EN

Civil Solutions 2027.0

Plateia by CGS Labs
Ferrovia by CGS Labs
Aquaterra by CGS Labs
Autopath by CGS Labs
Autosign by CGS Labs

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What is new in CGS Labs Civil Solutions 2027.0 | RIVER

Aquaterra by CGS Labs

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CGS Labs d.o.o., Brnčičeva ulica 13, 1000 Ljubljana, Slovenia

Content:

1. Supported CAD platforms

CGS Labs Civil Solutions 2027.0 is now compatible with the new Autodesk version 2027, as well as the latest BricsCAD v26.

With CGSLABS 2026 Civil Solutions, support for CAD platforms now includes the following CAD platforms:

Autodesk AutoCAD/Civil 3D	BricsCAD
2027	V26
2026	V25
2025	V24
2024	
2023	
2022	
2021	
2020	

CGS LABS 2027 Civil Solutions is a major version upgrade. Users can install the newest CGS LABS 2027 Civil Solutions side by side with previous CGS Labs versions (e.g. 2026, 2025 or older). Thus, preserving settings on existing CGS Labs software versions. Further updates are going to affect the latest CGSLABS 2027 version only.

2. ENHANCEMENTS

CGS_MIKEEXPORT - Faster export of the cross-section geometry from Aquaterra to MIKE

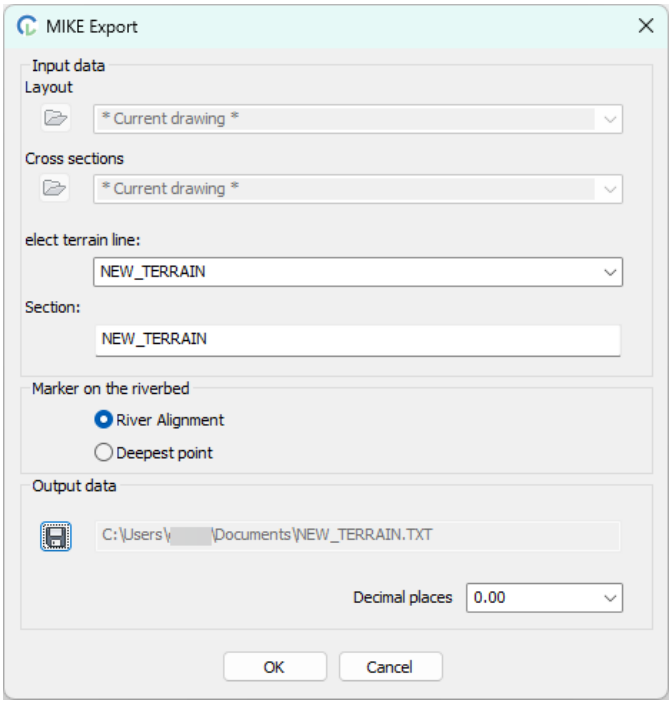
Previously, the user had to create all these files to export the Aquaterra model to MIKE:

- CRO file - 43E5 - cross sections
- RCA file - 23G7 - sample lines
- IL file - 43K4 - Save Projection Points

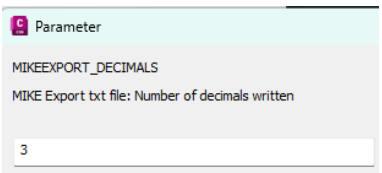
Now all the required data is read from the current drawing, so the user only needs to select the terrain line to export.

The user can choose what to mark: the river alignment or the lowest point of the river channel.

Additionally, the user can specify the number of decimal places for the values written to the output file.



