



SuperMap Software Co., Ltd.

Integrated Solution for BIM Technology and GIS Platform

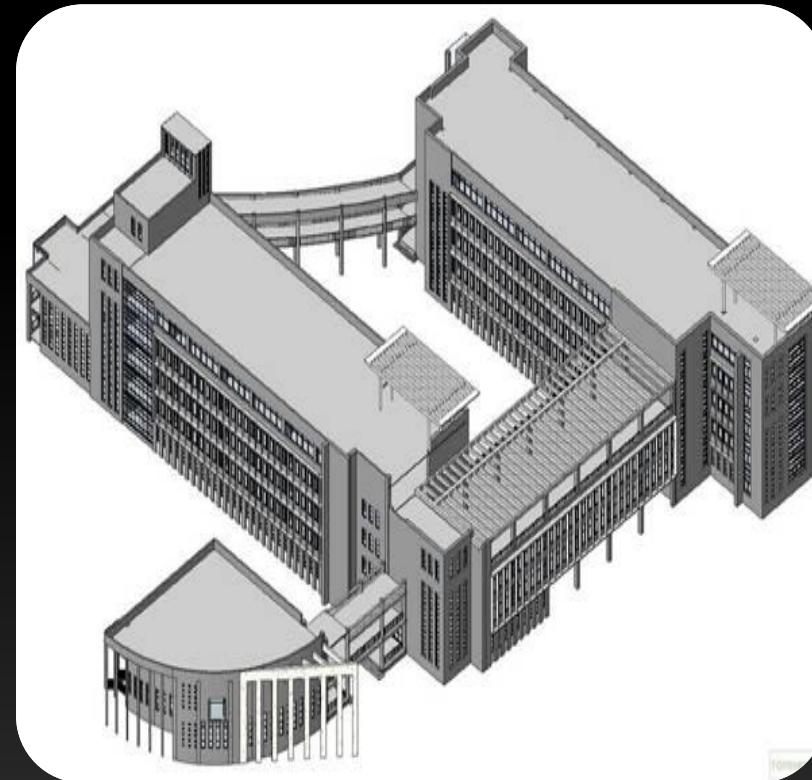
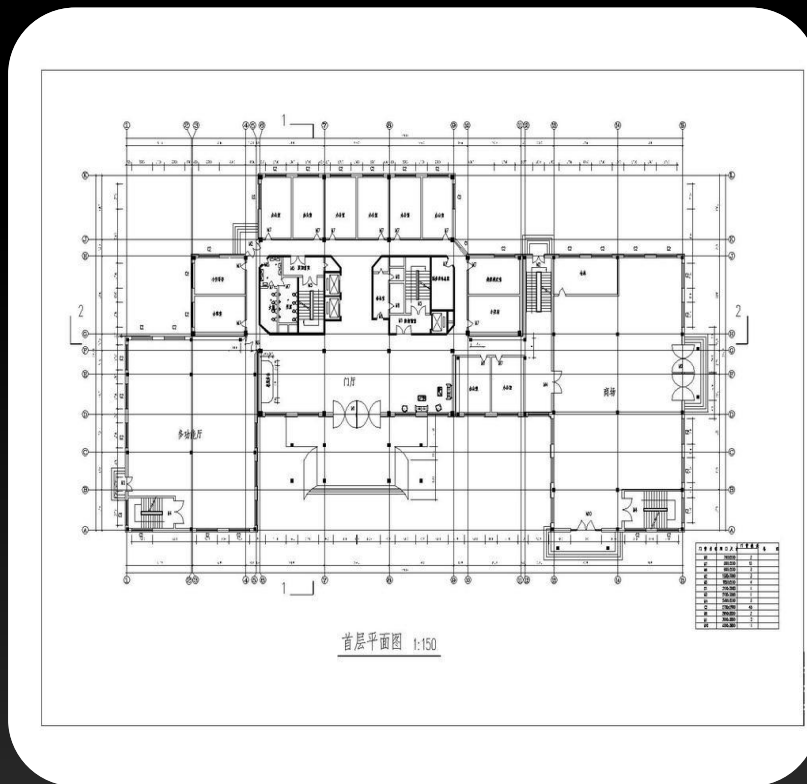
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BIM Overview

