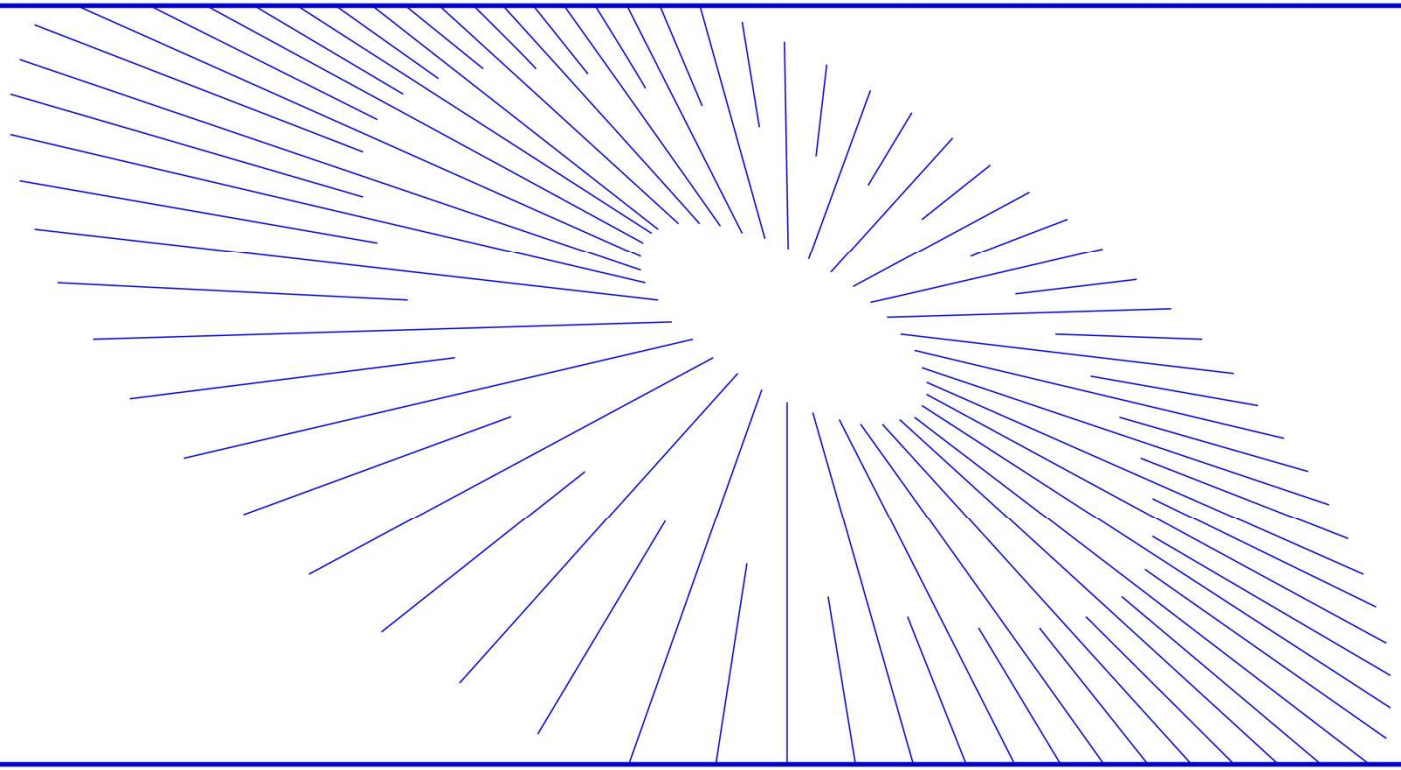
Smart Construction Simulation
2025.9.16(Schedule) About the Release Version



EARTHBRAIN

EARTHBRAIN Release Item List

- We are pleased to announce the release of updates to "Smart Construction Simulation" with the following schedule and content.
- Due to system maintenance, the relevant services will not be available during the following dates.

(*The release schedule, time, and contents are subject to change depending on the situation. Please understand this in advance.)

Schedule： Tuesday, September 16 (Japan time)　7:00 p.m. - 12:00 p.m.

NO.	Target Functions	Overview	Details
1	Simulation (Function Improvement)	Supports importing CZML files	CZML (.czml) files have been added to the list of supported file extensions for overlay data. Uploaded CZML files will be displayed with the linework icon and automatically added to the “Design Data” display list in the upper left corner of the screen. They also support the “Project onto Ground Surface” option.
2	Simulation (Bug Repair)	Fixed an issue where stratum data was displayed in the Design list for arbitrary tasks.	We have fixed an issue where design data (XML) uploaded as stratum data could be set as design data for arbitrary tasks. As a result, data uploaded as stratum data can no longer be set for arbitrary tasks.
3	Simulation (Function Improvement)	Implementation of Contour Line Visualization Function	A new contour line visualization feature has been implemented. This enables visual understanding of elevation distribution and terrain slope/undulation through contour lines and principal curves. Additionally, contour lines can be updated and displayed for the current terrain.

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4	Simulation (Bug Repair)	The issue where projecting the perimeter line's output onto the ground surface causes a discrepancy with the actual area has been fixed.	We have fixed an issue where the output of the work area's perimeter line deviated from the actual area. This enables more accurate output of the perimeter line.
5	Simulation (Bug Repair)	Fixed an issue where gaps appeared between areas when using “Divide by linework”	We have fixed an issue where gaps would appear between areas when dividing them using line work.This allows areas to be divided precisely along the lines.
6	Simulation (Bug Repair)	Fixed issue where file import from groupware fails (svl/kml/kmz)	We have fixed an issue where importing files in svl/kml/kmz formats from Groupware was failing. As a result, svl/kml/kmz formats can now be imported from Groupware.
7	Simulation (Bug Repair)	Fixed an issue where hidden overlay data was displayed when creating new items or duplicating existing ones.	We have fixed an issue where hidden overlay data was displayed when creating new simulations or duplicating existing ones. This fix prevents hidden overlay data from appearing.

