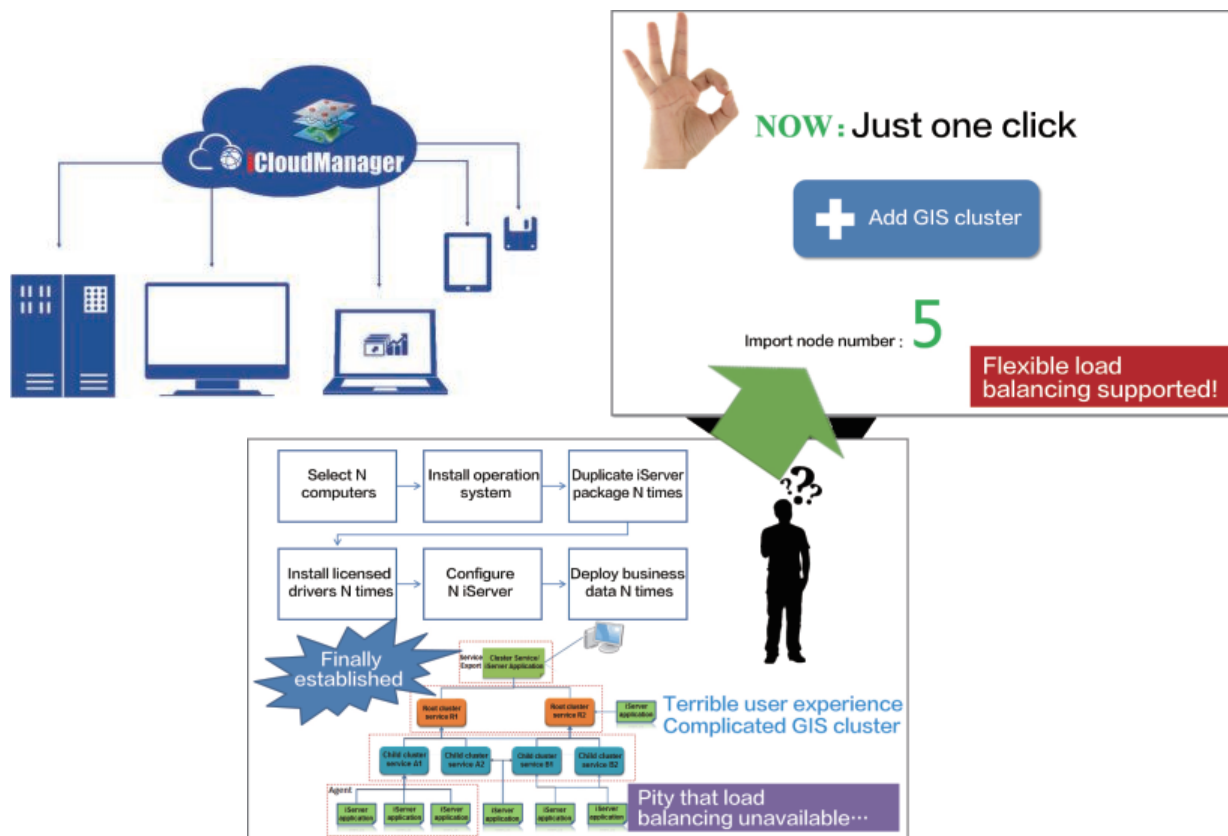◇ As easy as winking in deploying and managing GIS business environment

One–button deployment of GIS business environment becomes possible, which makes it easier for deploying GIS cluster and GIS industry platform.

◇ The monitoring system makes the operation and maintenance of cloud GIS clearer

Monitoring visualization of the running status of cloud GIS system is supported through topology and the mechanism of a monitoring alarm, which makes GIS operation and maintenance more efficient.

◇ Cloud resources are intelligently configured and flexibly customized

A load balancing mechanism is available for industrial service (including GIS service). The scale of load balancing can be adjusted dynamically according to the business concurrency, which makes elastic scalability possible in VM class and the intensive management of computing resources truly becomes reality.

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SuperMap Online is an online GIS platform released by SuperMap recently. SuperMap Online hosts cloud GIS server, GIS data and services in a convenient way. SuperMap Online provides abundant online map APIs, and offers services for industrial application development with the combination of hosted data services and online map APIs.

