LiDAR3690 V9 Release Notes

LiDAR360 V9.0.1 - 11/28/2025

1. Data Management

a. Fixed coordinate shift issue in the "Convert 3D Tiles to OBJ"conversion tool.

b. Fixed the failure of naming outputs using vector data attributes in the "Clip by Polygon" tool.

c. Fixed the failure of the "ICP Point Cloud Alignment" tool within the registration tools.

2. Classification

a. Fixed an issue where the progress bar in the "Smart Classification" tool during classification editing would get stuck at 50% when GPU memory exceeded 8GB.

3. Terrain

a. Fixed a crash issue in the "DEM Accuracy Assessment" tool.

b. Fixed an issue where the "Contour Consistency Check" tool failed to execute properly.

c. Fix the problem of too few road section extraction points in the “Section Analysis” function

4. Forestry

a. Fixed abnormal display of imported CSV table data after executing the One-click ALS forestry workflow.

b. Fixed an issue where the single-tree attribute table on the directory tree did not update directly after executing the "Tree Biomass Estimation" tool.

5. Imagery

a. Fixed failures in DSM/DOM generation and unclassified point clouds in the imagery processing workflow.

b. Fixed the issue where a quality report could not be exported after image alignment (SFM).

c. Fixed an incorrect target projection error when selecting different projections during image project creation.

d. Fixed the loss of feature matching information after updating image alignment.

6. Model Builder

a. Fixed processing failure when using the folder control to connect to the "Composite Bands" tool.

b. Fixed the issue where the input file path was not displayed after connecting the "Convert ASCII to TIFF" pre-processing function.

c. Fixed the issue of no default output path after importing data in the "REM" function.

d. Fixed the issue where the "Clip Raster by Rectangle" tool did not support input of negative coordinates.

e. Fixed execution failure of the "Surface Reconstruction" workflow when run directly from the model list.

f. Fixed the failure of dragging newly created and saved vector files into the canvas.

7. Distributed Computing

a. Fixed the issue where some data blocks failed to execute when processing multiple datasets with a "Model Builder" model.

8. Platform

a. Added support for NVIDIA's newly released "RTX 50 Series" graphics cards (Blackwell architecture)[Please note to update the graphics card driver to the latest version before use].

b. Optimized the layout display of the "Volume Measurement Report".

c. Achieved compatibility with Windows Server 2022.

d. Expanded tutorial videos for V9.0 on the start page.

e. Fixed the issue where tutorial videos on the Start Page could not be viewed (International version).

9. Licensing

a. "TLS Forestry" and "ALS Forestry" modules now support individual licensing.

V9.0- 9/2/2025

1. Preprocessing

a. Add UAV LiDAR accuracy quality calbration

i. Equipment calibration records

ii. Point cloud accuracy check

b. Data Registration

i. Add support for more data formats, extending support to formats such as tables, spectra, and models

ii. Add control point target recognition

iii. Add automatic matching of control point pairs

c. Add X-type target for automatic target recognition, with corresponding functions including support for 3D control points, strip adjustment, image control points, registration, etc.

d. Optimize density quality inspection to support adding quality inspection ranges

2. Data Management

a. Point Cloud Tools

i. Add point cloud attribute calculator tool to enable more feature calculations using the attributes contained in the point cloud

ii. Add spectral attribute assignment for point clouds

iii. Optimize point cloud tiling to support merging and tiling of multiple files

iv. Optimize polygon-based clipping to support inner ring polygon clipping

b. Add Raster Tools

i. Define Raster NoData Value

ii. Clip Raster by Polygon

iii. Clip Raster by Rectangle

iv. Clip Raster by Circle

v. Extract Raster by Mask

vi. Extract by Attributes

vii. Extract Multi Values to Points

viii. Composite Bands

ix. Create Color Composite

x. Optimize the raster calculator to support multi-band calculation, and add range settings and calculation formulas, etc.