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NO.	Target Functions	Overview	Details
8	Machine Simulation (Function Improvement)	Specification Change: Calculate Cycle Time for Dump Round Trip Counting Logic Based on Outbound One-Way Trip	The final dump cycle determination in the function that adjusts completion times to align cycle counts has been changed as follows <Before> Cycle time: “Round-trip time between loading and unloading points ÷ 2” <After> Cycle time: “One-way time from loading point → unloading point” This change eliminates cases where the final dump is determined to be unreachable even during times when it could actually arrive at the unloading point.
9	Machine Simulation (Function Improvement)	Implementation of Map Position Lock & Location Zoom during Run Window Setup	A zoom icon has been added to the track window, enabling location zoom to move to the center point of the selected track. This allows you to quickly identify the position of the target track.Additionally, with the implementation of the location zoom feature, the following behaviors have changed: ・The map position will no longer change when performing operations within the route window or toggling route display (ON/OFF) ※Improvements to route highlighting (route activation) are planned for a future update.
10	Machine Simulation (Function Improvement)	Implemented a function to incorporate Fleet round-trip routes as a single path.	When adding routes via route linkage from Fleet, you can now specify different routes for the outbound and return legs. The start and end points of Fleet routes connect to the loading/unloading locations as follows: ・Outbound Route: Loading Location → Start Point → End Point → Unloading Location ・Return Route: Unloading Location → Start Point → End Point → Loading Location

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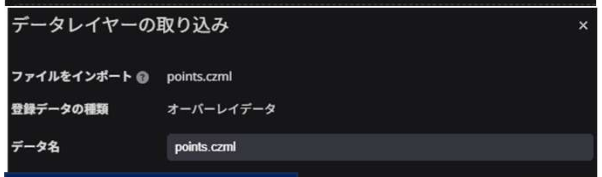
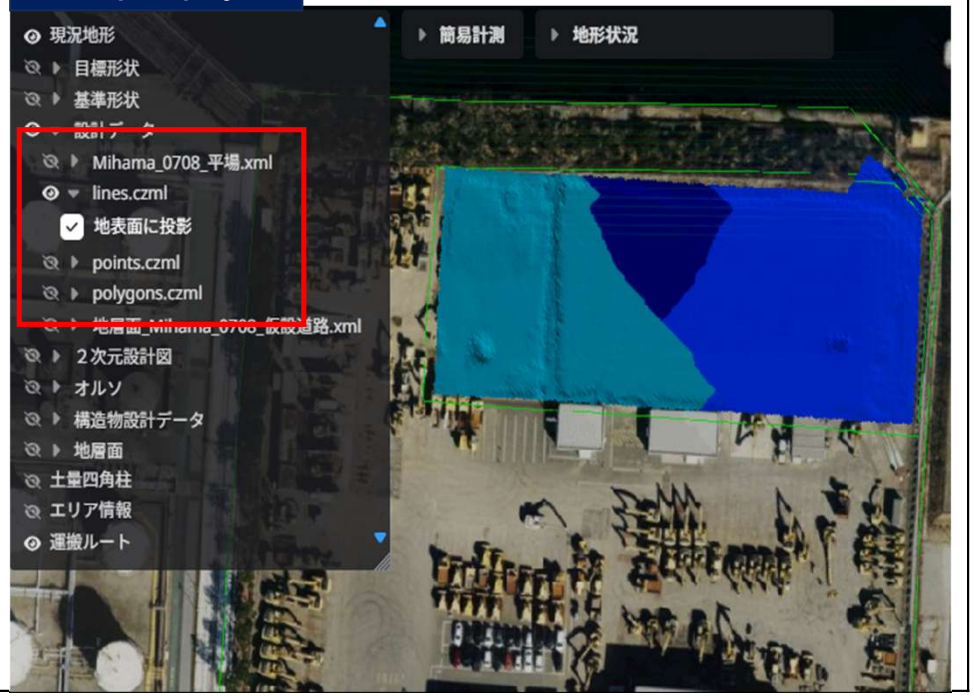
File Upload



