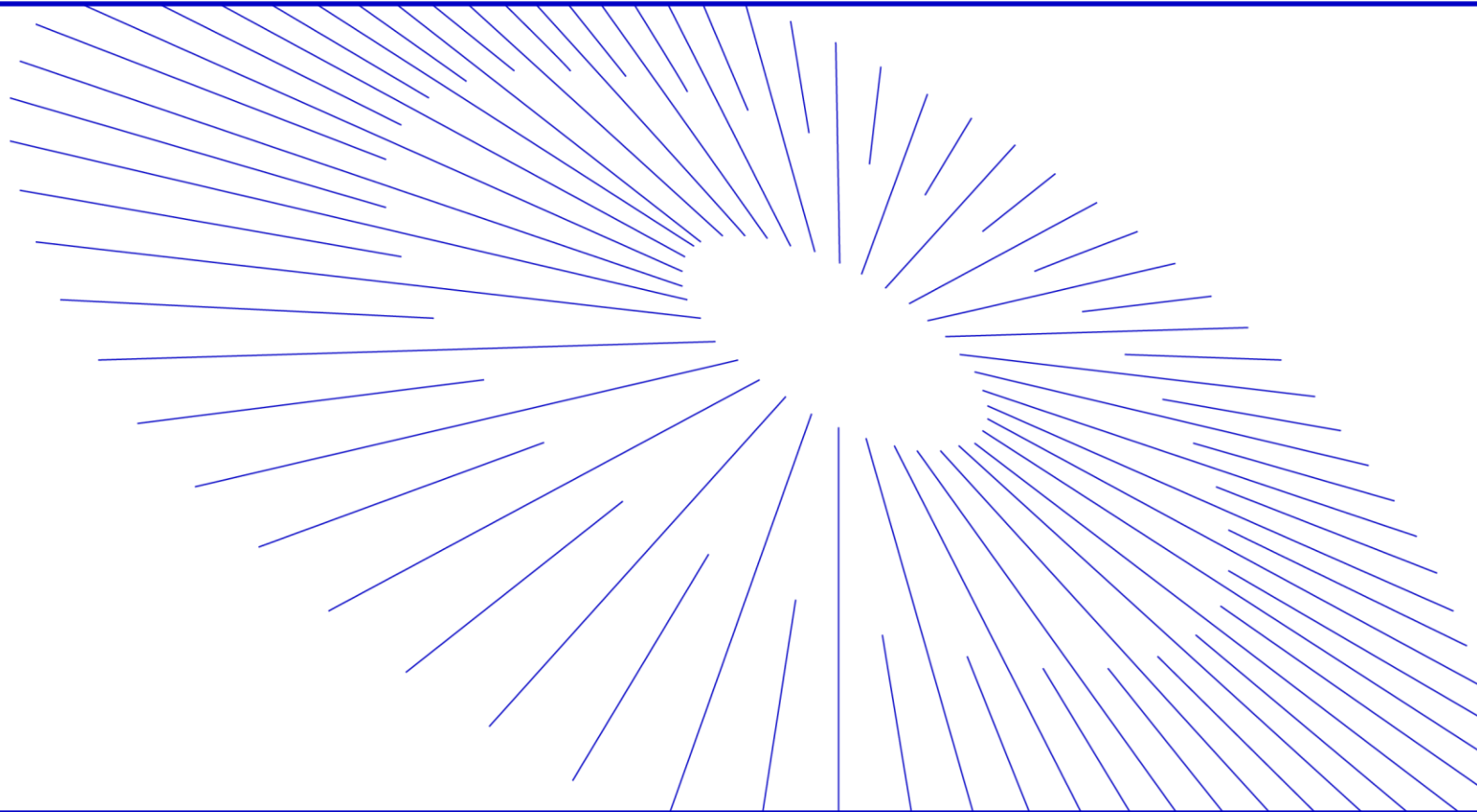


Edge2 V8/V9 Release Note

2025/03/12



EARTHBRAIN

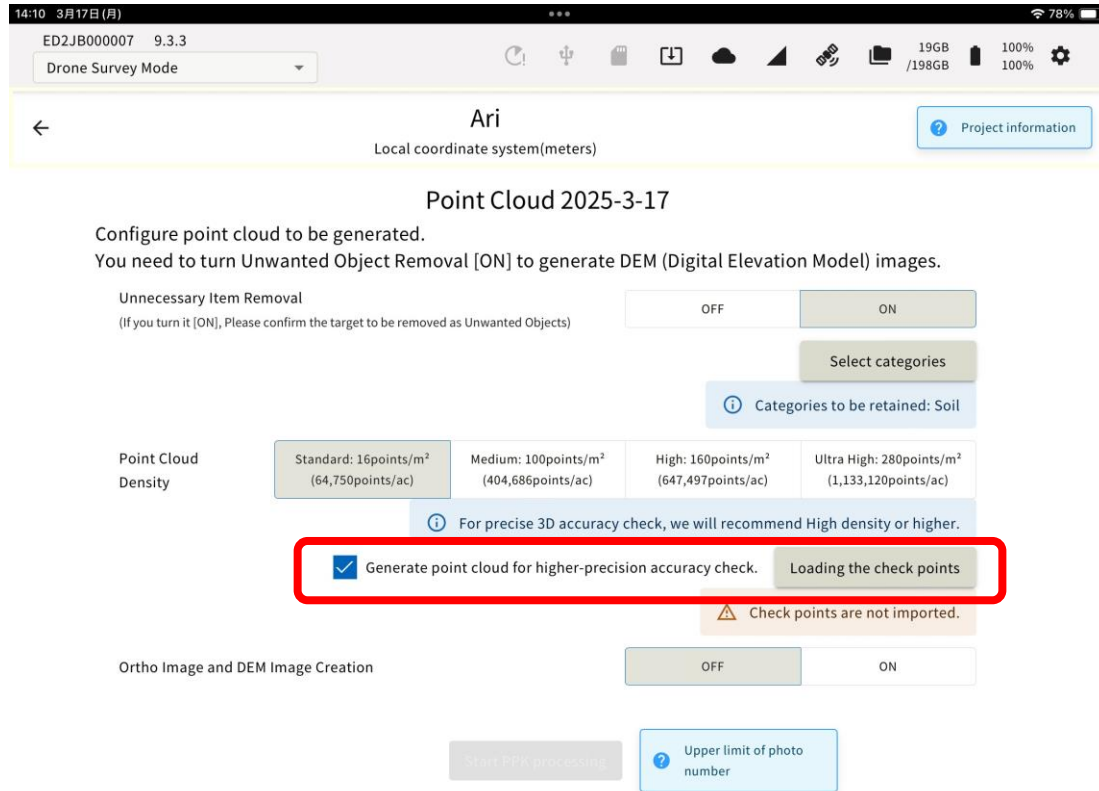
Application	Development items	Contents/Use case	UI Image
New feature /Performance Improvement	Increased point cloud density around the Check Point	When verifying horizontal and vertical accuracy, the density of the point cloud around the Check Point has been increased to make it easier to determine the center and to more accurately check XYZ errors.	P 4
	Display of storage capacity used by each project	Storage capacity used by each project is now displayed.	P5
	Show only relevant geoid codes	When entering an EPSG code, after entering the horizontal direction, only the related EPSG is displayed when selecting the vertical direction.	P 6
	IMEI number display	IMEI number is now displayed in the settings menu.	P7
	New UI for unnecessary object removal	Changed the UI for unnecessary object removal to make it easier to determine	P 8
	Add EPSG	Add New Zealand EPSG	なし