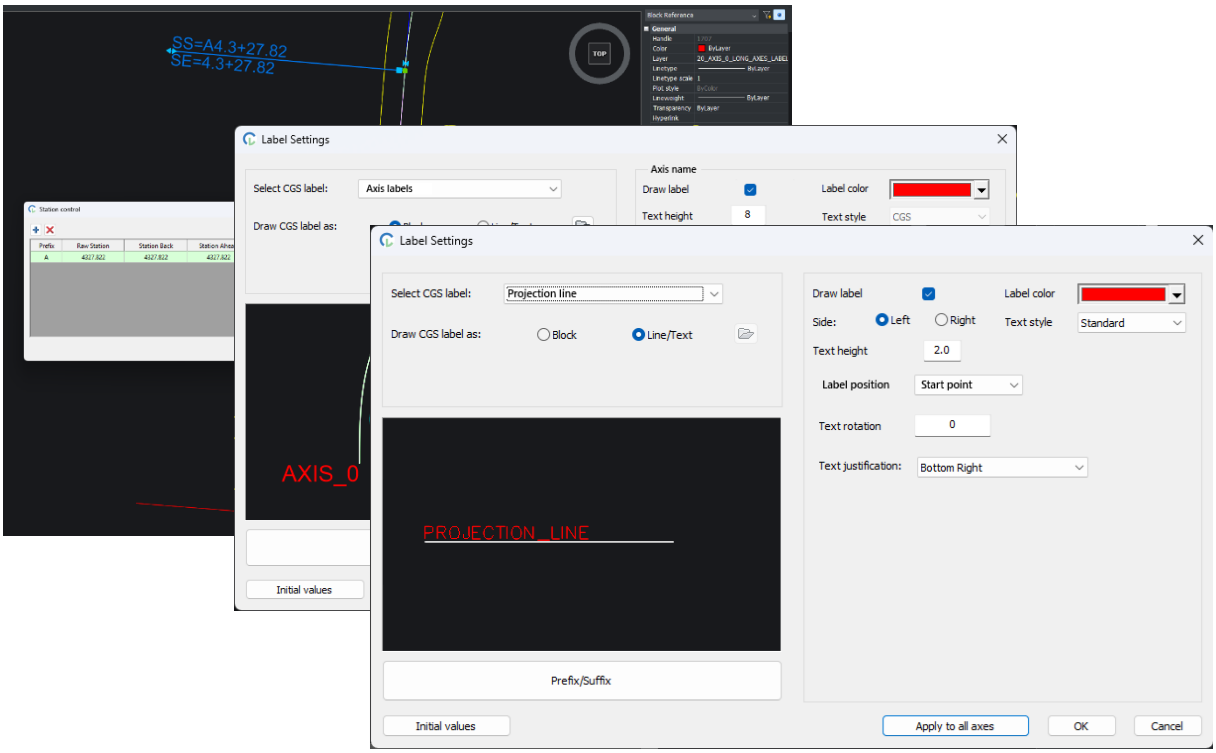
To set the default number of decimal places, there is a new setting added to the Cross-section settings (43A31) under the MIKE/HEC-RAS section. The setting ID is 431901.



23A6 – Multiple labels added

Axis labels (name, station), Projection lines (border)

With CGS 2026.1 we implemented a new interface for configuring Label settings. With new release we are adding more labels to the list. This includes labels for Projection lines, Axis name and station. All of them have additional new settings for colors, justifications, lengths,... so that now it will be easier to set labels to your liking.



LandXML export – Added cross sections option

LandXML is an open, XML-based file format developed for the exchange of civil engineering and surveying data. It is widely used in infrastructure projects to share designs between different software tools and platforms.

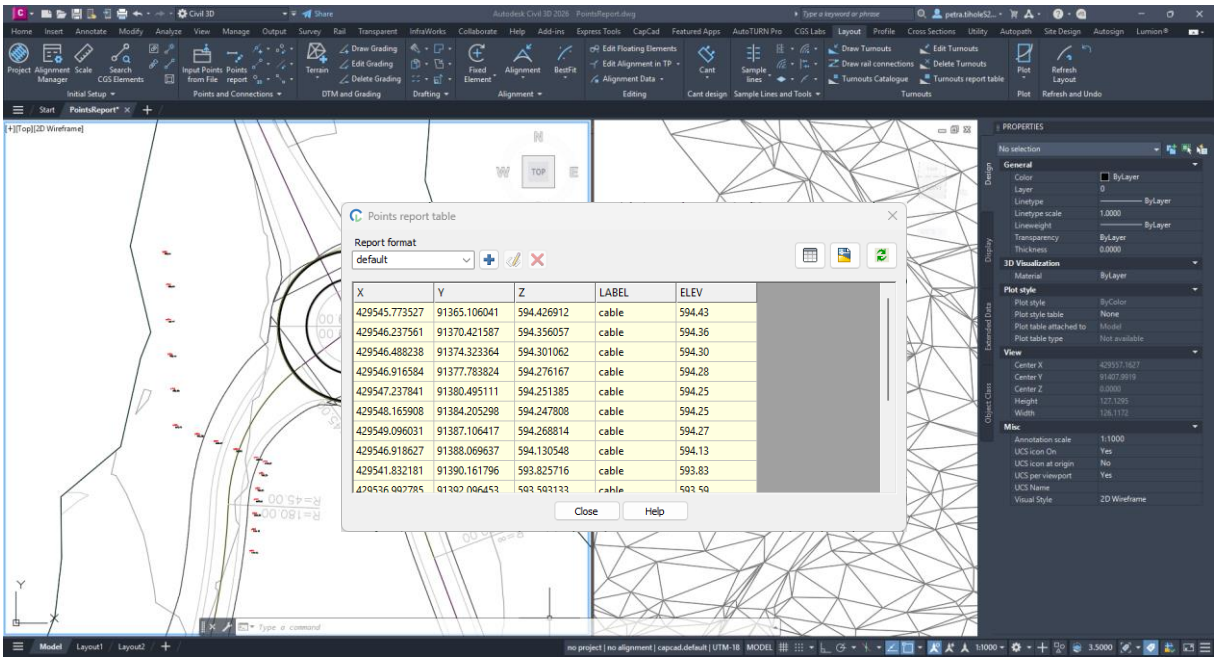
Previous versions of Aquaterra already supported LandXML export of horizontal alignment, longitudinal profile and surface data. With this release, the export functionality has been extended to include cross-sections.