Groupware

Map display



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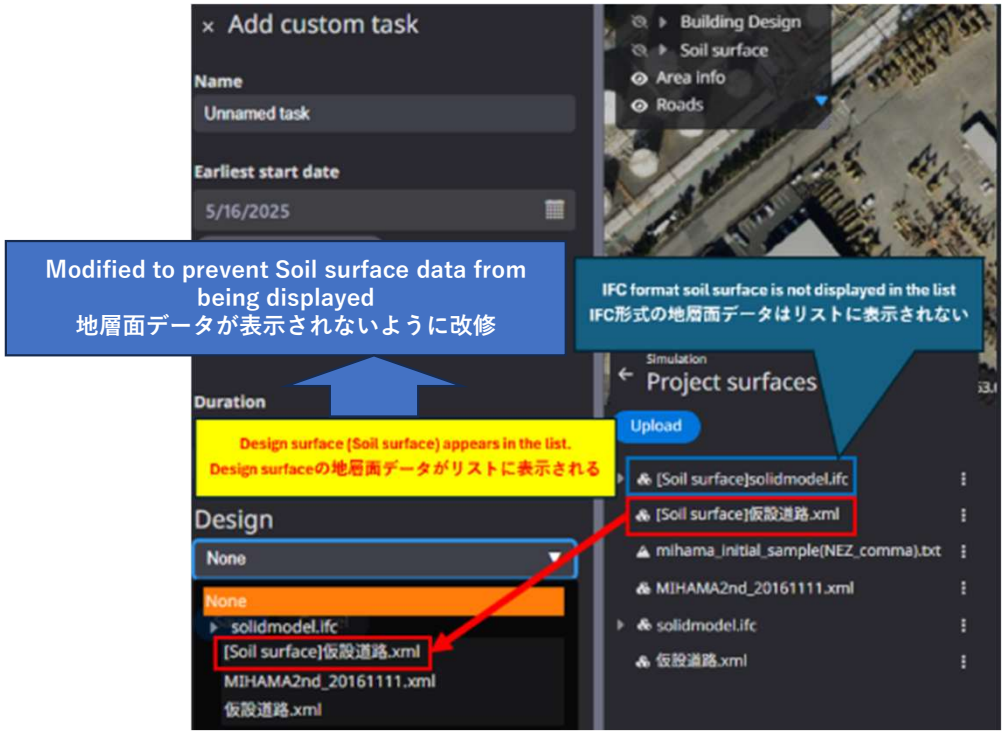

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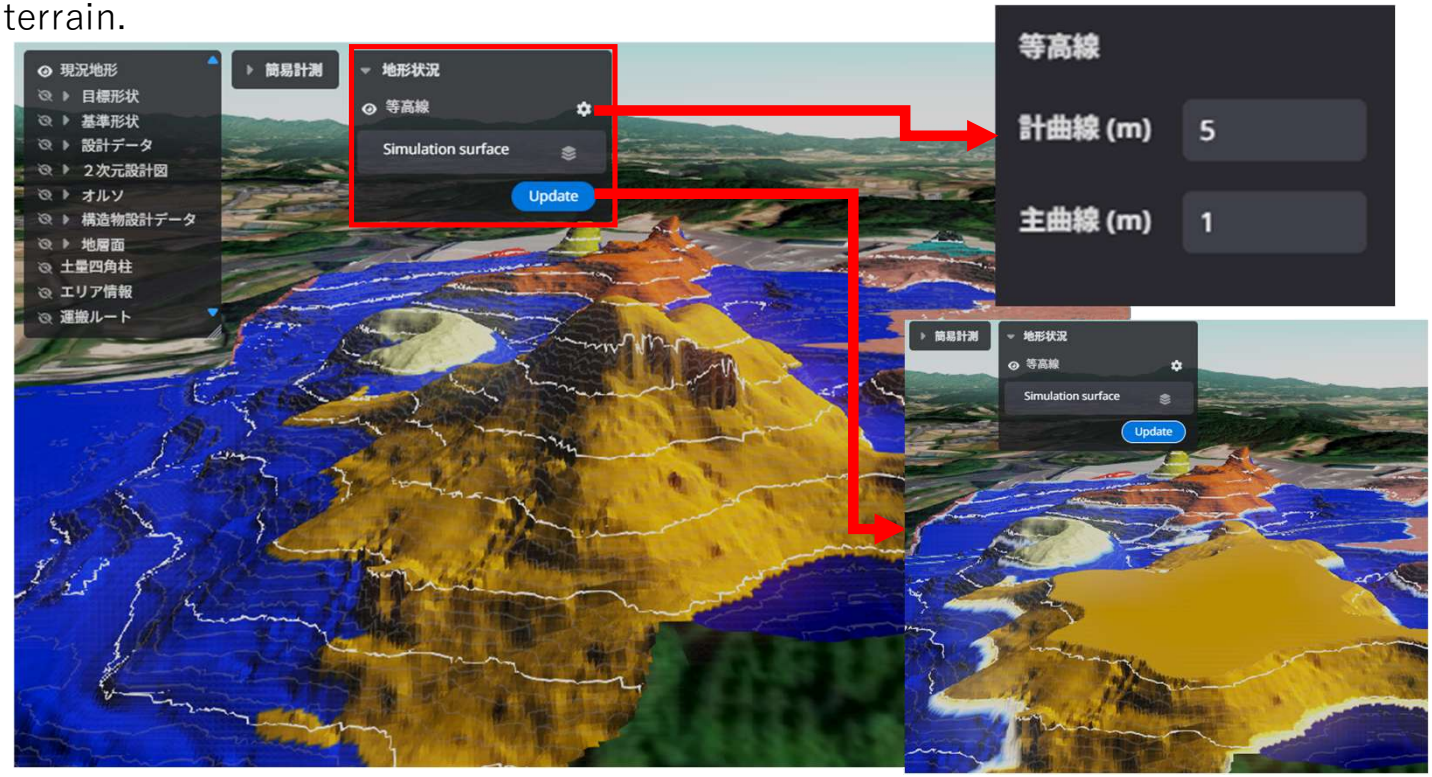
3	Simulation (Function Improvement)	• Overview：Implementation of Contour Line Visualization Function • Details：A new contour line visualization feature has been implemented. This enables visual understanding of elevation distribution and terrain slope/undulation through contour lines and principal curves. Additionally, contour lines can be updated and displayed for the current terrain. 

