

Setting up an application with CityJSON and 3DCityDB

Andres Kasekamp



ehr.ee

Tech stack

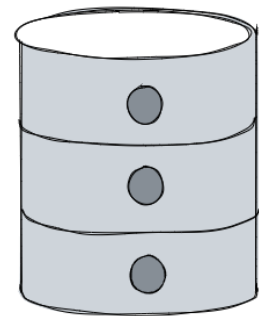
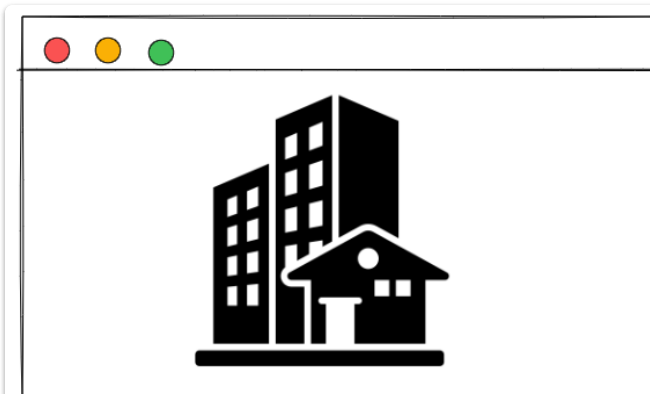
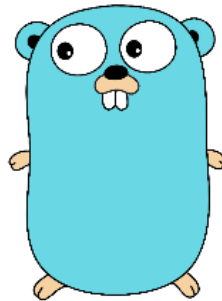


podman



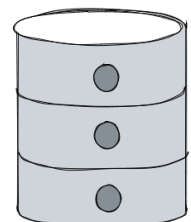
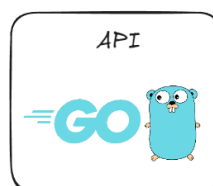
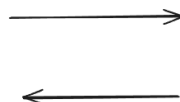
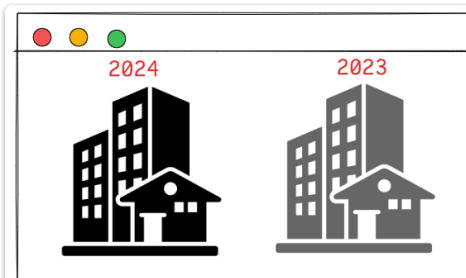
PostgreSQL

GO



3D andmebaas

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3D andmebaas

3D Models in Estonian Land and Spatial Development Board

- Automated process based on LiDAR 🚚
 - TerraScan, `arcpy`, FME, ArcGIS Online
 - Tests w/ `roofer` and Cesium
- Different flight years may not produce same models 🖐️
- 👉 [Geo3D](#) 👉

Goal 🎯

1. Building comparison 📄
2. Improving quality 🙌

[CityJSON](#) Vs [CityGML](#)

- CityJSON is modern, readable and with smaller file size 😎
- 3D Tiles, SLPK, glTF? 🤔
- [FlatCityBuf](#)

Front-end - Vue

- Based on [ninja](#) application
 - Web client for viewing CityJSON files
- [in-ads](#)
 - ✅ Quick Estonian address search component
 - ❌ Missing framework-based components
 - ❌ Available only through CDN
- Added a functionality to compare 1-4 buildings at the same time

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MaRu 3D viewer

Choose a method

 (My Fitness Rävåla pst 4 ujula) Rävåla pst 4, Kesklinna linnaosa, Tallinn, Harj... 

In-ADS (Land and Spatial Development Board)

