

Supergeo Webinar

**Responding to Natural and Urban
Environment Changes with 3D GIS Tech**

Nov 20, 2014



Presenters

- ***Teyi Wang***
Sales Representative
International Business Division
- ***George Wang***
Product Specialist
Product Department
- ***Supergeo Support Team***

Product Roadmap

SuperGIS Products



Server GIS



- SuperGIS Server
- SuperGIS 3D Earth Server**
- SuperGIS Network Server
- SuperWebGIS

Cloud GIS



- SuperGIS Online
- Data Services
- Address Locator
- Excel Add-in
- Statistical API

Desktop GIS



- SuperGIS Desktop
- Spatial
- 3D
- Network
- 67-97 CTS (TW only)
- CCTS (TW only)
- Spatial Statistical
- Biodiversity
- Topology

Developer GIS



- SuperGIS Engine
- SuperNetObjects
- Network
- Biodiversity
- Spatial Statistical
- Spatial
- 3D

Mobile GIS



- SuperGIS Mobile Engine
- SuperPad
- SuperField
- SuperSurv (Android/iOS)
- SuperVeyor (Hardware bundle)

Solution

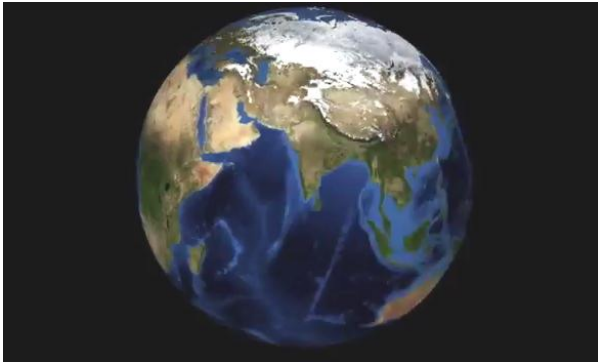


- SuperGIS Mobile Tour (Android)
- Mobile Cadastral GIS (TW only)

Position of SuperGIS 3D Earth Server

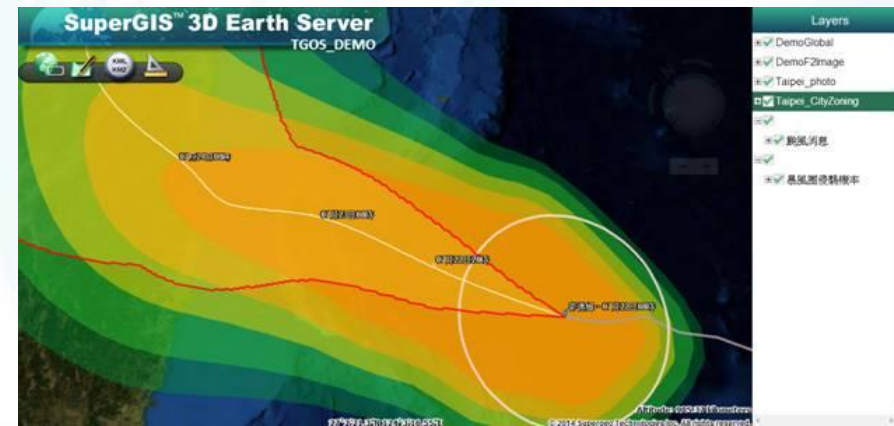
- Display and share the GIS data in a 3D view, allowing users to have a better data exploring experience
- Developers → publish GIS data from SuperGIS Desktop as a 3D globe service

Clients → see the 3D globe from various client-side application



Overview of SuperGIS 3D Earth Server

- Display GIS Data in a brand new way
- Share and display your GIS data in 3D view to enhance data
- Centrally manage your GIS data
- Deploy on Cloud infrastructure



Supported File Formats

- Vector data: SHP, GEO, KML
- Raster data: BMP, PNG, LAN, GeoTIFF, ECW, SID, JPEG2000, JPEG, SGR, TIFF, USGS SDTS DEM, ASCII DEM, GIF , MrSID, DGN, CSV
- Model data: KMZ, KML, CityGML

