Leica TruView (LGS Viewer) Tutorial

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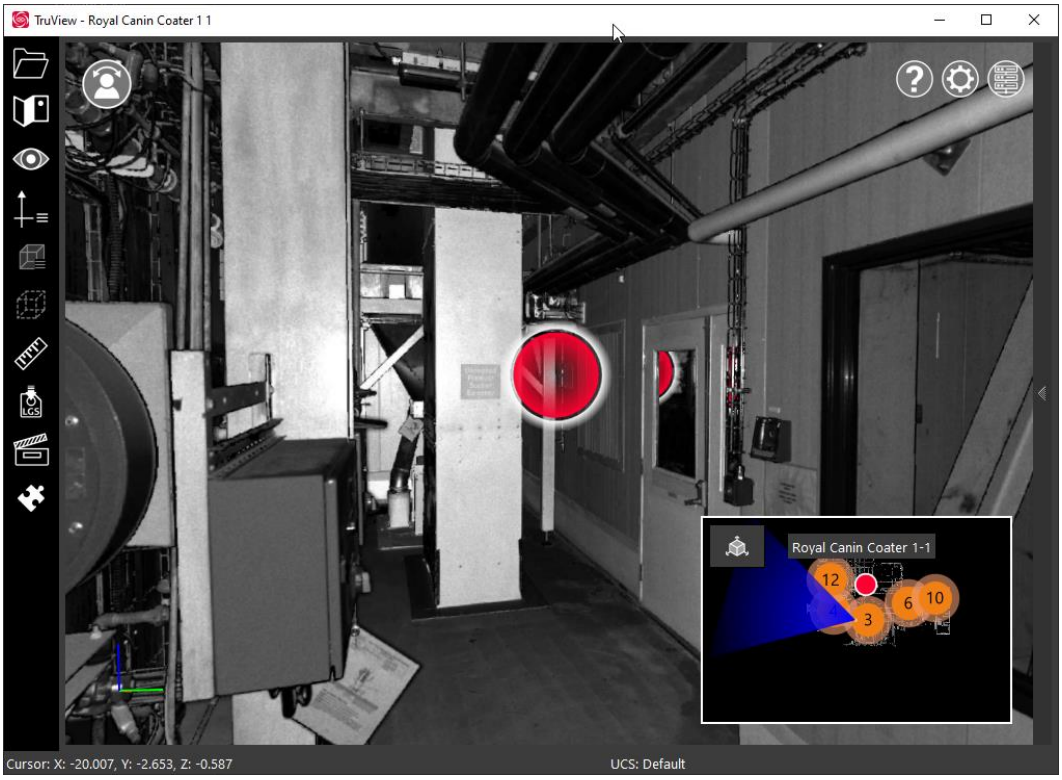
Opening the Point Cloud

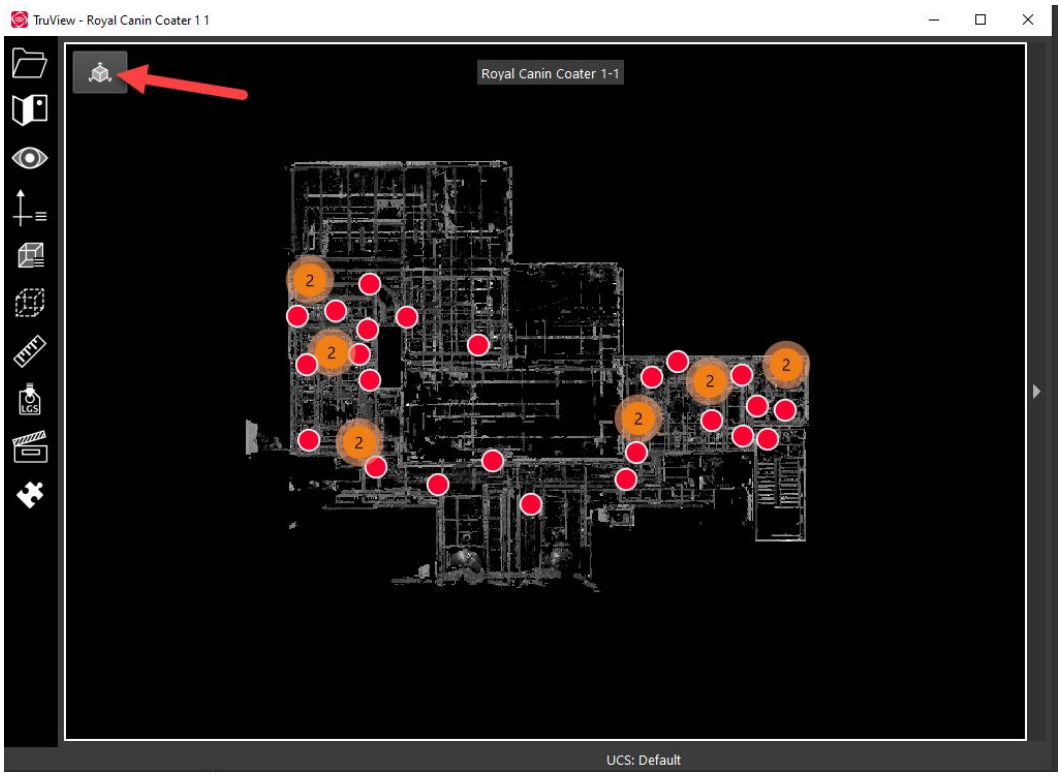
1. Install Leica TruView.
2. Double click on the LGS file to open the file in TruView. The point cloud will open with a top down view of the site map, along with all the scan locations.