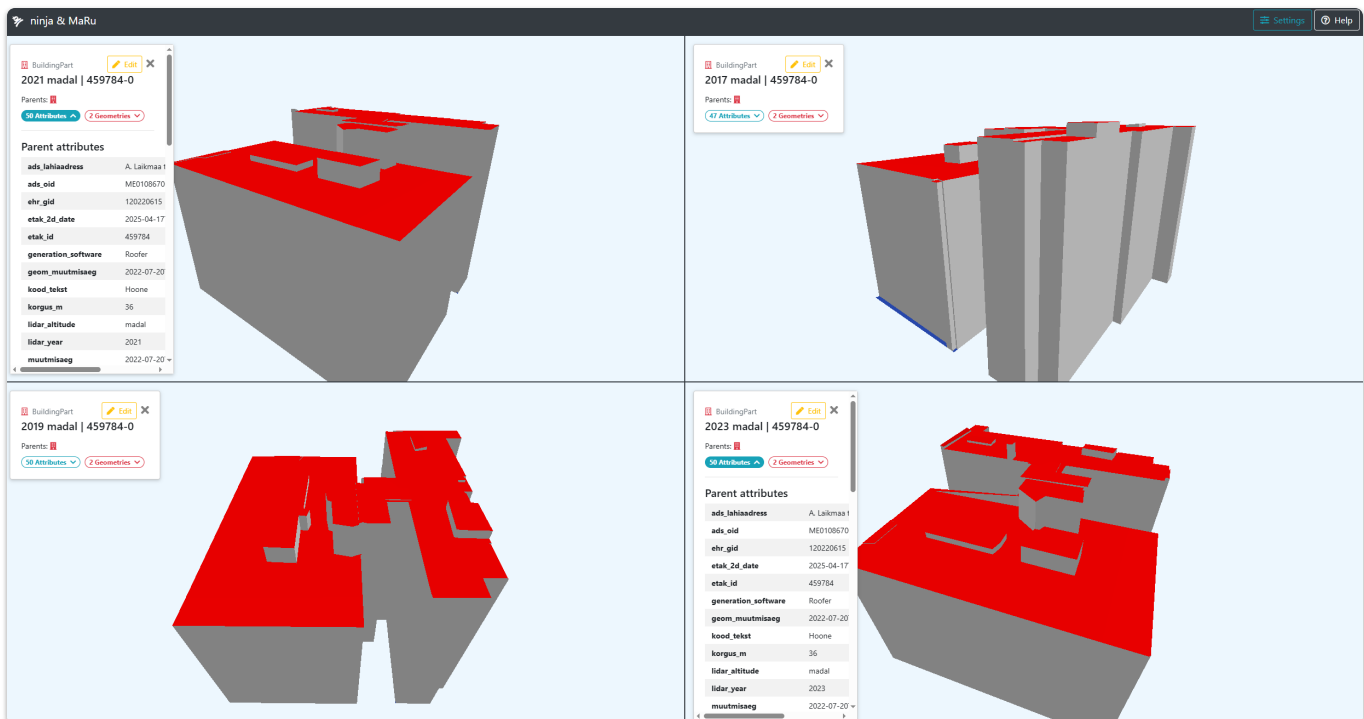
459784

OK

Select LiDAR Data:

- ☒ 2023 madal
- ☐ 2022 madal
- ☒ 2021 madal
- ☐ 2020 madal
- ☒ 2019 madal
- ☐ 2018 madal
- ☒ 2017 madal

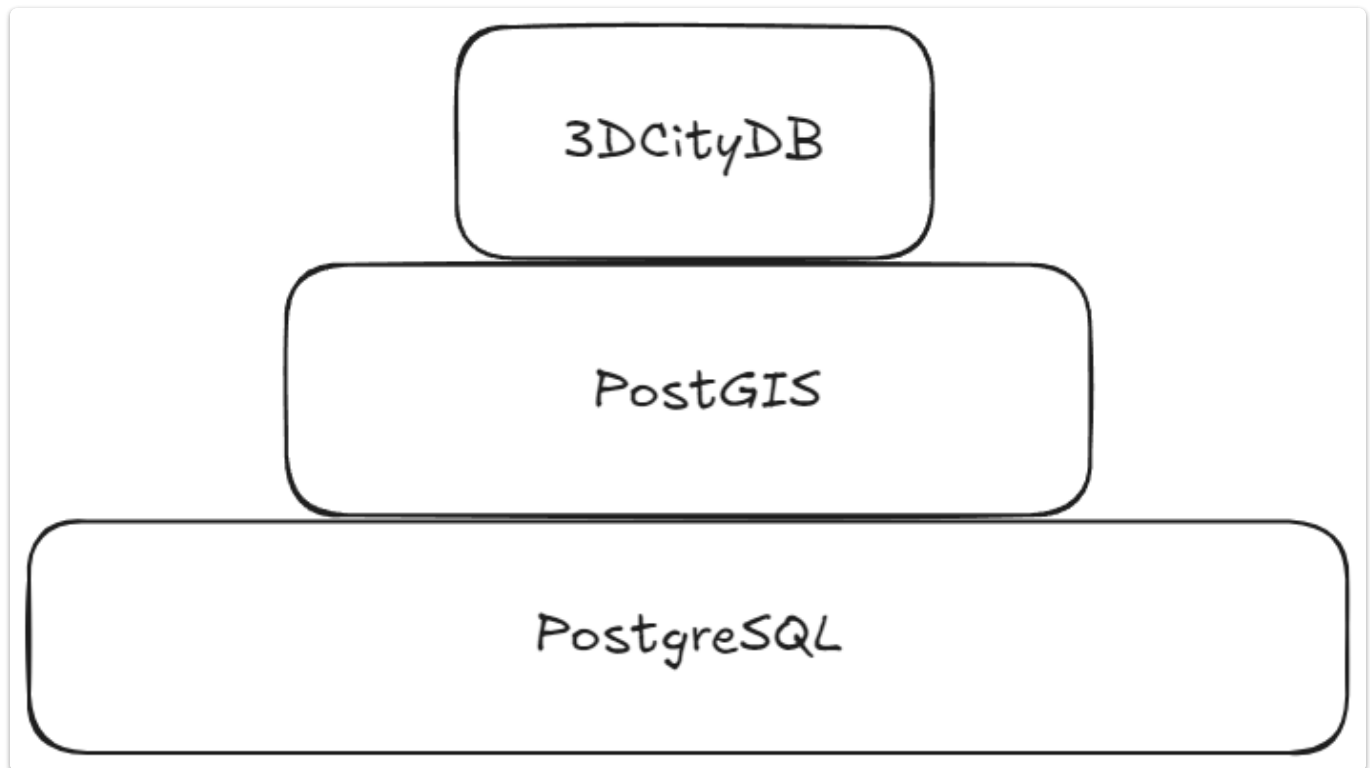
 Loading (1.2s)