Application	Development items	Contents/Use case	UI Image
New feature /Performance Improvement	SFM processing for GCP only (only some Drone are supported)	This is a preliminary functional update based on future updates, and will enable GCP-only SFM processing for P4RTK, M3E, and M300. We have confirmed the accuracy, but if there is no particular need for GCP-only processing, we recommend normal PPK/RTK or +GCP processing for the models listed above at this time.	P 9
	GCP accuracy check function	If GCPs are used for SFM processing, the center accuracy of the selected GCPs can be checked after processing	P 1 0
	Vertical offset notation change	The specifications have been changed to display the accuracy results after vertical offset.	P 1 1
	Added flow control and transmission interval when streaming from external radio	Flow control ON/OFF and transmission interval items have been added to suit the digital radio used.	p 1 2
	WIFI dongle supported	From version 9 onwards, all internet communication functions can be used with a WiFi dongle without a SIM card.	p 13-14
	V9 upload procedure	OTA is no longer an automatic download, but rather a notification to the user that an update is available and the download begins upon user action.	p 1 5



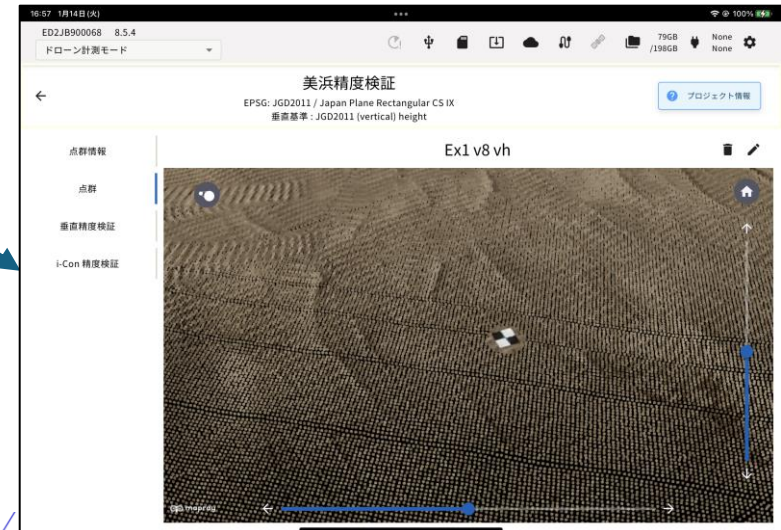
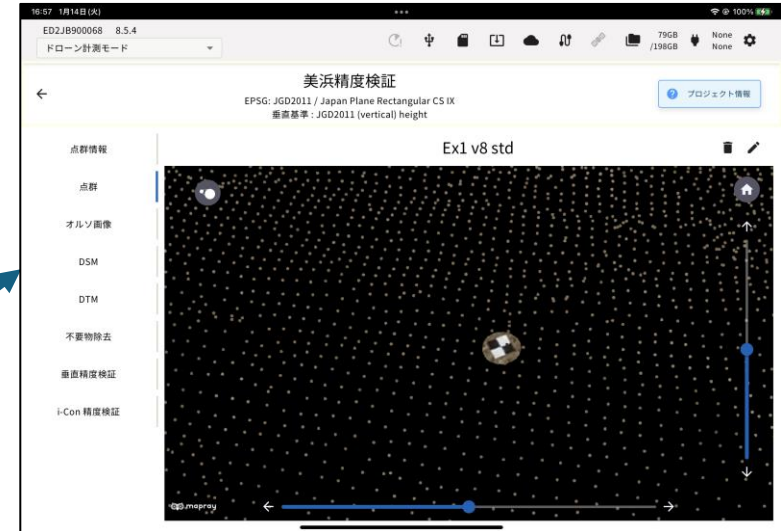
When verifying horizontal and vertical accuracy, the density of the point cloud around the Check Point has been increased to make it easier to determine the center and to more accurately check XYZ errors.

Check “Generate point cloud for higher-precision accuracy check” before generating point cloud. Increases the point cloud density in the vicinity of the Check Points by loading them in advance. If not checked, the same point cloud is generated as before.