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



BIM monomer refined model

Design
+
Construction

Operation
Maintenance



GIS geographic environment

Relation between BIM and GIS

- 3D GIS needs BIM

Import data source

- Macro into micro
- Refined management

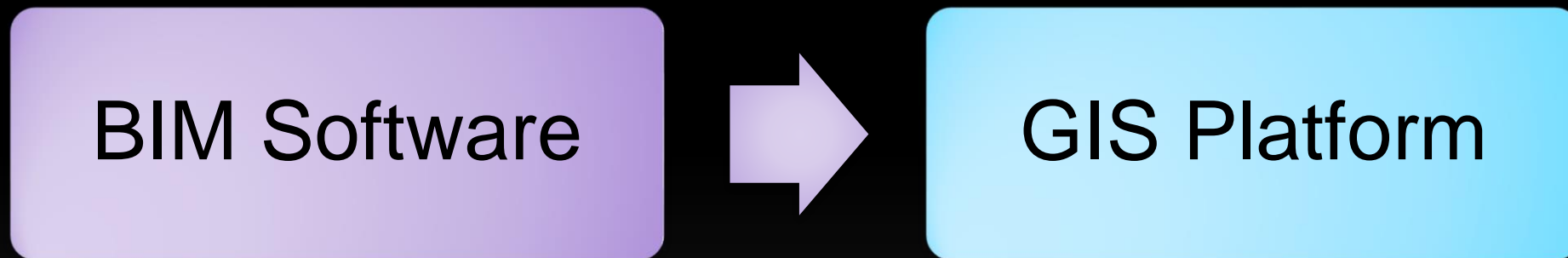
Outdoor to indoor

- **Integration of outdoor and indoor**

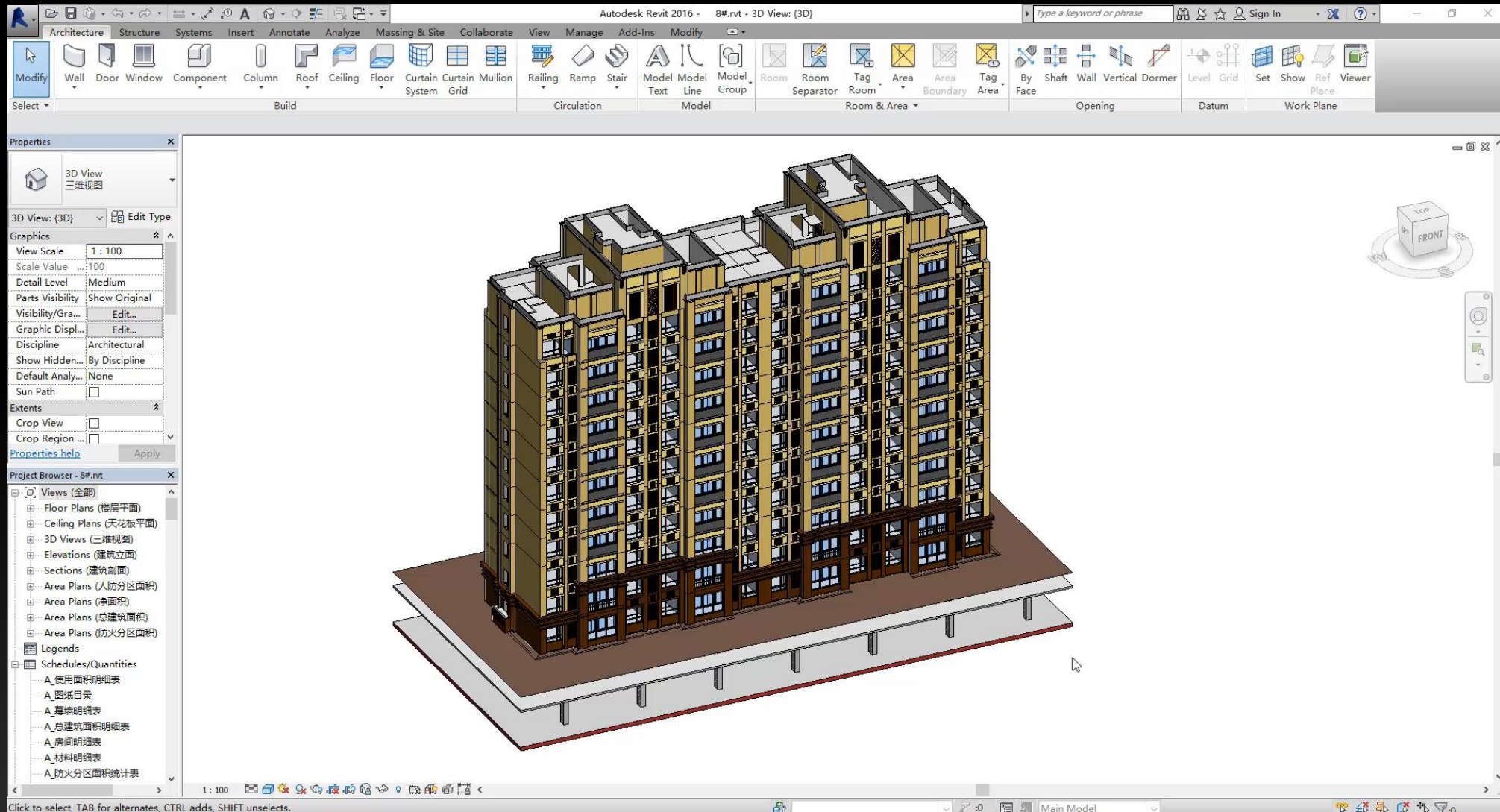
Integration between BIM and GIS Platform

