

Geospatial Modeling & Visualization

A Method Store for Advanced Survey and Modeling Technologies

GMV Geophysics GPS Modeling Digital Photogrammetry 3D Scanning Equipment Data and Projects by Region

Leica Cyclone 7.1.1: Sub-Dividing Large Point Clouds for Autodesk Applications – Final Images from Example

This page will show you examples of sub-divided point clouds.
Hint: You can click on any image to see a larger version.

VI. Final Images from Example

[TOP VIEW](#)
[SIDE VIEW](#)
[SIDE VIEW](#)
[FRONT VIEW](#)

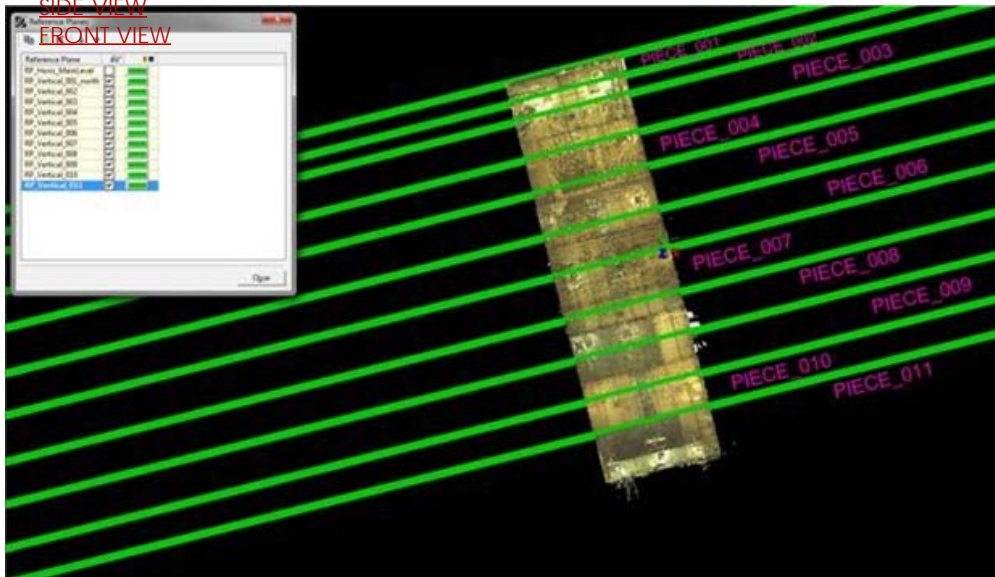


Figure 16 – Top view of the building with all of the vertical RP's visible; note the top-most RP (above Piece_001) is the original vertical RP that was created from the wall/patch and defined the direction of the grid and the division

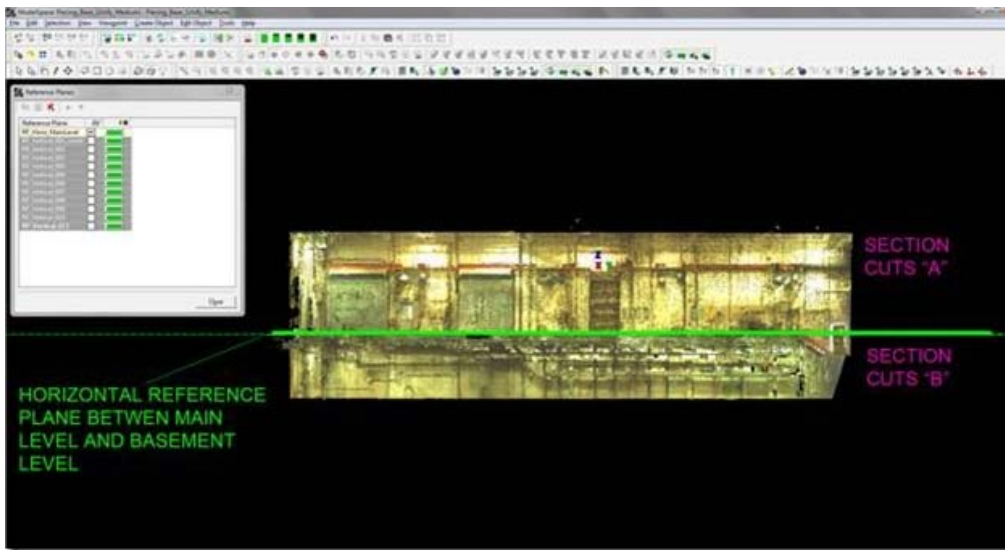


Figure 17 – Side view of the building with the single horizontal RP that was used; note that this was the original, default RP that was moved to a point on the floor of the main level.