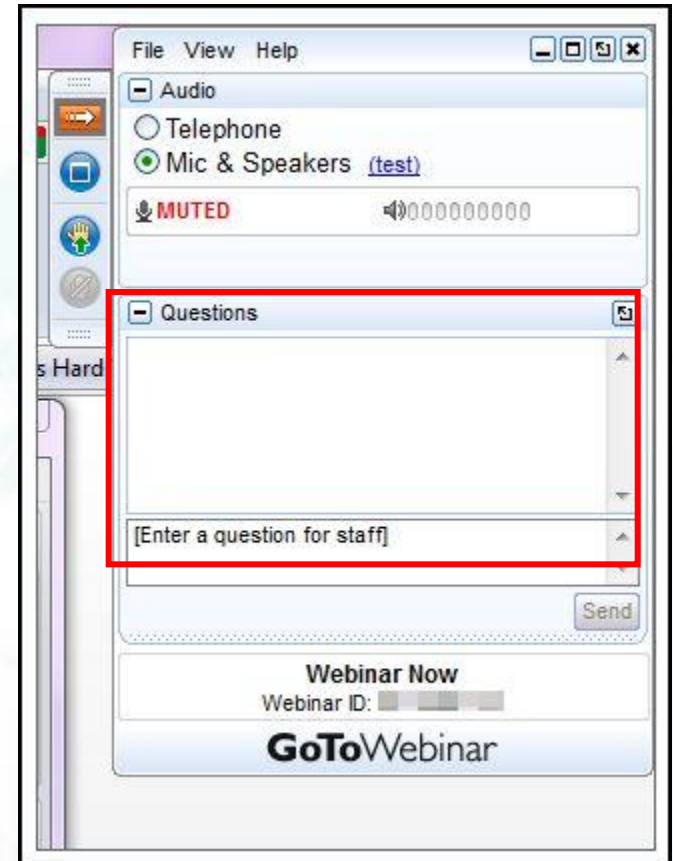
System Requirements

- Operating System: Windows Server 2008 (32/64 bit) /R2(64 bit) Windows Server 2012/ R2
- CPU: 2.2 GHz +
- Memory/RAM: 4 GB +



Questions & Comments

- During the presentation, you may share your comments or questions like this
- Or, you may drop us an email to: staff@supergeotek.com
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Introduction

Nature and urban environment changes often bring disasters:

- Nature-induced disaster: landslides, floods....
- Human-induced disaster: fire, gas pipeline explosion...

By displaying the nature and urban environments in 3D can make it easier to understand and communicate.

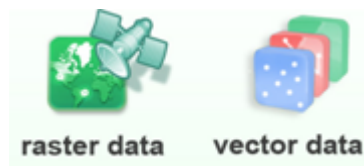
Solutions today

Use SuperGIS 3D Earth Server to monitor and display environmental information. You can:

- **Fuse 2D and 3D layers, and visualize in 3D**
- **Share GIS information**
- **Integrate different map sources (kml, WMS, WMTS)**
- **...through various front-end applications**
 - ✓ JavaScript (HTML5)
 - ✓ Plug-in (IE, Chrome, Firefox)
 - ✓ Standalone application

Why you need it?

- 3D models like DEM, kmz, CityGML, are difficult to collect and maintain.
- It is important to share those 3D models.



2D GIS Layers

+



3D Models

=



3D Maps

Demonstrations

Part I: Modeling urban environment

- Use the tools in SuperGIS 3D Earth plug-in
- Working with local files

Part II: Natural environment monitoring

- Use APIs to customize your function

Part III: Build-up your own globe

- SuperGIS 3D Earth Server workflow
- Data Preparation and Publishing
- Build-up the globe application