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

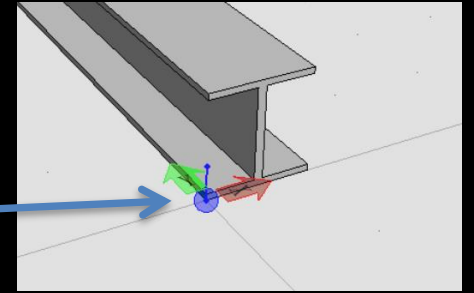
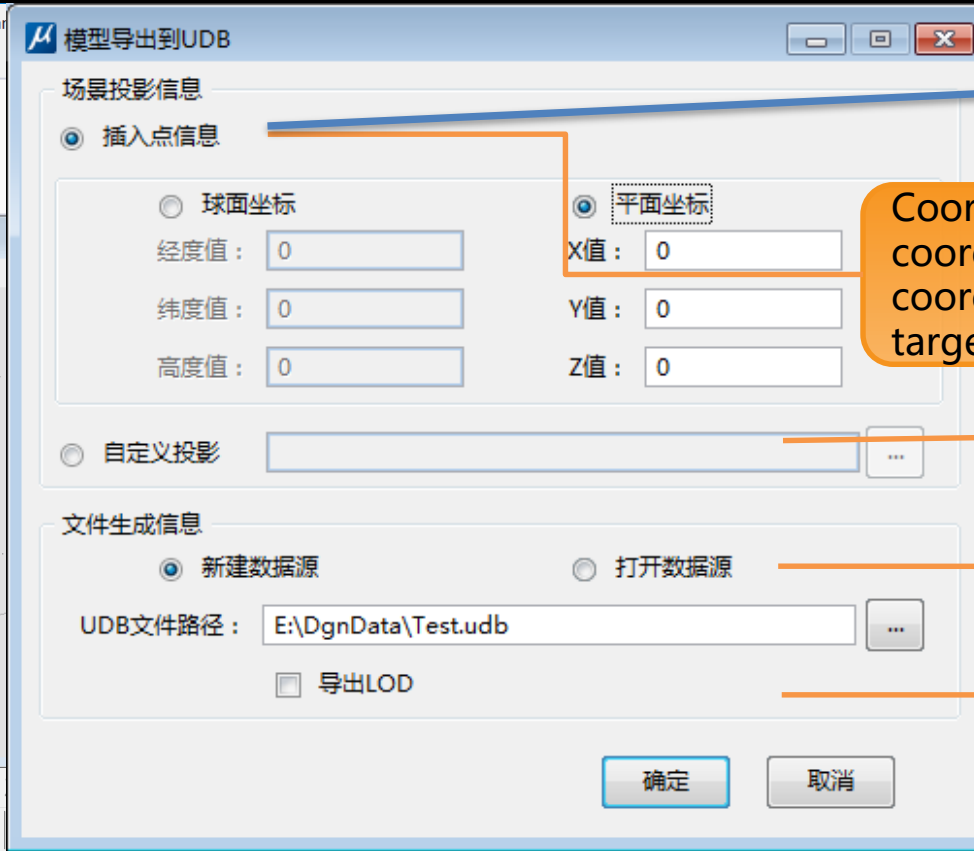
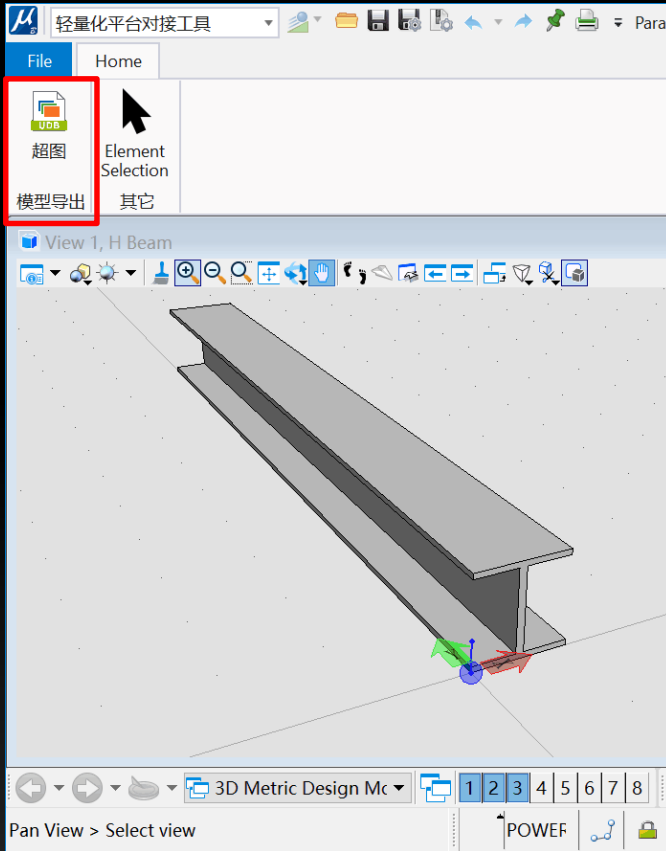
Models + Attributes, export with BIM plugin



