Workflow data collection of existing buildings BY 3D SCANNING PROCESS (in modelling BIM)

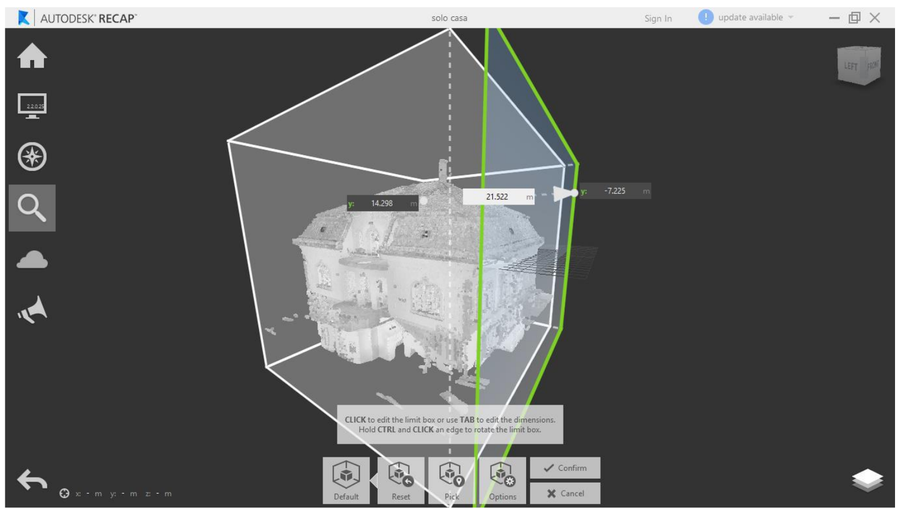
Objectives of project

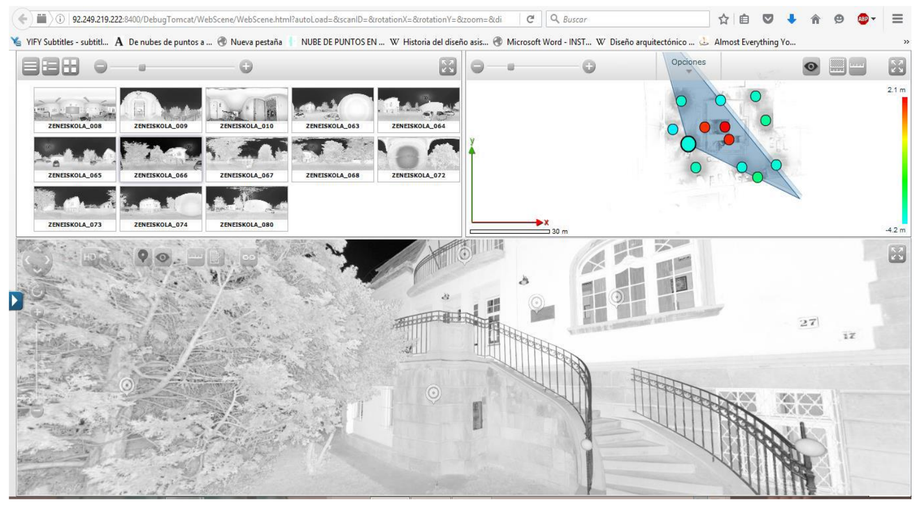
In this project, I have the objectives stated bellow:
- Understand the process how the 3D laser scanner technology - an high-tech data collection technology - has arrived into architecture history
- Get to know how to use and apply that new technology on the field of architectural and professional design

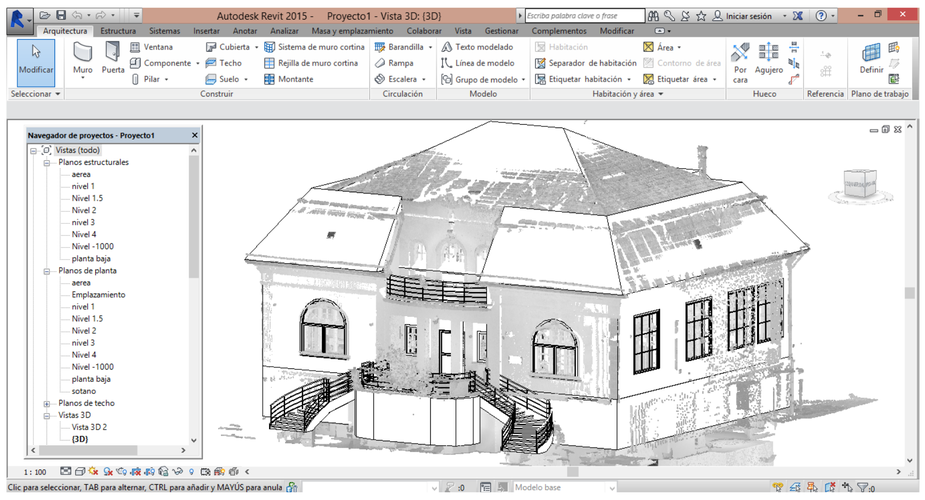
The advantages of the 3D laser scanner on other measurement techniques are:
- Fast data collection
- Measurement accuracy
- Safety in hazardous or inaccessible locations
- Fewer technician visits
- Greater range of working hours to not be affected by the brightness

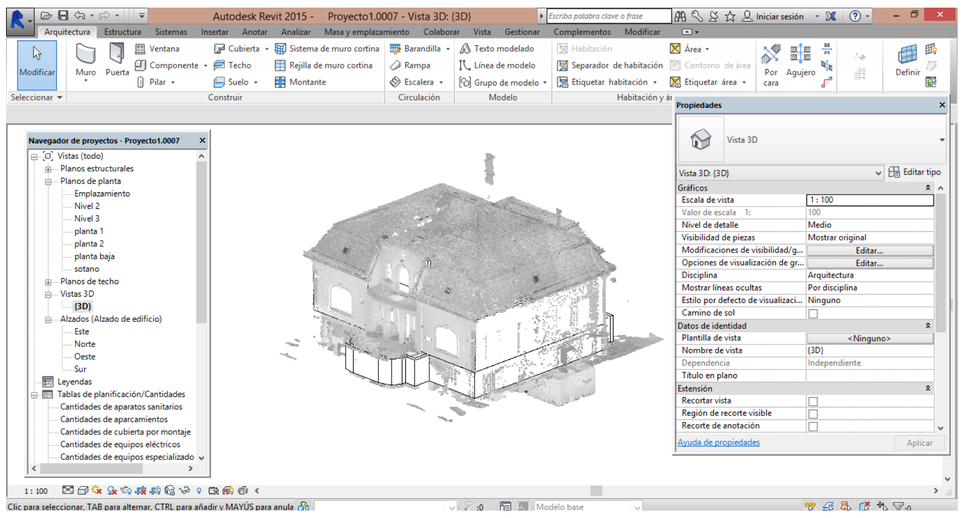
Process

During the process, I had to use different programmes to work with the point cloud. First, use Autodesk Recap, to definate the área that I wanted to use, to export later to Revit. Once the point cloud was in Revit, I started to model the building. In the pictures we can see the programmes used and the process.









Conclusions

finally, thanks to this technology, we will gain time and precision because of its speed. Also is very intuitive for workers who have to carry out the informatic to real life work. That means that we will have a better job on the ground in less time and costing less money
We have seen the application of the laser scanner in the BIM, really interesting in the case to repair or change some partsof the building that we have scanned.
For the future, it would be good that this technology would be applicated and used in Spain and in the rest countries of Europe

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