Navigating the Point Cloud

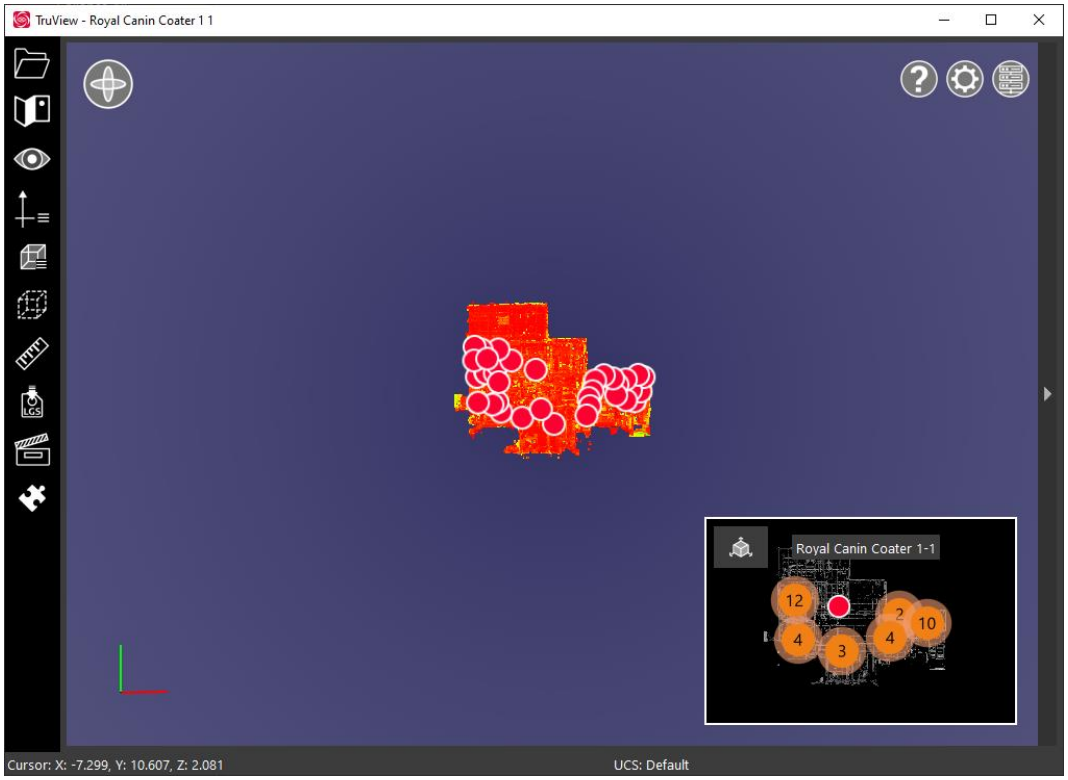
3. Each red bubble represents a scan location (bubble view). An orange bubble with a number shows where there are multiple scans, so as to not clutter the site map. As you zoom in (using the scroll wheel), the orange bubbles will break up into the individual scans.
4. Double click on a red bubble to view the scan in a 360° view from that particular scan location. Use the left mouse button to look around, and use the scroll wheel to zoom in or out. Double clicking on any other red bubbles will move to that scan location.



5. Click on the cube at the top left to view the point cloud.



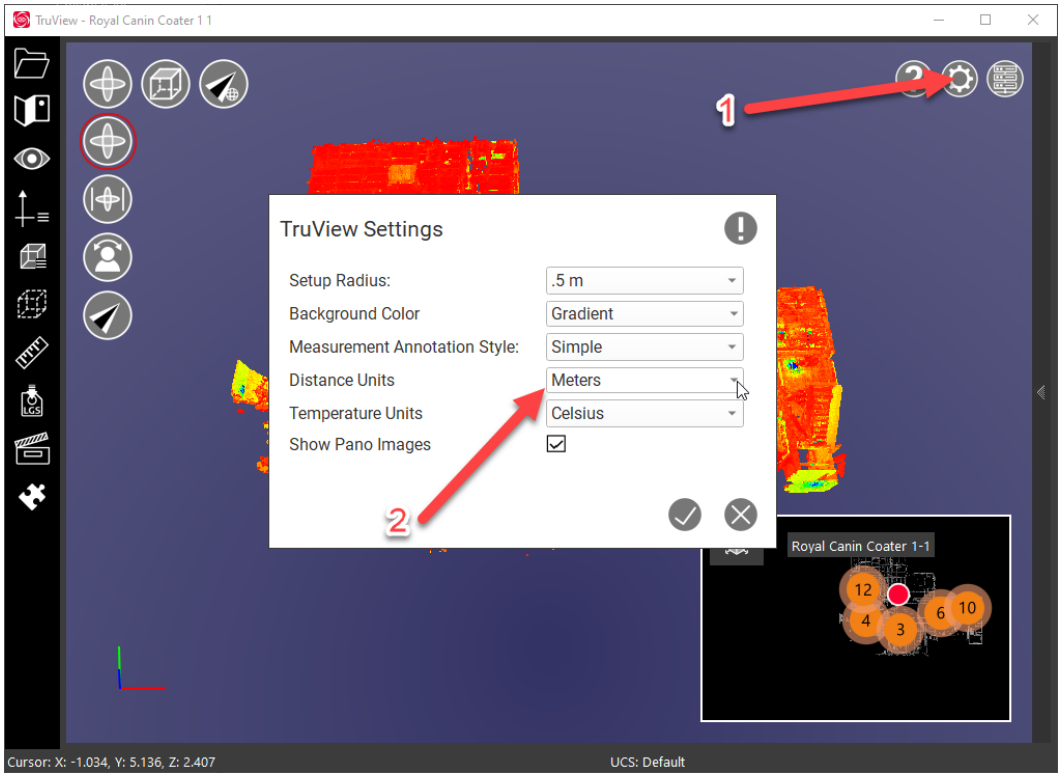
6. Move the scroll wheel up or down to zoom in and out. Use the left mouse button to orbit around the selected point. Use the right mouse button to pan the screen.



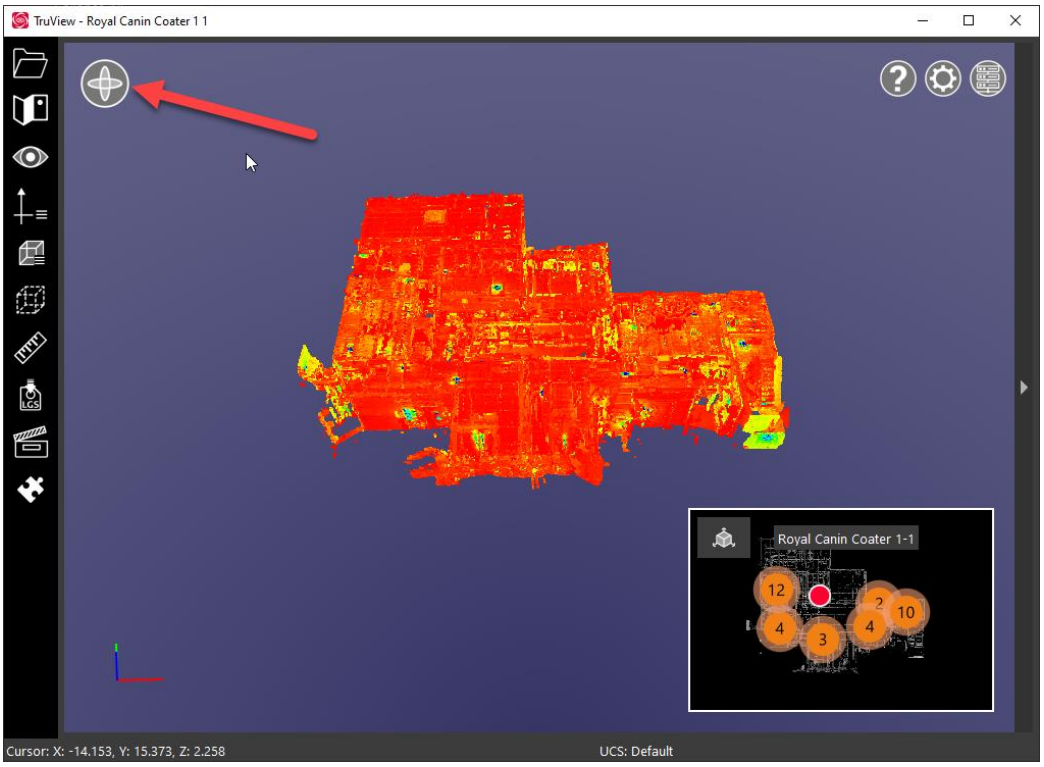
7. Hover over any point to see the coordinates in the bottom left of the window. Note that coordinates can only be shown for points captured by the scanner.

