

Potential to store façade information in CityGML

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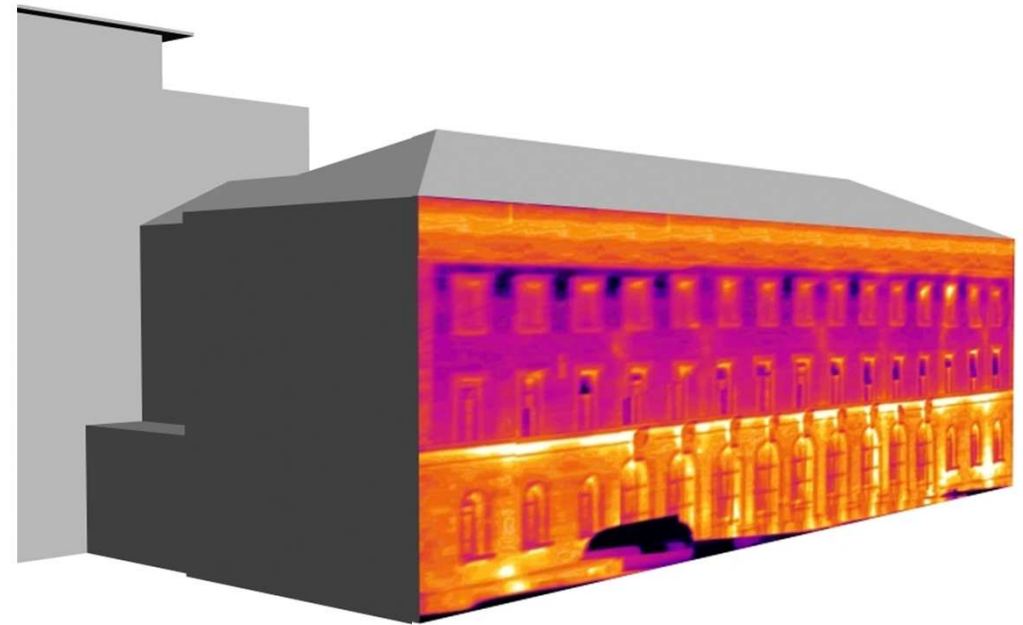
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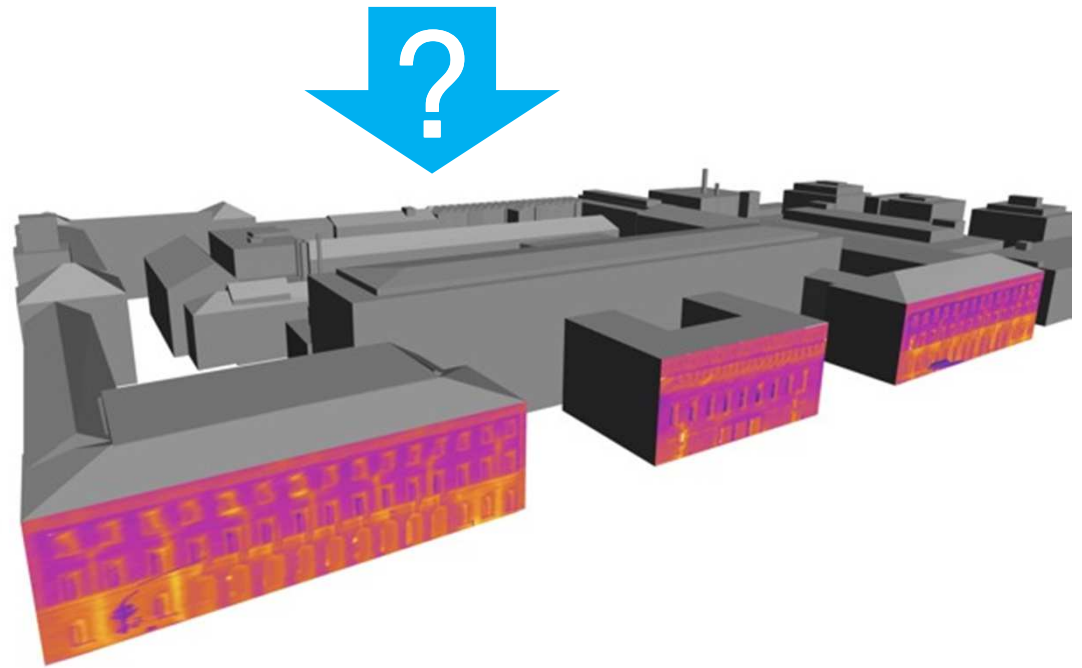
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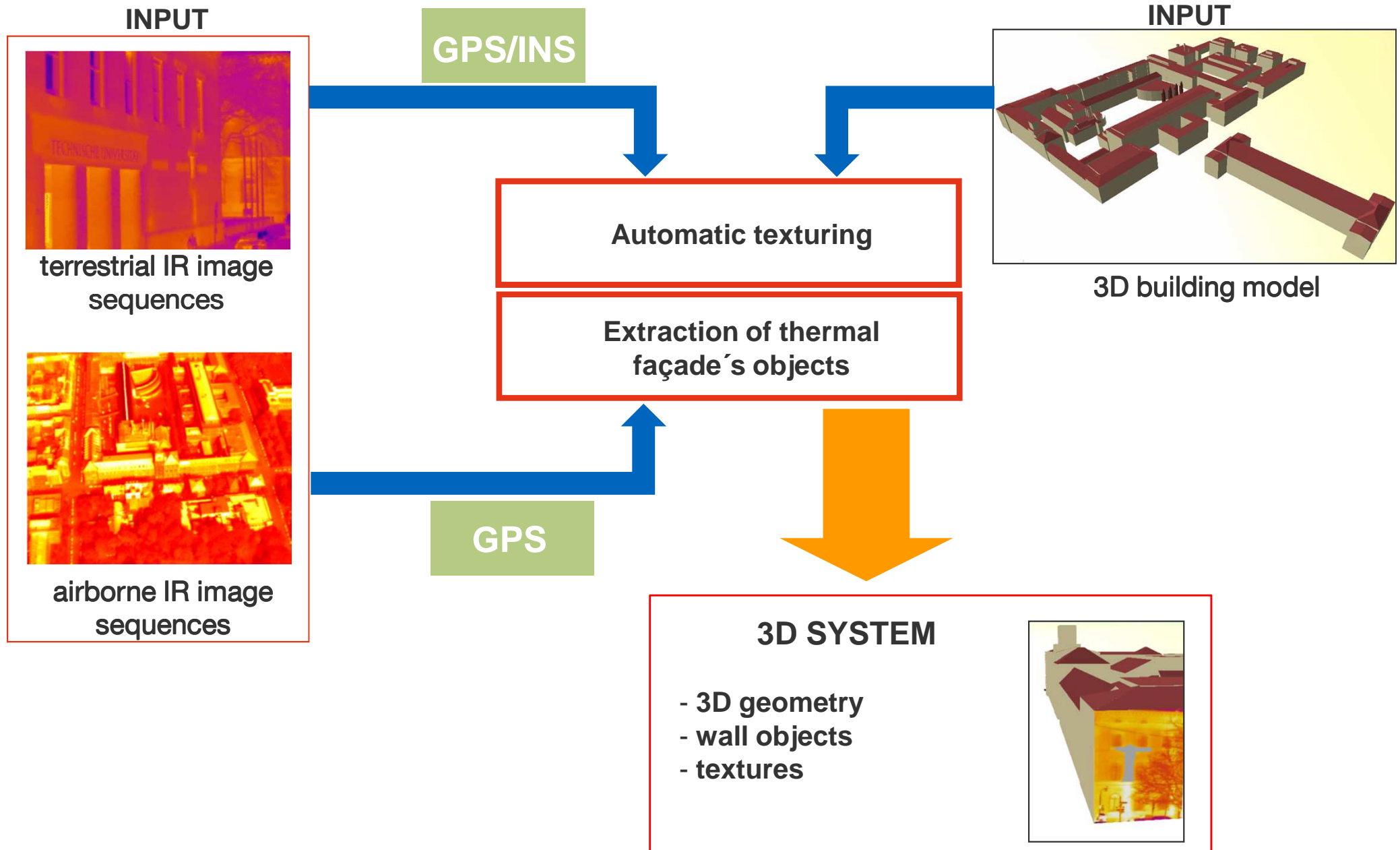