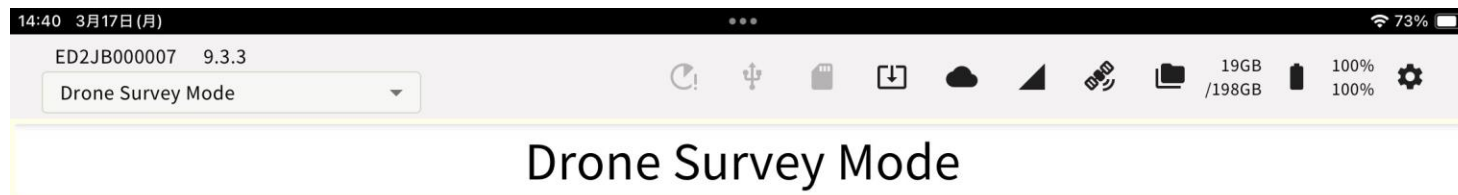


Standard density

Ultra High density



Storage capacity used by each project is now displayed.



Create a project.

Generate a new project by connecting to SMART CONSTRUCTION Dashboard.

Generate a new project on SMART CONSTRUCTION Dashboard.

Import a project from SMART CONSTRUCTION Dashboard.

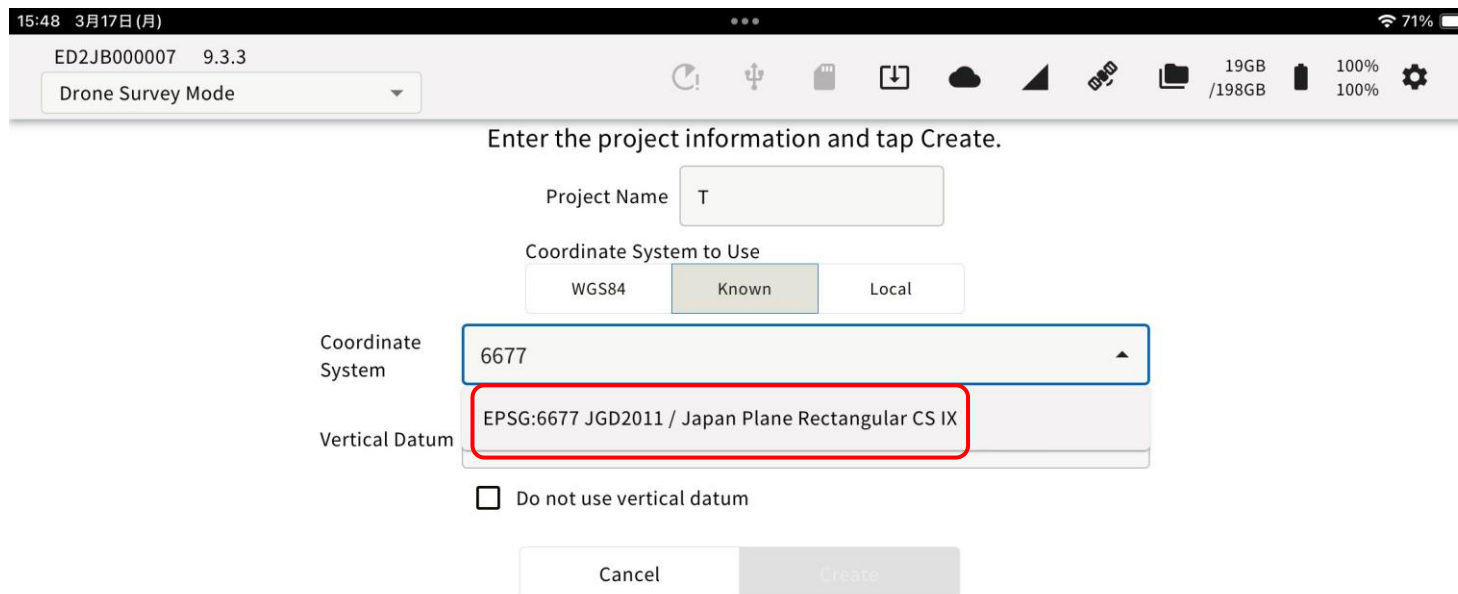
Generate a new project without connecting to SMART CONSTRUCTION Dashboard.

Generate a new project in SMART CONSTRUCTION Edge.

Select a project.

Unno	8.9GB		
Mihama demo	1.3GB		
Miha	4.3GB		
グループZ 美浜テスト現場 	3.7GB		
TEST Daigo	0B		
Miura	58.9GB		
Tesm350	34.7GB		
マゲ	1.5GB		

When entering an EPSG code, after entering the horizontal direction, only the related EPSG is displayed when selecting the vertical direction.



15:48 3月17日(月) 71%

ED2JB000007 9.3.3
Drone Survey Mode

Enter the project information and tap Create.