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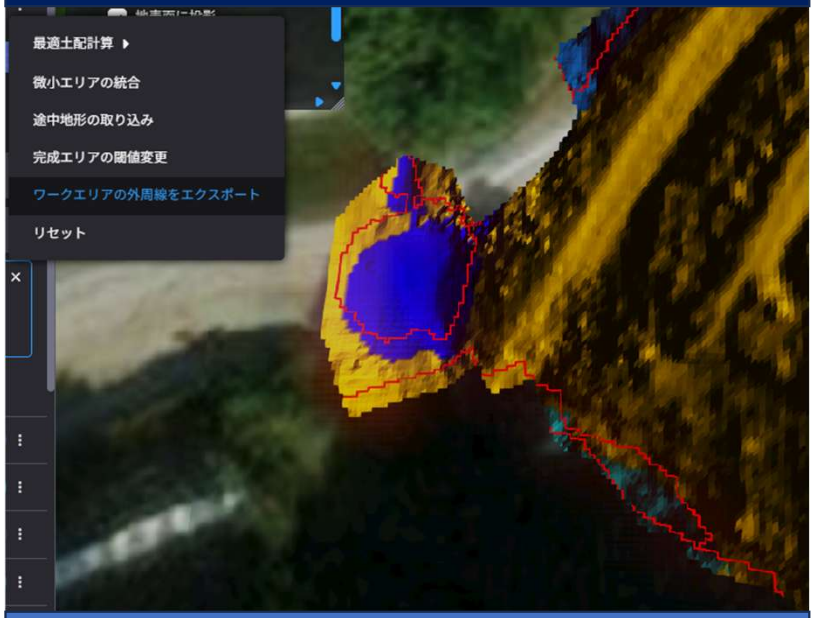
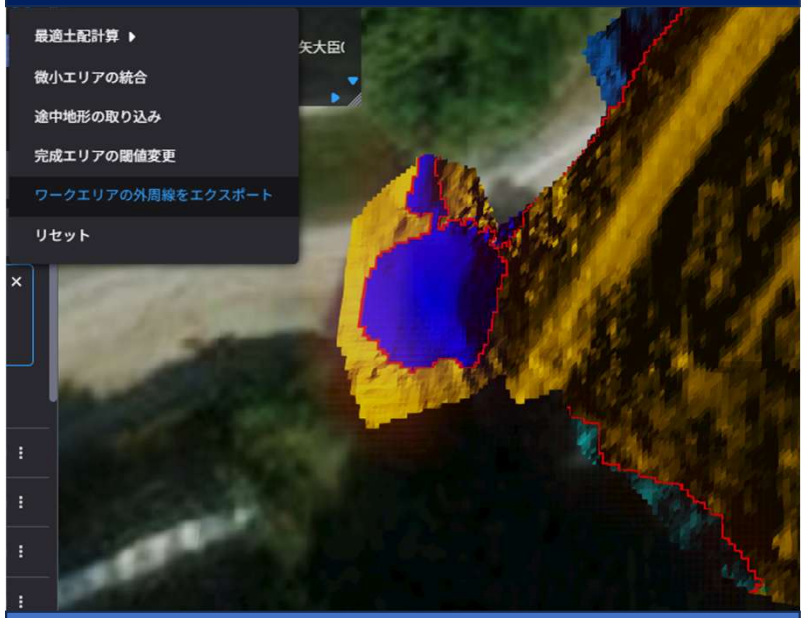
4	Simulation (Bug Repair)	• Overview：The issue where projecting the perimeter line's output onto the ground surface causes a discrepancy with the actual area has been fixed. • Details：We have fixed an issue where the output of the work area's perimeter line deviated from the actual area. This enables more accurate output of the perimeter line. **Before**  The output results of the perimeter line are misaligned with the area. 外周線の出力結果がエリアとずれてしまう **After**  The output results of the perimeter line generally match the area. 外周線の出力結果がエリアと概ね一致する

