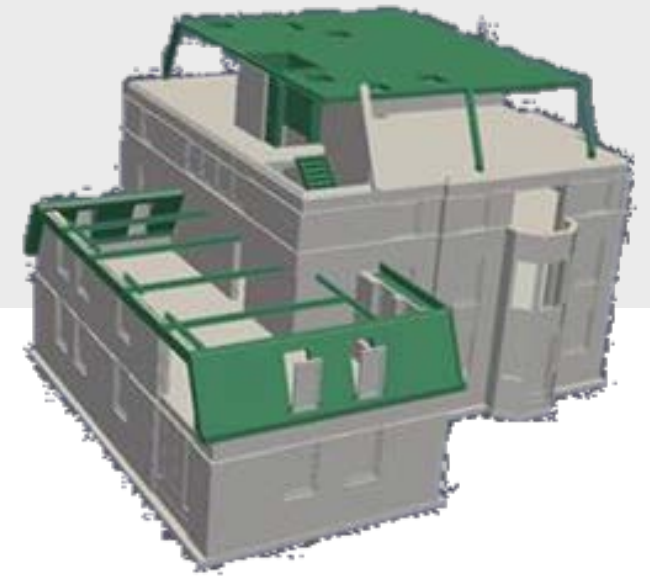


Construction Progress Tracking



Goal: Compute the difference between two stages in the construction process of a building.

Description:

A building is 3D scanned by drones at different time/stages in the construction process. These scans represent the current state of the building construction. The provided data [1] (for week 27, 28, 29 and 30) is:

- CAD models (as planned).
- Point Cloud (3D reconstruction [2] from images obtained by drones).

The goal is to obtain the difference between two different stages which will allow to track the progress in the construction process. Certain assumptions will be made in order to simplify the problem: all the data will be pre-aligned; some code will be provided to obtain a volumetric representation from the 3D reconstruction and from the CAD models.

[1] Schependomlaan Dataset: <https://github.com/openBIMstandards/DataSetSchependomlaan>.

[2] Johannes L. Schönberger et al. Structure-from-Motion Revisited. CVPR 2016. <https://github.com/colmap/colmap>

Requirements / Tools:

Required: Matlab / C++

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