

# Opening the Door to the Next Generation Digital Twin



## Smart Construction Edge

Survey

Plan

Construction

Inspection



### New Smart Construction Edge2 Features

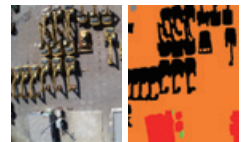
#### SfM(Point Cloud Processing) Functionality

3D conversion of photos taken by drones are done with overwhelming speed. 2-ha site can be processed with high accuracy in just 150 seconds.



#### High Precision & Automatic Removal of Unnecessary Objects

AI is used to automatically remove unnecessary materials such as machines and buildings at the site with high accuracy. It can greatly eliminate excess modification work using 3D CAD etc.



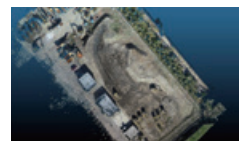
#### Generation of Vivid Orthographic Imagery

High-precision orthographic images can be used to generate a bird's-eye view of the entire site. It can be used as a tool to visualize machine, labor and materials.



#### A tool for pre-construction/completion survey

When combined with a drone equipped with high-precision GNSS, it can also be used for Pre-construction/completion survey.



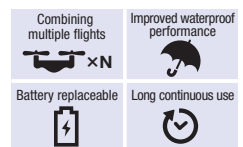
#### RTK base station function

It is able to be used as an RTK base station during ICT construction, while being used as a SfM processing or drone base.



#### Concept to optimize site

Even if you fly over a large area multiple times, data can be integrated into a single file. In addition, using outdoors is possible thanks to dustproof/waterproof spec.



# Smart Construction Edge2 Benefits

Smart Construction Edge2 is the first device used to create digital twins in the site for surveying existing topography and making 3D topographic data using drones.

## Integration with Smart Construction suite



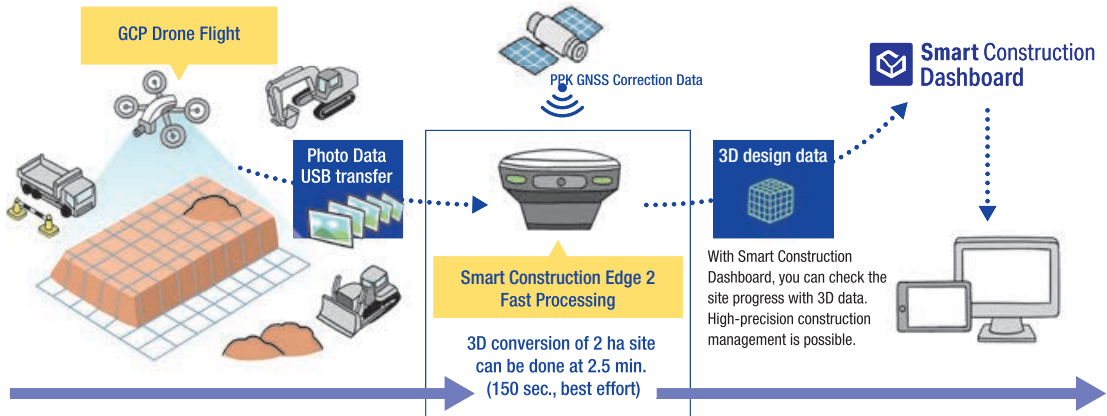
### Smart Construction Edge

The drone can be used to track the status of the site as often as desired, and progress (volume, percentage of progress, location of construction) can be shared in a timely manner with data.

Conventional method

Visual check or subcontract to survey companies  
**Confirm Volume Excess/Deficit**

Site Inspection ⇒ Work Coordination ⇒ Production Volume Table, etc.  
**Progress Tracking**

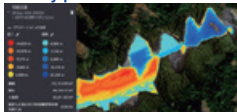


View drone-based site status on Smart Construction Dashboard

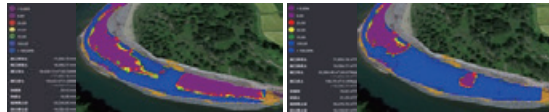


### Smart Construction Dashboard

Confirm Volume Excess/Deficit at early phase



Accurate, quantified progress can be seen on a weekly or monthly basis



Progress Management (Latest Topography and Heat Map, Cut/Fill total volume/remaining, Progress Rate, etc.)

日付	計	計	進捗率
28 Dec, 2020	460	21,252	46%
29 Dec, 2020	1,327	21,712	48%
30 Dec, 2020	1,620	22,029	49%
31 Dec, 2020	1,964	24,474	57%
1 Jan, 2021	315	24,437	57%
2 Jan, 2021	1,374	24,702	58%

Track Progress with Progress Management Table

Terms of Use

Device



※Requires Google Chrome

Registration



Smart Construction Account

Contract



Smart Construction Edge License

Data

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Others



•Drones  
Customer owned drones also possible to use. Please contact our sales representative for the recommended model. Renting from the DX-Gateway site is also possible.

For questions about our products, services, and their introduction, please contact us.

Smart Construction Support  
<https://support.smartconstruction.com>



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