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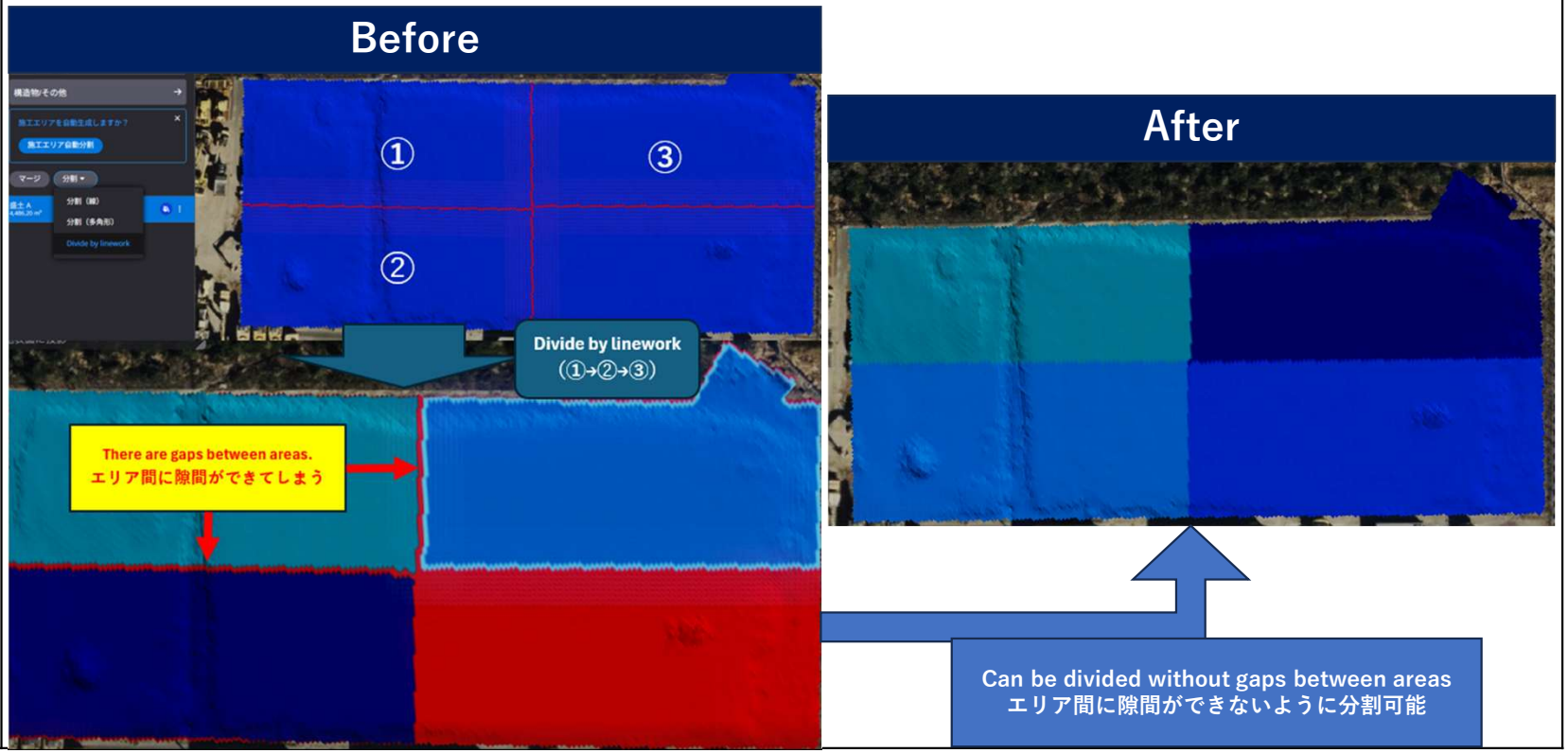
5	Simulation (Bug Repair)	• Overview：Fixed an issue where gaps appeared between areas when using “Divide by linework” • Details：We have fixed an issue where gaps would appear between areas when dividing them using line work.This allows areas to be divided precisely along the lines. 

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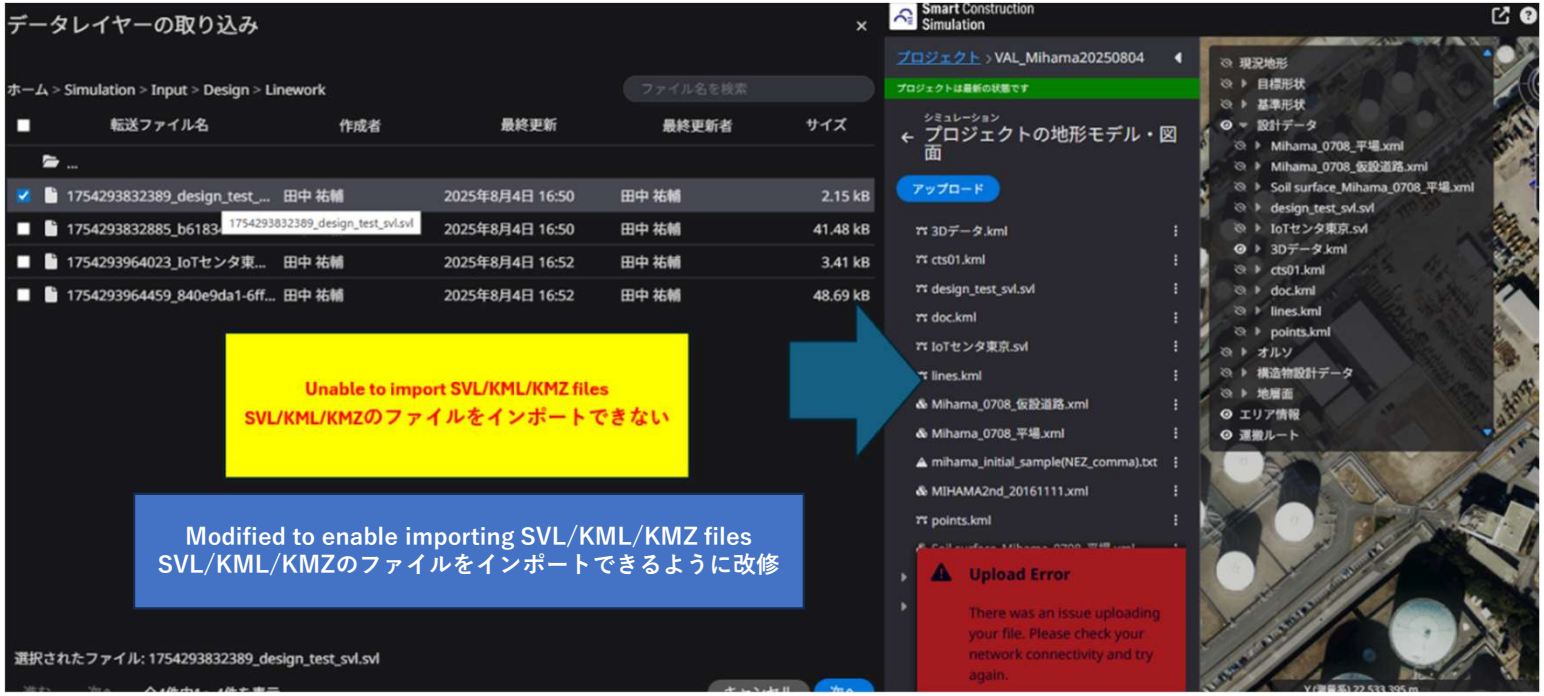
6	Simulation (Bug Repair)	• Overview：Fixed issue where file import from groupware fails (svl/kml/kmz) • Details：We have fixed an issue where importing files in svl/kml/kmz formats from Groupware was failing. As a result, svl/kml/kmz formats can now be imported from Groupware. 

