

6) Attach other screenshots or files that you consider useful

1. Visualizations in FZK Viewer (before conversion)

Rotterdam – Dataset

CityGML

- ▶ Two LoDs (LoD1 & LoD2) are readable as single GML file, Figure 1.7.2 (a)
- ▶ Enabling/disabling layers shows LoD levels

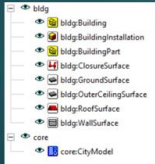


Figure 1.7.1


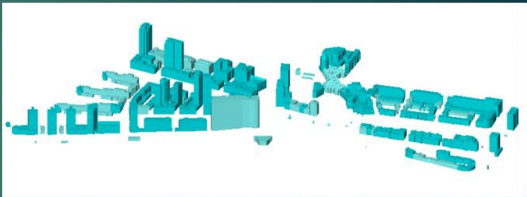
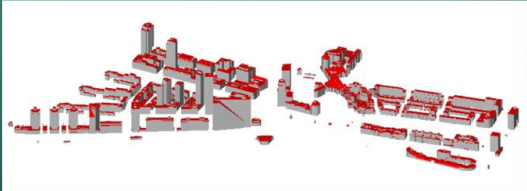


Figure 1.7.2 (a)



(b)



(c)

Visualizations: FZKViewer

2. Conversion through FZK Viewer

a. Visualization in BIM Vision

Rotterdam LoD1 & 2 – Experiment

CityGML to IFC

- ▶ Multiple LoDs are not validated and processed by BIM software
- ▶ Handling exported file to separate LoDs manually is very challenging

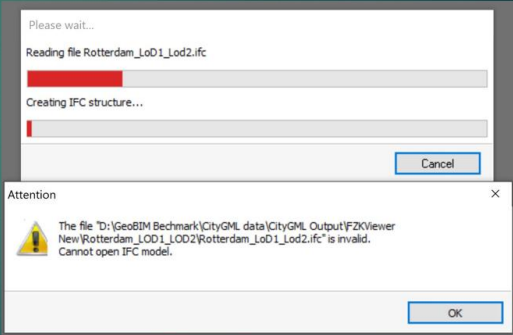


Figure 3.2.1

Visualizations: BIMVision
Conversion tool: FZKViewer

b. Discussion

FZK Viewer imports and visualizes multiple LoDs for CityGML data and exports IFC model with same methodology of exporting building information data. However, no support is available for opening IFC data with multiple LODs in available software and hence the data is considered invalid.

Possible solution to address this problem are either future software support for IFC datasets with multiple LODs or a study to filter different LODs from single IFC file. These approaches are very challenging and requires a lot of effort from both software and study perspectives. Other approach that could be adapted easily is support from FZK Viewer to filter different LoDs, as they are part of different layers, and export multiple IFC files based on respective LOD. These are future approaches and not in scope of this participation.