Changing Units and Viewpoints

8. To check and change the units of the point cloud, click on the gear icon at the top right of the window, and then click on the drop-down menu beside “distance units.” You can choose between meters, international feet and US survey feet.



9. Click on the orbit button at the top left to change to different viewing methods.



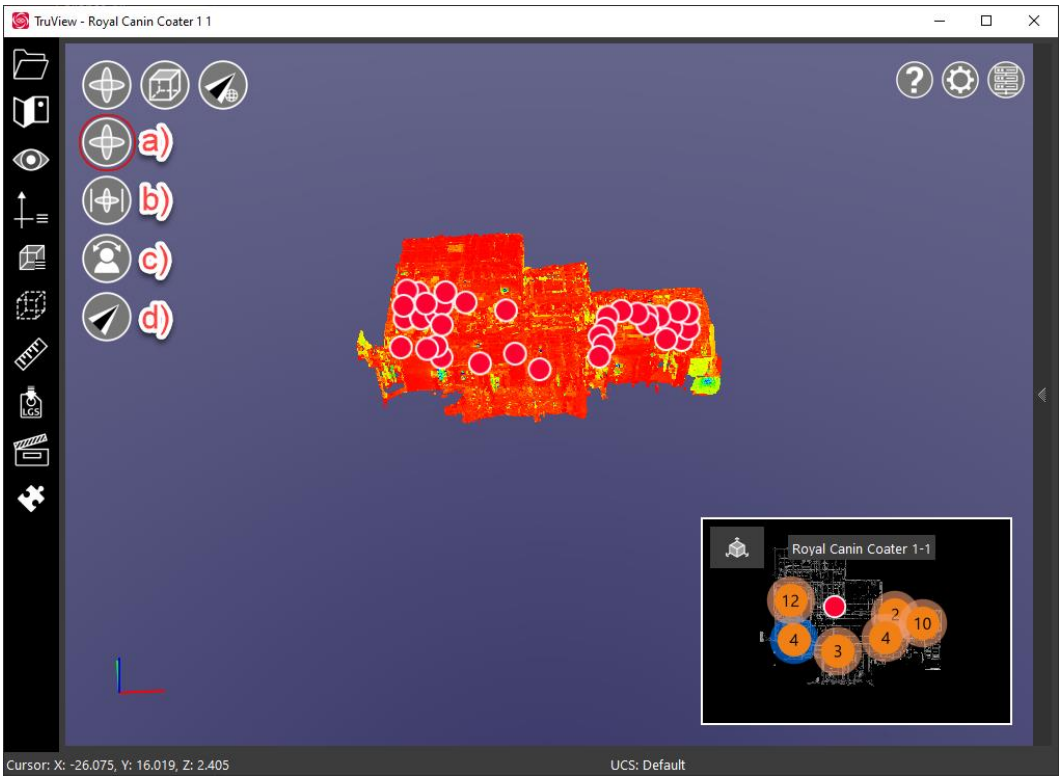
10. There are 4 different ways to navigate through the point cloud.

a) Orbit – use this to orbit (using left mouse button) at the selected point

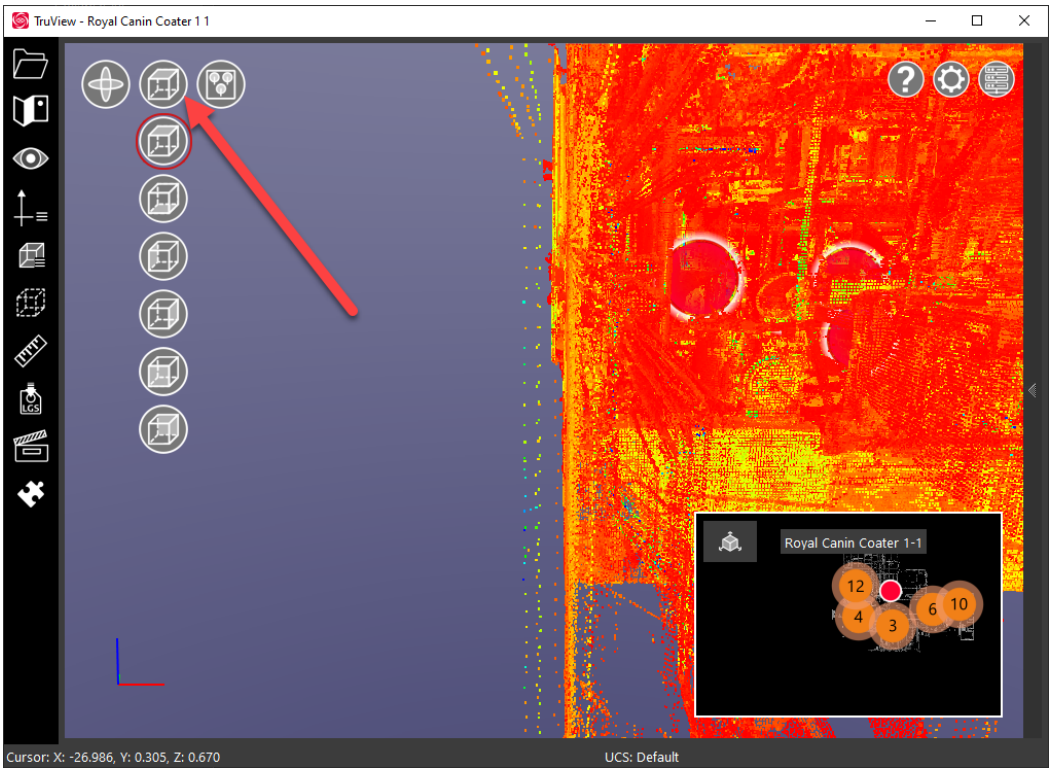
b) Orbit orthographic - use this to orbit at the selected point through an orthographic projection

c) Panorama – use this to view the point cloud from a panoramic point of view at the current position. Use the left mouse button to look around, and scroll up and down to zoom in and out.