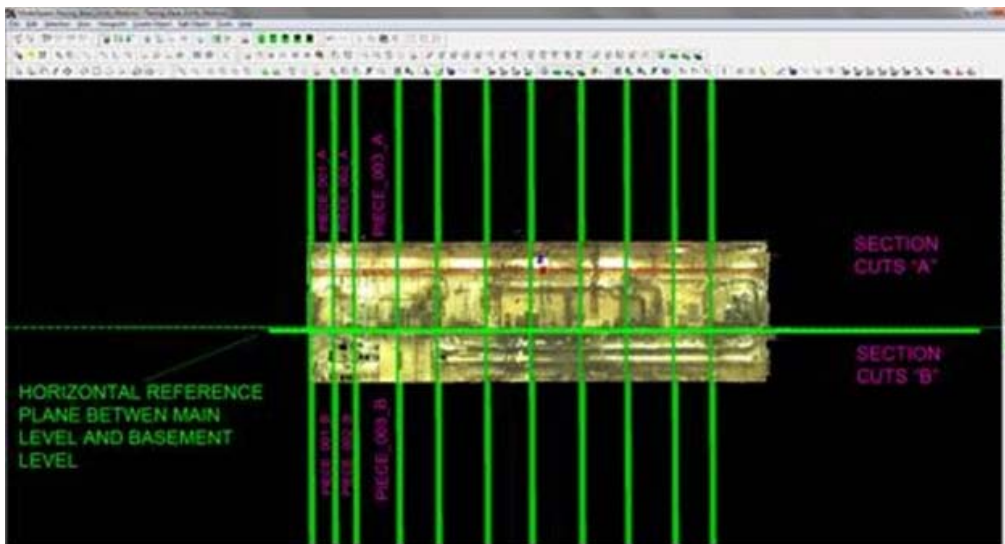


Figure 18 – Side view of the building with all RP's visible; note that in terms of physical dimensions, the pieces are not identical. The left side of the building is filled with complex layers of pipes – this resulted in more points and density. The RP's were placed close together making the physical dimensions of Piece_001 smaller than pieces to the right. The right side of the building had larger, less complex equipment resulting in sparser points and density. This meant that the physical dimensions of the pieces were larger although the size of the pieces (# of points) and the size of the exports remained consistent. Finally, note the naming logic, the number indicates it's from left to right and the letter A or B identifies whether it was the main level or basement level.

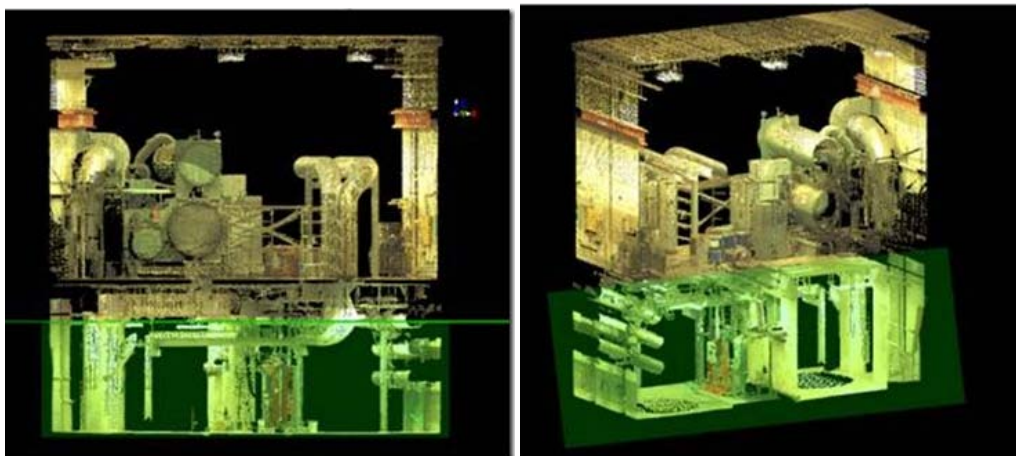
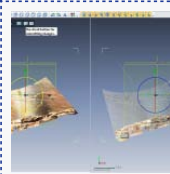


Figure 19 (Left) – Front view of a sectional cut and the horizontal RP used to divide the A & B cuts; Figure 20 (Right) – Perspective view of the same piece; note that initially looking at the data, the lower section has smaller physical dimensions and appears to be less complex/dense. However, the number of points and the size of the export for the top section were approximately equal to the relative sizes of the bottom section. The bottom section was extremely confined with many obstructions and a limited scanning range – resulting in very dense data on objects close to the scanner. The top section was open and the occurrence of very dense data due to proximity to the scanner was much lower. Here the scanning range itself resulted in the need for smaller pieces to achieve the appropriate file sizes.



You are reading the series: [Leica Cyclone 7.1.1 : Suggested Workflow for Data Registration](#)
[Leica Cyclone 7.1.1 : Interface Basics](#)
[Leica Cyclone 7.1.1 : Importing Data into Cyclone](#)
[Leica Cyclone 7.1.1: Registering Scans in Cyclone](#)
[Leica Cyclone 7.1.1: Sub-Dividing Large Point Clouds for Autodesk Applications](#)
[Leica Cyclone 7.1.1: Sub-Dividing Large Point Clouds for Autodesk Applications – Exporting the Data](#)
Leica Cyclone 7.1.1: Sub-Dividing Large Point Clouds for Autodesk Applications – Final Images from Example

Please cite this document as: Stevens, Caitlin. 2012. Leica Cyclone 7.1.1: Sub-Dividing Large Point Clouds for Autodesk Applications – Final Images from Example. CAST Technical Publications Series. Number 7420. <http://gmv.cast.uark.edu/uncategorized/leica-cyclone-7-1-1-sub-dividing-large-point-clouds-for-autodesk-applications-final-images-from-example-2/>. [Date accessed: 27 April 2013]. [Last Updated: 9 May 2012]. *Disclaimer: All logos and trademarks remain the property of their respective owners.*

Login

[Log in](#)