ATLAS-GTU TAI WORKSHOP

GEOMETRY DEVELOPMENT FOR THE VISUALIZATION APPLICATIONS

Layer processing

Alexander Alikhanov

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Outline

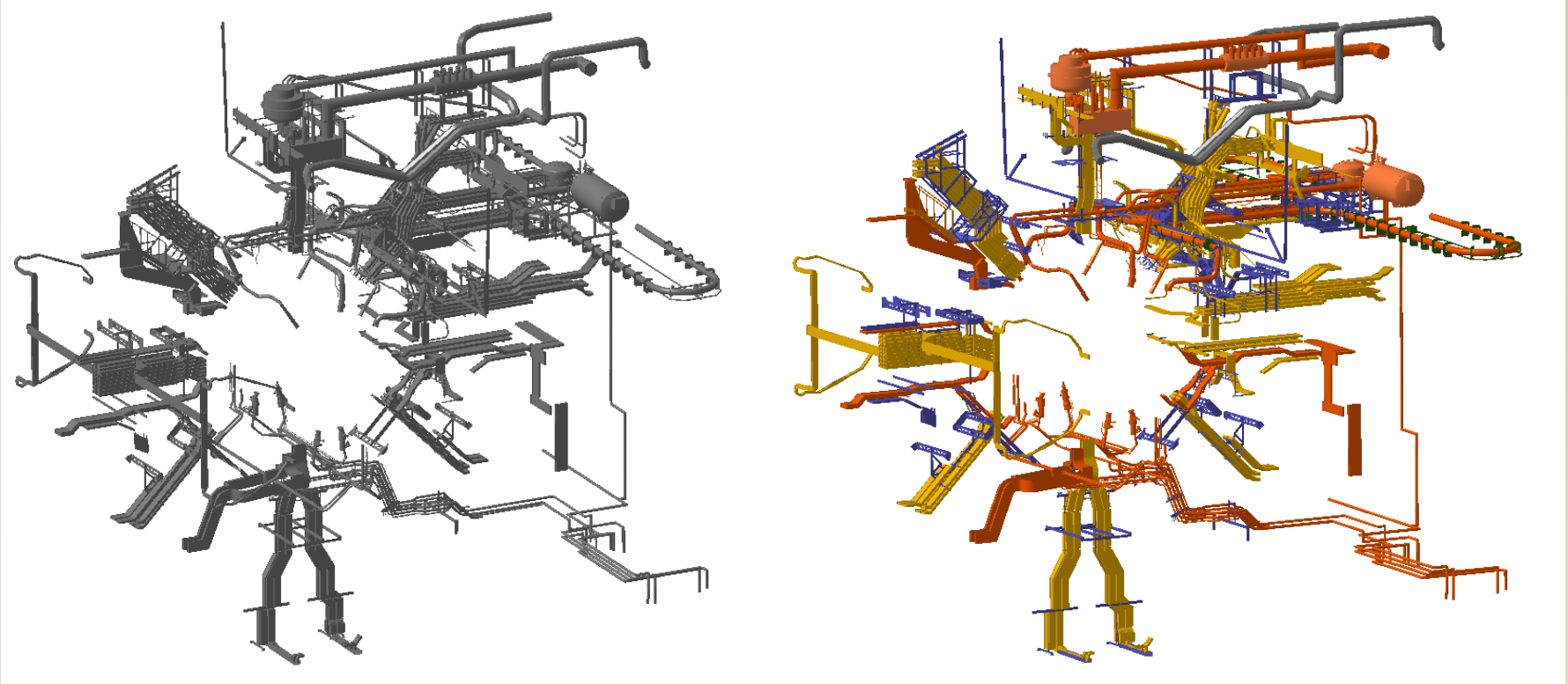
1)Giving color
2)Cutting
3)Merging layers
4)Getting the final file

GIVING COLOR

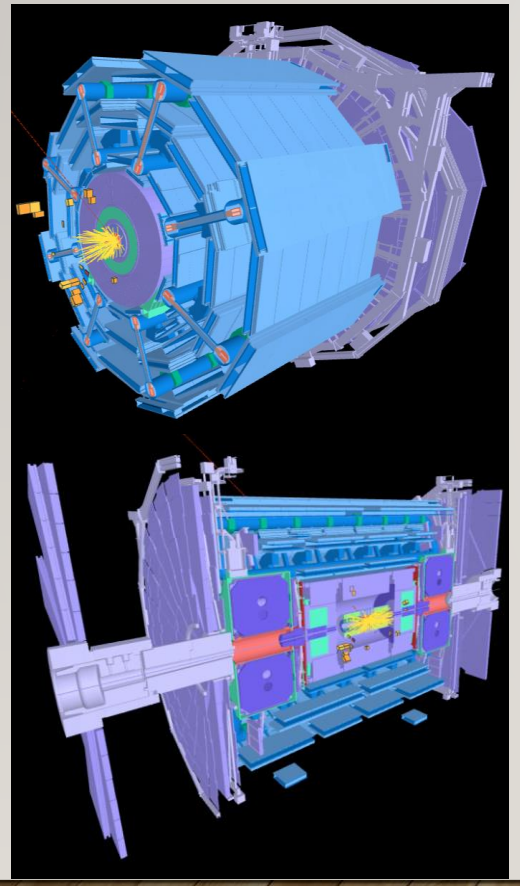
In order to visually distinguish one geometry from another, we color each parts in different colors(pipes, cables, platforms, etc.)