Online GIS Server Hosting

SuperMap Online assists users in choosing the GIS product (iServer), server configuration (CPU, memory, bandwidth, etc.), and rental time. When the order is submitted, users can acquire a fully configured online GIS host and run it. Therefore the benefit is reducing the cost for users and shortening the life cycle of projects.
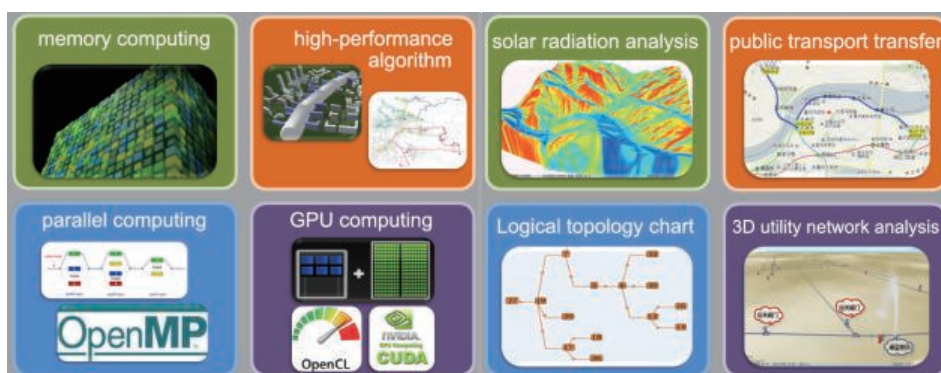
Online Data and Service Hosting

SuperMap Online provides GIS data hosting services. Users only need to register and log in to have a 500 MB free storage space. Data can be downloaded and used in different applications. Meanwhile, the hosted data can be published as GIS services, based on the online maps configured by the users. The published services can also be used to overlay with other web maps to speed up application development.

Online GIS Data Hosting

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SuperMap GIS 8C

▍ Component GIS Developing Platform

SuperMap iObjects Java 8C

It is a high performance component GIS development platform based on 2D and 3D integration and cross-platform technologies, applicable for Java development running and capable of quickly building enterprise GIS application system, such as X86/ARM/IBM Powder chip architectures and Windows/Linux/AIX operation systems.

SuperMap iObjects .NET 8C

It is a powerful performance component GIS development platform based on 2D and 3D integration, applicable for .NET development running and capable of quickly building enterprise GIS application system.

SuperMap iObjects C++ 8C

It is a robust component GIS development platform based on 2D and 3D integration and cross-platform technologies, applicable for C++ development running and capable of quickly building enterprise GIS application systems such as X86/ARM/IBM Powder chip architectures and Windows/Linux/AIX operation systems.