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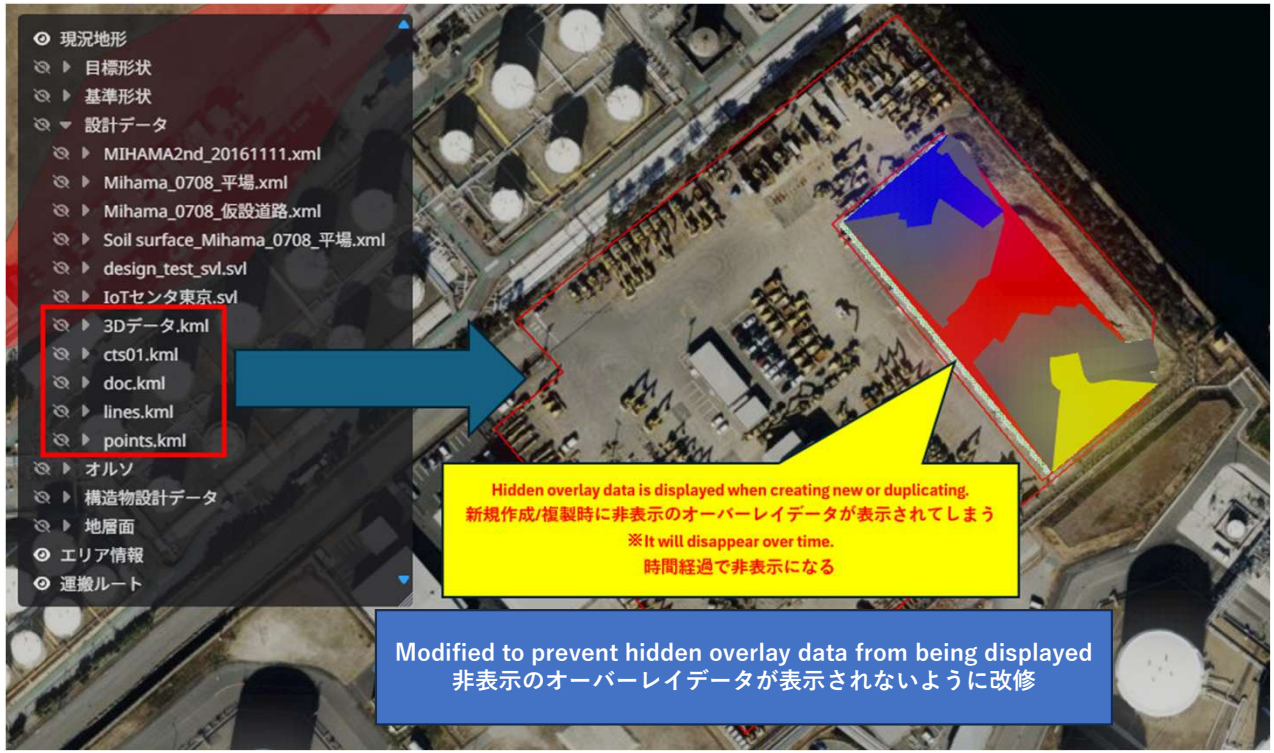
7	Simulation (Bug Repair)	• Overview：Fixed an issue where hidden overlay data was displayed when creating new items or duplicating existing ones. • Details：We have fixed an issue where hidden overlay data was displayed when creating new simulations or duplicating existing ones. This fix prevents hidden overlay data from appearing. 

