

Developments of New Generation 3D GIS Technology and Product

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New generation 3D GIS technology helps improve Digital Transformation





Technological Improvements



2D&3D integrated data model technology

Efficient multi-source 3D data management technology



Performance and effectiveness enhanced Web3D technology



High- Fidelity rendering technology

1

2D&3D integrated data model technology



2D&3D Integrated Spatial Data Model System



Efficient and flexible 3D Modeling Capabilities



Various operators for 3D Modeling

11i (2023) Added



Tube well Modeling





Road designing



Building Draft Design











SuperMap iDesigner3D WebApp

- Lightweight online 3D geospatial design WebApp
- Based on SuperMap iClient3D for WebGL and SuperMap iPortal

Based on the real geographical environment, online rapid modeling

Support multi-person interactive editing

Fast sharing of data assets and modeling results

Fast Generation of Roads

P13



Modeling Results Saving and Sharing



Efficient multi-sources 3D data management technology

2



Multi-sources Data Access and Management





Terrain/Imagery

Photogrammetric Model



Point Clouds



GIST©



3D Model created by building footprints



City Models



BIM



Geological Model

Improved data processing capabilities greatly

GIST©

Data pre-check and processing

Continue to generate after unexpected situations

More effective data processing capabilities

Improve the efficiency of generating TIN terrain tiles



Generation efficiency of TIN

GIST©

Improve the efficiency of model to generate S3M tiles

500%

Generation efficiency of massive building footprints data to S3M

More Practical Geo-processing Operators

11i (2023) Added

Distributed GPA Supported



Data Management based on Distributed Technology



Performance and Effectiveness Enhanced Web3D technology

3



Evolutions of Web3D Engine Technology



Environment Maps





Not Supported

Supported



× +





What is the most cutting-edge Web3D technology in 2023?





Introduction to WebGPU Technology



Brand-new B/S graphics APIs based on modern rendering engines

GIST©



Unlock the underlying system's GPU



Carry out high-performance computations and draw complex images



Chrome, Edge, Opera supported

SuperMap iClient3D for WebGPU(Beta)



SuperMap iClient3D for WebGPU(Beta)

Access to Multi-Source Data

Stream Massive 3D Geospatial Data

Offer 10+ 3D Spatial Analysis Functions

'One-click ' switching from WebGL to WebGPU

Higher Performance



About 40%

Average FPS

About 25%

Average memory usage

SuperMap Hi-Fi 3D SDKs with continuous improvements of effect



Bring the real world to game engines

Game Engines UE/Unity

SuperMap Hi-Fi 3D SDK

Geospatial Data(S3M)

Spatial Analysis



2D&3D Integrated GIS SuperMap GIS

Deep combination of Game Engines and 3D GIS GIST

Game Engines (Unreal Engine、Unity)

3D GIS Plugins

SuperMap Hi-Fi 3D SDKs

Roadmap of SuperMap Hi-Fi 3D SDKs





More 3D Spatial Analysis and Query Functions



Analysis Support Model Assets in Unreal



Nev System



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SuperMap GIS 2023 "Cloud-Edge-Terminal" Product

Terminal GIS for Desktop

- SuperMap iDesktop
- SuperMap iDesktopX
- SuperMap iExplorer3D
- SuperMap iMaritimeEditor *new*
- SuperMap ImageX Pro new

SuperMap iPortal SuperMap iManager SuperMap Online

Cloud GIS Server

SuperMap iServer

Edge GIS Server
SuperMap iEdge

Terminal GIS for Mobile

Edge

- SuperMap iMobile for Android/iOS
- SuperMap iMobile Lite for Android/iOS

Terminal

GIST©

• SuperMap iMobile Lite for HarmonyOS

Terminal GIS for Components

- SuperMap iObjects C++/Java/.NET
- SuperMap iObjects Python
- SuperMap iObjects for Spark
- SuperMap Hi-Fi 3D SDK for Unreal
- SuperMap Hi-Fi 3D SDK for Unity

Terminal GIS for Web

Cloud

- SuperMap iClient JavaScript
- SuperMap iClient3D for WebGL
- SuperMap iClient3D for WebGPU *new*
- SuperMap iClient3D for Cesium

Conclusion







GISTE 2023地理信息软件技术大会 2023 Geospatial Information Software Technology Conference