Geometry is colored in Catia so that in subsequent manipulations it would be possible to separate the geometry into layers (giving each part of the geometry its own color)

Z0 services

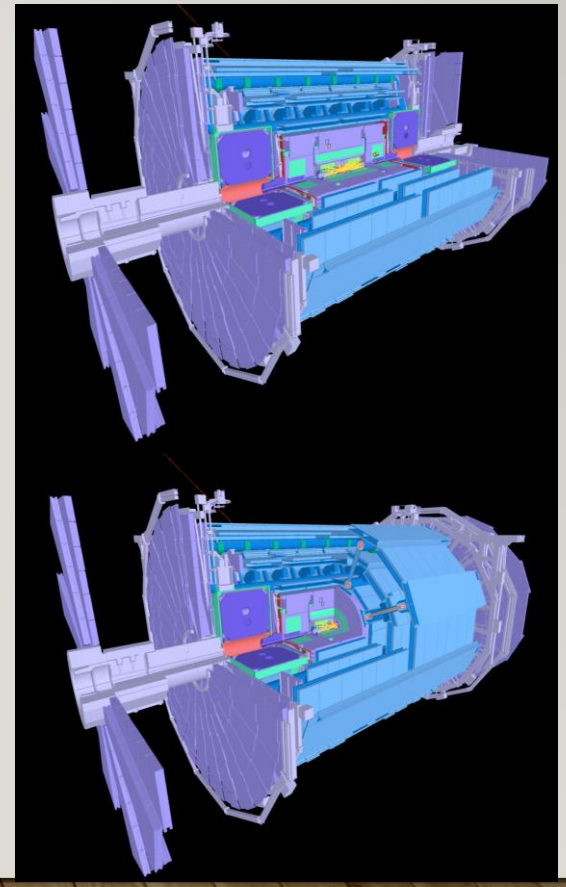


CUTTING



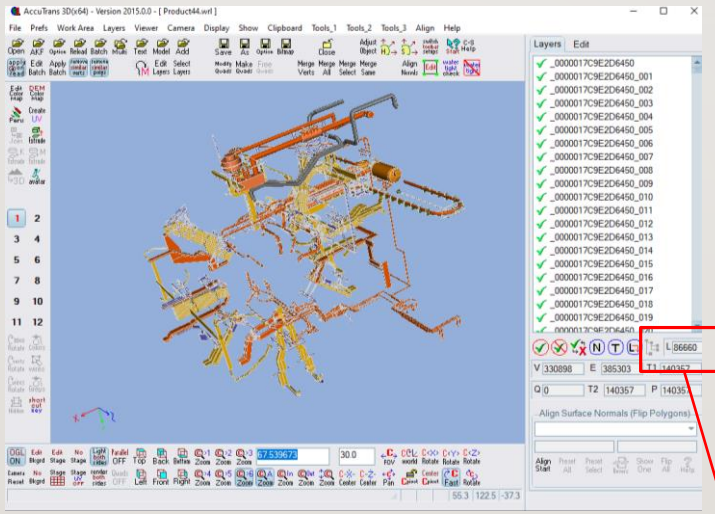
After simplification and coloring geometries, we cut geometries for 4 different cuts.

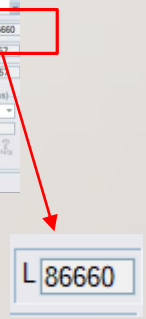
Cuts are needed to see what is inside the detector.