Part I



Use the tools in SuperGIS 3D Earth plug-in
Working with local files

Modeling Urban Environment

Urban changes

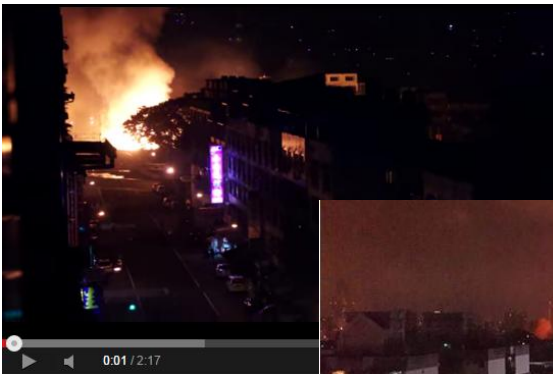
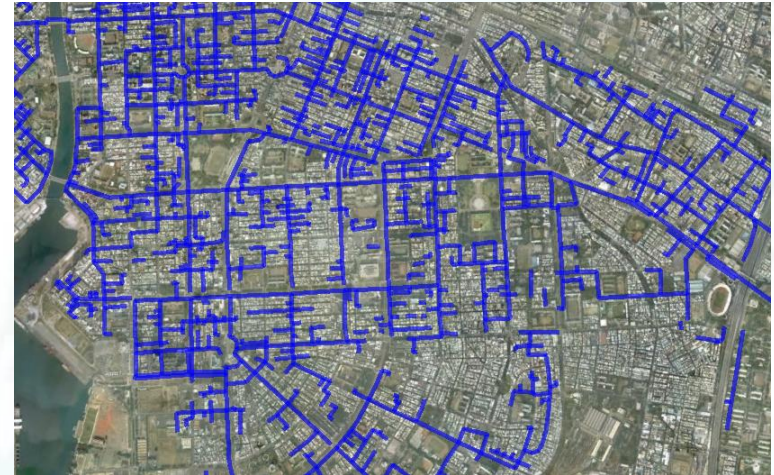
Working with local files:

- Add kmz to show realistic building models
- Extrude shp/geo files to represent a virtual city
- Add kml to show real-time traffic
- Display LAS file in SuperGIS Globe

Display 3D Cities

Human-induced disasters:

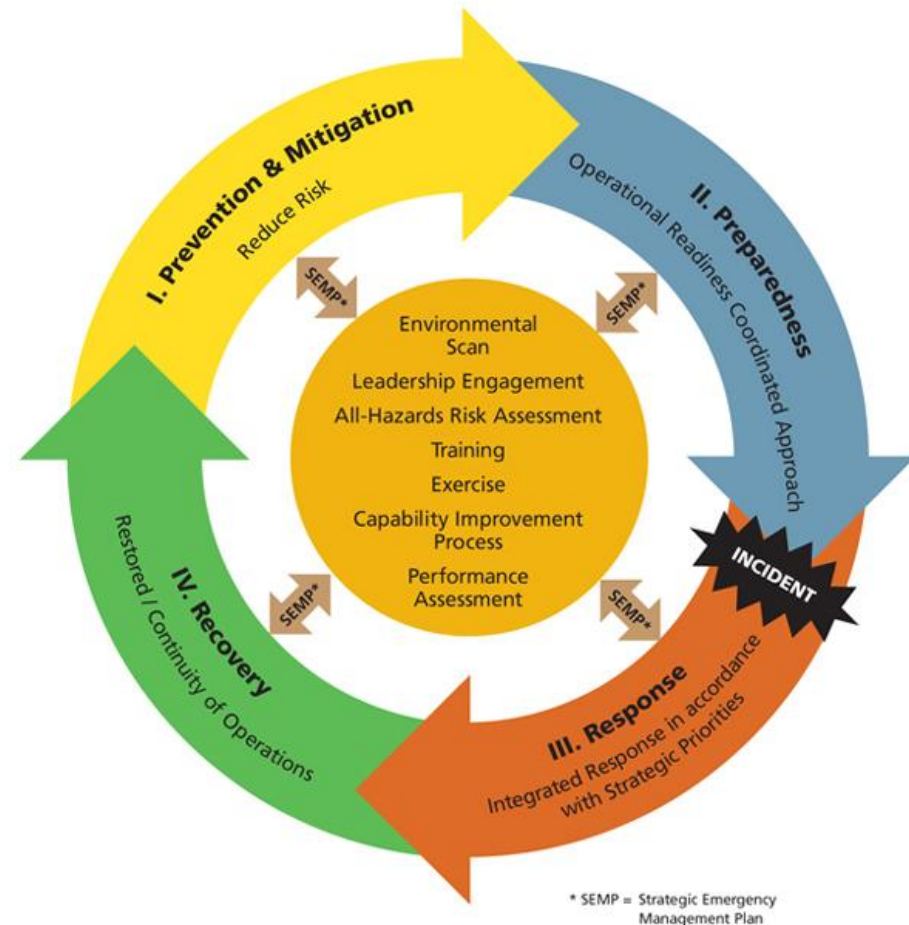
- Fires
- Gaspipeline explosion



Disaster Management

Emergency Management Continuum

1. Prevention
2. Preparedness
3. Response
4. Recovery



Objectives

1. Display a virtual city
2. Display disaster data for response and recovery works.



Preparation works

1. Publish Satellite images, vector layers, DEM, 3D models (kmz).
2. Create a website using SuperGIS 3D Earth Server Manager.



Part II



Use APIs to customize your function

Natural environment monitoring

Landslide monitoring

Main cause of landslides:

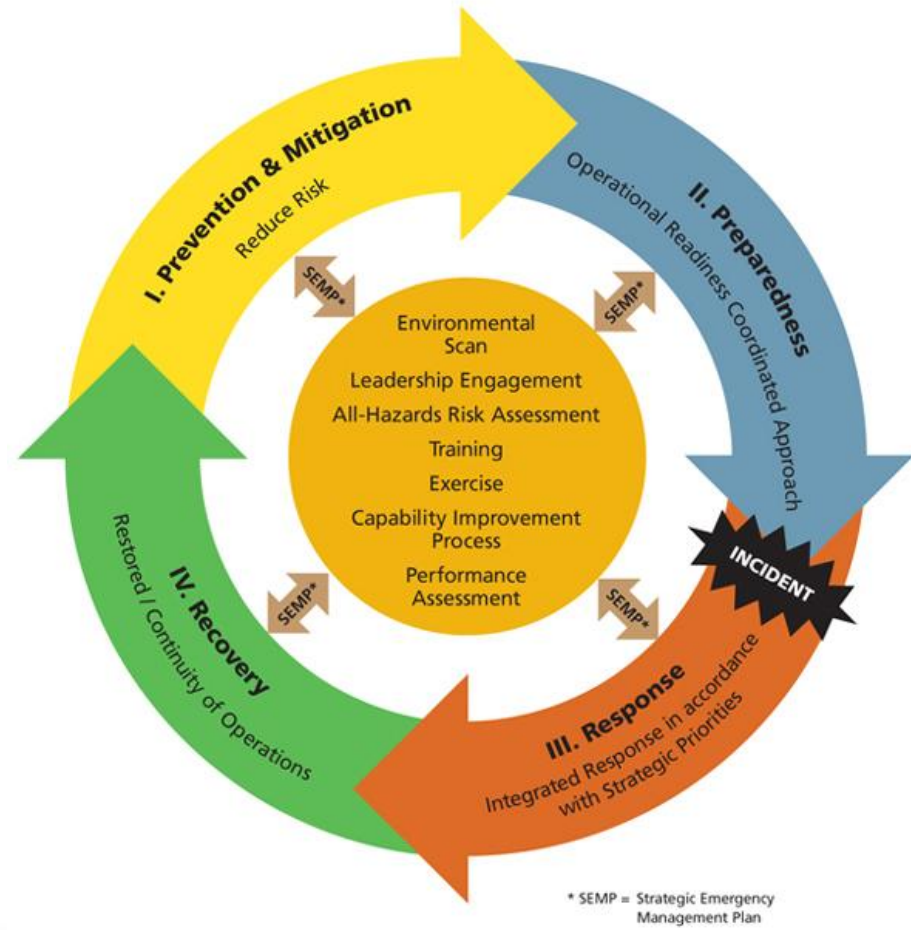
- Slope angle (Morphological cause)
- Intense rainfall/ snowfall (Geological and physical cause)