Project Name T

Coordinate System to Use
WGS84 Known Local

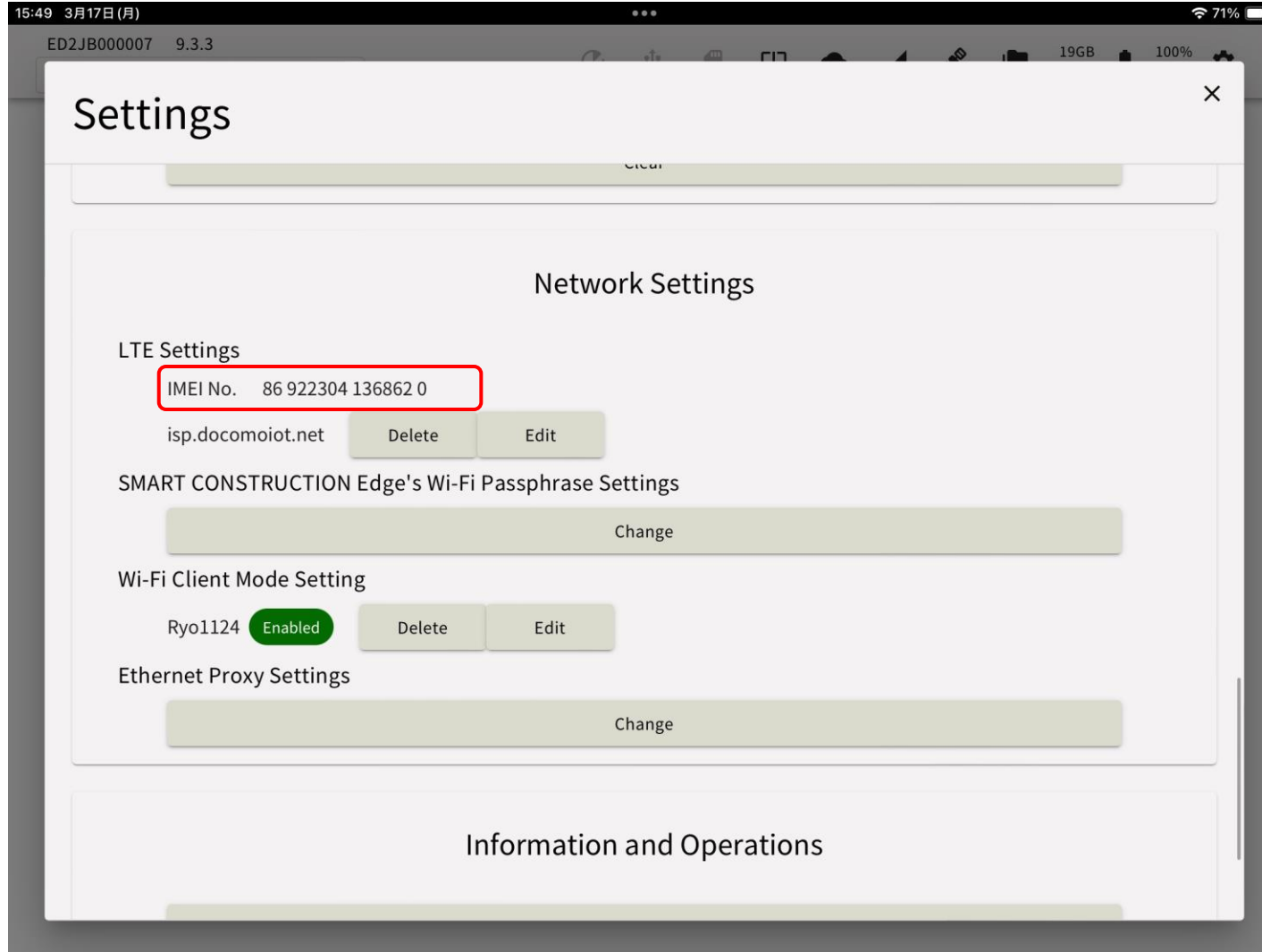
Coordinate System 6677

Vertical Datum **EPSG:6677 JGD2011 / Japan Plane Rectangular CS IX**

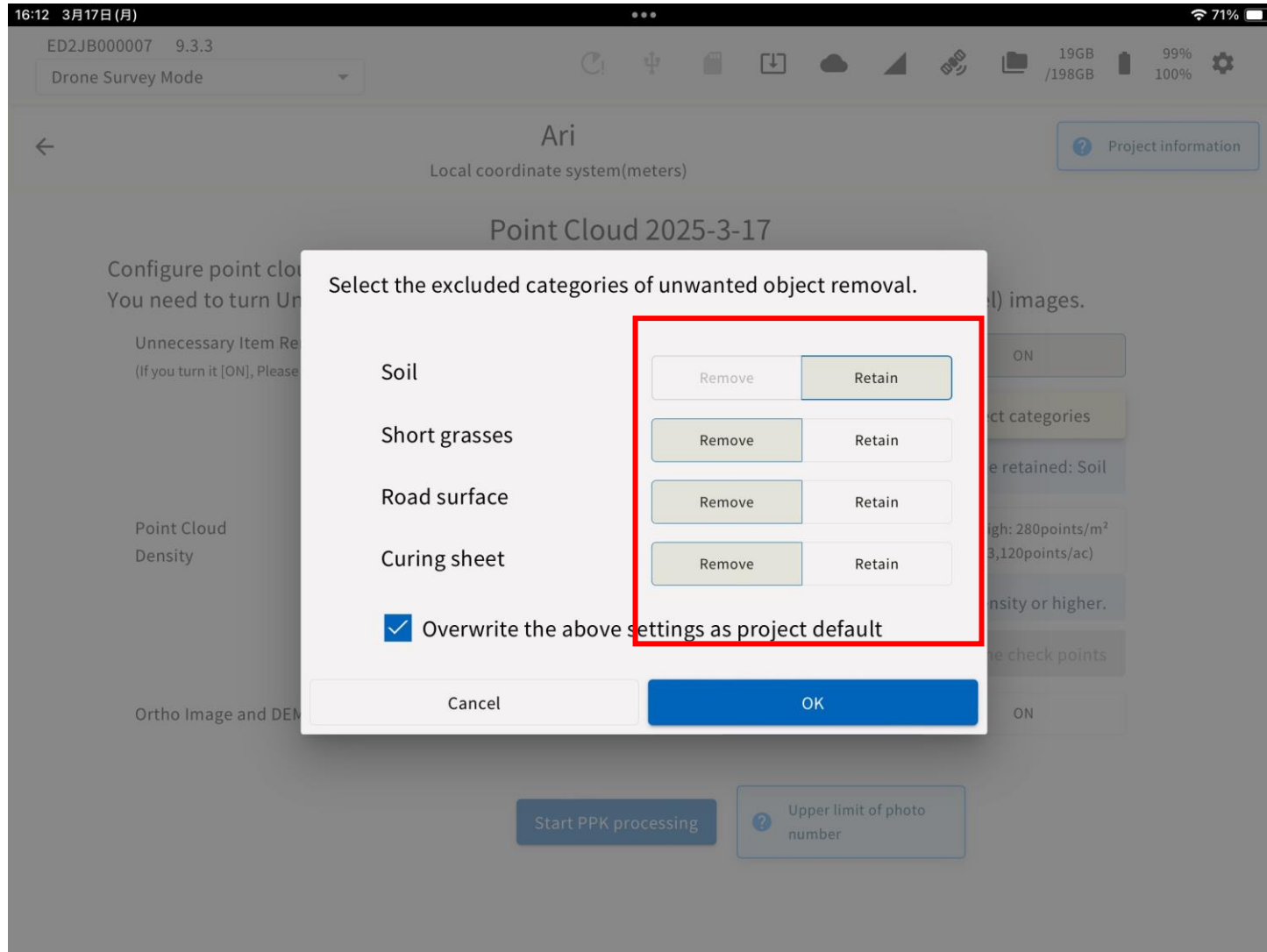
Do not use vertical datum

Cancel Create

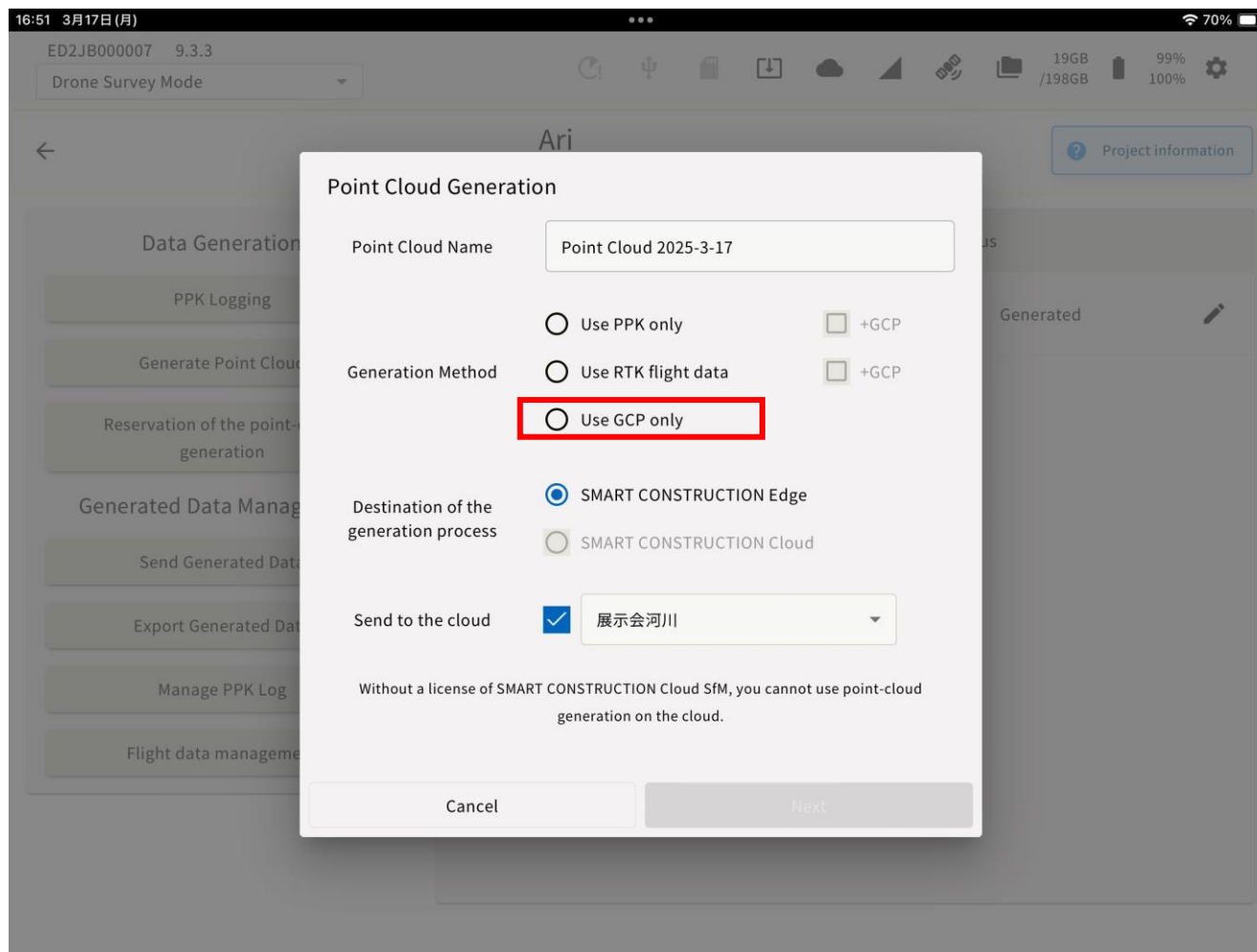
IMEI number is now displayed in the settings menu.