MERGING LAYERS

After that we save the geometries in wrl format and load it into the accutrans 3D





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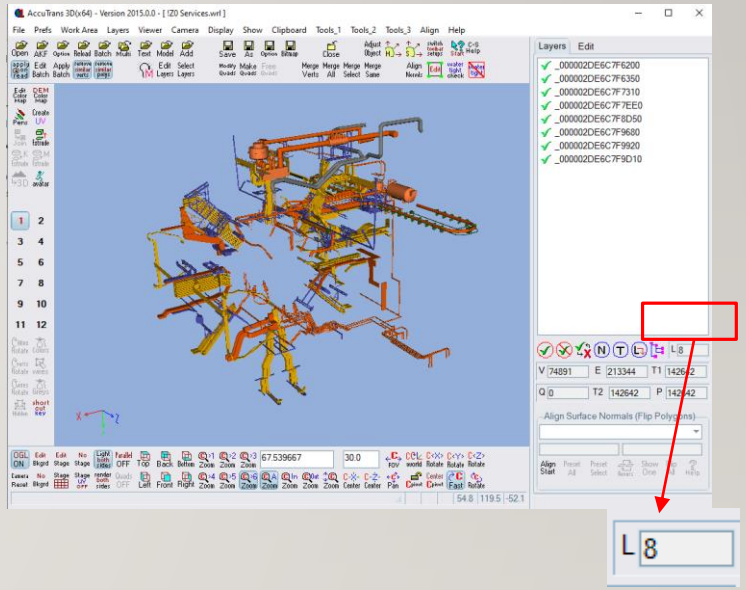

After loading we can see a lot of layers and if it is left so the performance will be lower than with few layers

If there are several layers, then the difference in performance is imperceptible, if there are about a thousand or more of them, then the performance decreases

GETTING THE FINAL FILE

After AccuTrans 3D, the file goes to the blender, where it is colored in the final colors, installed in its place and converted to GBL format

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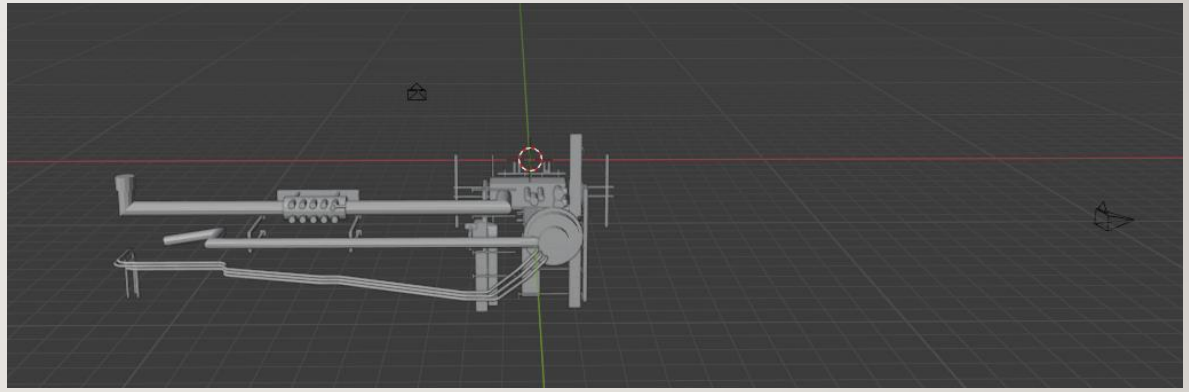
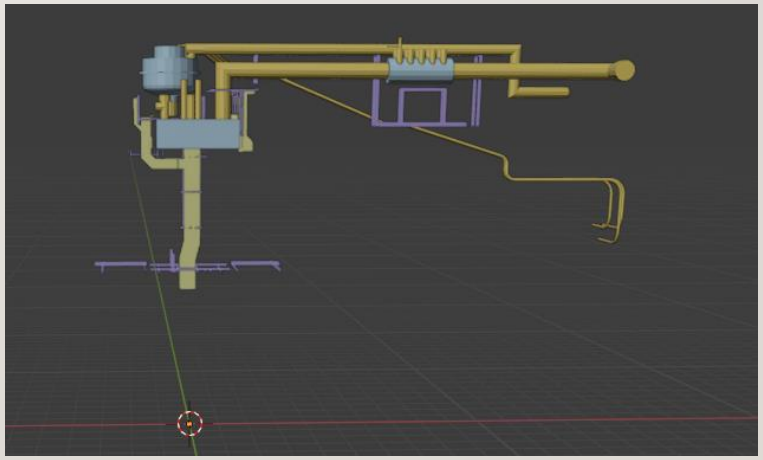
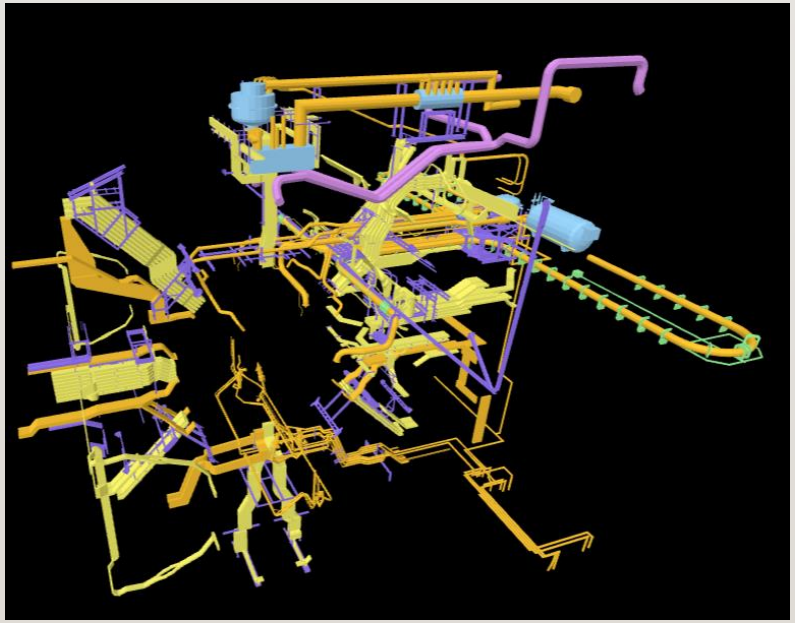