Revit Plugin



DGN Plugin



Coordinates of the origin of the world coordinate system. Input insert point coordinates according to the type of the target scene.

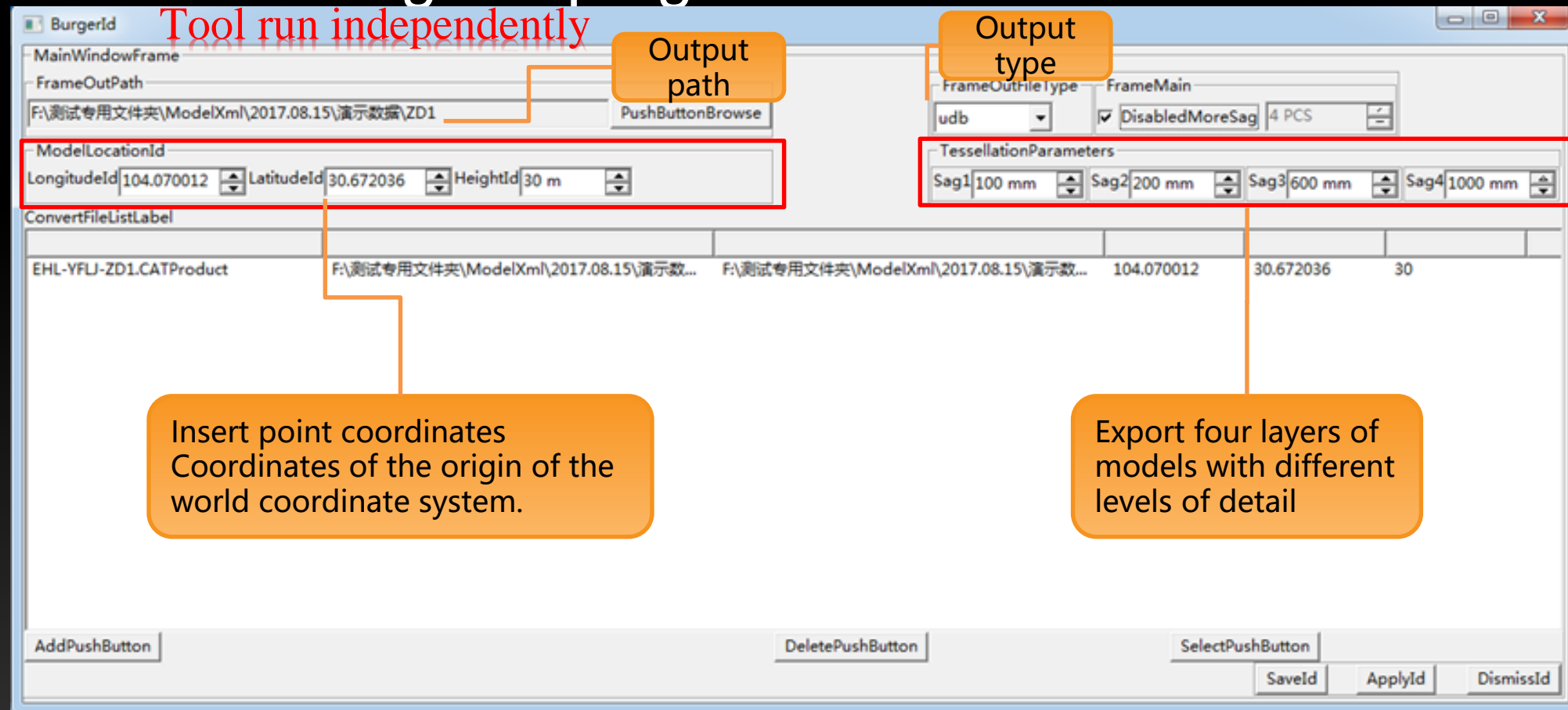
