

# Kompas

## Web GIS of Masaryk University



MUST Week 2015

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# ■ Building Passport

- (Building Information Modeling)
- Register of university buildings (own and rented)
- Passport data = geometry + attribute data
  - Geometry of **buildings, floors, rooms, doors**, windows, walls, stairs, elevators,...
  - Attributes: title (building, room), number (room, door), material (door),...
- Sources: direct measurements, digitalized paper blueprints, digital blueprints



# ■ Building Passport – objects

- Buildings, floors, rooms, doors
- Object identification – **location code**
  - **Building code** + **floor code** + **room number**
  - **ABC01N03021**
- Over **300 university buildings**, half of them have digital floorplans (over 22,000 rooms and 23,000 doors)

# ■ Building Passport – map





## ■ Kompas – why?

- **Make our data accessible to users (employees students)**
- **Get rid of the old and slow application**
  - **Faster map**
  - **Better searching capability**
  - **More user-friendly**
- **Use internet sources instead of our basemaps (OpenStreetMap, State Administration of Land Surveying and Cadastre)**

# ■ Kompas – functionality

## Standard functions:

- Map pan & zoom
- Layer switching
- Object identification
- Map history
- Measuring tool
- Print tool

# ■ Kompas – functionality

## Specific functions:

- Floor switching
- Searching
- Show more building floors at once
- Favorite objects and map extents
- Buildings tree
- Links to objects in other information system

# ■ Technology behind Kompas

## Client

- Google Closure Tools (library, compiler, linter)
- OpenLayers

## Server

- ArcGIS Server 10 (REST API)
- Web service (C#)

## Database

- ArcSDE (MS SQL Server)
- Internal -> presentation



# ■ Kompas Live Demo

<http://maps.muni.cz/kompas>



## ■ What's next?

- Technological Passport (almost done)
- Indoor navigation
- User customization
- Better access rights

# ■ Technological Passport

- Technologies inside (and outside) buildings
- Common attributes
- Specific attributes
- **Device identification**: location code + technological code



## ■ Technological Passport – Why?

- **Evidence** of devices
- Periodical **revision** of devices
- Servicing **requests**

# ■ Technological Passport – model

## Technology hierarchy

- Systems
- Subsystems
- Device types

Relationships between  
devices (trees, cycles)



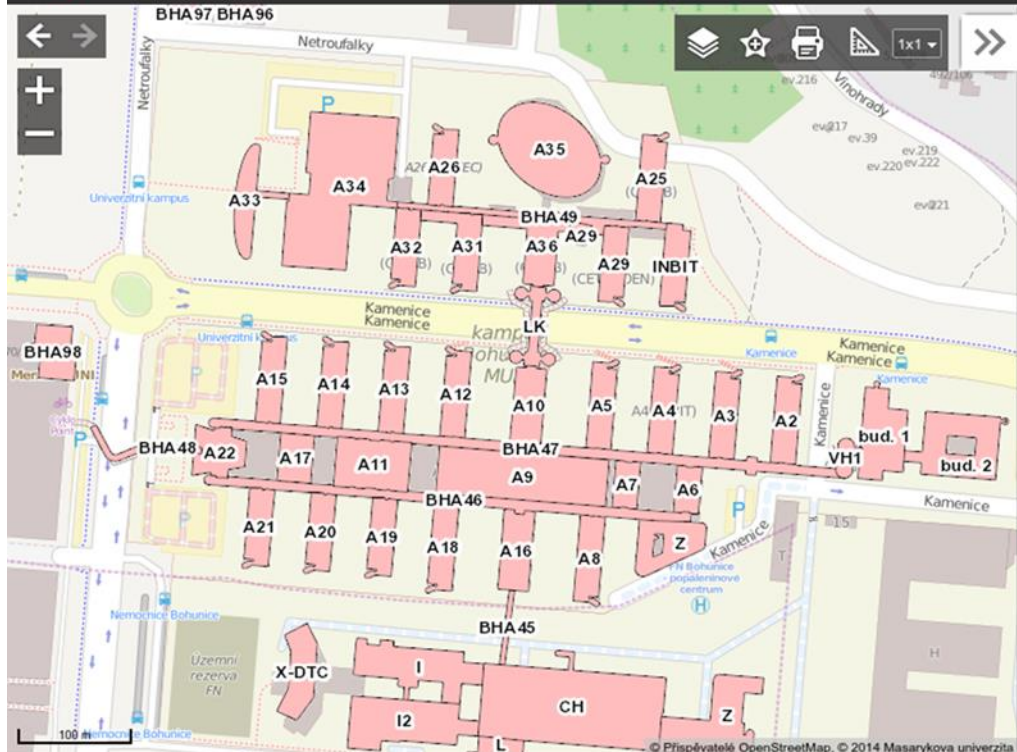
## **Technological Passport – examples**

- **Water distribution (drinking water, waste water, heating,...)**
- **Electricity distribution (transformers, fuses, switches, power outlets, electromotors,...)**
- **Airconditioning (air ducts, fans, cooling units)**
- **Sensors and controllers (pressure, temperature)**
- **Firefighting (fire extinguishers, ventilation, water hydrants,...)**

# ■ Kompas + TP Live Demo

<http://maps.muni.cz/kompastp>





**Oblíbené**

- Objekty
  - Moje kancelář
  - Personální oddělení ÚVT
  - Rektorát MU
- Prostorové záložky
  - Areál Píř Kottlářská
  - ESF + koleje Vinařská
  - Univerzitní kampus Bohunice

**Detail**

**RMU, Žerotínovo nám. 9, BMA01 (budova)**

ID (Inet): 58

ID (geometrie): 1054

polohový kód: BMA01

název: RMU, Žerotínovo nám. 9

označení:

organizační složka: [RMU](#)

lokality: [Brno, Brno-město I, BMA](#)

podlaží: [8 podlaží](#)

místnosti: [521 místností](#)

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