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Re: SCC 14.6.0

We are pleased to announce a new major release of SCC with SCC 14.6.0. This release contains the following modifications from SCC 14.0.5;

- A new option has been added to allow multi-screen editing of complex models which include point clouds and orthophotography. The includes options to automatically resize auxiliary views to the size of 2nd and 3rd monitors and to synchronize position and zoom between views when navigating. All editing is immediately displayed on both views and point cloud or DTM can be used to interactively draw in 3d on the photography. This allows easy capture of small or indistinct features such as road gullys and flat inspection covers. For an example of this in action see https://www.youtube.com/watch?v=z44DIm-HBnb4


- Support has been added for import of huge geo-referenced orthophotographs in ECW format. These are stored in SCC as external references for fast loading and to keep model sizes small.

- Support has been added for transforming geo-referenced TIFF and JPEG files such that embedded orthophotos can be moved between grids.

- Support has been added for a wider range of internal and external world meta data for geo-referenced images

- Support for 3dConnexion SpaceMouse added. This is controlled under General Options / Communications including sensitivity / noise removal options.

- Screen refresh speeds during zooming, panning and rotating are much faster. During these operations, the refresh shows fewer point cloud points and reduced text and solid fills. A full refresh happens after movement stops. This allows the space mouse and regular mouse to be much more responsive on large point cloud models on low power PCs.

- New tool added to greatly simplify drawing of pedestrian crossings and hatched road markings in 3D from point clouds. These tools are available in the **Annotate** tab under **Hatches**. Short tutorial video here https://www.youtube.com/watch?v=ZaiLUCDwbwk
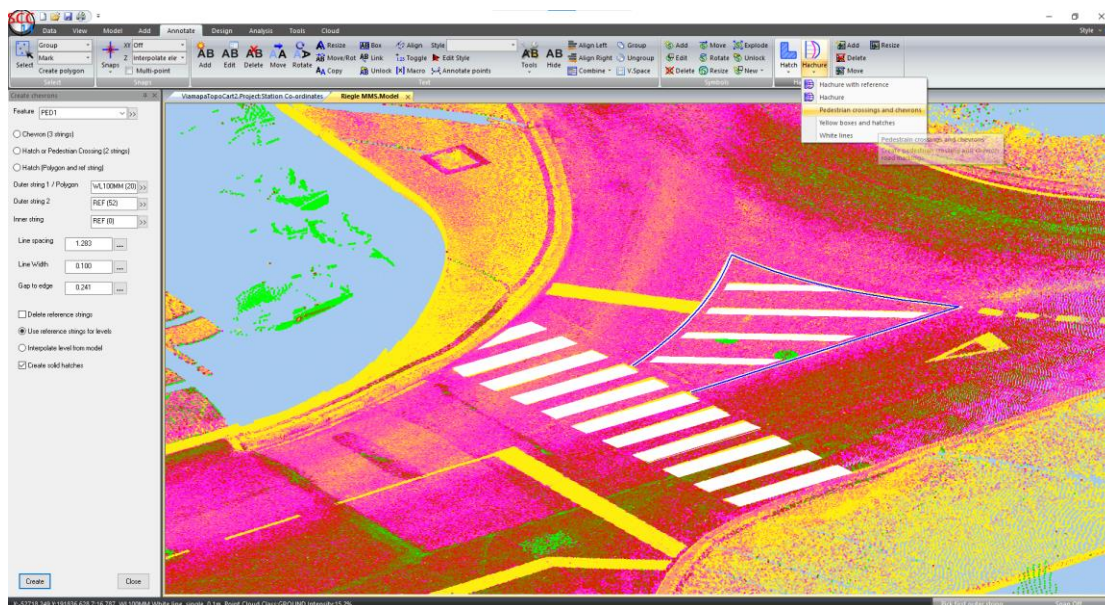

- New option added to annotate strings at a regular chainage, replacing any existing annotation with options to delete intermediate points to smooth the string. This option is available on the **Annotate** tab under **Tools / Annotate at regular interval**. Short tutorial video here; https://www.youtube.com/watch?v=dao_FFEsFIA