Select projection file

Create or open existing UDB datasource

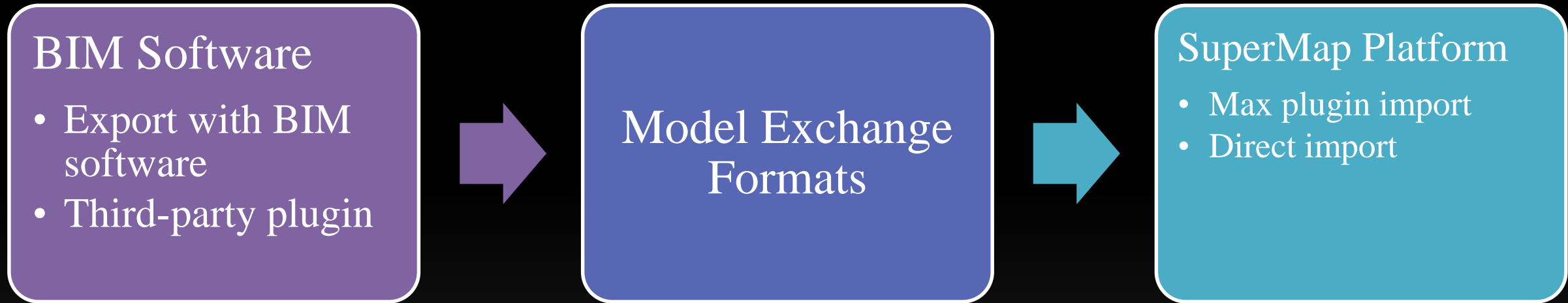
Parameters for performance optimization

CATIA Plugin