Changed the UI for unnecessary object removal to make it easier to determine

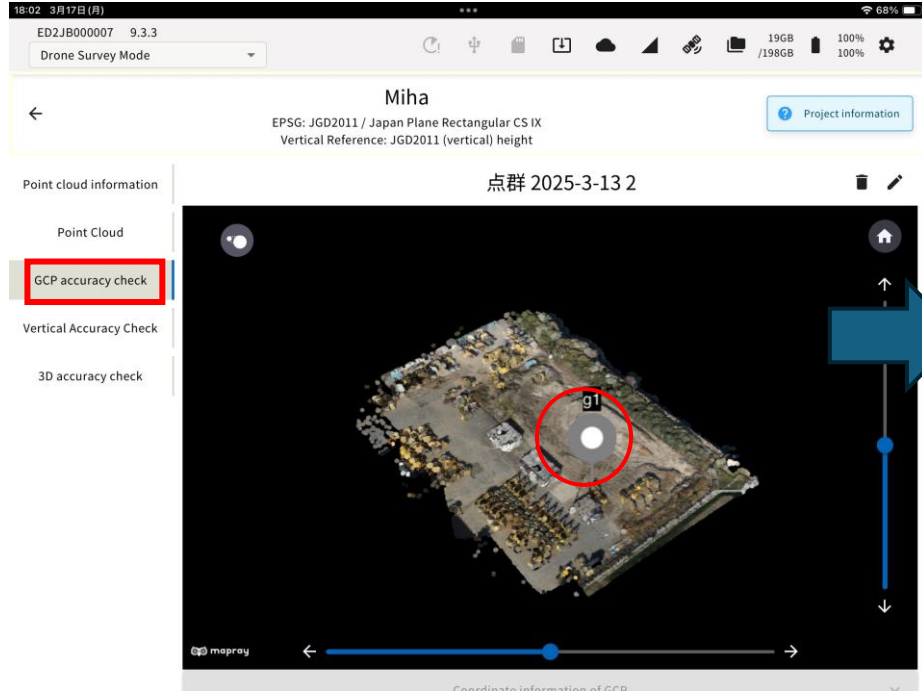


This is a preliminary functional update based on future updates and will enable GCP-only SFM processing for P4RTK, M3E, and M300. We have confirmed the accuracy, but if there is no particular need for GCP-only processing, we recommend normal PPK/RTK or +GCP processing for the models listed above at this time.