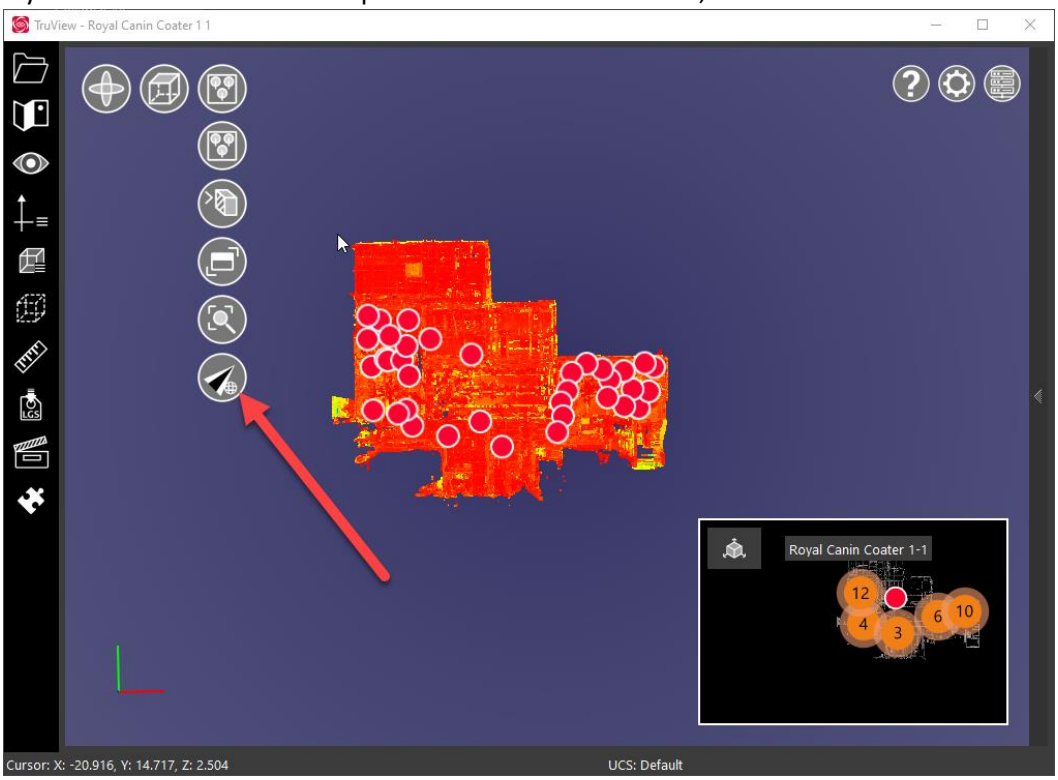
d) Flythru – use to view the point cloud from a 1st person perspective. Use the left mouse button to move forward, right mouse button to move backwards, and scroll up or down to adjust the speed.



11. Click on the cube to view the point cloud from 1 of 6 orthographic viewpoints (front, back, left, right, top and bottom). These viewpoints are dependent upon the coordinate system of the point cloud.

