
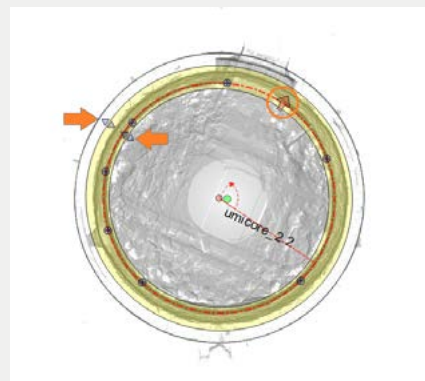


SPACE WARP

Cylindrical sections

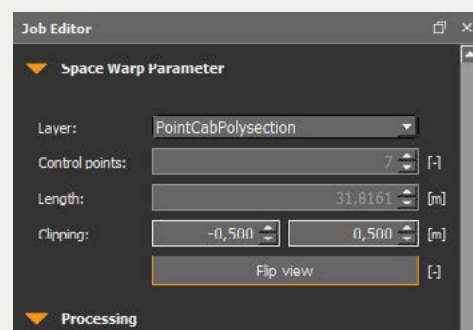
The cylindrical section is particularly well suited for visualizing, for example, a tower or a sewer access as a 2D orthophoto. The results can be further used for surface inspection. For example, the stones of a tower can be identified with this tool. The entire surface of the tower can thus be measured much more quickly and efficiently without having to create a large number of individual sections.


First we select the **Cylindrical Section tool** . The ground plan of the cylinder can be defined as an ellipse with at least 5 points. We go to the corresponding view, in this case the Top View, and click at least 5 points on the desired cylinder shell one after the other. From the fifth point on, an ellipse is automatically estimated through the 5 points. We finish the definition of the ellipse by double-clicking on the last point. We can move the points afterwards. In doing so, the estimated ellipse is adjusted in real time.



The section area marked in yellow defines the area of the point cloud that is taken into account in the calculation of the cylindrical section. We can adjust this section area in the view of the definition of the ellipse. The height of the cylinder is editable in the front view in this example.

Just as in a normal planar section, there is also a viewing direction in the cylindrical section, which is represented by the arrow symbol. In the Job Editor we can reverse the viewing direction by clicking on the „Reverse“ button. Implicitly, the left and right sides of the surface are swapped in the resulting image. We can use the colour or intensity information of the scan data to colour the surface information from the outside or the inside accordingly. If you want to visualize the inside of the cylinder as in this example, the projection direction must point from the inside to the outside.



After we have adjusted all other options such as resolution, intensity or colour values, we now start processing the job in the **job list** . A more detailed explanation of the setting options can be found in our tutorial [SpaceWarp - Options](#).

You can open the result of the cylindrical section by double-clicking on the entry in the job list or by right-clicking on the element and selecting „Open“ in the context menu.

