

Supporting Reverse Engineering

3D laser survey for indoor, underground facilities, dense forest area and under elevated structures



NIPPON INSIEK

Real-time/handheld scanning surveys

GNSS Free / Enable high precision surveys even for indoors/underground

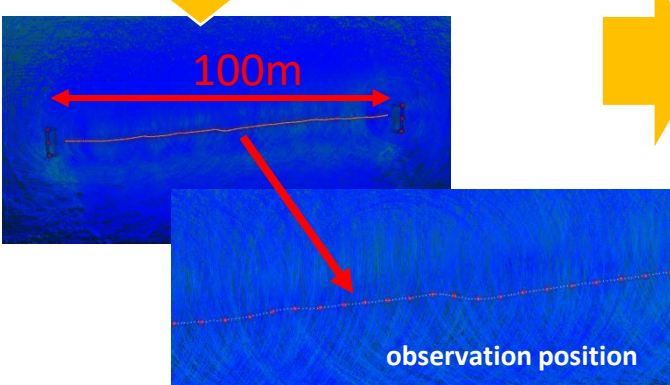
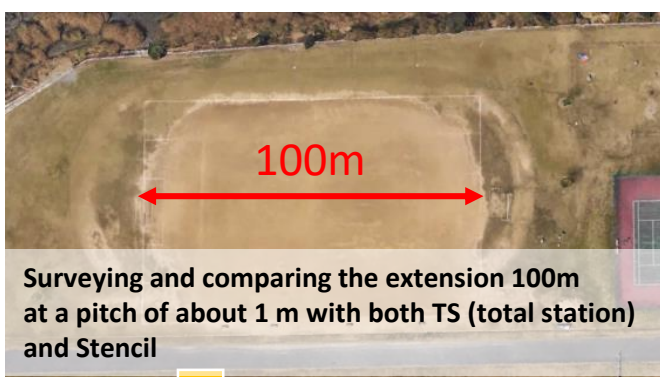
Real-time / Acquire seamless point clouds while moving around

Simple / Not to disturb the operation since it is a small device

Real-time handheld scanning surveys are a "mobile 3D laser scanning technology" that acquires highly accurate point cloud data without using GNSS.

High-precision point cloud data can be acquired instantaneously with the simple use of a small device, so you can obtain 3D terrain data quickly in indoors as well as during an emergency.

Accuracy Verification



Accuracy verification was carried out on the ground using few focus points for which it is usually difficult to secure accuracy with a handheld scanner.

Compare to TS

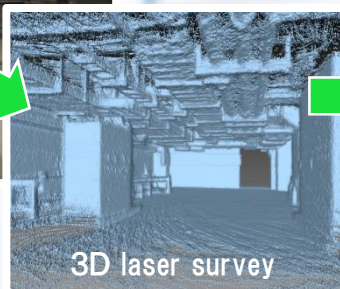
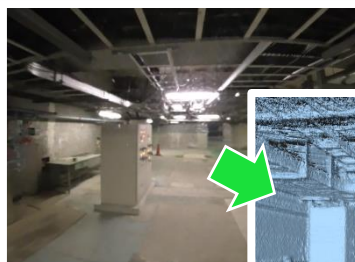
X	Y	Error with TS
6.288	25.273	0.01
7.034	26.857	0.002
7.802	28.415	0.012
8.619	29.699	0.018
10.315	32.637	0

48.541	101.485	0.013
49.282	102.922	0.021
49.501	104.034	0.008
	104.335	0.029
	Max. value	0.046
	Avg. value	0.017
	Standard deviation	0.013

Less than 5cm !

Reverse Engineering

It is possible to create a drawing in cases where the changes caused by remodeling after construction is not reflected in the drawing. It also can check the design of new facilities and interference when bringing objects into a facility.