c. Add Vector Tools

i. Clip Vector by Polygon
ii. Merge Vectors
iii. Remove Duplicate Vertices
iv. Attach to Raster
v. Split by Attributes

d. Add Model Tools
i. Merge 3D Tiles

e. Add Model Conversion
i. Convert LiModel to S3M
ii. Convert LiTin to 3D Tiles
iii. Convert LiTin to LandXML/J-LandXML
iv. Convert OBJ to 3D Tiles
v. Convert LiBIM to 3D Tiles
vi. Convert LiBIM to OSGB

vii. Convert LiTree to OBJ
viii. Convert LiTree to CityJSON
ix. Convert LiTree to 3D Tiles
x. Convert LiTree to OSGB
xi. Convert 3D Tiles to S3M
xii. Convert 3D Tiles to OSGB
xiii. Convert 3D Tiles to OBJ
xiv. Convert OBJ to 3D Tiles

f. Add Raster Conversion
i. Convert TIFF to USGS DEM
ii. Convert TIFF to ASCII
iii. Convert TIFF to IMG
iv. Convert ASCII to TIFF
v. Convert USGS DEM to TIFF
vi. Convert IMG to TIFF

g. Add Convert Vector to LandXML/J-LandXML

h. Point Cloud Conversion
i. Optimize convert point clouds to 3D Tiles

i. Projection and Coordinate Conversion
i. LiTree supports defining projection information
ii. Optimize reprojection to expand supported formats, adding obj, LiBIM, LiTree, and spectral data
iii. Expand supported formats for coordinate conversion, adding obj and LiBIM. Currently, it supports point cloud, vector, table, and model formats
iv. Update the projection interface and add options for the coordinate reprojection process

3. Classification

a. Add Classify Ground by Deep Learning
b. Add Classify Top Surface
c. Add Classify by Mask
d. Optimize CSF filtering effect and support parallel computing
e. Optimize building extraction and support generating mask files
f. Optimize road extraction and support generating mask files
g. Custom deep learning tools can be added to the toolbox
h. Classify Editing
i. Add Smart Classification function can significantly reduce the workload of manual editing.
ii. Add vector tools to support copying, moving, etc.
iii. Optimize editing experience and reduce memory usage
iv. Supports the use of SAM combined with images for point cloud classification of spectral data

4. Forest

a. Add Individual Tree Crown Segmentation, supporting general scenarios and palm tree scenarios
b. Add Trunk-based Tree Segmentation for ALS forest.
c. Add TLS Spatial Structure Quantification
d. TLS Seed Point Editor
i. Merge tree species identification, allowing marking in a single tool

ii. Tree species marking supports selecting tree species from the tree model library

iii. Optimize editing user experience

e. Support TLS forest canopy cover height range setting

f. Tree Model Management supports 3D preview

g. Forestry Settings in Platform Settings

i. ALS Forest, the tree position supports prioritizing the selection of DBH (Diameter at Breast Height) position

ii. Change the DBH fitting from cylinder fitting to optional cylinder fitting priority to solve the problem of fitting failure due to missing tree trunks

h. Optimize the drawing effect of the stand analysis canvas thematic map

i. Optimize the Auto Registration by Tree Locations

j. Remove Tools

i. Remove extracting eucalyptus tree trunks tool

ii. Remove the tree species marking tool and merge it into the TLS seed point editing tool

5. Terrain

a. Add Contours Sheet Join

b. Add Breaklines Sheet Join

c. DEM\DSM support generating formats such as IMG, USGS-DEM, and ASCII, and supports accuracy settings

d. LiTIN expands support for the 2DTIN format of 3D Tiles, using the suffix .2DTIN.json

i. Support large data construction and storage

ii. Support large data editing

iii. Support conversion to other formats supported by LiTIN

iv. Support generating contours, DEM, etc.

e. Section Analysis

i. Support cross-section generation from multi-file point cloud data

ii. Support exporting cross-section reports in PDF format

iii. Support exporting cross-sections to LandXML/J-LandXML

f. Expand Hydrologic Analysis Tools

i. Fill sinks

ii. Flow Accumulation

iii. Flow direction

iv. Channel Network

v. Upgrade Flooding Analysis

g. Optimize LiModel Editing

i. Add brush selection tool

ii. Optimize the interaction process, support multiple applications of the editing area

iii. Support selecting existing vector results as the editing area, supporting single selection and batch selection

iv. Support using maximum, average, minimum, and percentage elevation values for the elevation of the editing area, facilitating batch application

h. Optimize LiTin Editing

i. Support large data editing

ii. Optimize support for importing breaklines from external sources

6. Mine

a. Optimize surface reconstruction, expand support for large 3D Tiles format data

b. Optimize mesh editing, support 3D Tiles editing

c. Optimize the multi-period volume change analysis report, support the 3D Tiles (2D TIN) format

d. Section Analysis

i. Synchronize terrain section functions

ii. Add multi-period tunnel cross-section deformation analysis and generate analysis reports

