SuperMap

SuperMap Software Co., Ltd.

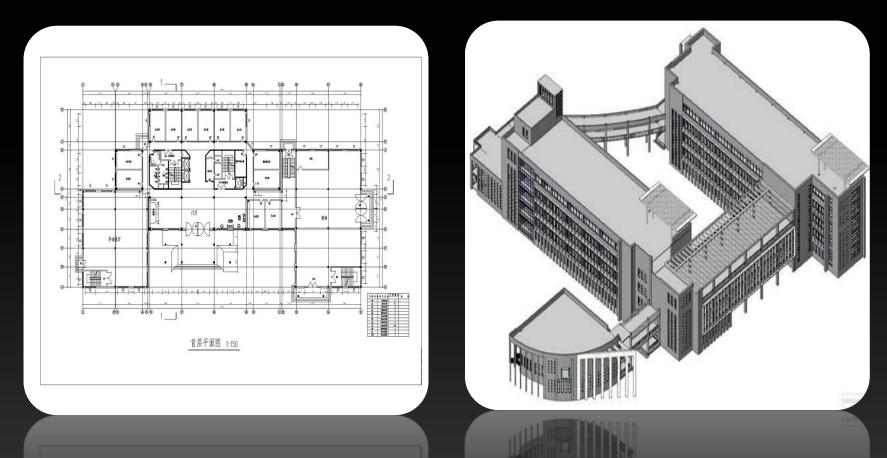
# Integrated Solution for BIM Technology and GIS Platform

#### SuperMap Software Co., Ltd.

# **BIM Overview**

### **BIM Overview**

BIM (Building Information Modeling) is an intelligent 3D model-based process that gives architecture, engineering, and construction (AEC) professionals the insight and tools to more efficiently plan, design, construct, and manage buildings and infrastructure.



#### **BIM Overview**

#### **BIM Tools**

• Revit software, Bentley series, CATIA software, etc.

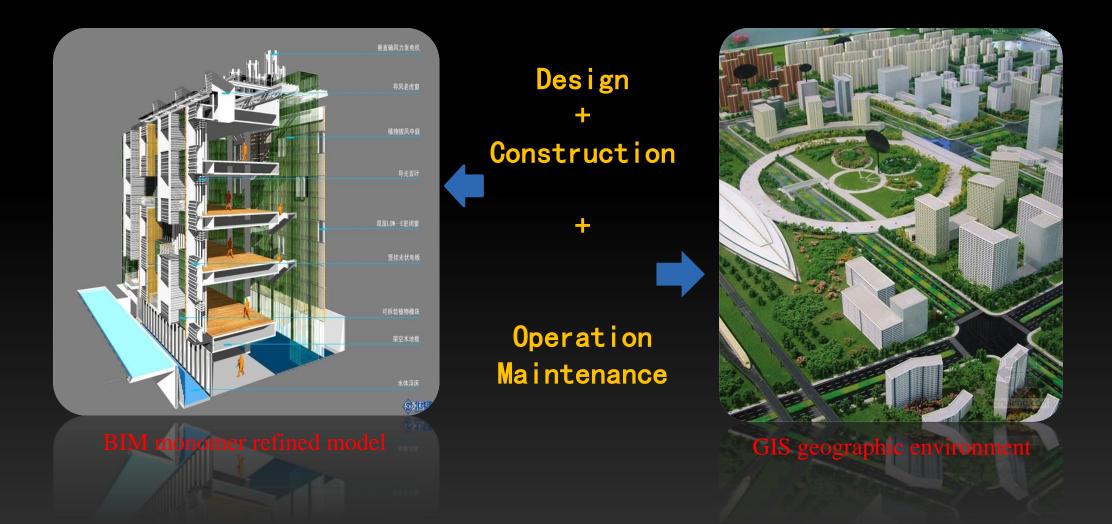
#### **BIM model formats**

• DGN, RVT, FBX, IFC, DAE, X, OBJ, 3DS, OSG/OSGB, etc.