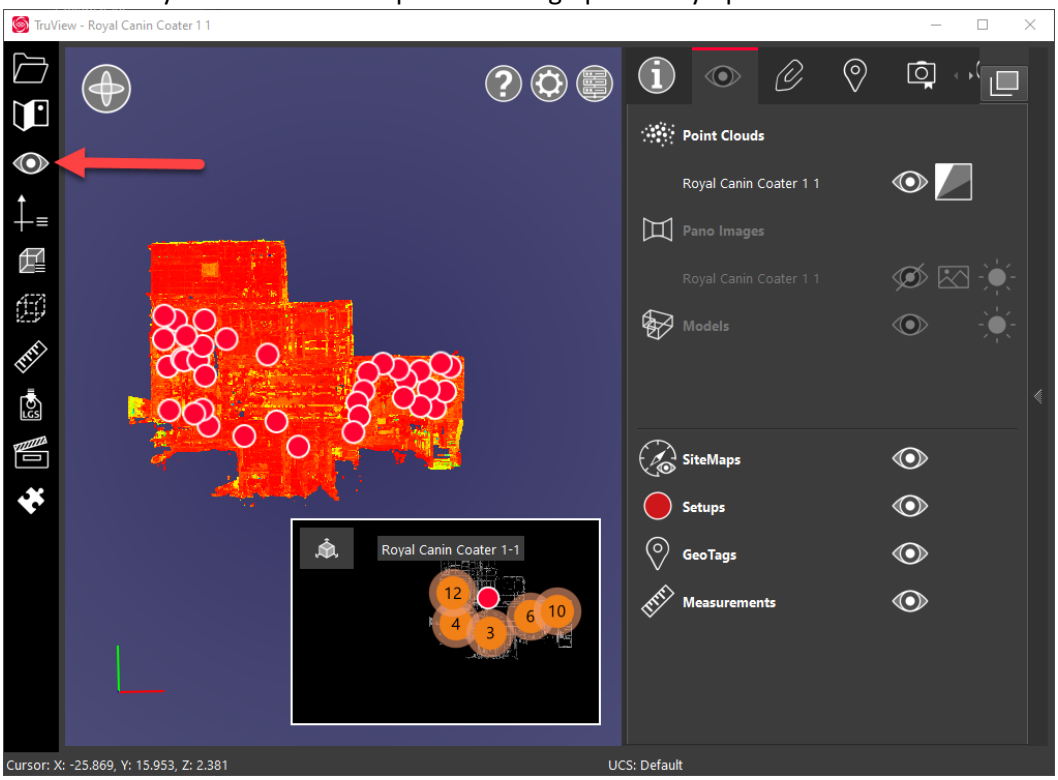


12. If you would like to zoom to a particular known coordinate, use the button below.



Visibility Options, Geotags and Attachments

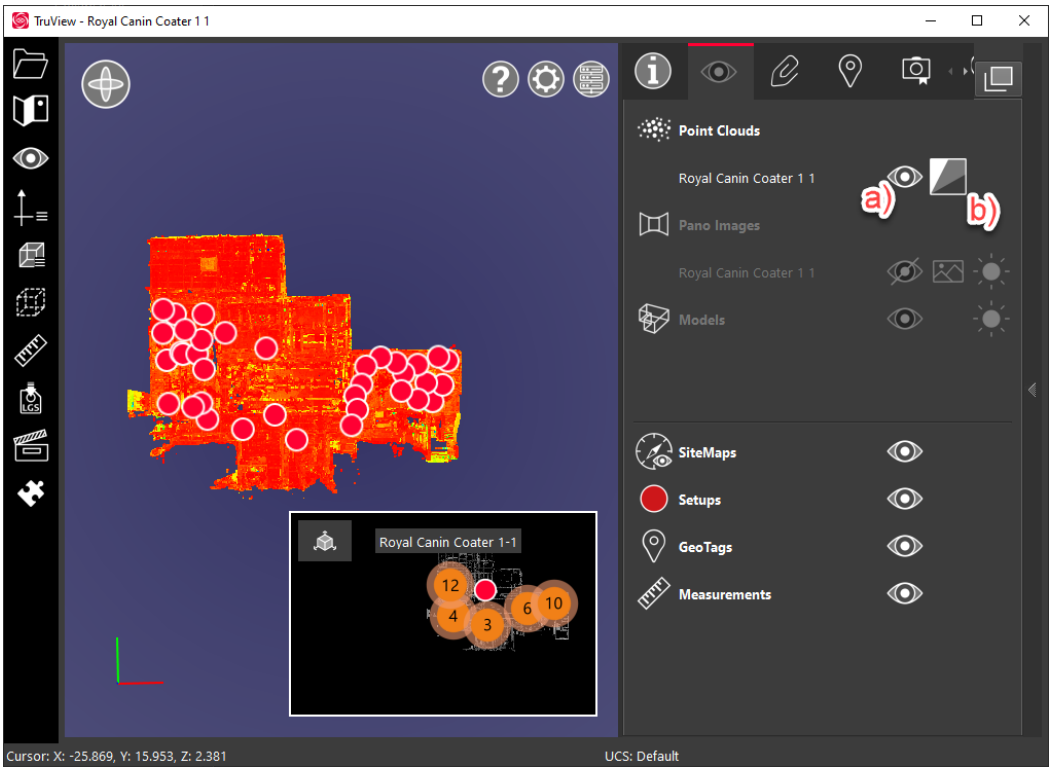
13. Click on the eye on the left-hand panel to bring up visibility options.



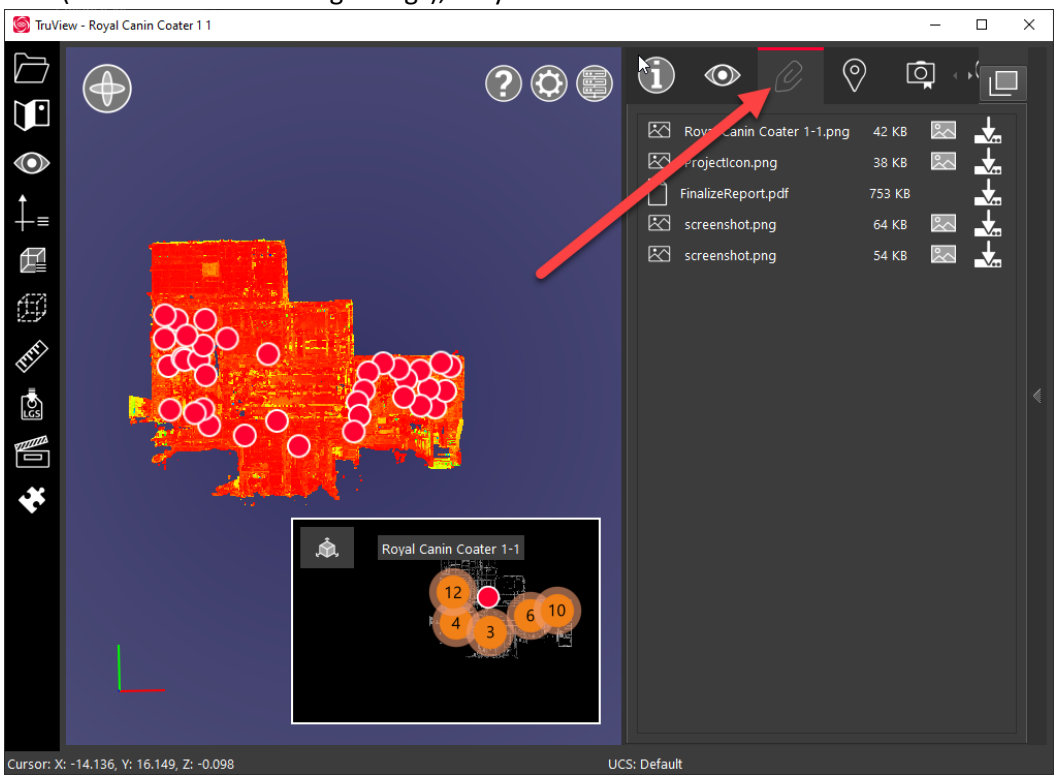
14.

a) click on the eye symbol to turn off and on the respective entity (I.e., the point cloud, the setup bubbles, geotags, etc.).

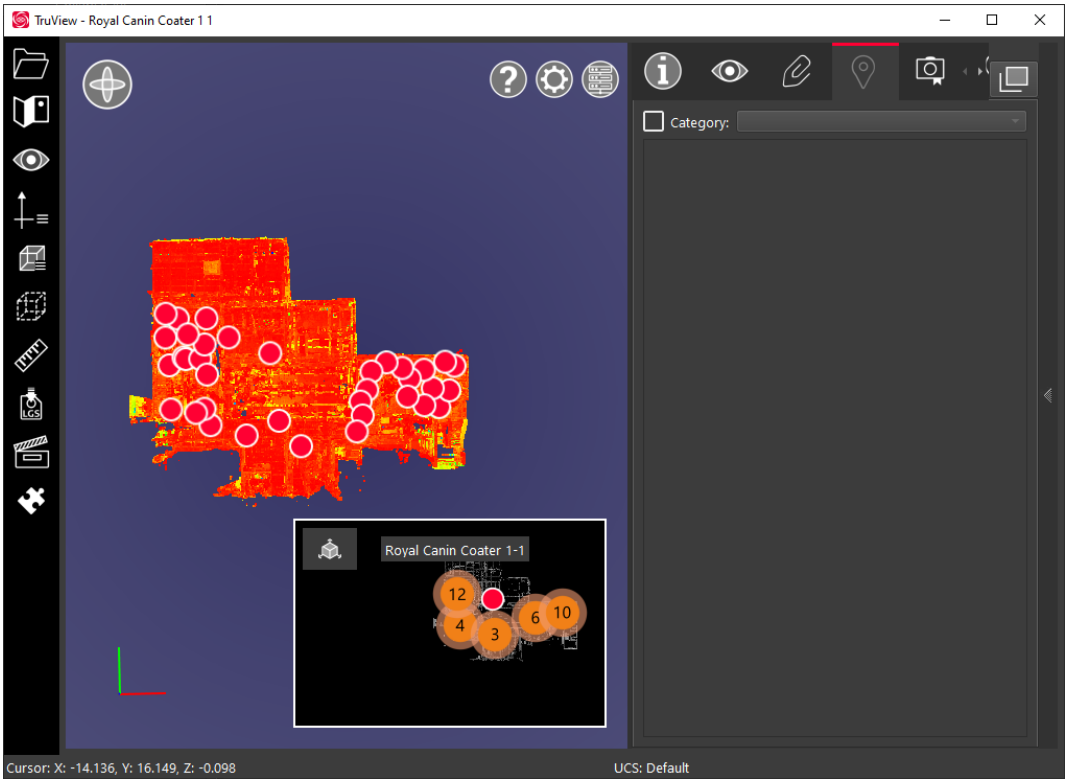
b) click on the square with a gradient to change the cloud colour. Typical options include colour from scanner (if pictures were taken), a hue/intensity map (the colours shown in image below), and a greyscale intensity map.