This enhancement enables users to export the design data directly from **Ferrovia**, **Plateia**, or **Aquaterra** to **LandXML 1.2**, making it easier to exchange models with other BIM tools such as Autodesk Civil 3D.

11FB – All attributes displayed in report on selected CGS points

The Point Report has been improved to automatically display all attributes available on the selected points. Along with the basic geometric data (X, Y, and Z coordinates), the report now includes attributes such as labels, elevations, and other point-specific information by default.

Previously, these attributes could also be included, but users had to manually define a custom report format and add the required fields. With this enhancement, the additional configuration step is no longer required, which simplifies the workflow and reduces preparation time.



Users still have full access to tools for creating custom report formats, giving them flexibility to adapt the report output to different project requirements.

3. CHANGES

23A6 – Label Settings user interface update

As more labels have been added to the interface, the settings dialog has been slightly updated. Instead of clicking OK to apply changes and automatically close the dialog, the button has been changed to Confirm, allowing changes to be applied while keeping the dialog open. This enables editing multiple labels without needing to reopen the dialog.

23O1 – Different layer for Axis Station labels

User-defined station labels, which can be placed in any location, were previously placed on the same layer as sample line labels. Any change to the position of a horizontal alignment causes sample line

labels to be deleted and redrawn to ensure accurate information. This also resulted in user-defined station labels being deleted, which is why these labels are now placed on a separate, dedicated layer.

33 – Linetype scale not set anymore

When using any command in the Longitudinal Profile (33 commands), the LTSCALE CAD system variable was previously changed to 0.1 (from the CAD default value of 1.0) to ensure proper display of CGS linetypes in the Profile View (e.g., dividing lines in rubrics, superelevation lines, lane width lines).

Because this caused issues for users who used a different linetype scale in their layouts, this behavior has been removed.

The affected CGS linetype definitions have been adjusted to maintain correct visual representation. The “LK_HIDDEN”, “LK_CENTER”, “LRI_LB”, and “LRI_RB” linetypes now have definitions that are 10 times smaller in the CGSApps.lin file.

4. FIXES

CGS_HECRASEXPORT – Export from Aquaterra to HEC-RAS

Banks and levees were not properly written to the geometry (*.G00) file. This issue is now resolved. Additionally, if only the right bank or right levee is defined, it is now correctly exported, with the left point definition preserved so the right point is properly recognized.

43GA – Wrong channel lining if bank slope is 0

Channel lining (43GA) produced an incorrect offset on the right side of the channel when the bank slope was set to 0 (90-degree vertical bank). The lining is now generated correctly for all bank slope values, including vertical channels.

43E1 – CSs with only correspondent sample lines can now be created

When a horizontal alignment contained only corresponding sample lines from an adjacent alignment, but not its own sample lines, terrain data for cross-section creation was not read. This has been fixed, and cross sections can now be created for alignments that have only corresponding sample lines.

43N1 – Planimetry name defined with lower case with interactive method

In CGS 2026.1, the interactive method for planimetry was incorrectly changed so that it differentiated between lowercase and uppercase letters, whereas previously only uppercase letters were used for quantities. This has been reverted, and planimetry quantities defined with either uppercase or lowercase letters are now recognized as the same quantities.

43K3 – No offset of projection lines in CS on AutoCAD

In some cases, projection lines could not be drawn in cross sections, even though the line existed in the layout. The issue was resolved by finding the closest point when an intersection was not detected due to CAD precision limitations. Projection points are now drawn in all cases.

CGS Labs crashes on BricsCAD V26.1.08

Due to changes in BricsCAD (version 26.1.08 or higher) and a missing JSON file, the application crashed after opening a new drawing or accessing the license manager. This issue has been resolved.