Disaster Management

Emergency Management Continuum

1. Prevention
2. Preparedness
3. Response
4. Recovery



Objectives

1. Use API to customize info window.
2. Display real-time rainfall data.
3. Alert nearby cities if necessary.



Preparation works

1. Publish Satellite images, DEM
2. Create a website
3. Use API to customize the website



BREAKTIME: QUICK POLL

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BREAK**

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Part III

SuperGIS 3D Earth Server workflow
Data preparation and publishing
Build-up the globe

Build-up your own globe

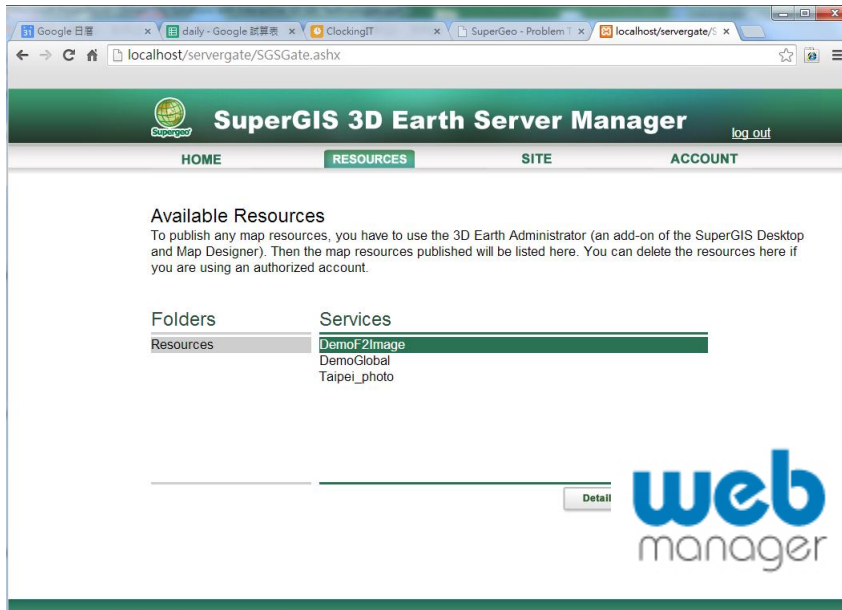


Workflow

SuperGIS 3D Earth Server Workflow

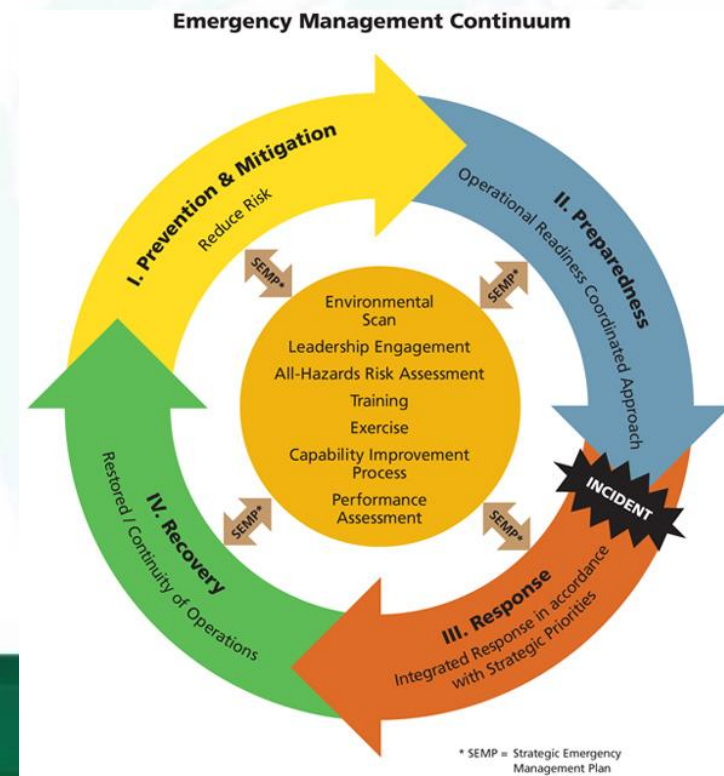


Build-up the globe



Conclusion

- SuperGIS 3D Earth Server is a good way to display nature and urban environment.
- The 3D platform can help in the cycle of disaster management.



All questions are welcomed!

Thank you for your attention



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