15. Click on the paper clip icon to see any attachments. If any extra photos were taken during the scan (that weren't used for geo tags), they would be here.

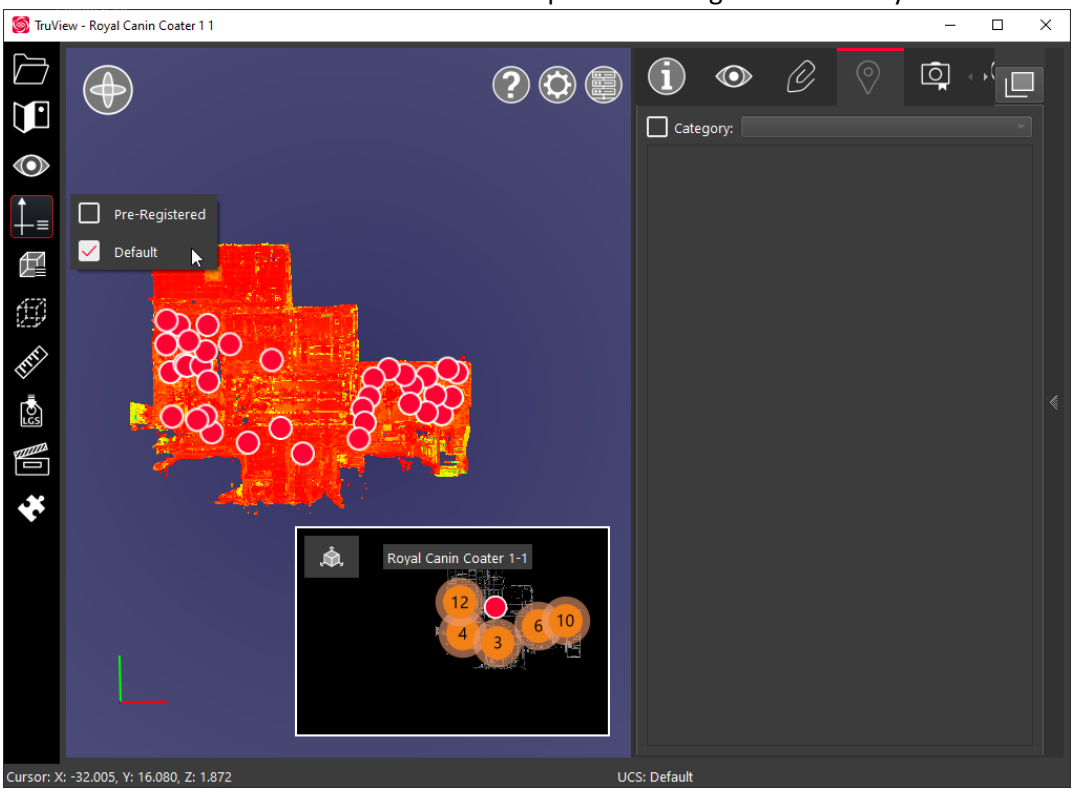


16. Click on the geotag icon to see any geotags, if applicable. Double clicking on a geotag will zoom into that particular geotag in the point cloud.