New Features

◇ Elegant, high-efficient map display technologies

◇ More friendly and accurate operations in mapping

◇ Higher-performance spatial analysis functions

◇ Much richer data support

◇ Brand-new 3D dynamic plotting function

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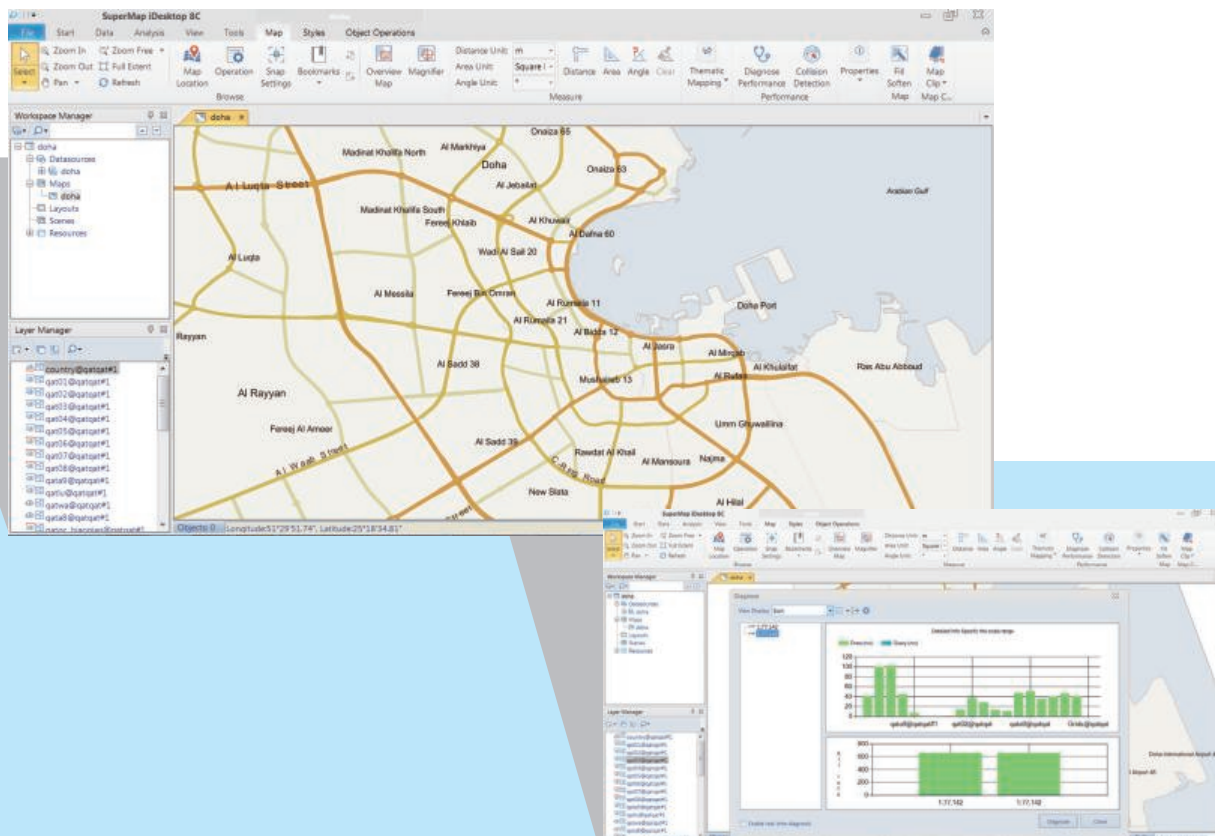
Desktop GIS Platform

SuperMap iDesktop 8C

It is a 'plug–in' style desktop GIS development platform, capable of 2D and 3D integration for functions such as data processing, mapping, analysis, nautical charts, supporting plug–in extension development and seamless accessing online map services, which make cloud resources collaborative sharing more convenient.

New Features

SuperMap iDesktop 8C has been fully enhanced in functions and performances. Its integration with cloud GIS becomes closer:

◇ Adopt GDI+ for more obvious words rendering

◇ Data storage solution available through the integration with BeyondDB

◇ The performance diagnostic tools for thematic map can detect a "problem layer" quickly

◇ Geospatial analysis supports large memory mode, parallel computing and GPU computing

◇ Data processing, uploading, and downloading become easier by integration with SuperMap iPortal
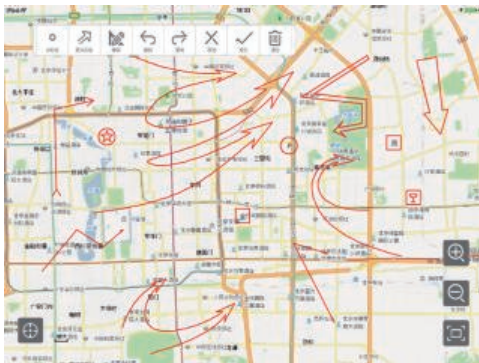
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SuperMap GIS 8C

SuperMap iDesktop Cross 8C

SuperMap iDesktop Cross is the first professional cross platform and open source desktop GIS software, to provide functions such as data processing, map making, and 2D and 3D integration. It supports interface customization, and the source code is open for easy developing and extending the business.

Product Features:

◇ Supports Window 32 and Windows 64, Linux 64

◇ Open source and customizable

◇ Comprehensive data management capabilities and multiple compatibility with user data

