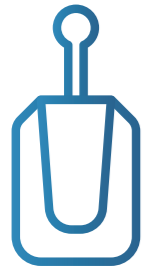BOSCH

GrowInSite

Bosch Digitalized Building Space Solution

Product Introduction

GrowInSite, Bosch innovatively developed digitalized building space solution,

consists of data capturing backpack and SaaS service platform

The backpack is equipped with 360 ° panoramic camera and lidar
It can quickly and accurately collect all-dimensional information of building sites

Users can inspect site remotely via SaaS platform, No matter when and where they are
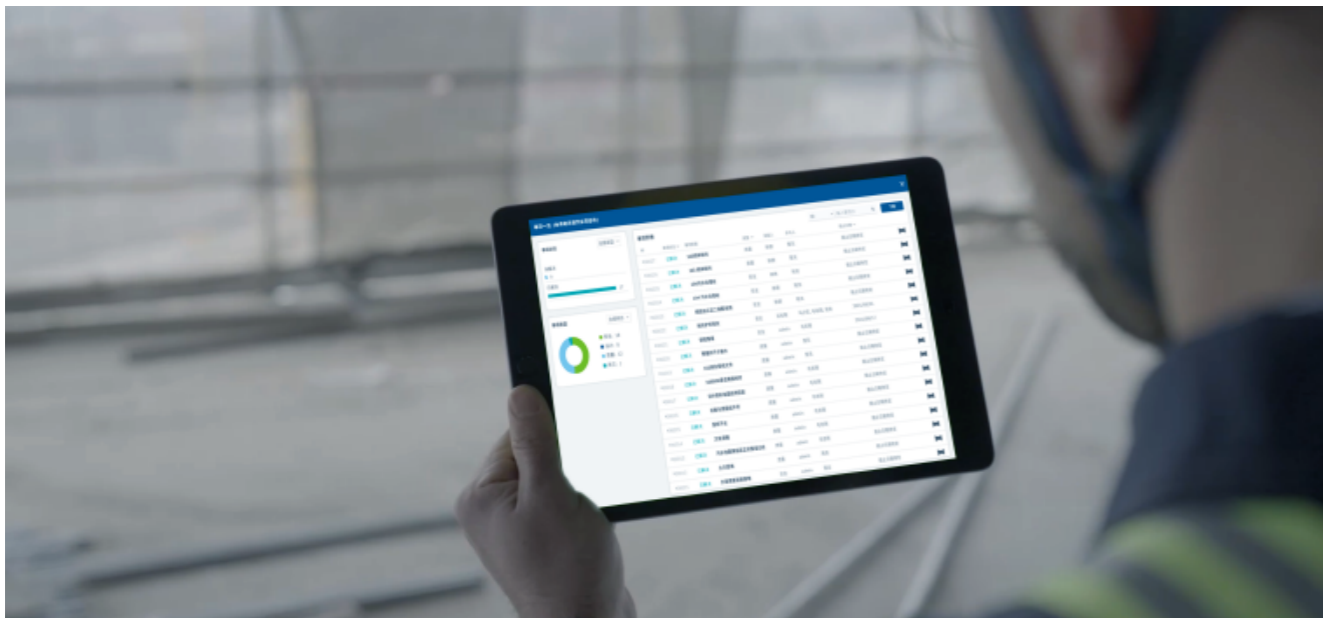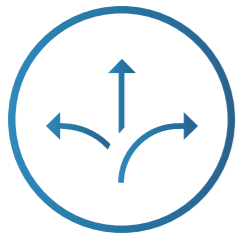
Capturing & Processing

Data sheet

360°

360 ° panoramic camera and lidar to collect building spatial information all around

3h
40000m²

Work with wide coverage and high speed. Capturing in the construction site of 40000m 2 can be finished in 3 hours

Flexible capturing process without a fixed path or area

Ergonomic design for comfortable operation experience

Data processing engine with high speed

- Quick data processing enables frequent scanning requests on construction site

- Intelligent combination of 360° images, point cloud and building designs

- Cutting-edge SLAM algorithm to quickly establish large-scale building point cloud map with centimeter level accuracy