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



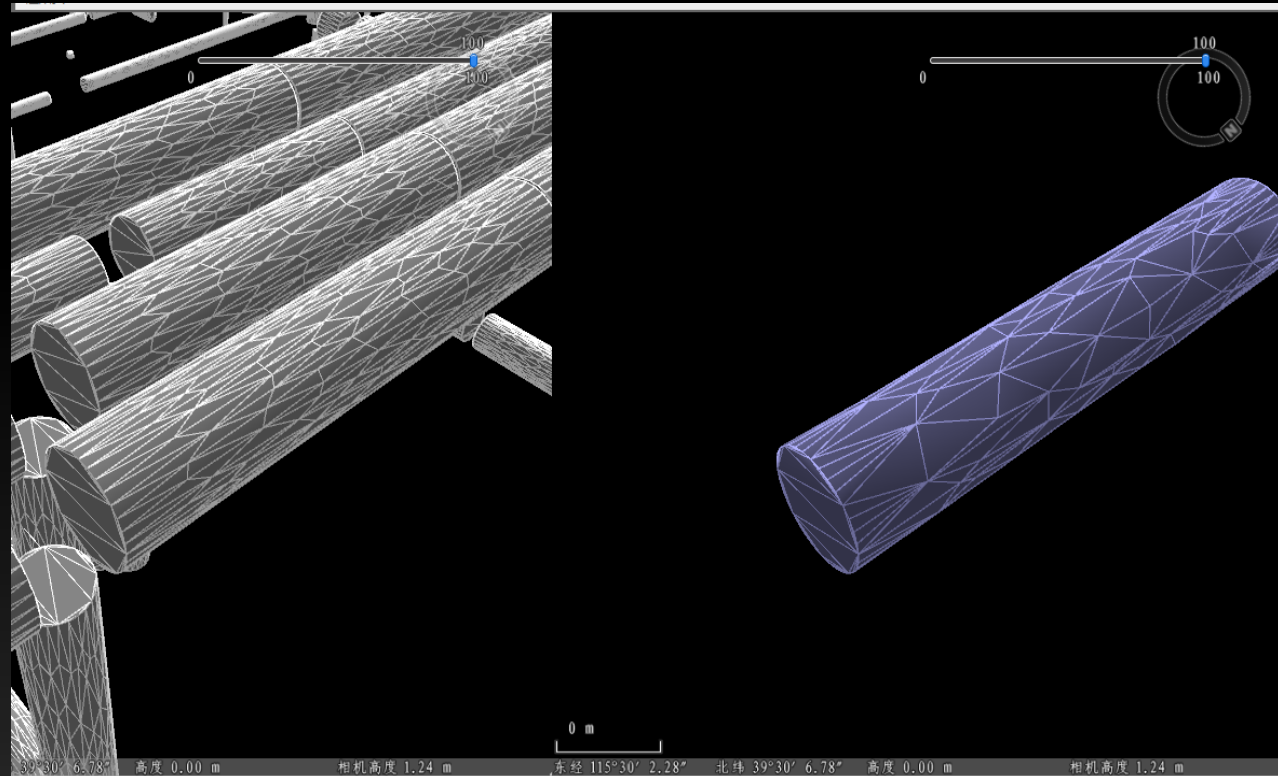
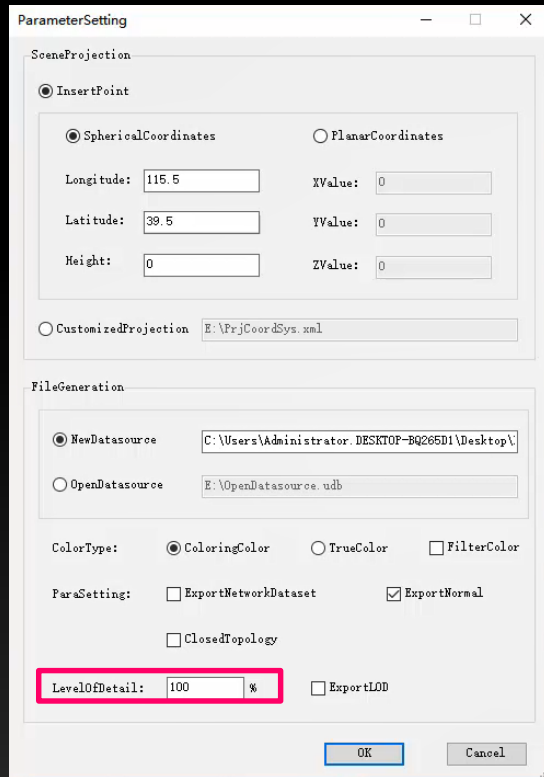
Other Integration Method: Model Exchange Formats



