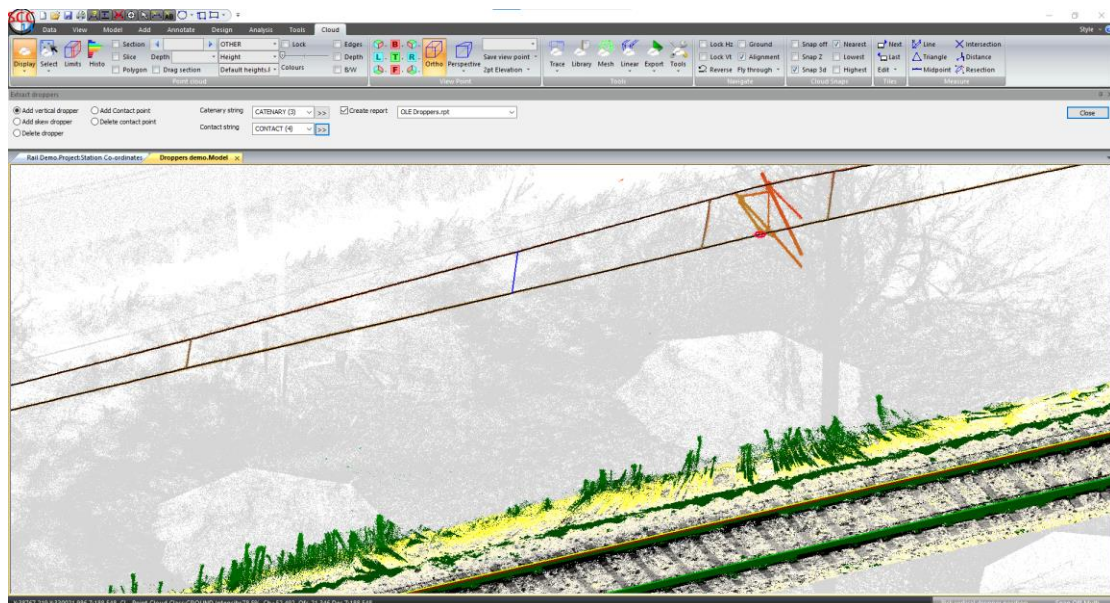




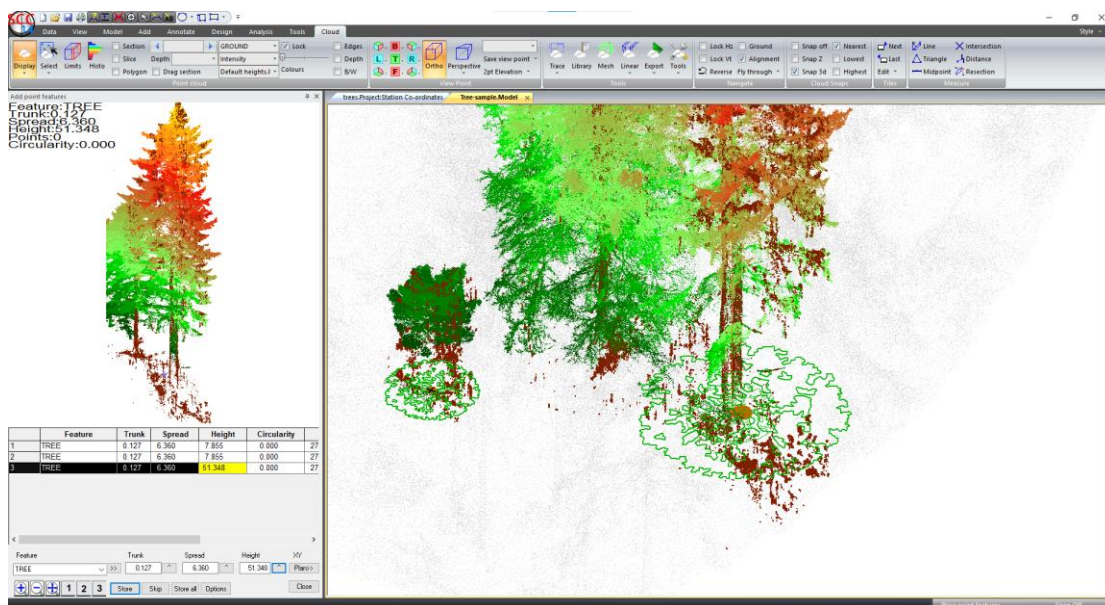
Date: July 2023
Re: SCC 14.10.12

We are pleased to announce a new major release of SCC with SCC 14.10.12. This release contains the following modifications from SCC 14.8.3;