API - Go

- WFS query for enriching with attribute data
 - Works with 3D database import/export [tool](#)
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Database



Database - [3DCityDB v5](#)

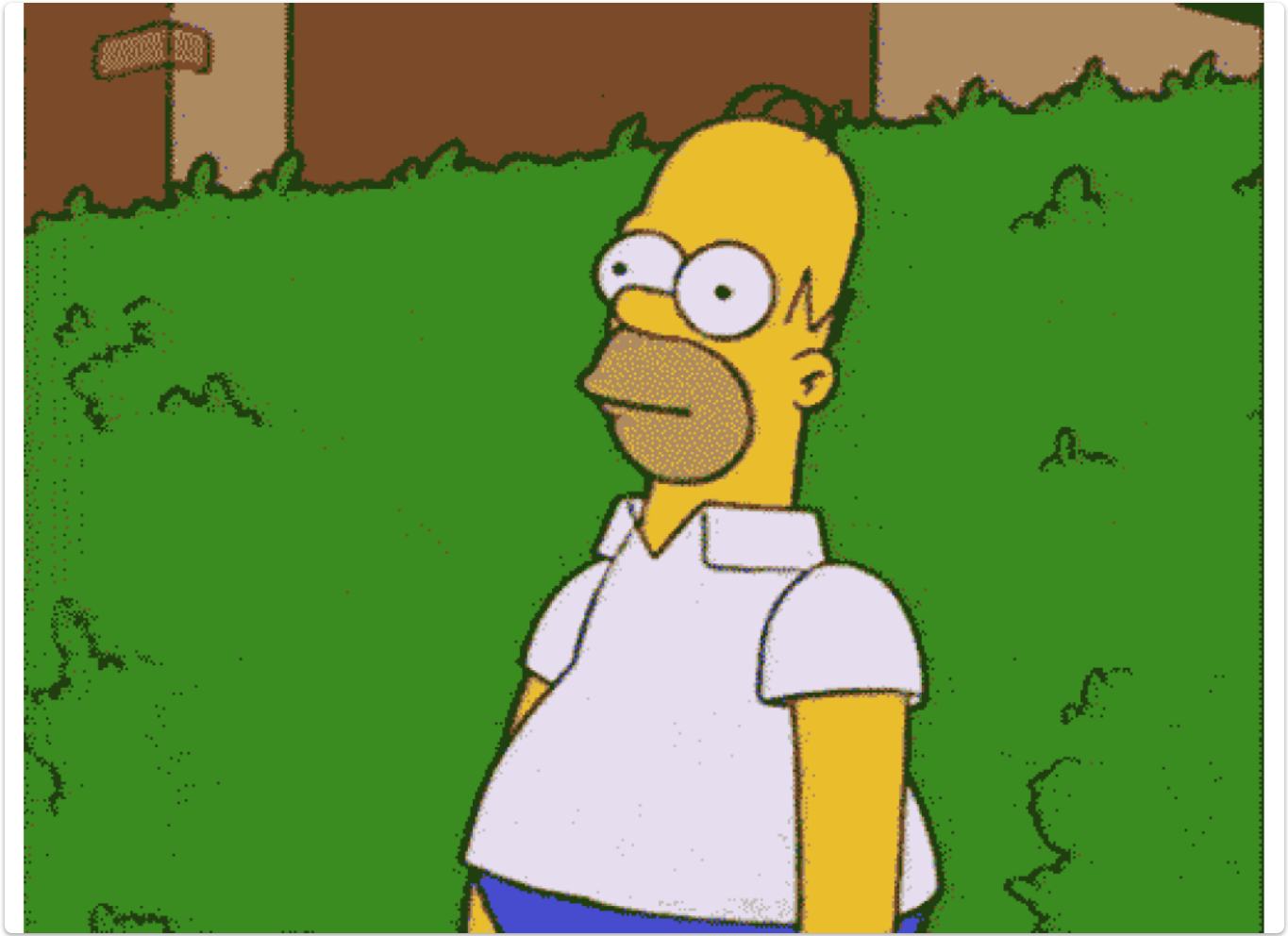
- CityGML 3D data model
- 3D geometry types
- 3D model patches and versions

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Alternatives

- [MongoDB](#) (NoSQL)
 - [PostGIS](#)
-

When will it be made publicly available?



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```
git clone https://koodivaramu.eesti.ee/maa-ja-ruumiamet/geoinfo/modern-3d/scaffolding.git
```

Buy Me a Coffee 🙏👉👉

buymeacoffee.com/andreskasekamp