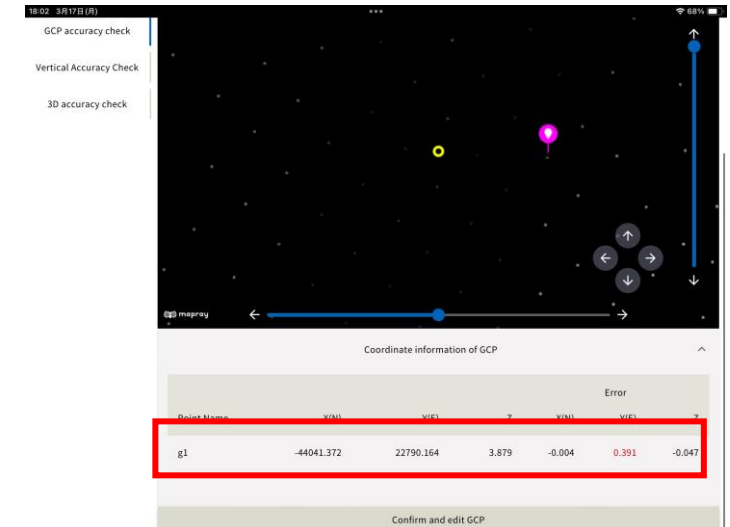
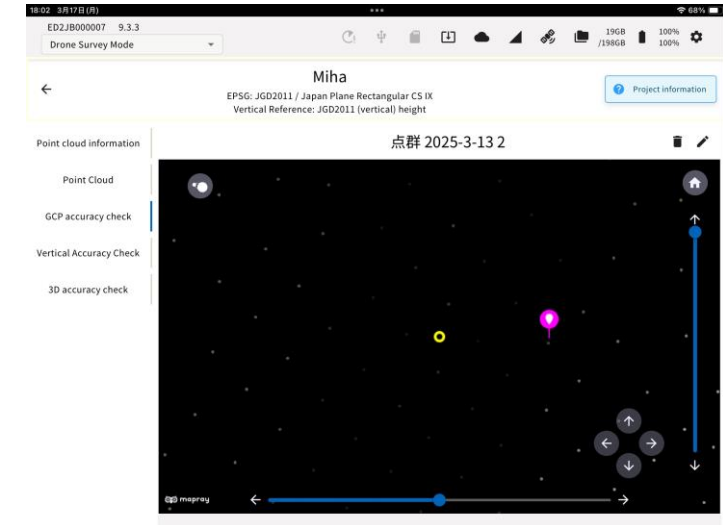


If GCPs are used for SFM processing, the center accuracy of the selected GCPs can be checked after processing

When GCP is used for processing
A GCP accuracy check item has been added after processing
Selecting GCP on the screen will transition the screen



Select a point that you think is the center of the GCP and scroll down the screen to display the residual between the GCP center and the coordinates.



The specifications have been changed to display the accuracy results after vertical offset.

19:13 3月17日(月) EPSG: JGD2011 / Japan Plane Rectangular CS IX Vertical Reference: JGD2011 (vertical) height

点群 2025-3-13 2

Vertical Accuracy Check Result

Validation Results Check point in red letters is out of range of point cloud and not used by vertical accuracy check. Characters will be displayed in red, if the error was out of +/- 5cm.

The Vertical Difference							
Point Name	X(N)	Y(E)	Z	Average	Highest	Lowest	Extraction Points
EdgeBox	-44007.259	22791.681	7.450	0.034	0.036	0.032	±0

Redo Validation

Copy the check result to a recording media Upload the validation result to the cloud

Average of valid vertical difference for all Check Point: 0.034
Offset (meters): 0.000

OFF ON

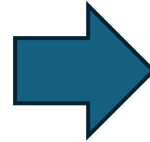
Edit the offset value

Vertical offset with the average of Vertical Differences

Vertical offset by any value

0

Reflect the offset value



19:13 3月17日(月) Vertical Reference: JGD2011 (vertical) height

点群 2025-3-13 2

Vertical Accuracy Check Result

Validation Results Check point in red letters is out of range of point cloud and not used by vertical accuracy check. Characters will be displayed in red, if the error was out of +/- 5cm.

The Vertical Difference							
Point Name	X(N)	Y(E)	Z	Average	Highest	Lowest	Extraction Points
EdgeBox	-44007.259	22791.681	7.450	0.134	0.136	0.132	±0

Redo Validation

Copy the check result to a recording media Upload the validation result to the cloud

Average of valid vertical difference for all Check Point: 0.034
Offset (meters): 0.100

