intetics

Where software concepts come alive™

Business Domain
Digital Transformation in the Geospatial Sector

Project Type
Building Information Modeling (BIM)

Creating a BIM Model For a Big Shopping Center From a Laser Point Cloud

Client

The Client is a big shopping center that needed a professional developer of BIM models for various purposes ranging from visualizations to engineering systems.

Project

Intetics creates BIM models to enable the completion of engineering calculations, to quickly calculate the redevelopment of premises, place advertising banners and other temporary structures, render visualizations of interior spaces for tenants, manage lighting, and much more.

Objective

The Client required a BIM model of the interior of a big shopping center for the future redevelopment of the premises, advertising, as well as to demonstrate the premises to tenants.

Team Reinforcement

Professional developers of BIM models for various purposes ranging from visualizations to engineering systems.

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Challenge

The Client needed to provide their tenants with visualizations and floor plans for redevelopment. There were not even drawings of the building.

The Client turned to Intetics to create a BIM model of the interior and floor plans of the shopping center

Quick Facts

- ✓ A model of the shopping center was created in less than a week
- ✓ In addition to architecture, the model included the location and models of all light sources
- ✓ The area of the premises that were modeled was about 5000 sq.m.
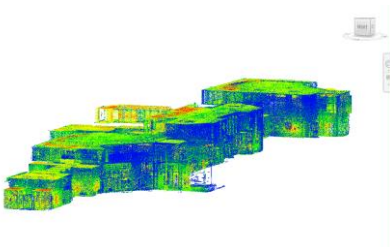
Technologies
BIM-model / Cloud / Laser Scan / Special Camera / Computer Vision
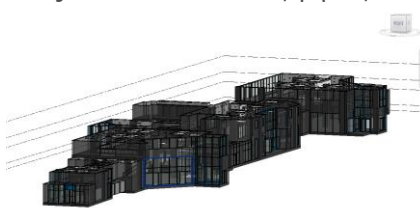
Solution

★ 01

To create a model, a laser scan of the building was carried out to obtain a point cloud. 360 degrees panoramas were also captured using a special camera.
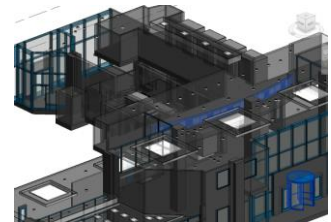

★ 02

Based on the collected data, Intetics' experts created a BIM model of the interior. For faster work with the point cloud, special add-ins were used that allowed semi-automatic recognition of objects such as walls, pipes, etc.
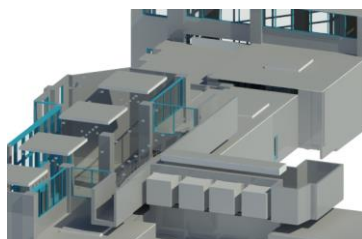

★ 03

The requirement for detailing the model was LOD200, but stainless railings with glass inserts were important for the client, so LOD300 was used for them.
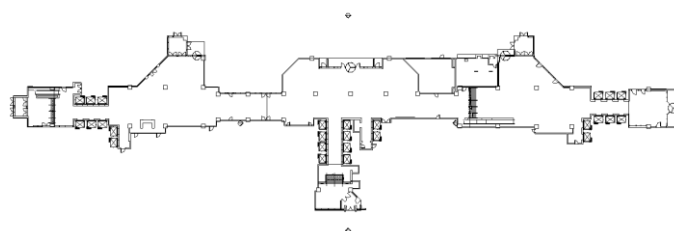

★ 04

Based on the available photographs, the corresponding material textures were applied to the model.

★ 05

After the BIM model was created, the necessary floor plans obtained.

Client Reference

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For us, it was a very pleasant and productive collaboration with Intetics. We plan further cooperation with larger projects.

Owner

Benefits and Results

⭐ The BIM model made it possible to quickly plan the placement of temporary partitions and indoor advertising and demonstrate to tenants their future locations.

⭐ The floor and ceiling plans for this building required by the Client were obtained from Intetics model drawings.

⭐ The Client received in a short time a multifunctional BIM-model, which not only made it possible to solve current problems but could also be used and further developed for other purposes.

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Techstack:

BIM-model, Cloud, Laser Scan, 360-Camera, Computer Vision

Team: 1

1 Revit Engineer