- ❑ Goal:
 - Inspection of buildings for identification of heat loss (energy efficiency) by mobile mapping
- ❑ Method:
 - Infrared (IR) imaging of the building hull from a moving platform
 - Automatic assignment of 2D image data to 3D building models via texturing



- ❑ Fusion of image data from
 - multiple images (video sequences)
 - different points in time (morning-evening)
 - different platforms (terrestrial-airborne)
- ❑ Terrestrial data for frontal facades
- ❑ Roofs and inner yards from a flying platform





- ❑ Thermal textures: already exist! (using different themes – RGB and thermal textures can be stored)
- ❑ Dynamic textures: temporal changes
 - long term: winter/summer,
 - short term: sequence of observations every minute
- ❑ Changes in Geometry
 - e.g. detected heat leakage changed its shape
- ❑ Physical properties of the façades:
 - particularly the volume (now: space between the exterior and interior wall surface in LoD4 is empty)

What we need!



possibility of mapping different classes:

- ❑ natural stone
- ❑ damages
- ❑ feature attribute
 - thermal conductivity
 - porosity
 - water absorption
 - moisture
 - ...

- ❑ Simple Version of CityGML specification for beginners. Whole standard is too complicated for many people who would like to start with CityGML
- ❑ More editing tools to edit the geometry and attributes at the same time