

Innovate GIS Root Technologies, Lay the Foundations for Geo-intelligence Application

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GIS platform software is root technologies of Geo-intelligence

Technically Diverse Upgrades





An Open-source Spatial Database "Yukon"



Yukon: Jointly Released by SuperMap and Huawei





Why Do We Need Yukon?



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P7

Advantages of Yukon



Technical Architecture of Yukon



Yukon Supports Remote Sensing Images and 2D Vector Data



SuperMap iDesktopX

QGIS

Yukon Can Stretch 2D Polygons to 3D Blocks using SQL Commands

SQL Shell (psql)	_	×
Server [localhost]: 172.16.120.240 Database [postgres]: display Port [5432]: 55432 Username [postgres]: supermap psol (14.0, 服务器 13.6)		Â
输入 ″help″ 苯获取帮助信息. display=#		





Open-source address: https://gitee.com/opengauss/yukon

Official website: https://yukon.supermap.io





Other Open-source Products from SuperMap

(https://github.com/SuperMap)

SuperMap iClient JavaScript (for Leaflet, for Openlayers, for MapboxGL, Classic)

SuperMap iClient Components (for Vue、 for React)

SuperMap iClient3D Components (for Vue)

SuperMap iClient3D (for Cesium, for UE4/UE5, for Unity)

SuperMap GIS Application Framework (GAF)

SuperMap iDesktop Cross

SuperMap iMobile Lite



Cloud-native GIS 2.0







2.1 GIS Service Mesh

Service Metrics

• Estimates the communication quality of each service

Service Trace

• Traces service exceptions

Access Control

 Sets access permissions between services

Gray Release

• ?

Gray Release: Upgrading More Smoothly

Gray Release: Upgrading More Smoothly

P21

The computing module of the microservice is disassembled into function-level granularity.

Execute, extend, and pay on demand.

No need to manage infrastructure like servers.

Four Upgrades of Spatial Analysis Services

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Service Mesh + Serverless Computing: Instantly Check Running Status

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P23

Advantages of Cloud GIS 2.0

More Realistic and Faster 3D Rendering

P26

3D Highlighted Technologies

1) S3M 3.0 Upgrades

P28

Compress data to reduce data size, thereby improving the data acess performance

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Support OBB bounding boxes \rightarrow higher scheduling performance

Support skinning and skeletal animations \rightarrow more diverse animations

Support PBR materials and mask textures \rightarrow cooler visual effects

Mesh models support for multi-dimensional properties.

S3M 3.0 Performance Improvement

2) Hi-Fi 3D SDK Upgrades

P31

Game engine (UE4/UE5、Unity)

SuperMap 3D GIS plugin

SuperMap Hi-Fi 3D SDK

Light and Shadow Effect: sunset

Longitude: 113 ° 31 ' 14.87 "E

Latitude: 22 ° 46 ' 11.53 "N

Camera Height 9.00 m

Light and Shadow Effect: Rainning and Snowing

6:00 12:00 18:00 24:00 0:00 2022 - 5 - 19 Ē 经度: 118.400002 纬度:24.6 时区:0.0 天气:雨 0.792468 材质湿度 积雪覆盖 0.0 体积云覆盖:4.685628 雨雪粒子量: 20000.0 时间 0.0 启动 结束

Longitude: 118 ° 21 ' 59.23 "E

Latitude: 24 ° 32 ' 35.65 "N

Camera Height 22.18 m

Post-processing Effect: Space Reflection

Longitude: 1 ° 27 ' 9.55 "E

Latitude: 3 ° 54 ' 40.17 "N

Height: 313.20 m

Camera Height 313.68 m

Extruded Polygons: Beautify Scene through Mapping Materials

BIM Data: Enhance Effects with PBR Materials

PBR: Physically Based Rendering

Fine Models: Generate Night Scene with Mask Textures GT©2022

Physic Engine: Water-flowing Particle System

Longitude: 116 ° 37 ' 37.30 "E

Latitude: 31 ° 46 ' 59.72 "N

Height: 0.00

Camera Height 64.17 m

Support UE5, Achieving the Macro-micro Integration

DHROTTLE-100 TRIM : Y=+0.00 P=+0.00 R=+0.00

Longitude: 121 ° 49 ' 22.83 "E

Latitude: 31 ° 8 ′ 31.27 "N

Camera Height: 5.58 m

3) Hi-Fi 3D Scene Browser (New)

- It is a desktop product for browsing 3D scene data.
- It is developed based on SuperMap Hi-Fi 3D SDK plus UE5

Supports massive multisource data Supports Hi-Fi rendering effects

Supports cloud rendering

SuperMap iExplorer3D

4) Web 3D SDK (New)

P45

Web3D Rendering-Engine Evolution

HHH

Irradiance & IBL on Web

***** ***** STREET, STREET AUGUREN ABBURN ATTENDED. ABBRENS, SHI III I I I I ARRENT ILEBER ILEBER Pessonal I SHARE PERSONAL PROPERTY. FRANKS! Contra la contra ****** "IGURS! all waters and III CERT VIII DO DO ----NERSE STREET TRADE IS I CONTRACT Income

Simulate Snowing on Web

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wingDay.html? hbt=16528716680

Simulate Raining and Space Reflection on Web

Application: Export PBR Materials from UE and Load on WebGL

Technically Diverse Upgrades

"Have the courage to do what nobody does" Cloud Native GIS 2.0

Thank you!