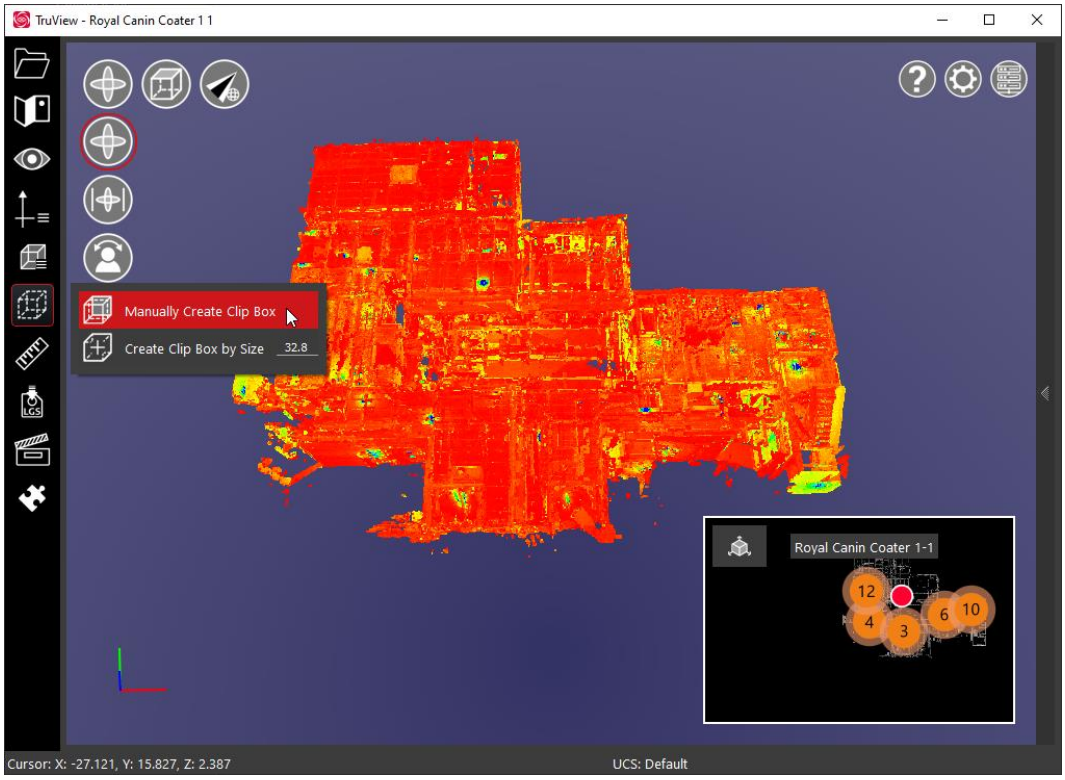
Coordinate Systems

17. Click on the coordinate icon on the left-hand panel to change coordinate systems.

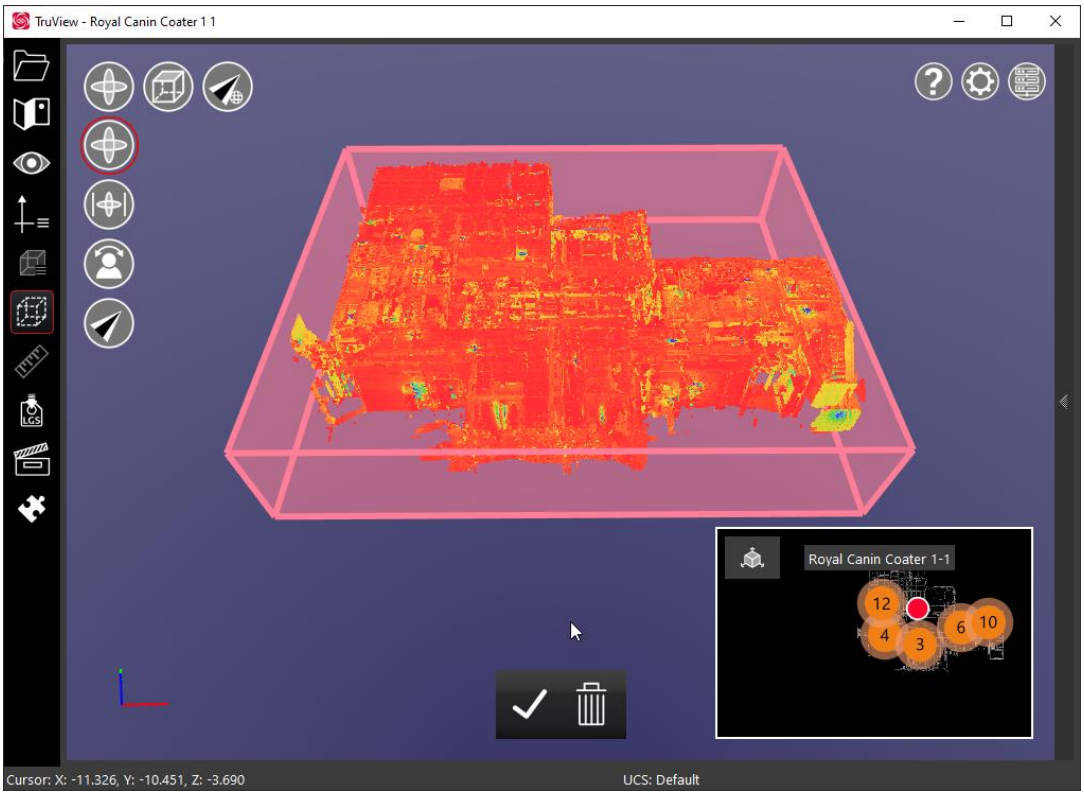


Clip/Limit Boxes

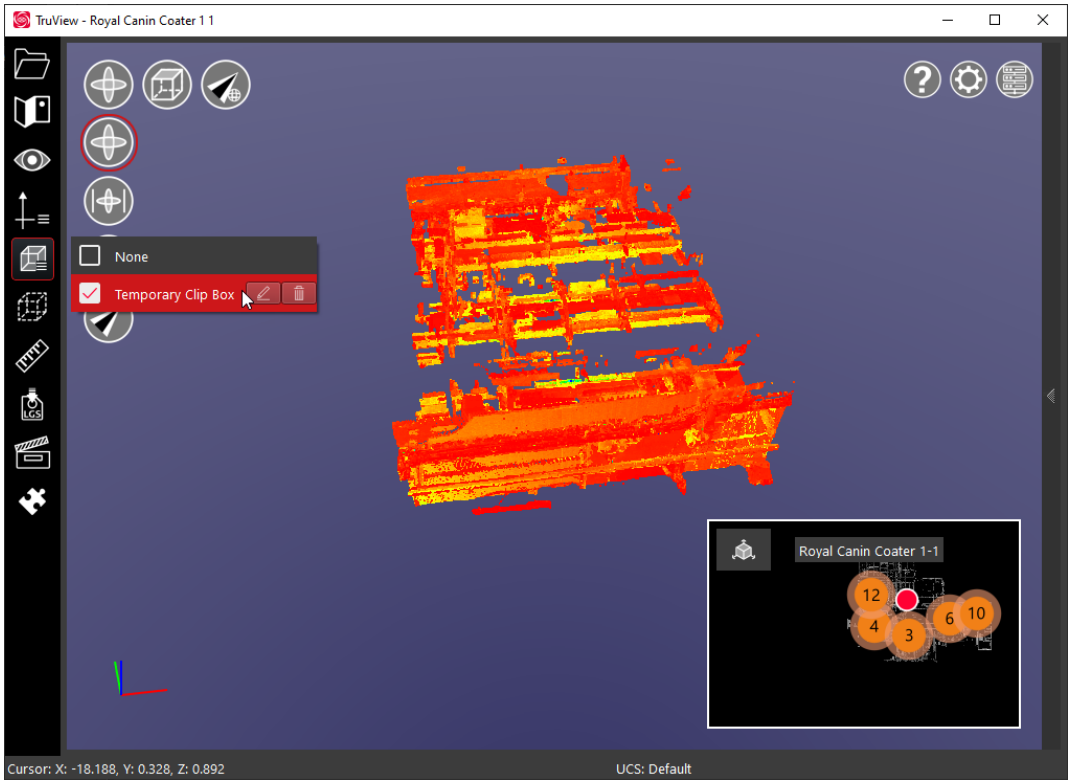
18. Click on the box made of dashed lines to access clip box settings. A clip box allows you to look at a particular section of the point cloud and hide all the other points.