LandXML export – Profile View not recognized

Depending on how horizontal alignments and Profile Views for multiple alignments were created, elements such as the profile terrain and design profile were sometimes not recognized during LandXML export. An additional check has been added to identify the correct alignment and associated elements for export, resolving the issue.

LandXML import – File not read because of the boundary data

In some cases, the boundary was defined with only a single point or was missing a boundary type definition. This caused issues during import, which have now been resolved.

23P1– Define Plot area does not generate frames with correct paper dimensions

Generating frames for plotting is based on calculating sections of the horizontal alignment based on width interval to fit each frame. The default interval was set to 1 meter, which could result in imprecise paper dimensions of up to 1 cm. A step size for width has now been added to the 23P1 command, giving users the option to achieve more precise paper dimensions.

33E5 – Rescale Profile View fails until profile is refreshed

Rescaling the Profile View could result in a crash if the lane width data was inconsistent between the internal library and what was drawn. This could be resolved manually by refreshing the Profile View (33X). The issue has now been fixed.

33E5 – Rescale changes axis name in Profile View

If multiple alignments existed in the drawing and one without a Profile View was selected, it could unintentionally rename the Profile View of another alignment. An additional check has now been implemented to ensure that the currently active alignment has a Profile View, preventing this issue.

33E5 – Profile vertical lines are scaled twice

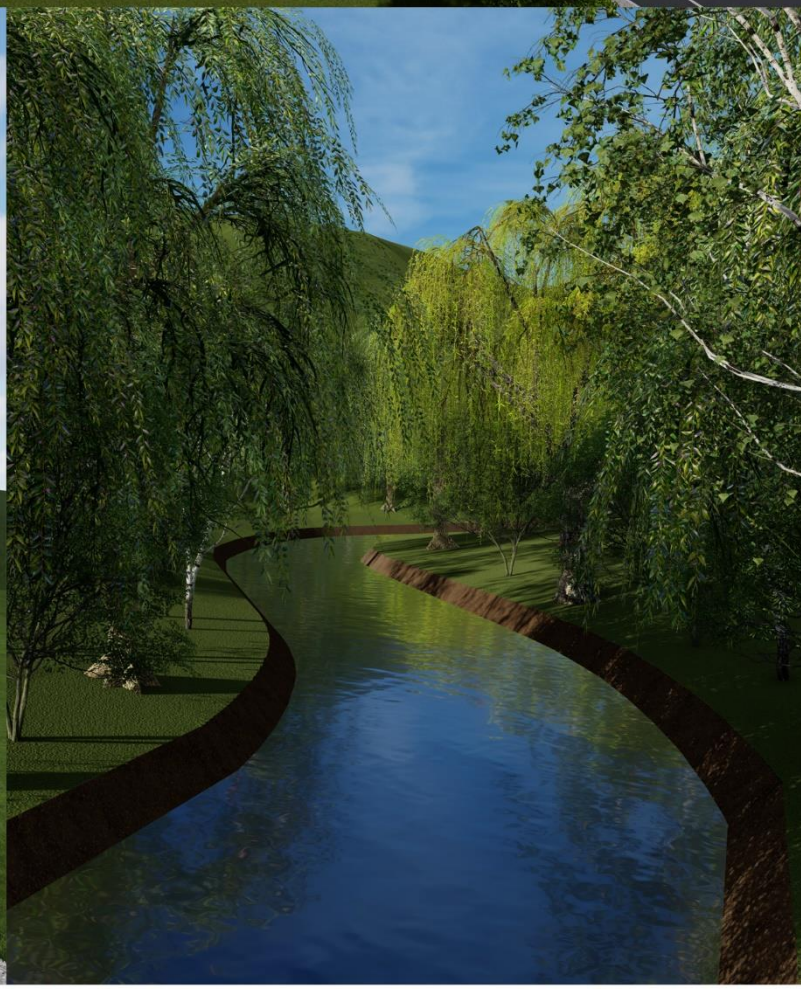
Profile vertical lines were incorrectly scaled by both the label scale and the rubric scale. This has now been fixed so that scaling is controlled only by the label scale, which can now also be changed manually.

23C – Delete axis removes associated DCT data

In CGS 2026.1, independent records for each alignment were added so that individual settings could be saved. However, these records remained even after an alignment was deleted from the drawing. If a new alignment was then created, it would inherit the old settings instead of the default ones. This issue has been fixed, and the associated records are now also deleted when an alignment is removed.

23A6 – Sample line labels color can't be changed and interface can be opened multiple times

The text height and text style of sample line labels could sometimes only be changed when switching from the block option to the line/text label option. Another issue allowed the Label Settings window to be opened multiple times. Both issues have been fixed.



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