OFF ON

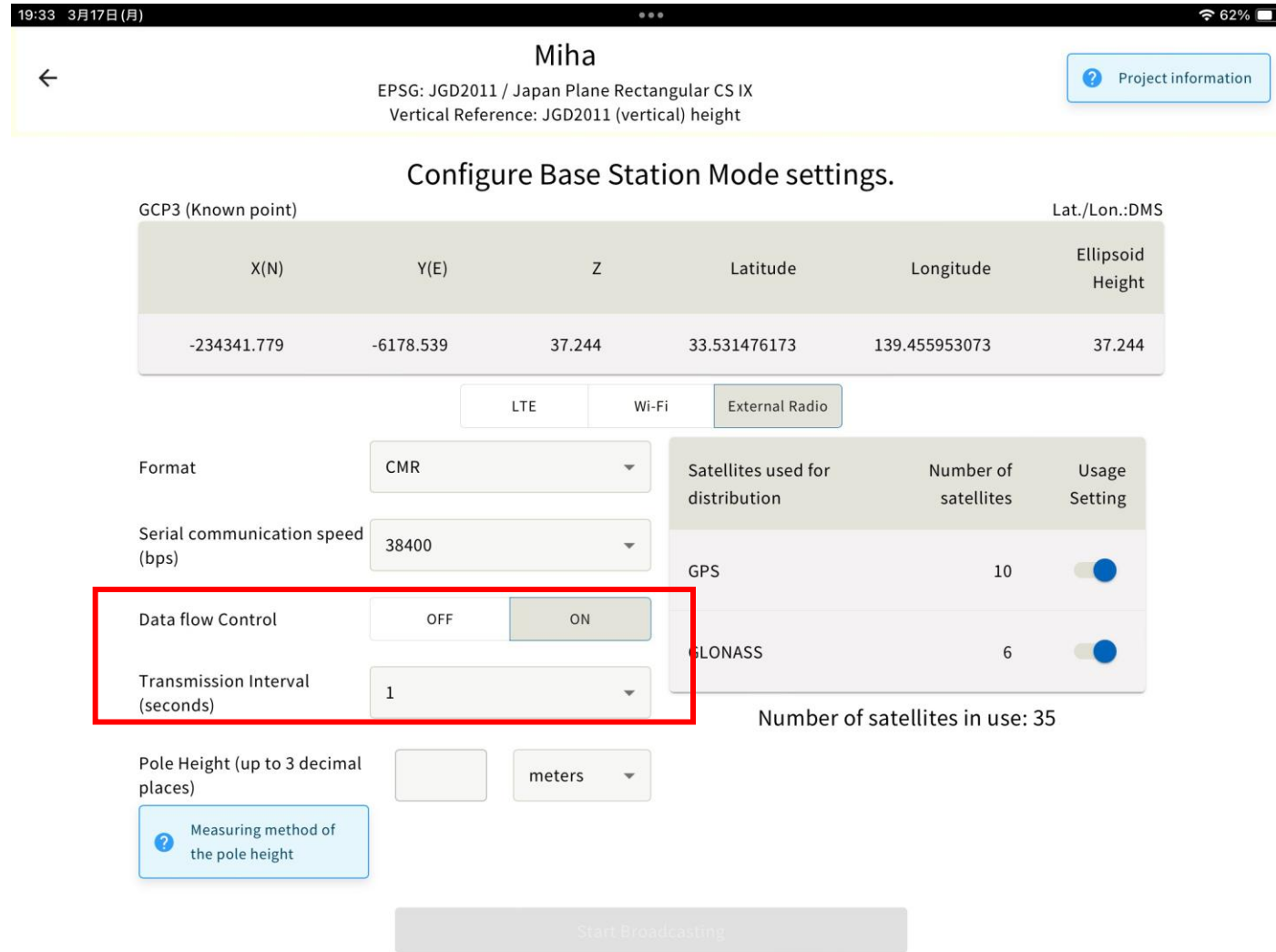
Edit the offset value

Vertical offset with the average of Vertical Differences

Vertical offset by any value

0.1

Flow control ON/OFF and transmission interval items have been added to suit the digital radio used.



19:33 3月17日(月) 62%

Miha Project information

EPSG: JGD2011 / Japan Plane Rectangular CS IX
Vertical Reference: JGD2011 (vertical) height

Configure Base Station Mode settings.

GCP3 (Known point) Lat./Lon.:DMS

X(N)	Y(E)	Z	Latitude	Longitude	Ellipsoid Height
-234341.779	-6178.539	37.244	33.531476173	139.455953073	37.244

LTE
 Wi-Fi
 External Radio

Format:
 Serial communication speed (bps):

Satellites used for distribution	Number of satellites	Usage Setting
GPS	10	<input checked="" type="checkbox"/>
GLONASS	6	<input checked="" type="checkbox"/>

Number of satellites in use: 35

Data flow Control: OFF ON

Transmission Interval (seconds):

Pole Height (up to 3 decimal places): meters

Measuring method of the pole height

Step1.

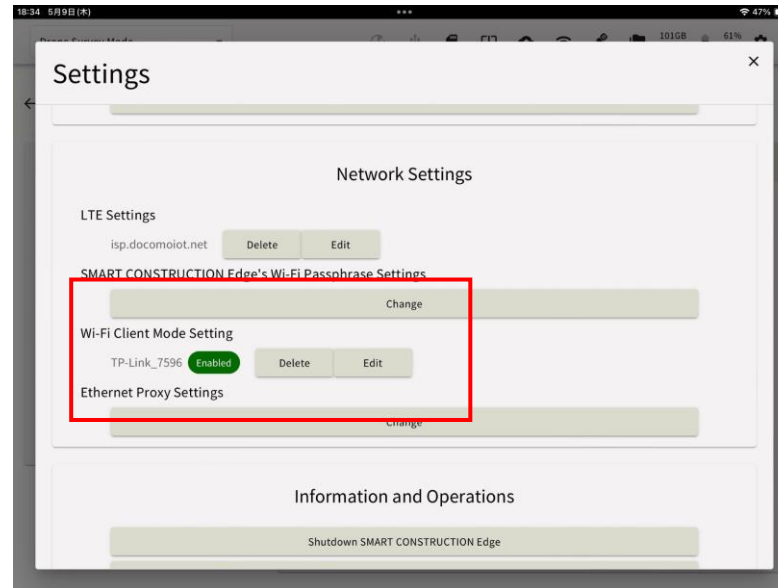
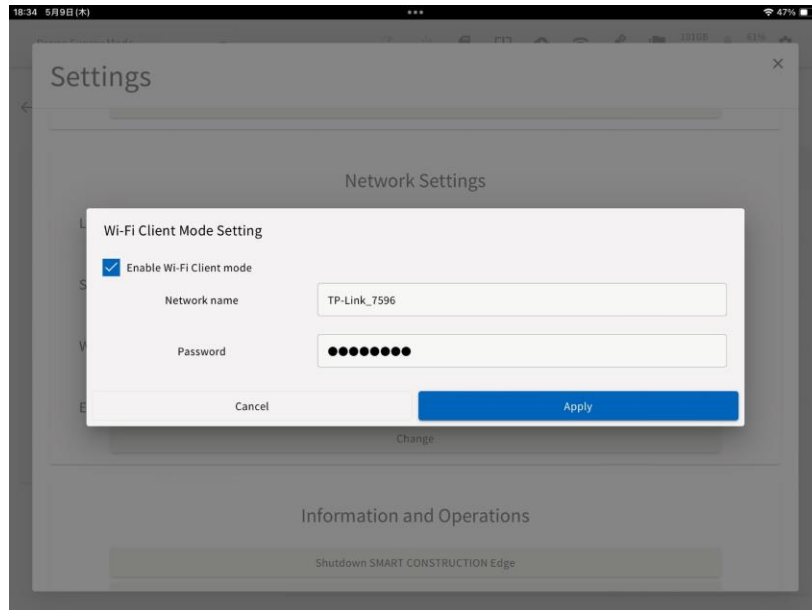
. Tap the Add WI-FI Client Mode Settings icon in the Edge2 Settings menu and enter the SSID and password.

