



A Combined In- and Outdoor Map for Android

A seamless in- and outdoor map viewer for OpenStreetMap data and its implementation



Outline

Introduction

Data Scheme

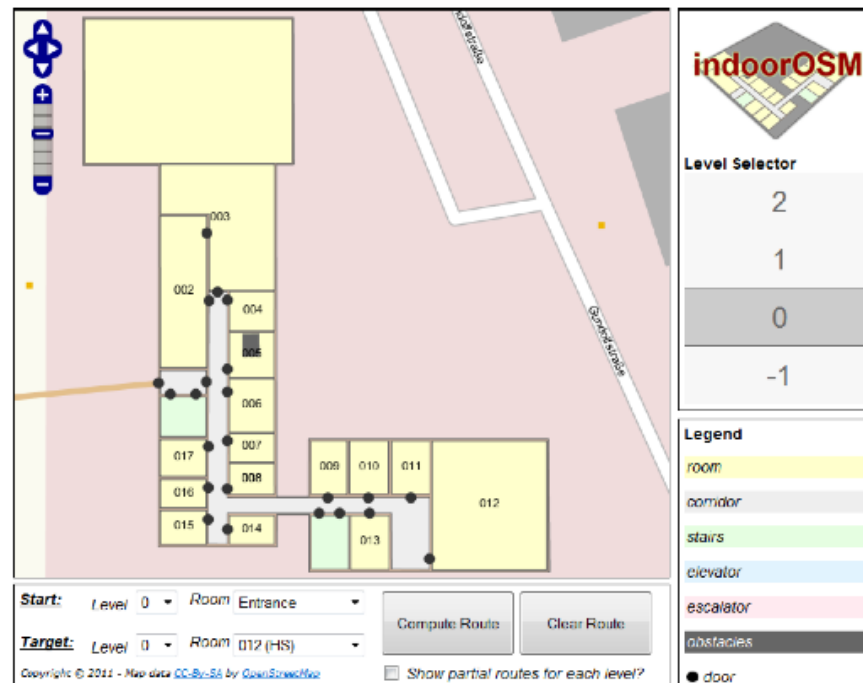
App Design

Usage

Outlook

Indoor data for OSM – What's the current state?

- IndoorOsm: <http://wiki.openstreetmap.org/wiki/IndoorOSM>
- Ideas: http://wiki.openstreetmap.org/wiki/Indoor_Mapping