◇ Easy, free and visual map display and making

◇ Beautiful and realistic 3D stereo display

Native Mobile GIS Development Platform

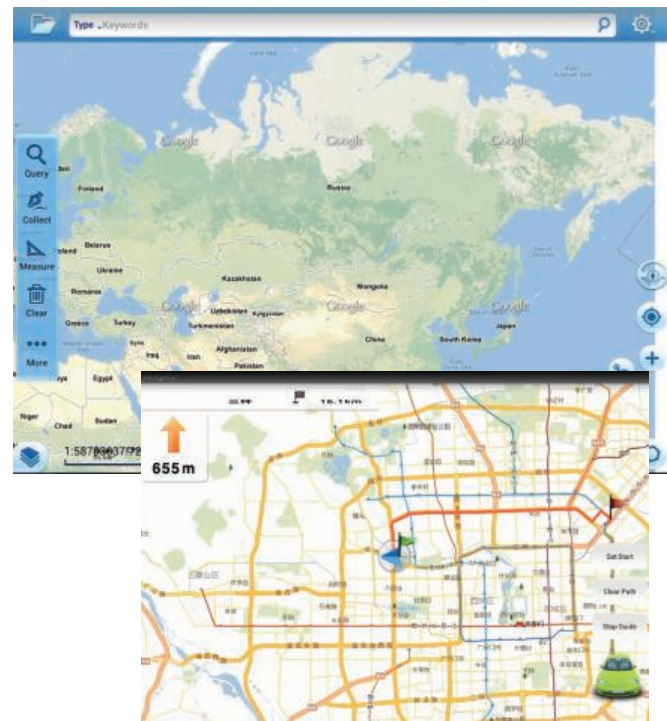## SuperMap iMobile 8C for Android

SuperMap iMobile for Android is a powerful mobile GIS development platform for Android operating system. It can be promptly developed for the mobile GIS applications in the professional industries and public location based services (LBS).

New Features

◇ Elegant and efficient map display technology

◇ Voice navigation is available by using own data

◇ Situation plotting function for commanding

◇ Support the message BUS mechanism for collaborative data collection

◇ Support offline or online browsing oblique photography 3D data

SuperMap iMobile 8C for iOS

SuperMap iMobile for iOS is a professional mobile GIS development platform used in iOS operating system. It can be quickly programmed for the mobile GIS applications in the professional industries and public location based services (LBS).

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Mobile Web SDK

SuperMap iClient 8C for Android

SuperMap iClient for Android is a GIS network client development platform for mobile internet based on Android platform, which is used to construct the light mobile map application programs for Android.

SuperMap iClient 8C for iOS

SuperMap iClient for iOS is a lightweight GIS network client development platform for iOS platform, which provides the Web map application interfaces for iPhone and iPad mobile devices, and constructs the lightweight mobile map application programs for iOS platform.

SuperMap iClient 8C for Win8

SuperMap iClient for Win8 is a professional GIS network client development platform containing Windows Store and Windows Phone 8, which is used to construct the map applications in Windows 8 and Windows Phone 8 style.
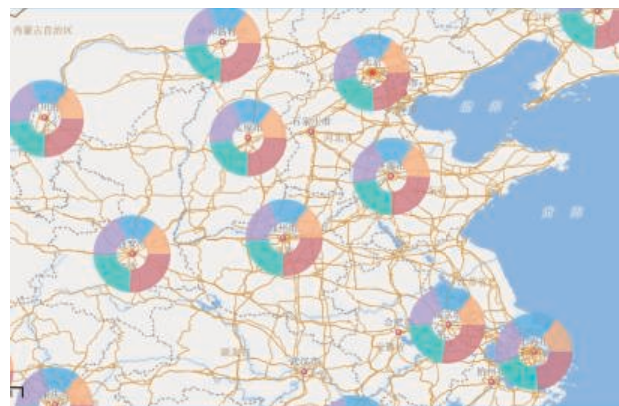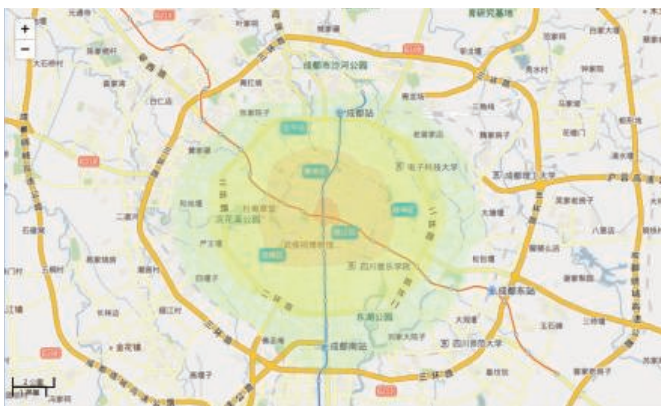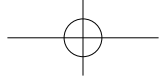
Browser SDK

SuperMap iClient 8C for JavaScript

SuperMap iClient for JavaScript is a strong GIS network client application SDK based on JavaScript. It can be used to construct the rich client map application programs for multi-terminal, cross-browser, and rich visual interactive technologies of HTML5.