19. Select manually create clip box. A pink transparent box will appear. You can manipulate this box by left clicking and holding on any of the 6 faces, and dragging to the desired location. To select a face behind another face, hold shift and left click. To orbit around, hold control and then you can orbit as before using the left mouse button. Once the desired clip box has been created, click on the checkmark at the bottom. You can click on the trash can (or press escape) at any time to exit the clip box creation.



20. You can see the clip box by clicking on the box in the left-hand panel. You can turn on and off the created clip boxes, as well as edit and delete.



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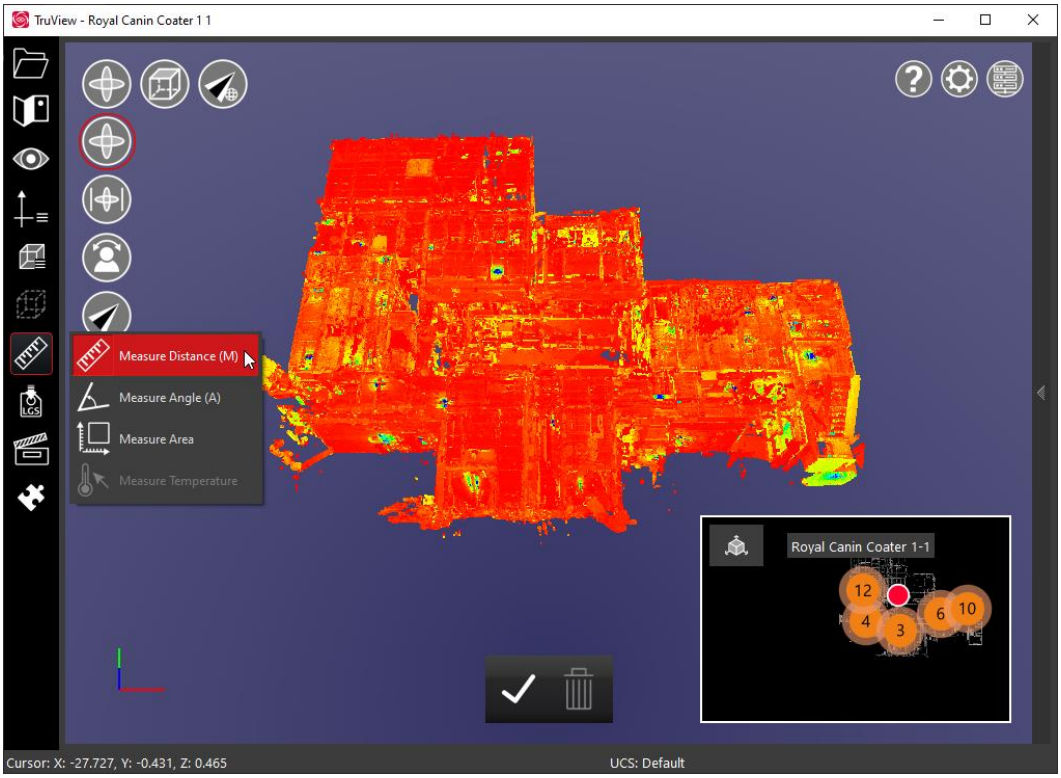
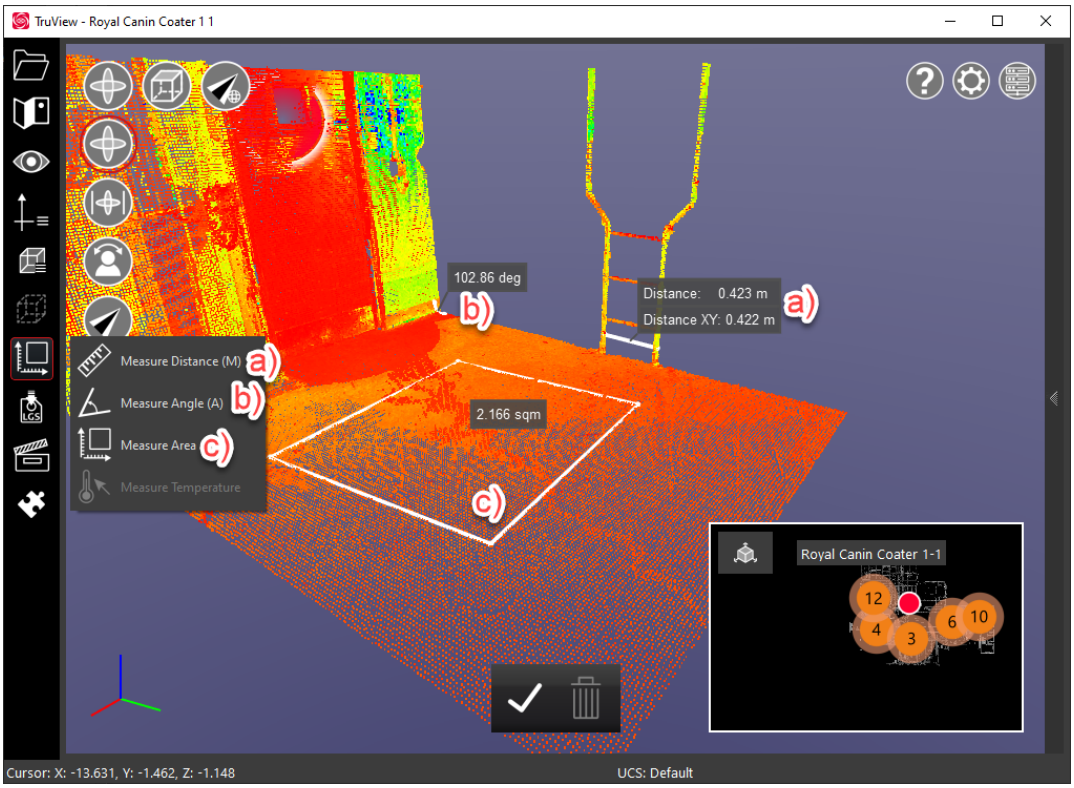
Measurements

21. You can make simple measurements using the built in tools in TruView. You can measure distance between two points, an angle, and area.



22. To measure distance (a), just select the two points and it will give you the distance.

To measure an angle (b), select three points and it will give you the angle between the three points
To measure area (c) (only in square meter sections), select two points and then you can drag out the rectangle to encapsulate the desired area.


TruView - Royal Canin Coater 1 1
102.86 deg
b)
Distance: 0.423 m
Distance XY: 0.422 m
a)
Measure Distance (M)
a)
Measure Angle (A)
b)
Measure Area
c)
Measure Temperature
2.166 sqm
c)
Royal Canin Coater 1-1
12
4
3
6
10
Cursor: X: -13.631, Y: -1.462, Z: -1.148
UCS: Default