Step2.

. Confirm that the settings have been enable

Step3.

- Insert the WIFI dongle into Edge 2 and wait for 30sec, after that make sure internet connection.
- If you are having problems with your internet connection, please restart Edge 2.



■ v9 hotfix1

OTA名称 : “9.3.3

FW VERSION : ” 9.3.3”

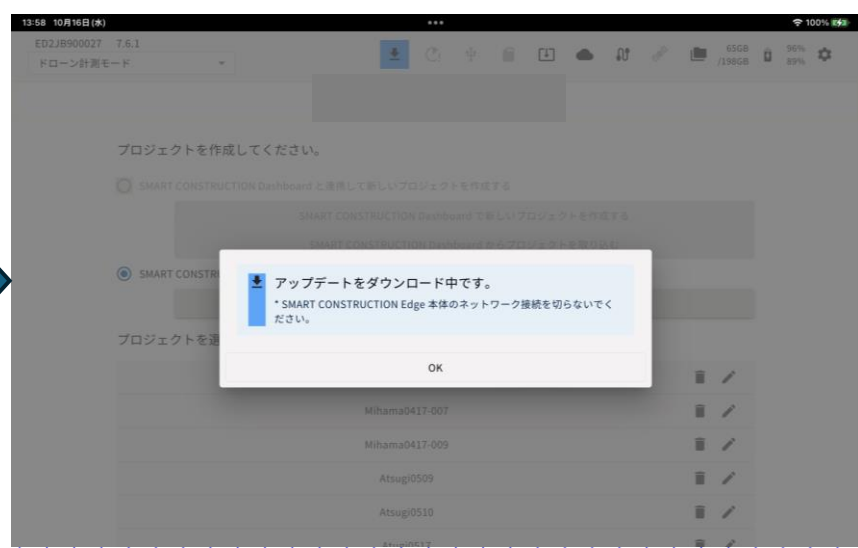
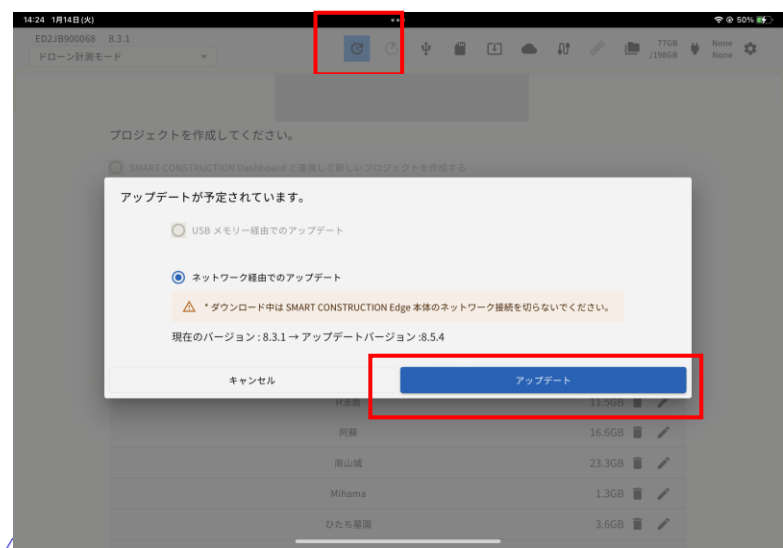
OS VERSION : “6.2.0”

In a good network environment, such as a wired LAN connection, it will take approximately 30 minutes. For LTE, it may take 1 hour or more. By good internet connection, we mean a downstream speed of around 50Mbps. If the internet connection is poor, the update may take around 3 to 4 hours, and in some cases, considerably longer.

*We recommend updating your iPad's OS to iOS 18.2 or later.

<Update procedure for v7 and later>

- After the update files have finished downloading over the network, press the restart button.
- When the green LED stops flashing and stays lit, the update, including the OS, is complete.



Ready to update.
Please restart SMART CONSTRUCTION Edge immediately.

- * Connect the AC adpoter during the update.
- * Do not turn off SMART CONSTRUCTION Edge during the update.
- * Update takes around 5 minutes.
- * If the Error/Update LED at front of the main body was lit solid, then do not turn off the power.

If you turn on the unit next time and the unit was connected to the internet, application will be updated.

Reboot later
Restart

Background: Defects Related to Battery Charging

There have been several instances where the battery could not be recharged. To address this, we will update the battery control microcontroller. The upgrade process will proceed as follows:

- 1.The application will be downloaded as usual.
- 2.After the download is complete (indicated by an orange arrow), please turn the power OFF and then ON.
- 3.The OS download will begin.
 - Once the OS download is complete, a pop-up window will appear on the right.
- 4.When the AC adapter is connected and the restart button is pressed, the red LED on the 4-way indicator will light up temporarily. Please wait for the process to finish.
 - When the power turns off, restart as usual to complete the update.

Important Notes:

- If AC power is not connected during step 4, please turn the power off and on as usual. However, the sub-microcontroller will not be updated in this case.
- The sub-microcontroller update will occur when the power is turned off after AC power has been connected while the device is on.