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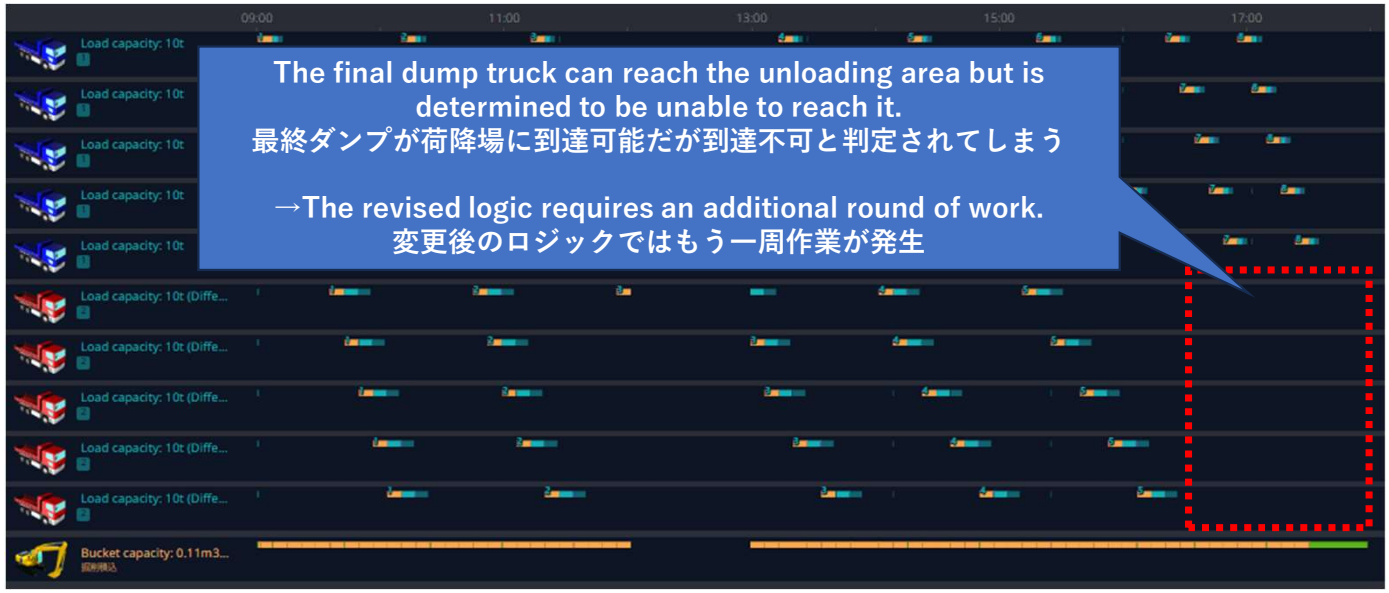
8	Machine Simulation (Function Improvement)	• Overview：Specification Change: Calculate Cycle Time for Dump Round Trip Counting Logic Based on Outbound One-Way Trip • Details：The final dump cycle determination in the function that adjusts completion times to align cycle counts has been changed as follows <Before> Cycle time: “Round-trip time between loading and unloading points ÷ 2” <After> Cycle time: “One-way time from loading point → unloading point” This change eliminates cases where the final dump is determined to be unreachable even during times when it could actually arrive at the unloading point. 

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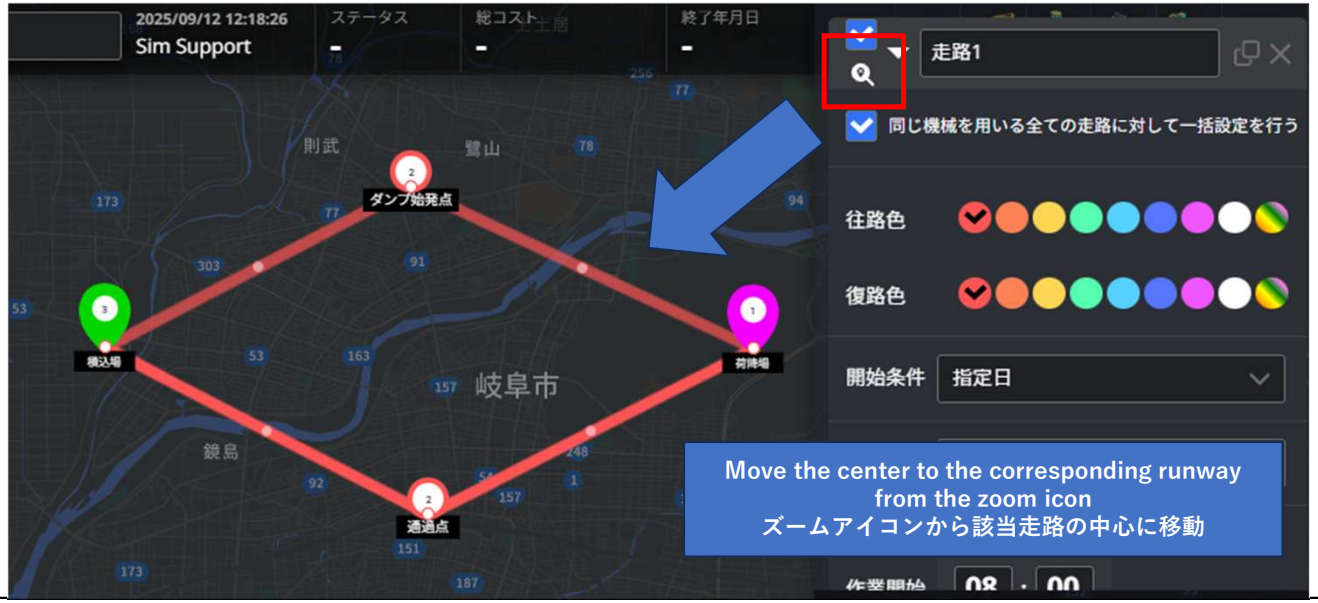
9	Machine Simulation (Function Improvement)	• Overview：Implementation of Map Position Lock & Location Zoom during Run Window Setup • Details：A zoom icon has been added to the track window, enabling location zoom to move to the center point of the selected track. This allows you to quickly identify the position of the target track.Additionally, with the implementation of the location zoom feature, the following behaviors have changed: ・The map position will no longer change when performing operations within the route window or toggling route display (ON/OFF) ※Improvements to route highlighting (route activation) are planned for a future update. 