# **Relation between BIM and GIS**

## **Relation between BIM and GIS**

• BIM needs 3D GIS



#### **Relation between BIM and GIS**

• 3D GIS needs BIM

#### **Import data source**

- Macro into micro
- Refined management

#### Outdoor to indoor

• Integration of outdoor and indoor

# Integration between BIM and GIS Platform

# Integration Method: Export models to GIS platform using SuperMap BIM plugin

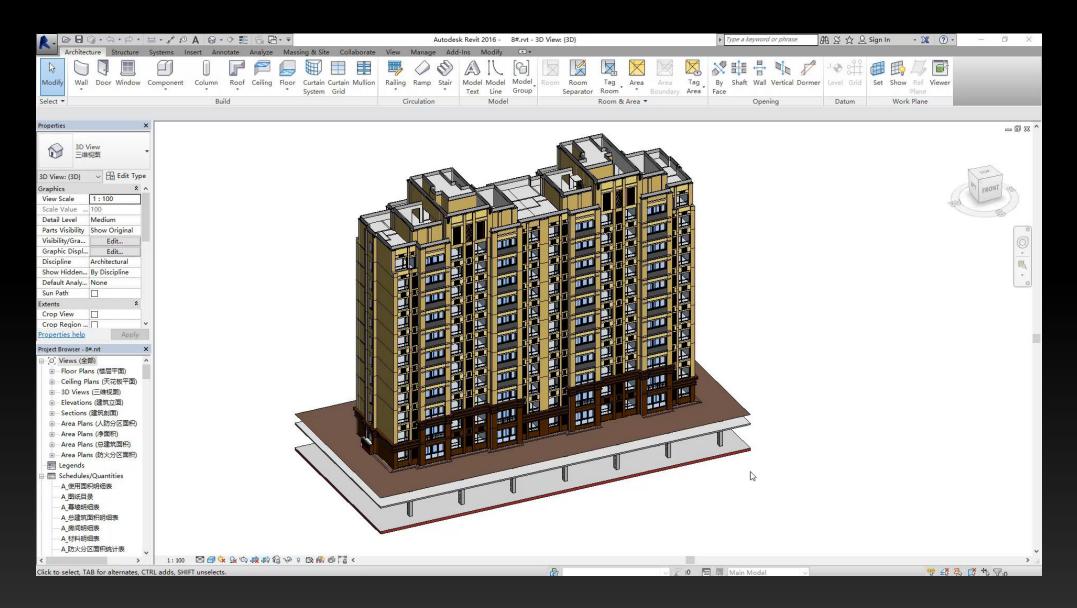
#### Models + Attributes, export with BIM plugin

#### **BIM Software**



**GIS** Platform

#### **Revit Plugin**



## **DGN Plugin**

経量化平台对接工具	₩ 模型导出到UDB				
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模型导出 其它 ♥ View 1, H Beam Com ♥ Q ♀ ▼ ↓ Q Q Q I ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥	○ 球面 经度值: 纬度值: 高度值:	0	<ul> <li>平面坐标</li> <li>X值: 0</li> <li>Y值: 0</li> <li>Z值: 0</li> </ul>	coord coord	linates of the origin of the world inate system. Input insert point inates according to the type of the scene.
	◎ 自定义投影				Select projection file
	<ul> <li>文件生成信息</li> <li>③ 新建</li> <li>UDB文件路径:</li> </ul>	数据源 E:\DgnData\Test.udb	◎ 打开数据源		Create or open existing UDB datasource
		□ 导出LOD			Parameters for performance optimization
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## **CATIA Plugin**

 Install the CATIA software and ensure it can run normally before installing the plug-in

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Insert point coordinates		Export four layers of
Coordinates of the origin of the		models with different
world coordinate system.		levels of detail
AddPushButton	DeletePushButton	SelectPushButton
		SaveId ApplyId DismissId