- Intelligent registration process between captured data and building design model

- Automated picture stitching algorithm to reflect on-site scenes
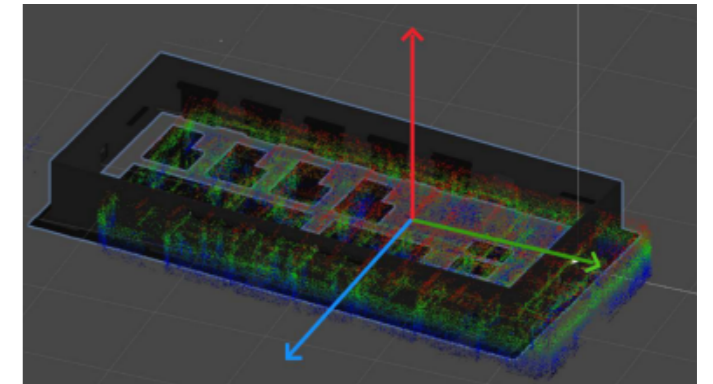
SaaS Service Platform

Access to on-site information with high accuracy remote inspection and collaboration with team at SaaS platform

Users can inspect site remotely via SaaS platform, No matter when and where they are

Remote inspection

- Make scanning plans
- Off-site inspection
- Digitalized construction site
- Track construction process and review history data

Lite rendering technology in SaaS, processing large-scale building models and point cloud map in very short time, enables quick response for users ▶

Project management

- Compare real-site construction with design data, detect construction deviations in early stage
- Point cloud floor map with centimeter level accuracy enables effective deviation check on constructed building elements against design
- Version management of 360° images, building design models and issue tickets enables to review history data
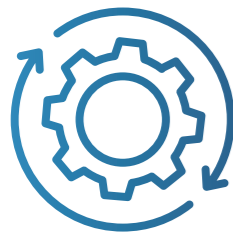
Team collaboration