Investigation before bringing the facilities in

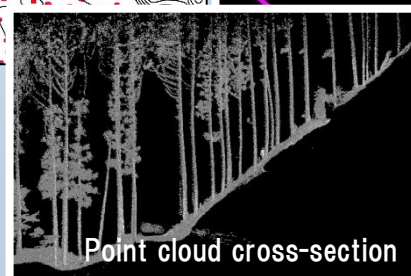
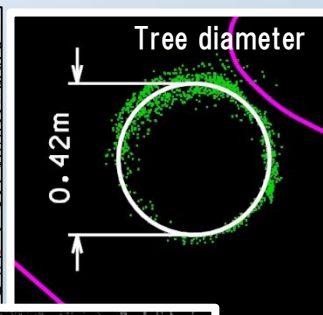
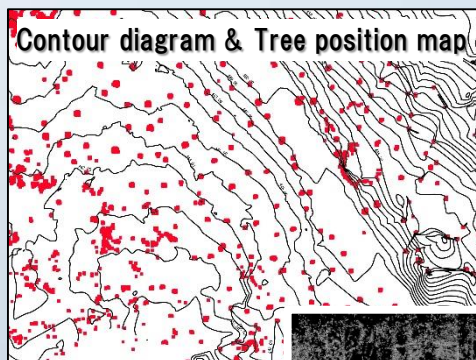
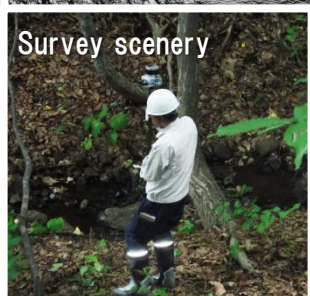


Checking pipeline interference



Topographic Survey/Tree Survey

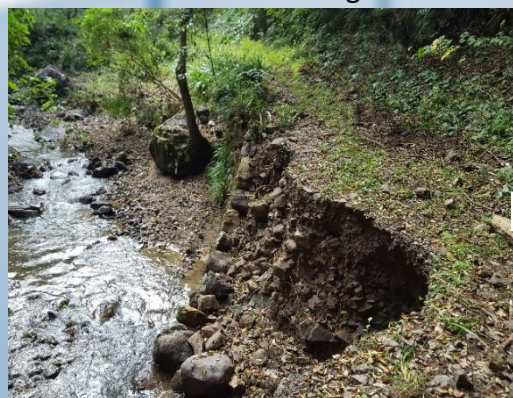
It is possible to efficiently survey the topography even in a dense forest area where it is difficult to acquire GNSS. It also can **draw contour lines** and measure **tree position and diameter** based on the ground data from the laser point cloud.



Disaster Recovery Design Support

Speedy-survey topography during disasters and to obtain basic data for design

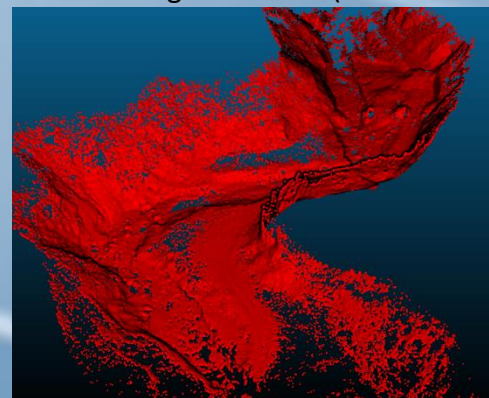
On-site image



Handheld scanning data



Extraction of ground data (whole view)



NIPPON INSIEK

Please take notice that effective April 1, 2019, ASCO-DAITO CO., LTD. will be changing its name to NIPPON INSIEK CO., LTD.

■ Osaka Head Office: Ito Bldg. 3-6-14 Minamihommachi, Chuo-ku, Osaka 541-0054 Japan TEL +81-6-6282-0325 / FAX +81-6-6282-0326
■ Tokyo Head Office: Sumitomoseimei Nihonbashitomizawacho Bldg. 9-19 Nihonbashitomizawacho, Chuo-ku, Tokyo 103-0006 Japan
TEL +81-3-5641-2181 / FAX +81-3-5641-2187



<http://www.as-dai.co.jp>