Performance Optimization

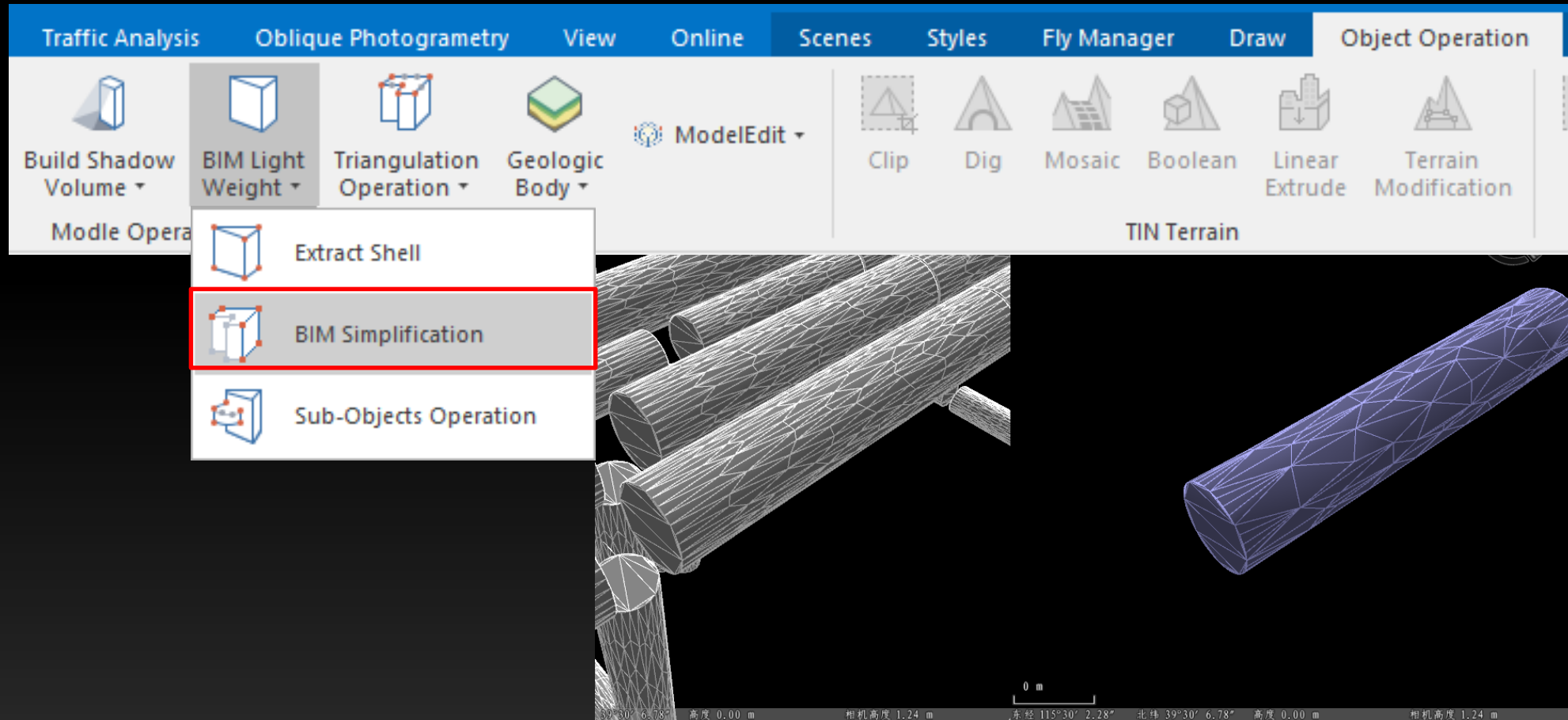
Performance Optimization (Revit plugin)

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



Performance Optimization (iDesktop)

- BIM data processing, simplify BIM models



Performance Optimization (iDesktop)

- Generate scene cache

Batch Build Model Cache

The screenshot shows the 'Batch Build Model Cache' dialog box. It contains the following sections:

- Dataset Table:**

Dataset	Datasource	Cache Type	Scene Type
结构柱	CreateDatasource	OSGB	Globe
墙	CreateDatasource	OSGB	Globe
模板	CreateDatasource	OSGB	Globe
窗	CreateDatasource	OSGB	Globe
常规模型	CreateDatasource	OSGB	Globe