7. 3D Building

a. The building attribute table supports geometric object calculation

b. Upgrade the LiBIM version to support case-sensitive attributes

c. Split the building vector model coloring into two tools: one based on orthophotos and the other based on image projects

8. Photo

a. Add Texture Mapping for 3D Mesh

b. Add a camera grouping tool, which can split the SFM calculation of large-scene image projects into multiple sub-scene image project calculations

c. Add a tool for merging camera groups, which merges multiple sub-scenes into a single image project for fusion adjustment

d. Optimize alignment to point clouds and provide a more robust feature calculation solution

e. Optimize SFM efficiency by more than 30%

9. Add Spectra Analysis Module

a. Add a toolset with 113 spectral indices

b. Add Classify by Spectral Angle Mapper

c. Add spectral library storage

d. Add Show Spectral Profile

e. Add Build Mask

f. Add Minimum Noise Fraction

g. Add Savitzky Golay

h. Add Principal Component Analysis

i. Add Wavelength Manager

10. Batch Processing/Distributed Computing

a. Add a model builder that supports combining over 200 tools and enables model definition and command-line calling

b. Add distributed computing for the SFM process of oblique imagery

c. Optimize distributed logic control, support dynamic addition of computing nodes

11. Vector Editor

a. Move the image annotation tool to the classification module as an independent tool

b. Supports polygon fill rendering

c. Optimize text prompt control to support hiding and size setting

d. Supports vector extraction from spectral data using SAM

12. Platform

a. Add X-Ray rendering effect

b. The data snap tool is supported on all platforms, moved to the console, and supports the shortcut key F3

c. Add skybox display for the rendering scene

d. Add coordinate origin display

e. Upgrade Catalog Management

i. Expand support for rendering, point selection, measurement, and cropping of model formats such as 3D Tiles

ii. Expand support for rendering, point selection, measurement, and band selection of spectral formats such as dat and img

iii. Expand the data source list and edit list

iv. Add "Create Group" in the window list; multiple types of data can be selected and grouped together for easier movement and viewing

v. When closing a window, the window data list can be retained for convenient re-opening

vi. Multiple datasets can be selected in bulk and directly imported into a new window

vii. Support wavelength setting for spectral data, identification and marking of bad bands, and wavelength import based on sensors

viii. Support right-click information statistics for selected multi-point cloud data

ix. Support right-click export of trajectory data in formats such as SBET.out and *.txt

x. Support deletion of tie points in image projects for convenient recalculation

xi. Optimize the export of treedb table data to shp/gpkg formats by exporting according to the displayed geometry

xii. Optimize the right-click information display of data, enabling direct export of the information page

f. Upgrade project file saving to restore the scene state and support scene snapshots for easy project file retrieval

g. Upgrade data clipping, support 3D Tiles format data

h. Optimize point cloud rendering strategy

i. Optimize the scene display of contour lines with elevation annotation points

j. Optimize the rendering efficiency of point clouds and models and reduce memory usage

k. Attribute Table Operations

i. Supports batch modification and deletion operations for attribute tables (tables, vectors, and models)

ii. Adds tools for inverse selection, displaying only selected rows, and deleting selected rows

iii. For export, only supports the export of selected data

l. Support batch modification and deletion of attribute tables (tables, vectors, and models)

m. Upgrade Display Mode

i. The point cloud display settings interface supports point size setting

ii. The model display settings interface supports transparency setting

iii. The vector display settings interface supports point size, line width, and transparency settings

iv. The table display settings interface supports point size setting

v. Support displaying raster mask files by category labels

vi. Support setting the size of image function connection points

13. Add New AI Intelligent Q&A Assistant

14. Data publish and share

a. Support converting models to 3D Tiles for large data display