Integrated Solution for BIM Technology and GIS Platform

SuperMap Software Co., Ltd.
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

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

- Tool run independently
- Insert point coordinates
  Coordinates of the origin of the world coordinate system.

- Output path

- Output type
  - Export four layers of models with different levels of detail
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
Performance Optimization (iDesktop)

• BIM data processing, simplify BIM models
Performance Optimization (iDesktop)

- Generate scene cache

**Batch Build Model Cache**
Practical Case for BIM and GIS Integration
Shanghai Center BIM Operation Platform
Thank You!