- New option has been added to import and interactively view flat photography from Riegl MMS systems
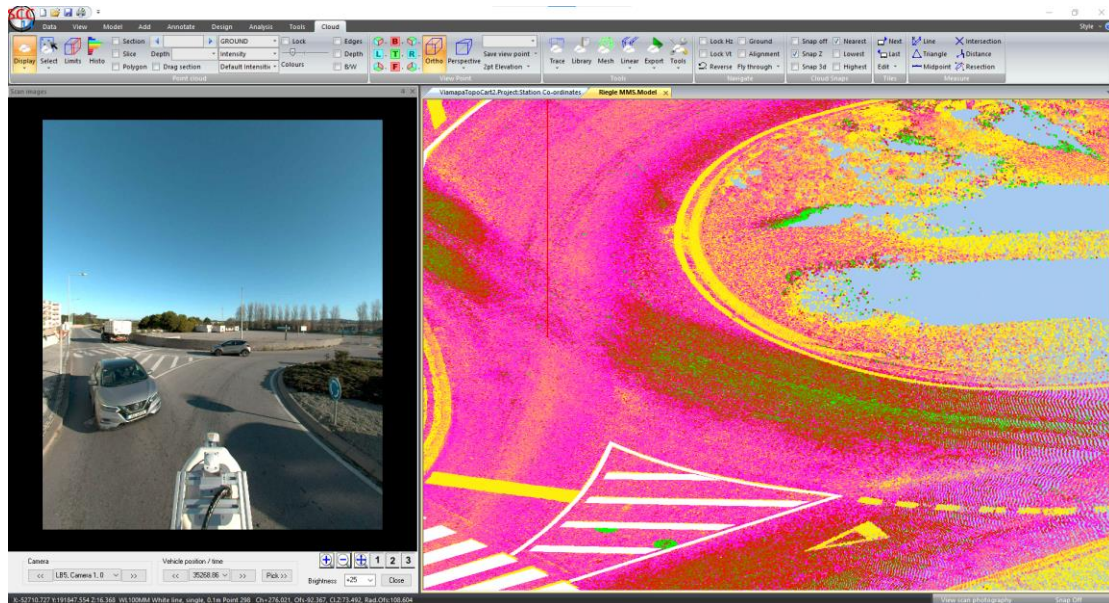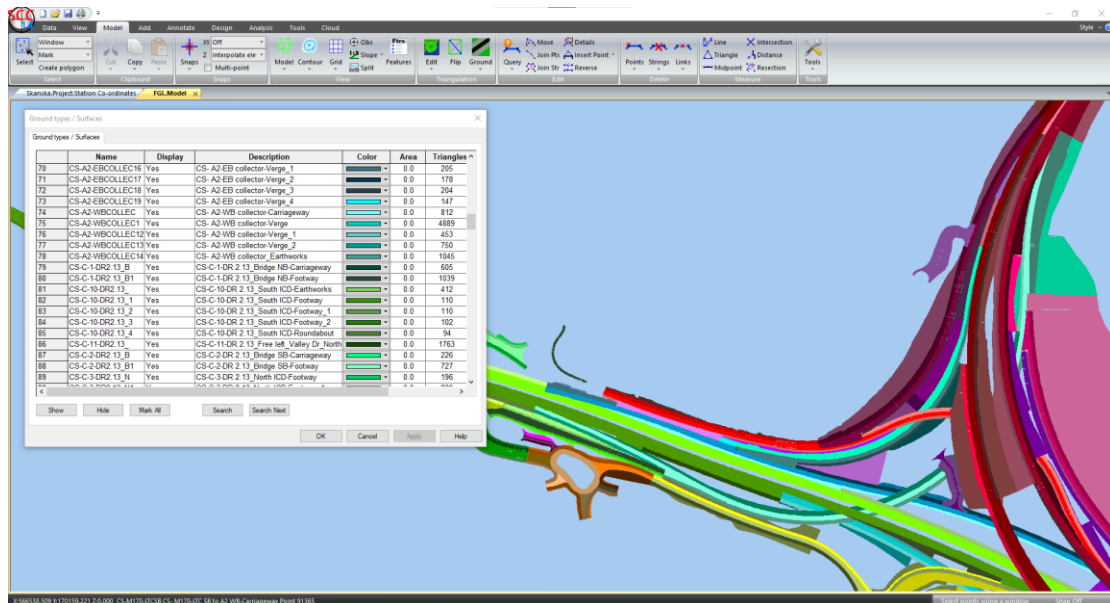