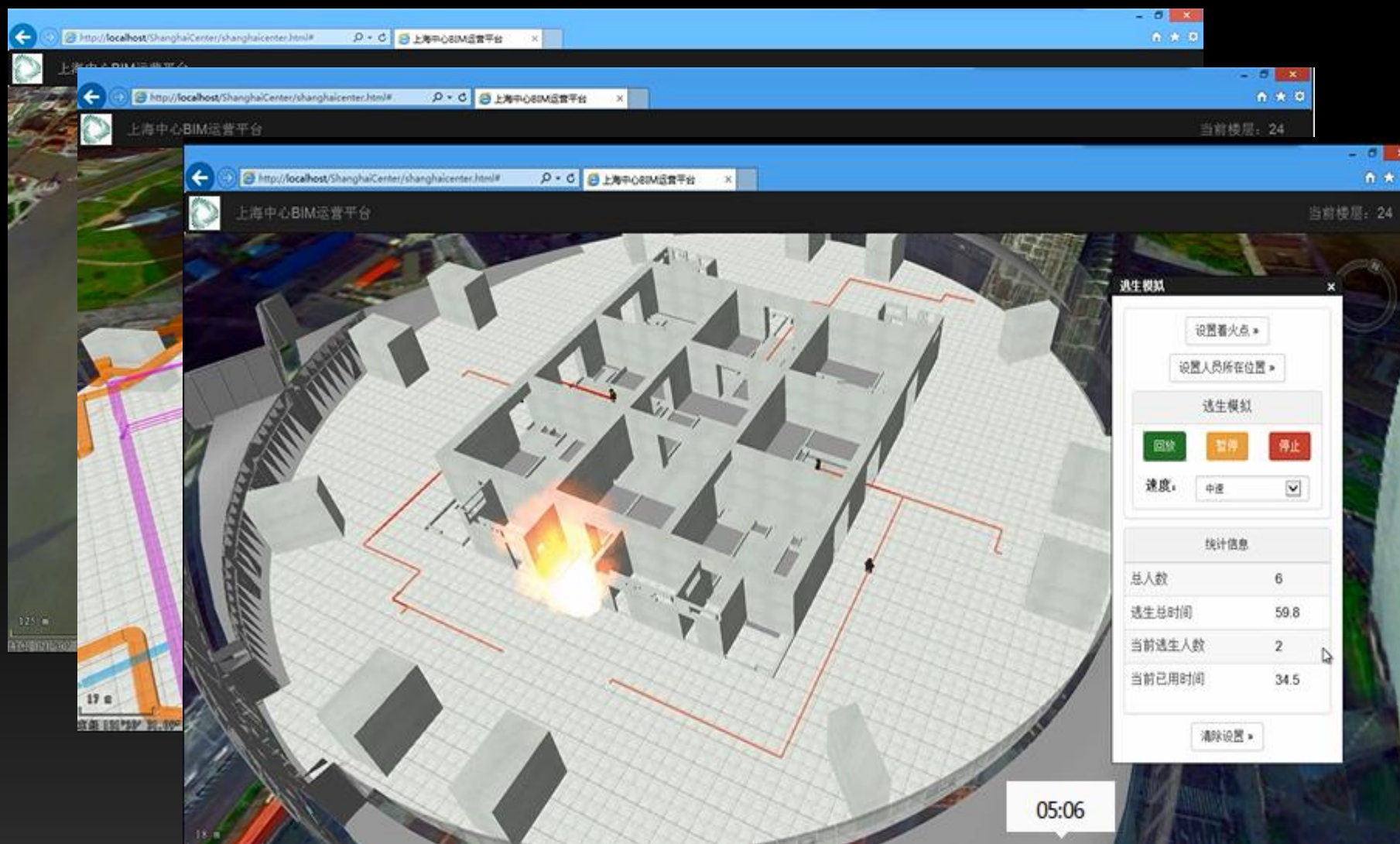
- Parameter Settings:**
 - Cache Name: ModelCache
 - Cache Path: C:\Users\Administrator.DES
 - Tile Width: 29.56818 m
 - Filtering Threshold: 2 PX
 - Pyramid Split Type: QuadTree
 - File Type: OSGB
 - Instantiation
 - Texture Sharing
- Cache Extent:**
 - Default Bounds
 - Bounds Datasource: CreateDatasource
 - Bounds Dataset: (empty)
 - Left: 115.499751, Top: 39.500991, Right: 115.500417, Bot...: 39.499397
- LOD Level Settings:**
 - LOD ...: 5

Level Count	Simplify Percent(%)
0	50
1	75
2	100
3	100
4	100

At the bottom, there are checkboxes for 'Auto close when finish' and 'Show Progress Bar', and 'OK' and 'Close' buttons.

Practical Case for BIM and GIS Integration

Shanghai Center BIM Operation Platform





Thank You!