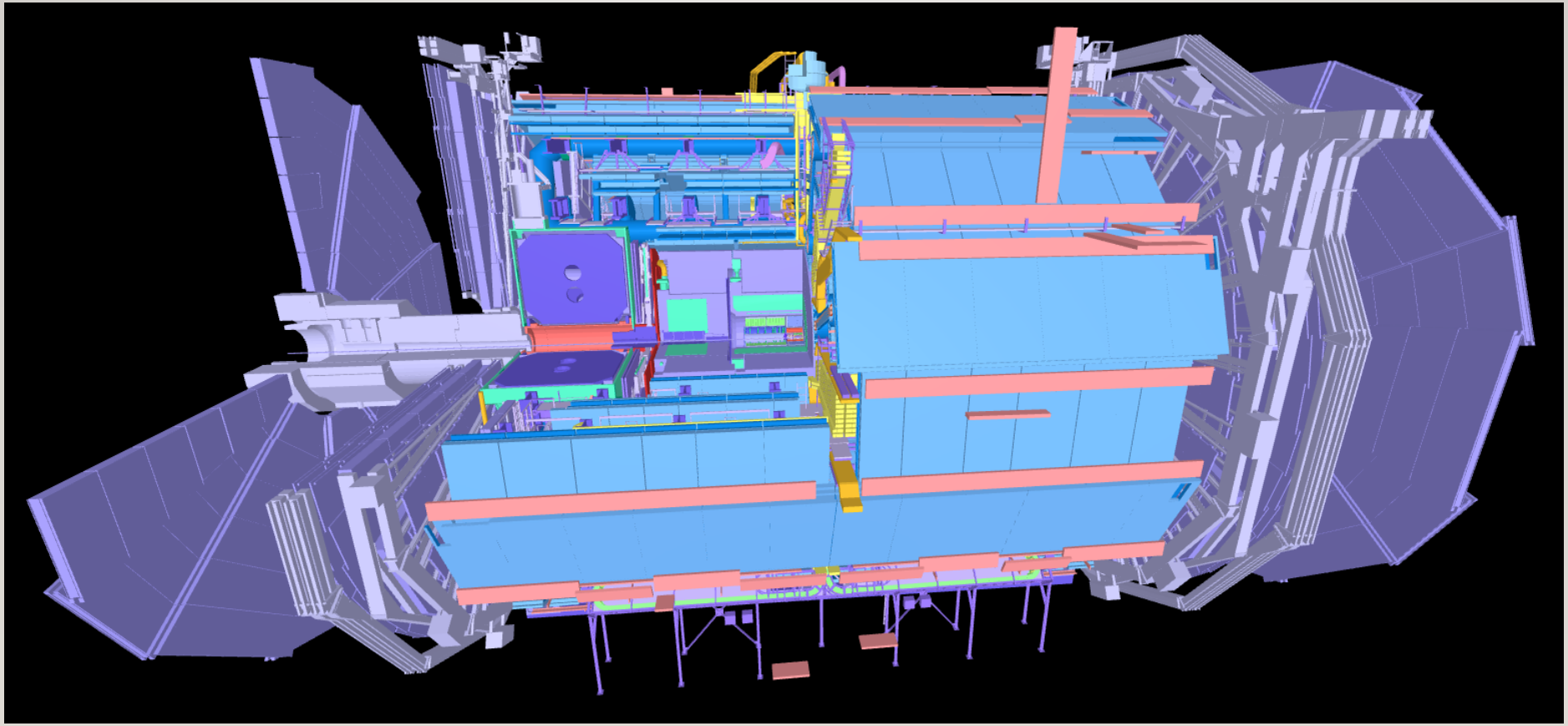
GETTING THE FINAL FILE

At the end, glb is uploaded to gitlab and used in the tracer

Z0 services



GETTING THE FINAL FILE




Thank You
For Your Atten