- Track project milestone information
- Intelligent issue ticket management, synchronized management of 360° images and design models
- Track and analyze on-site issues with efficient team collaboration
- Application in Web and smart phone helps problem solving in time
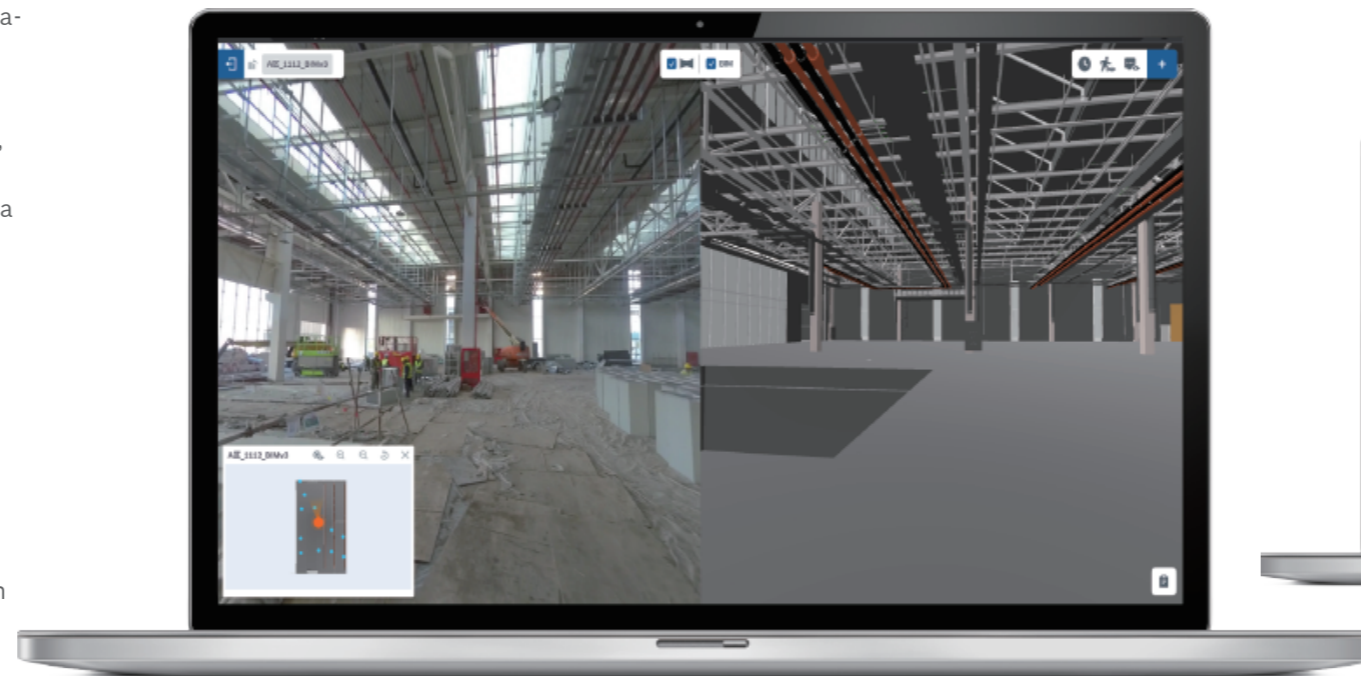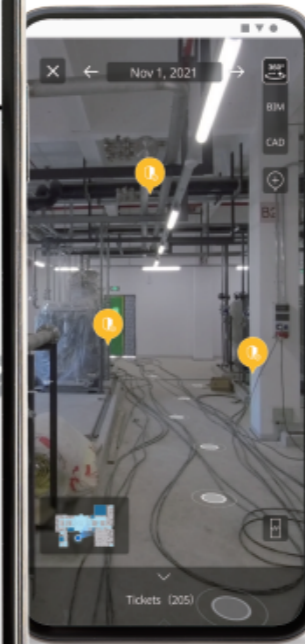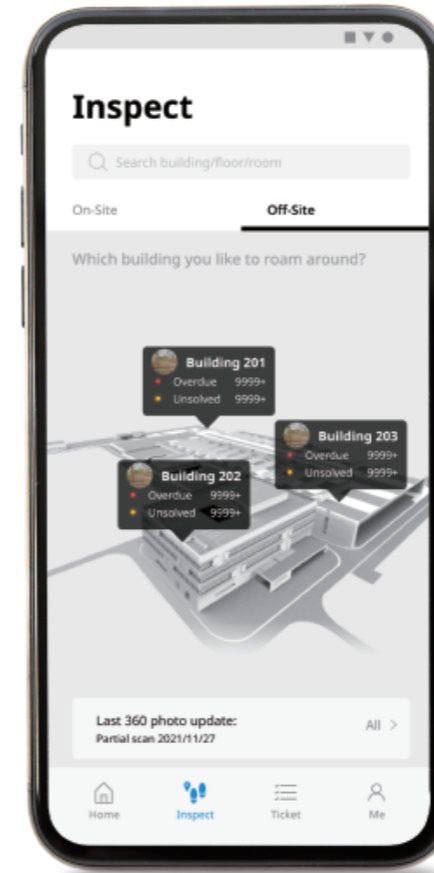
Customer Benefit

Planning: coordination of new planning

With the help of the point cloud, new planning such as new equipment, but also the planned south extension can be planned precisely and realistically.

Realization: construction progress documentation

With regular scans at defined intervals, the construction progress can be documented. Changes in the past are recorded and made transparent. Indoor navigation can support site supervision and construction management.

Documentation: as-built recording

The 3D point clouds form the basis for the creation of the contractors' As Built or measurement model. In the factory environment with high complexity, this basis is indispensable for the 3D component of the digital twin.

Operation: briefings, meeting tool

The 3D panoramic images can be used for operations. One example is the instruction for security of the site. The constant availability of the entire site as a visualization supports meetings and increases efficiency.