- New option has been added to import and interactively view spherical / panoramic photography from Riegl MMS systems
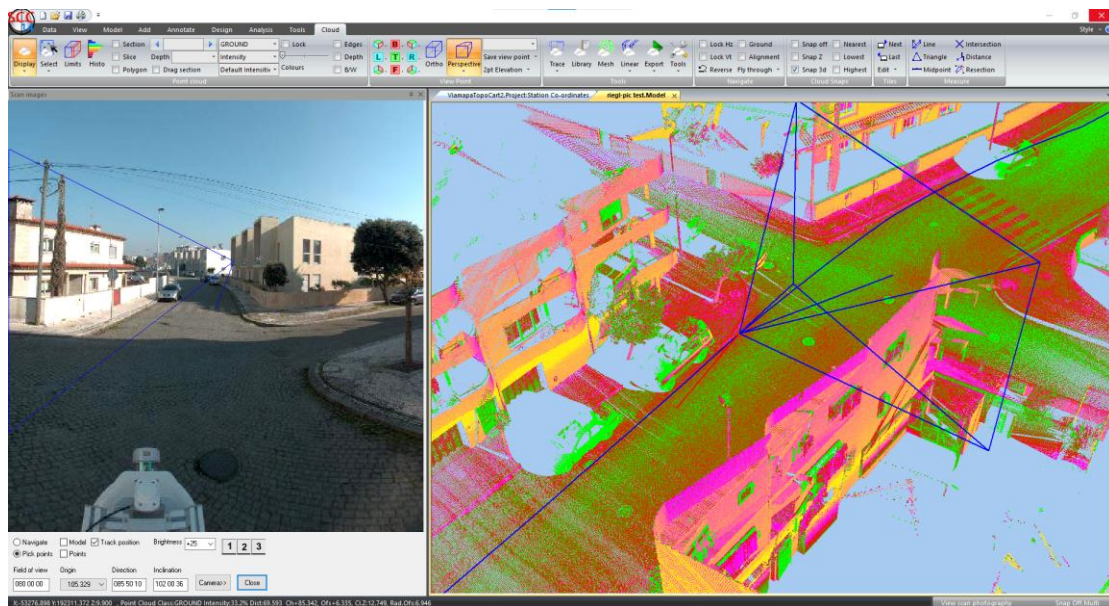
- Support has been added for creating point cloud models directly from Riegl RDBX data files

- Support has been added for creating point cloud models directly from LandXML files

- Support has been added for creating point cloud models directly from DWG, DGN and DXF files

- Support has been added for creating point cloud models directly from user defined ASCII format files

- Enhancements have been made to the LandXML import routines to allow creation of multi-surface models from huge input files. Additional options have been added to strip out invisible faces, automatically vectorize surface boundaries and optionally re-triangulate as a single surface. Multiple surfaces also get allocated distinct ground types and colours for visualization purposes.

- A new option has been added to compute volumes broken down by surface for multi-surface models. This option is available on the **Analysis** tab under **Volumes** using the **Ground/Surf** button. Tutorial showing import and volume computations here; https://www.youtube.com/watch?v=dhRyre5tLBE

- A new option has been added interactively hide and display groups of ground types / surfaces. This is available on the **Model** tab using the **Triangulation / Ground** button.

- A new option has been added to automatically create ground type boundary strings from existing ground types. This is available on the **Model** tab using the **Triangulation / Ground** drop down menu.

- A new option has been added to toggle display of all ground types on or off. This is available on the **Model** tab using the **Triangulation / Ground** drop down menu.

- The swept path analysis tool has been enhanced to support design templates for vehicle tractor and trailer models. This allows for clash detection against large and complex loads such as wind turbine blades and tunnel boring machine components.