Outline

Introduction

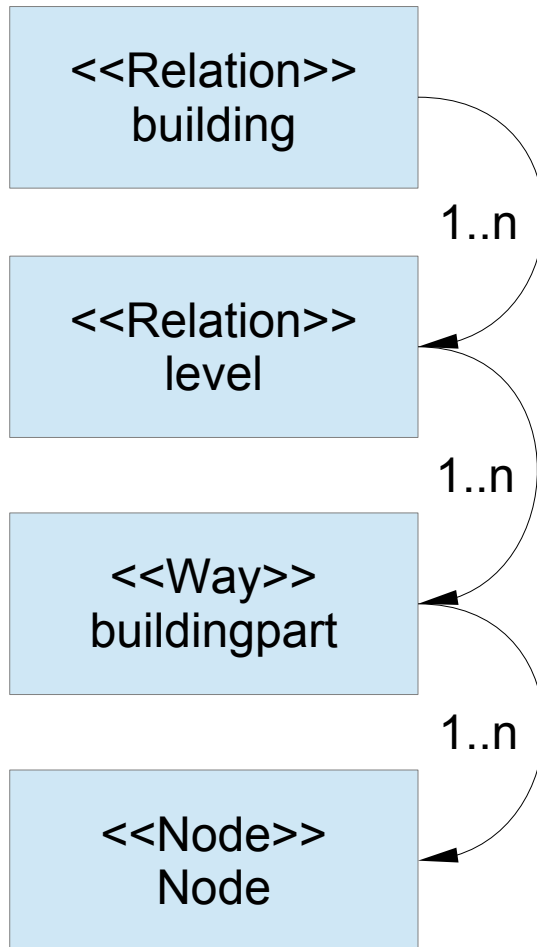
Data Scheme

App Design

Usage

Outlook

Data scheme - IndoorOsm by Marcus Götz et al

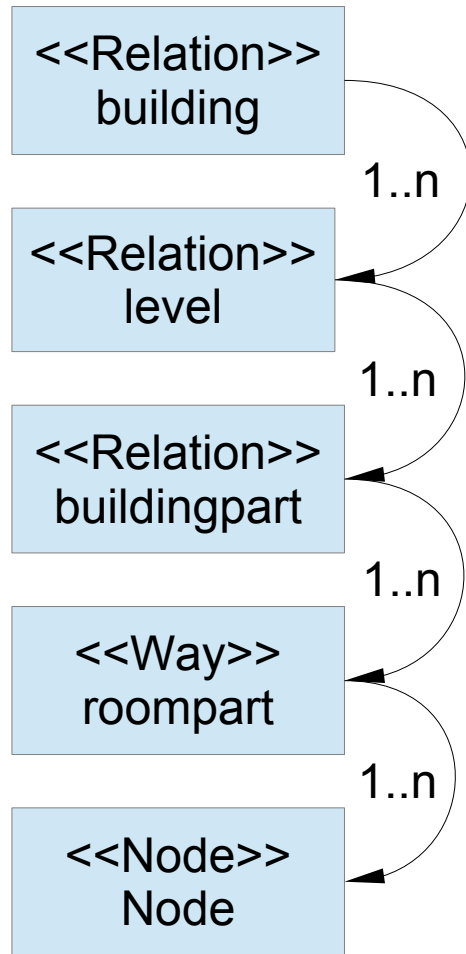


- Hierarchical data structure
- Rooms, walls, floors are mapped as buildingparts
- Further information of the building is added as key-value pairs
- Inner room elements like desks, tables are not considered

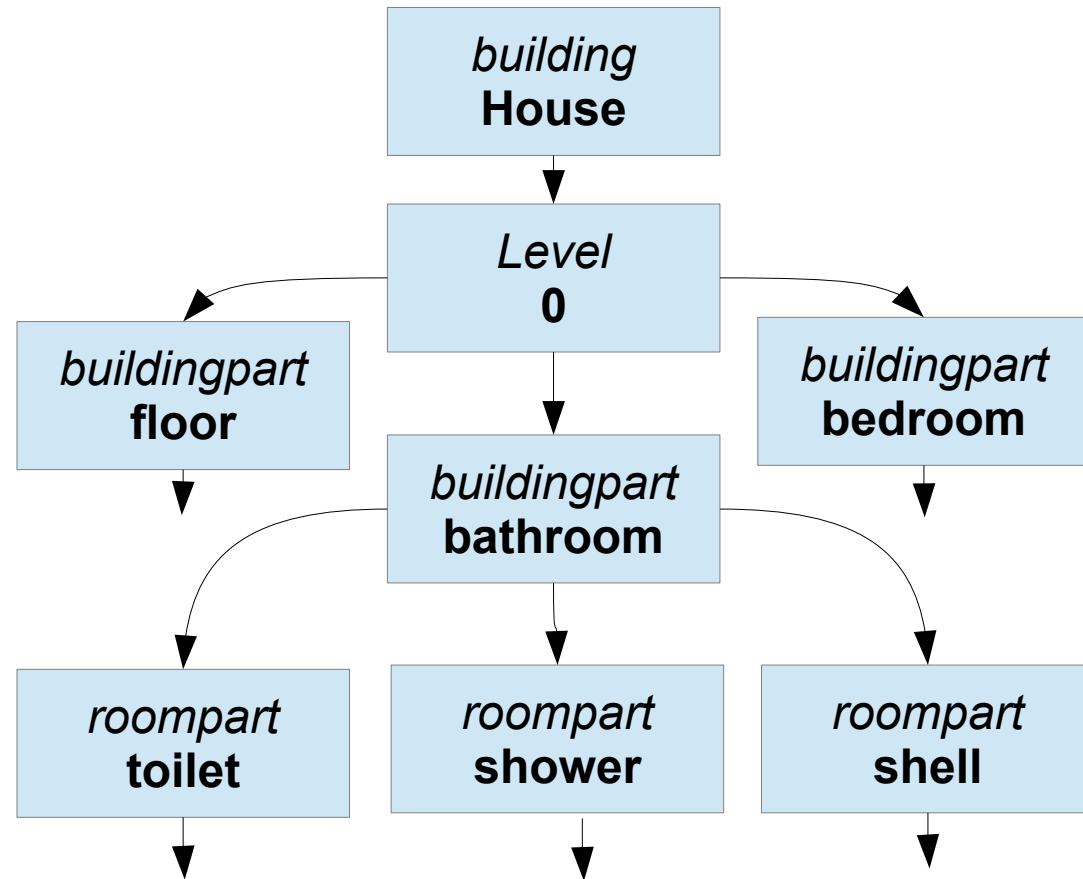
Outline

- Introduction
- Data Scheme
- App Design
- Usage
- Outlook

Extended Data scheme – Introducing room parts



Example:



Outline

Introduction

Data Scheme

App Design

Usage

Outlook

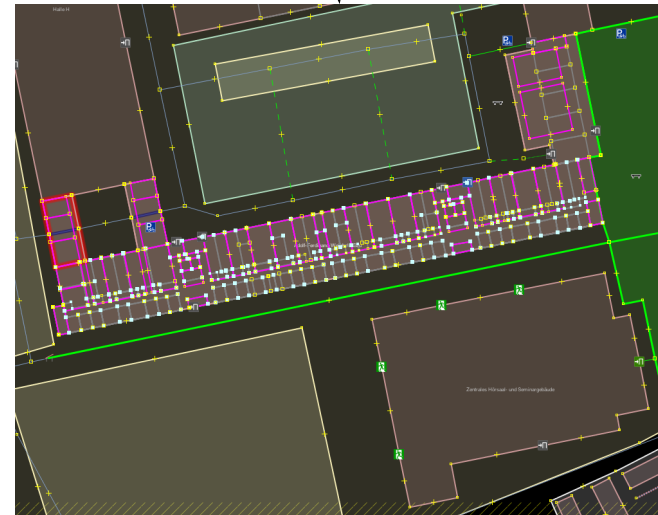
Data scheme – How to map indoor data?



Outdoor maps



Floorplan

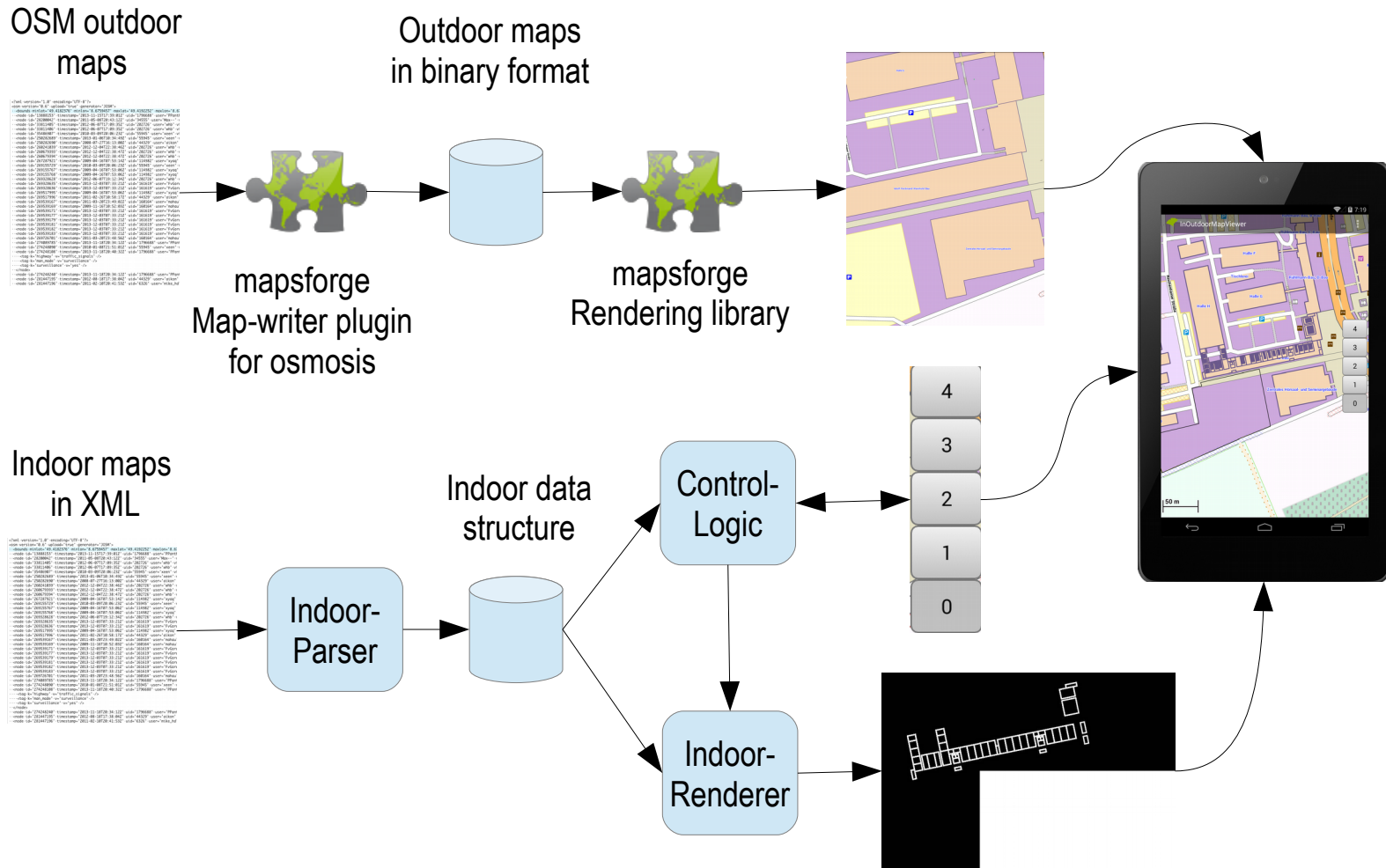


- Fit floorplans into existing outdoor maps

Outline

- Introduction
- Data Scheme
- App Design
- Usage
- Outlook

App Design - Concept



Outline

Introduction

Data Scheme

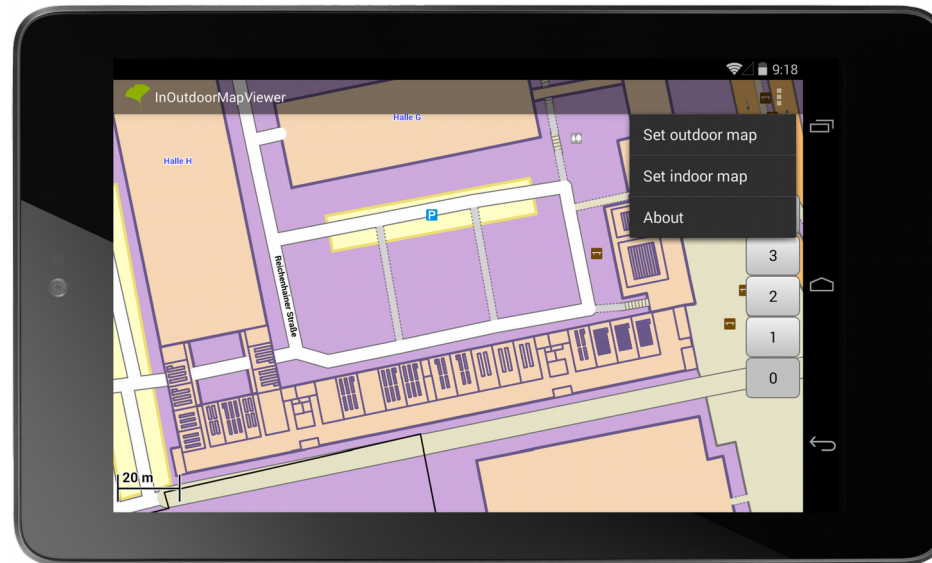
App Design

Usage

Outlook

Usage

- Download app from: <http://bit.ly/1p1vfFV>
- App is delivered with preinstalled outdoor map of Chemnitz and a university building indoor map
- Other maps are selectable through the Overflow button



Outline

Introduction

Data Scheme

App Design

Usage

Outlook

Outlook

Planned Features:

- Storing the indoor data in a map file
- (Re-) add support for the IndoorOsm data scheme
- Rendertheme support for indoor data
- Routing support

Scope:

- Integration with an indoor positioning network
- Navigation within multi level car parks

Outline

Introduction

Data Scheme

App Design

Usage

Outlook

Thank you for your attention!

Ideas and questions to:

Thomas Graichen

Mail: thomas.graichen@etit.tu-chemnitz.de

Phone: +49 371 531-33437

GEFÖRDERT VOM



Bundesministerium
für Bildung
und Forschung