- A new tool has been added for automated dropper extraction from point clouds in rail OLE surveys. This includes extraction of droppers and contact points, reporting and integration with the OLE height and stagger tool. This tool can be accessed via **Cloud / Linear / Create Droppers**. A short video tutorial covering this tool here;
<https://www.youtube.com/watch?v=OC0pcZIJ3OY>



- An additional tool has been added to rapidly edit extracted droppers and contact points with options to add and remove vertical and inclined droppers and contact points. This tool can be accessed via **Cloud / Linear / Edit Droppers**. A short video tutorial covering this tool here; <https://www.youtube.com/watch?v=i3o9HbQ4jDc>
- Additional options have been added to the **Cloud / Tools / Add point features** tool to quickly place and collect accurate dimensions for trees in scanned point clouds, including position, height, spread, trunk girth and trunk diameter. Dimensions are applied using feature library dimension units, e.g. radius, diameter or girth and dimension names are given by feature in the add points dialog. A short video tutorial covering this here; <https://www.youtube.com/watch?v=GxvWfLEcz18>



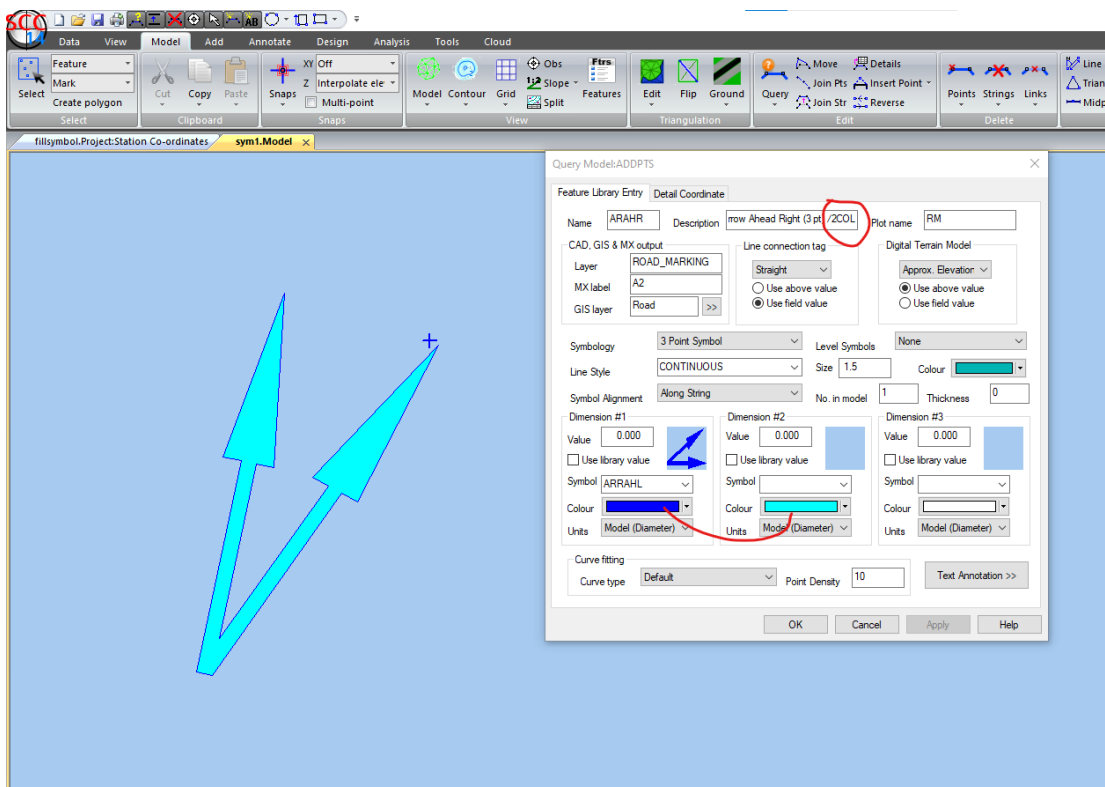