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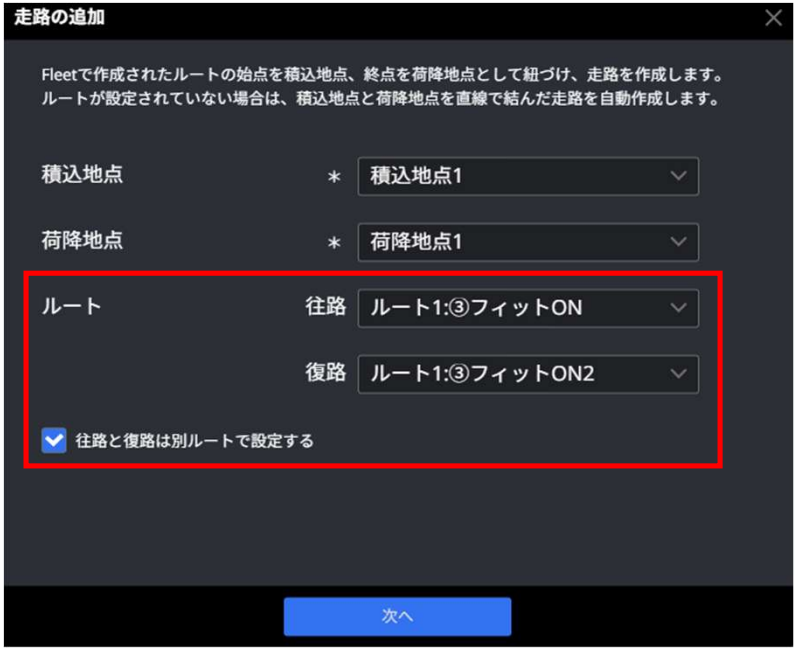
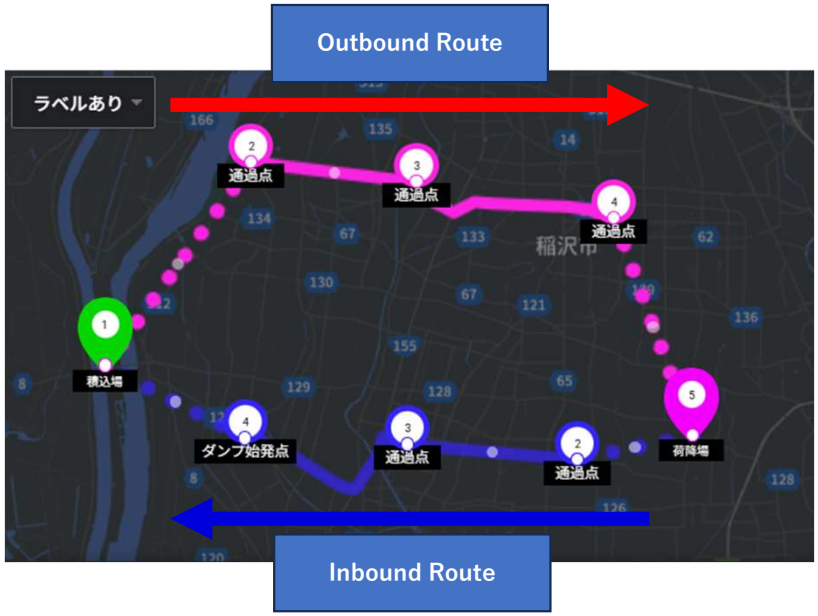
10	Machine Simulation (Function Improvement)	• Overview：Implemented a function to incorporate Fleet round-trip routes as a single path. • Details：When adding routes via route linkage from Fleet, you can now specify different routes for the outbound and return legs. The start and end points of Fleet routes connect to the loading/unloading locations as follows: ・Outbound Route: Loading Location → Start Point → End Point → Unloading Location ・Return Route: Unloading Location → Start Point → End Point → Loading Location  

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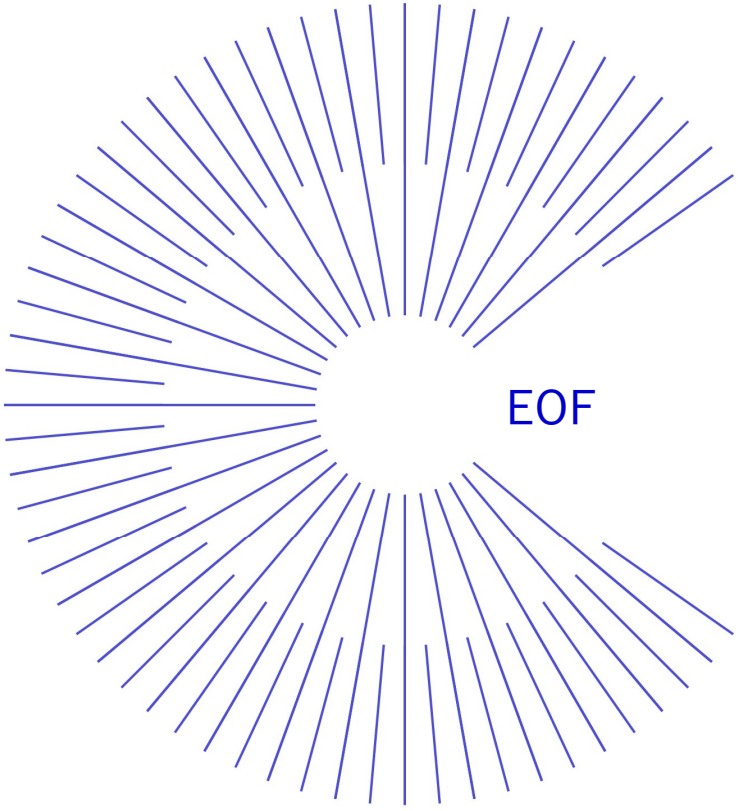
Even after the self-driving route is completed, the operation date continues to be displayed on the schedule.
自走路の完了後も工程表で稼働日が表示されてしまう

→ Modified to display only the operational days of the self-driving route correctly.
自走路の稼働日のみが正しく表示されるように改修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