New features

◇ The editable control of vector layer adds new style

◇ Spatio-temporal data effect optimization. Feature style supports dotted line.

◇ Three new thematic maps of dot, annular and 3D histogram on client

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SuperMap iClient 8C for Flash

SuperMap iClient for Flash is a professional GIS network client development platform based on Adobe Flash Builder4 development platform and Adobe Flex technology, which is used to construct the rich client map application program of cross−browser and cross−client.
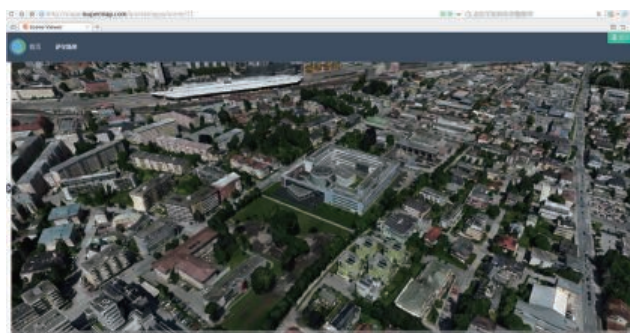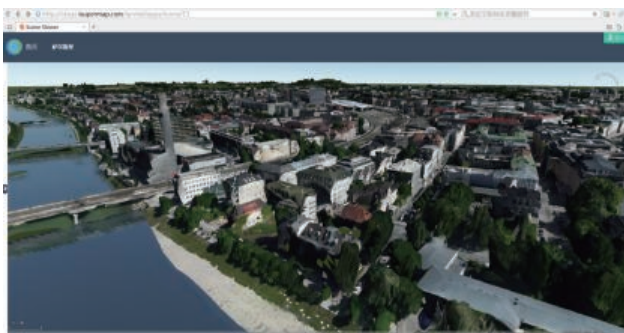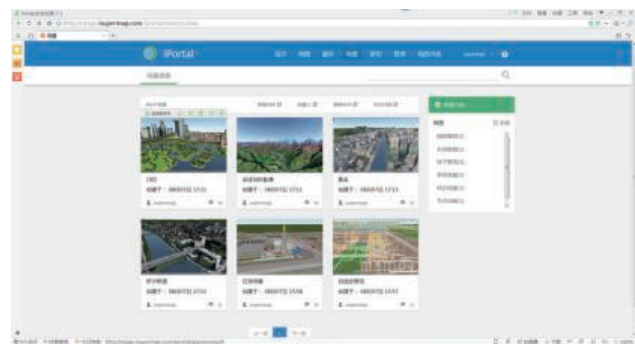
SuperMap iClient3D 8C for WebGL

SuperMap iclient3D for WebGL is the 3D client development platform based on JavaScript and HTML5 WebGL, which is used to construct the 3D scene application program of No−plugin, cross−browser and cross−operating system.

SuperMap iClient3D 8C for Plugin

SuperMap iClient3D for plugin is a professional 3D GIS network client development platform based on SuperMap UGC (Universal GIS Core) C++ core, which is used to construct the 3D scene application program of powerful functions, high−performance and cross−browser.

Features

◇ Download data faster and more stable

◇ Cross−browser

◇ Support more web services and the extension development

◇ Support registration and browsing 3D scene in SuperMap iPortal

SuperMap iClient 8C for Silverlight

SuperMap iClient for Silverlight is a professional GIS network client development platform based on Microsoft Silverlight technology, which is used to construct the rich client application program of cross−browser.

Solutions

SuperMap's professional expertise and leading–edge technology have been widely used in a variety of industries, including smart city， land resource，real estate, environment, facility management, forestry, water conservancy，meteorology, surveying and mapping, agriculture, transportation, communication, petroleum and petrochemicals, etc. We are willing to share our experiences in different industries and fields. This section will show the design and functionality of a number of general information systems in different industries which are developed by partners around the world and different industry departments of SuperMap Software Co., Ltd.