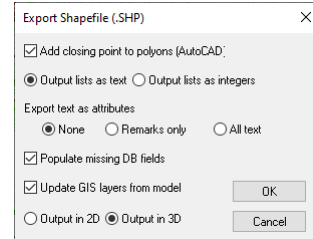
- The query feature option has been updated to allow you to specify names for dimensions for each feature, e.g. Girth, spread and height for d1, d2 and d3 in trees.
- A new tool has been added to automatically extract embankments, retaining walls and similar features from linear models such as road. Short tutorial video here; <https://www.youtube.com/watch?v=1f1OW36bxJ4>
- New options have been added to the point cloud panoramic and perspective image editing tools to export depth maps and pixel maps. Depth maps are created as GeoTIFF files where the depth field represents the distance from the scanner to the target at the photograph location. Pixel maps are binary files that map pixel image coordinates to point cloud world coordinates in the following format

```

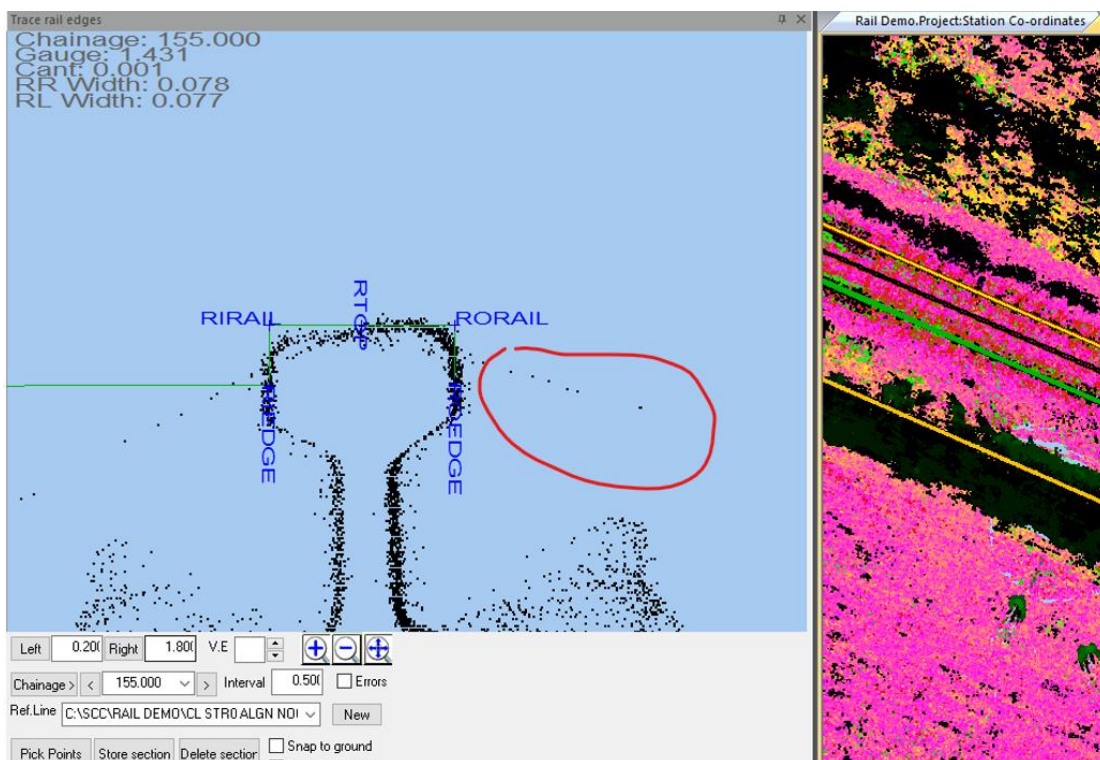
struct MapPoint
{
    unsigned short PixelX, PixelY;           // Pixel coordinates of point
    long long PointID;                       // Unique ID of point (not needed)
    double x,y,z;                            // Grid coordinates of point
    byte r, g, b, Intensity, Flags;         // Colour and intensity of point
    byte PointClass;                         // Class of point, e.g. Ground, vegetation etc....
};