- Added an extra option to section annotation to disable annotation of point cloud derived points, to clean up OLE sections without having to change style.

- Updated the option to trace walls from a point cloud to solve a wider number of cases

- Updated the smoothing options in trace linear functions to allow for separate tolerances for arcs and straights

- Updated a number of dialogs to widen feature name and block name fields

- Added a new option to create a templated design surface from section strings in the model. Short tutorial video here, https://www.youtube.com/watch?v=m_bH_0b30NY If you have an existing alignment, you will be given an option to use that, if not SCC will create one based on the centre point of each string. The routine handles different numbers of points in each section and changing section shapes as can be seen in the video.

- A number of updates have been made to the tunnel modelling and unwrapping routines to improve speed and accuracy

- An additional CAD export option has been added to automatically create new widened line styles and draw white lines as wide polylines for SCC white line strings. When creating 2D drawings, this creates dashed white line that replicate the SCC result and can be easily edited.

- The Leica HexML import has been updated to support HexML 2.0 including Apole attributes in detail, traverse and station spreadsheets. This also includes support for GDOPs in detail and time stamps in all observations.

- The Geomax import has been updated to support newer geometric objects available in the latest versions of Xpad. An additional option has also been added to delete extra duplicate station observations present in some versions of the Xpad output.

- A new option to **Check GIS** data has been added to resolve errors when editing combined GIS and topographic surveys. This option compares the GIS data from the current model, for all edited points which are no longer linked to the original survey, with a second model which has not been edited. Where the current model has an edited point with no GIS data (e.g. all default values), and the comparison model does have data, it uses the data from the comparison model. It also generates a CSV file of all the changes made under C:\TEMP\GISUpdates.CSV for QA purposes. This option is available under the **Features** dropdown in the **Data tab**

- A new option to **Update GIS metadata** has been added to update GIS metadata between different versions of a project template. This option is available under the **Features** dropdown in the **Data tab**

- A number of additional options have been added to the ESRI shape file export to automatically populate missing data base fields, create polygon output suitable for AutoCAD, and control whether list fields are output as text or integers. See the following video for an example of collecting GIS data fields from a mobile mapping point cloud and outputting the result to QGIS, https://www.youtube.com/watch?v=rUQ8zF5sY7U

- The Trimble FXL feature library export has been updated to work with the advanced survey coding table and better support GIS attribute selection. (Note GIS attribute collection is also well supported in Geomax and Leica data collectors).

- A bug has been corrected in live sections where sections that passed through a survey point rather than a string edge were not having the feature name annotated

- An additional wriggle report has been added

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- A bug in E57 export has been corrected where some E57 files with large real-world coordinates were not exporting correctly

This release is available for immediate download using the links below;

Full install (1.6gb): https://atlas-files.com/scc-users/setup-scc-14-6-0.exe
Update (244mb): https://atlas-files.com/scc-users/setup-scc-14-6-0-update.exe
MSI full (1.6gb): https://atlas-files.com/scc-users/setup-scc-14-6-0.zip
MSI update (244mb): https://atlas-files.com/scc-users/setup-scc-14-6-0-update.zip

Please note running these installations requires administrator privileges to properly install all components and that all components (SCC, Faro SDK, Trimble Link Engine, HASP driver and VS service packs) must all be installed for the installation to work. SCC r14 is currently supported on 64-bit versions of Windows 11 or 10

 We have a youtube channel of video tutorials covering most of the typical uses of SCC here.   We are regularly adding to this channel so if there is any specific area you would like to see covered by a video tutorial, please let us know. Please subscribe to our channel to keep updated with new material.

If you would like a demonstration of the new features or any existing features of SCC, we can be contacted at 003531 4958714 (Ireland), or in the UK via +44 (0)1767 666100 (Visual-ize). The SCC r13 brochure can be downloaded here

If there are any new features you would like to see added to SCC or have any problems with any of the existing features, we'd be delighted to hear from you.

 To keep up to date with developments in SCC please join our user forum here or Linked In group here