#### **Other Integration Method: Model Exchange Formats**

#### BIM Software

- Export with BIM software
- Third-party plugin

Model Exchange Formats SuperMap Platform

- Max plugin import
- Direct import

# **Performance Optimization**

# **Performance Optimization (Revit plugin)**

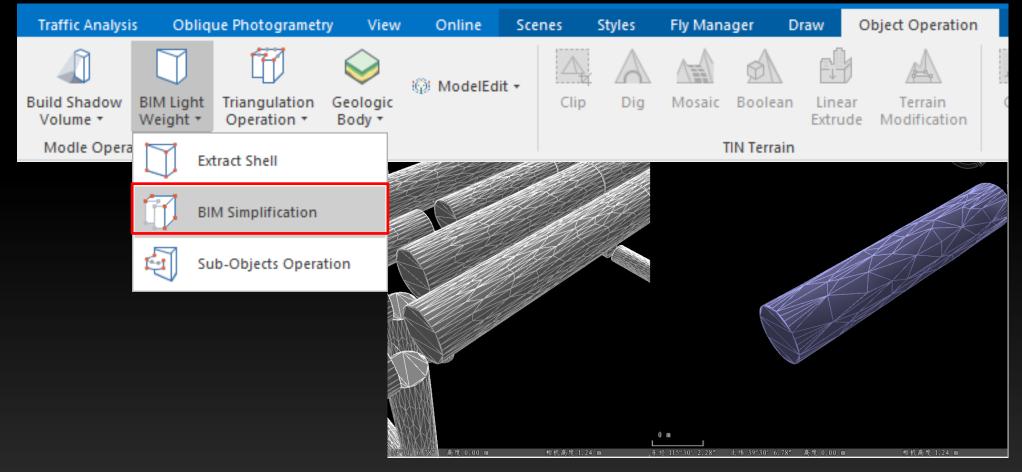
 Set level of Detail while exporting models—simplify models to save memory

Para

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## **Performance Optimization (iDesktop)**

• BIM data processing, simplify BIM mdoels



## **Performance Optimization (iDesktop)**

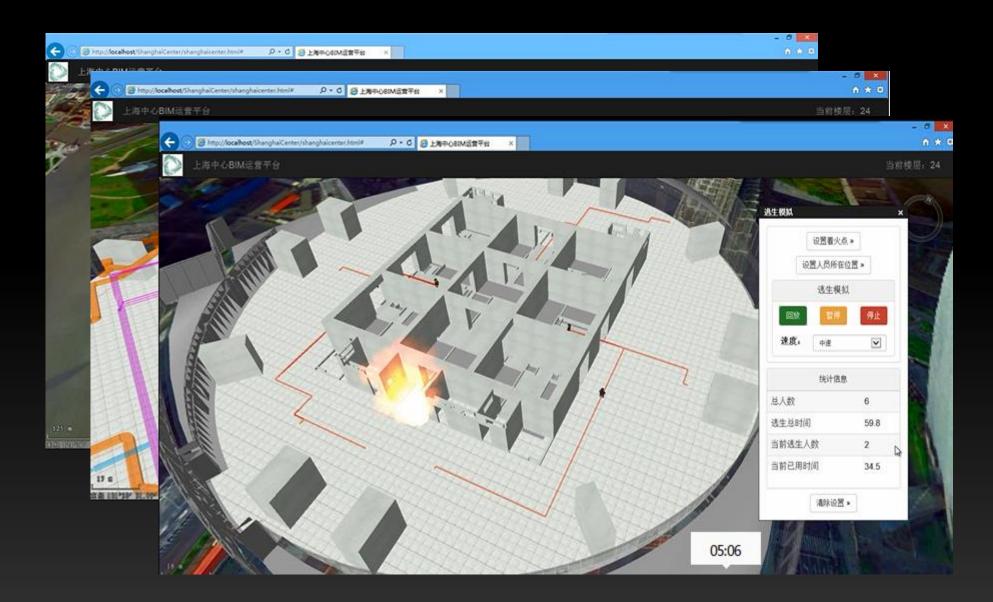
#### Generate scene cache

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#### Batch Build Model Cache

# Practical Case for BIM and GIS Integration

## **Shanghai Center BIM Operation Platform**





# Thank You

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