```

- The swept path analysis tool has been updated to massively improve performance on large jobs with templates and complex alignments. Tests have shown a 10x to 20x performance increase. We've added a tutorial video which covers the full workflow from raw point cloud data here; <https://www.youtube.com/watch?v=DxulQBwdfIA>
- Shape file export has been updated to automatically populate GIS layer and default meta data fields to greatly simplify exporting any model to ArcGIS, QGIS and similar packages. To do this, tick **Populate missing DB fields** and **Update GIS layers from model** options as shown.
- Shape file export now includes an option to export text as attributes such that they can be displayed on the importing package. The text attributes come through as extra layers, all starting with **TX_** To display them in QGIS, see the following note <https://gis.stackexchange.com/questions/22893/how-to-display-places-names-when-using-quantum-gis-and-shapefiles>
- Exported shape files now get stored in a folder in your project with the same name as the model and a suffix of -SHP
- An extra option has been added to shape file export to add an extra point to polygons for import into AutoCAD
- An option has been added to the feature library to specify separate line and fill colours for symbols. This is done by adding the text /2COL to the feature description as shown below



- A new option has been added to survey dashed white lines using three survey points. The first point is the start of the dashed line, the second point is the end of the first dash and the last point the end of the last dash. D1 contains the number of dashes and D2 the line width. This allows easy creation of evenly spaced dashed white lines in the field without having to measure any line lengths. The following short tutorial shows how to use this interactively; https://www.youtube.com/watch?v=f1qf_5atqNk To use this in the field you need to set up a feature, such as WL_COUNT in the video, on your logger and in the feature library, where d1 is the dash count and d2 is the dash width (optional).
- An additional transformation option has been added to apply or remove a scale factor based on a known scale factor an origin point, which can be a selected station.
- An option has been added to reverse the chainage direction of an alignment. This is available from horizontal entities spreadsheet view under **Tools / Reverse alignment**
- The noise analysis options on rail extraction tool have been updated to support automatic elimination of horizontal noise near the rail head as shown below;



- The E57 import has been updated to support image import where multiple E57 files are merged into a single model.
- An option has been added to import images associated with the Emesent Hovermap STX
- An option has been added to import image lists in Orbis format

- Recap RCS format has been added as an option for automatic tiling to an external format
- New licensing options have been added for driverless network licensing using Sentinel V2C files and cloud licensing. Please contact us for more on these options.
- Node locked licenses now support multiple machine serial numbers where multiple networks are in use
- Exporting text boxes and link lines now uses the level symbols layer in the feature library if the option to use level symbol layers is set to yes

Feature	Field Code	Description	Plot name	Ground type	InsertMethod	L.Sym Color	Use Layer	L.Sym Layer
43	BST	Bus Stop Text Only	BST	0	S	Text Macro	Yes	TX_BOXES_AND_LINKS
44	BT	Talacam Cover	BT	0	S	Text Macro	No	
46	RT2	Talacam Cover 2st	RT	0	S	Text Macro	No	

- Video codecs have been updated to support a wider range of formats and resolutions when exporting videos. Video creation was leaving a artefacts at the bottom of the screen where the video size did not correspond to the SCC window size, this has been corrected. Video creation is also faster in this version and reports a message of where the video has been written to on completion
- Raster (bitmap) output now scales line widths as per point cloud points for high resolution images and reports an error on screen if jpg creation fails for any reason. This typically happens if the largest dimension exceeds 32,768 pixels or if the image is open in another viewer
- A bug has been fixed where there was occasional screen flickering in perspective when viewing large point clouds
- A bug has been fixed where creation of oblique base lines in symbols was disabled
- The Faro driver is no longer installed by default in this release as it was a cause of installation issues for some users. Please contact us at support@atlascomputers.ie if you need this driver.
- A bug has been fixed where very short macrolines were sometimes being exported to CAD incorrectly

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

Full install (1.6gb): <https://atlas-files.com/scc-users/setup-scc-14-10-12.exe>

Update (244mb): <https://atlas-files.com/scc-users/setup-scc-14-10-12-update.exe>

MSI full (1.6gb): <https://atlas-files.com/scc-users/setup-scc-14-10-12.zip>

MSI update (244mb): <https://atlas-files.com/scc-users/setup-scc-14-10-12-update.zip>

Please note running these installations requires administrator privileges to properly install all components and that all components (SCC, 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 r14 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](#)