Meta Mobility Technology

Maximizes the convenience of mobility users
by utilizing spatial information technology

Major Business Areas of Geosoft

3D Camera

- Enables the perception of depth in images to replicate three dimensions as experienced through human binocular vision.

3D LiDAR SLAM

- 3D LiDAR SLAM provides an effective solution for indoor mapping and navigation.
- Creates 3D voxel map and 2D projection map using machine learning algorithm from 3D point cloud obtained by LiDAR scanner.

IPS (Indoor Positioning System)

- Providing guidance information for 'Indoor' through a movement path by the location of User or Moving object.
- Major Customer : Providing maps and services to large hospitals, shopping malls, Metaverse, etc.

FMS (Fleet Management System)

- Providing various services according to customer's request, such as identifying vehicle location, inquiry of driving route, and management of driving log.
- Major Customer : A company that wants to manage various type of transportation such as rental cars, railroads, cargo, and military vehicles in real time.

Geosoft

Spatial Information

- Navigation (Route Engine)
- Realtime Map Matching & Location Determination Technology
- Indoor & high-precision GPS
- Indoor and outdoor integrated map production technology

Mobility

- Sensor (Radar, LiDAR etc)
- AI (Object Detection) Technology
- Fleet Management System
- Mobility as a Service (MaaS)
- HCI(HVI) Technology

Digital Twin

- 3D Modeling Technology by LiDAR
- AR/XR Technology
- IoT Technology
- AI (Surface Detection) Technology

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3D Camera

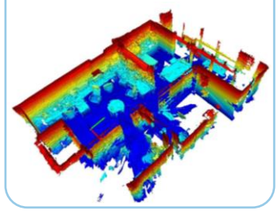
3D 360° Depth Camera

GEOSOFT 3D Camera

- 3D Reconstruction
- Computer Vision
- Advanced Image Processing
- Image Stitching
- 3D Cloud Points Alignment
- Scene Depth Merge

Cloud Points Alignment & Scene Depth Merge

Scene Depth Merge



360° Panorama View

3D Cloud Points Alignment

3D LiDAR SLAM

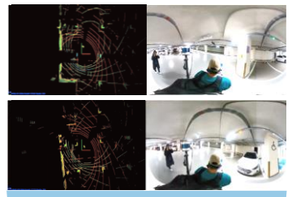
3D LiDAR SLAM Scanner

3D LiDAR SLAM For Indoor Mapping

3D Scanning

Scanning with 3D LiDAR

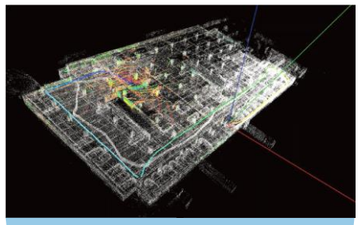
3D Map Building



LiDAR Odometry

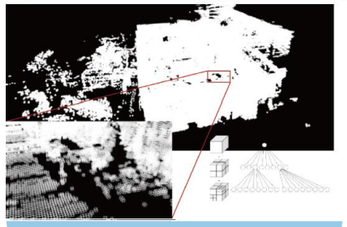
Mapping Algorithm

Point Cloud Data

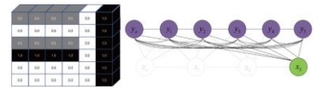


3D SLAM Core

Machine Learning Algorithm



3D Voxel Map



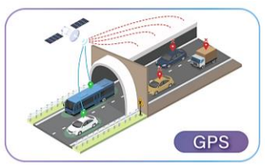
Multi-modal Algorithm

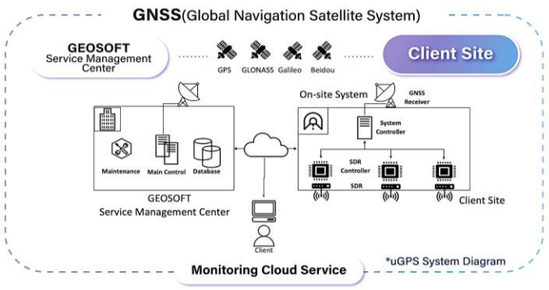
IPS

Indoor Positioning System - uGPS(Indoor GNSS)

GEOSOFT IPS Solutions

- Don't need open-sky environment to acquire satellite signals for GPS/GNSS.
- We are generating, simulating and transmitting GNSS signals in GNSS-disabled environment such as tunnels & Indoor Parking Lot.



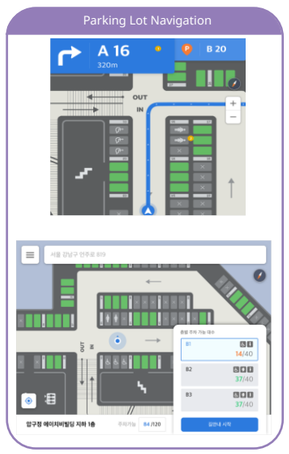


Inside Tunnel

SDR Controller

uGPS Antenna

Parking Lot Navigation



FMS

FMS (Fleet Management System)

GEOSOFT VEHICLE TRACKING SYSTEM

A system for checking the current and past location and state of a vehicle in real time on a PC/smartphone through a communication module mounted on the vehicle.

1. Efficient integrated vehicle tracking system.

- An efficient vehicle management system that can monitor the location, condition, and status of the vehicle in real time and clearly manage the driving status by making data.

2. Driving route and history analysis.

- In order to increase the operation efficiency, the operation status of each department/vehicle/driver is integrally managed by analyzing the operation route and operation history.

3. Vehicle driving log.

- Identify the current situation of all vehicles at a glance by conveniently searching and providing necessary vehicle driving log data

4. Safe driving management.

- Economic driving and safe driving of vehicles are managed and induced to prevent accidents and at the same time realize economic driving.