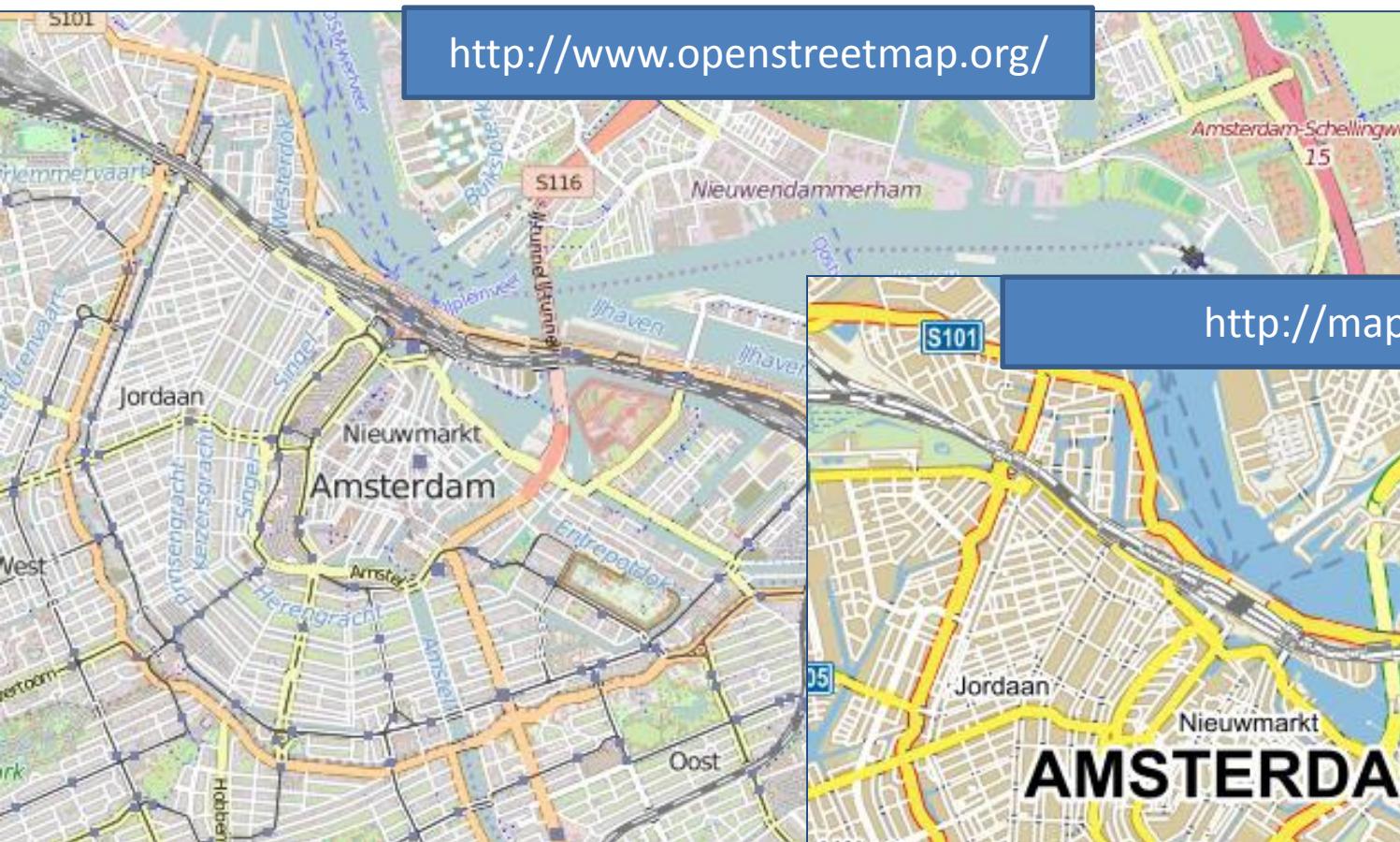


CZE State Mapping Generalization Effort

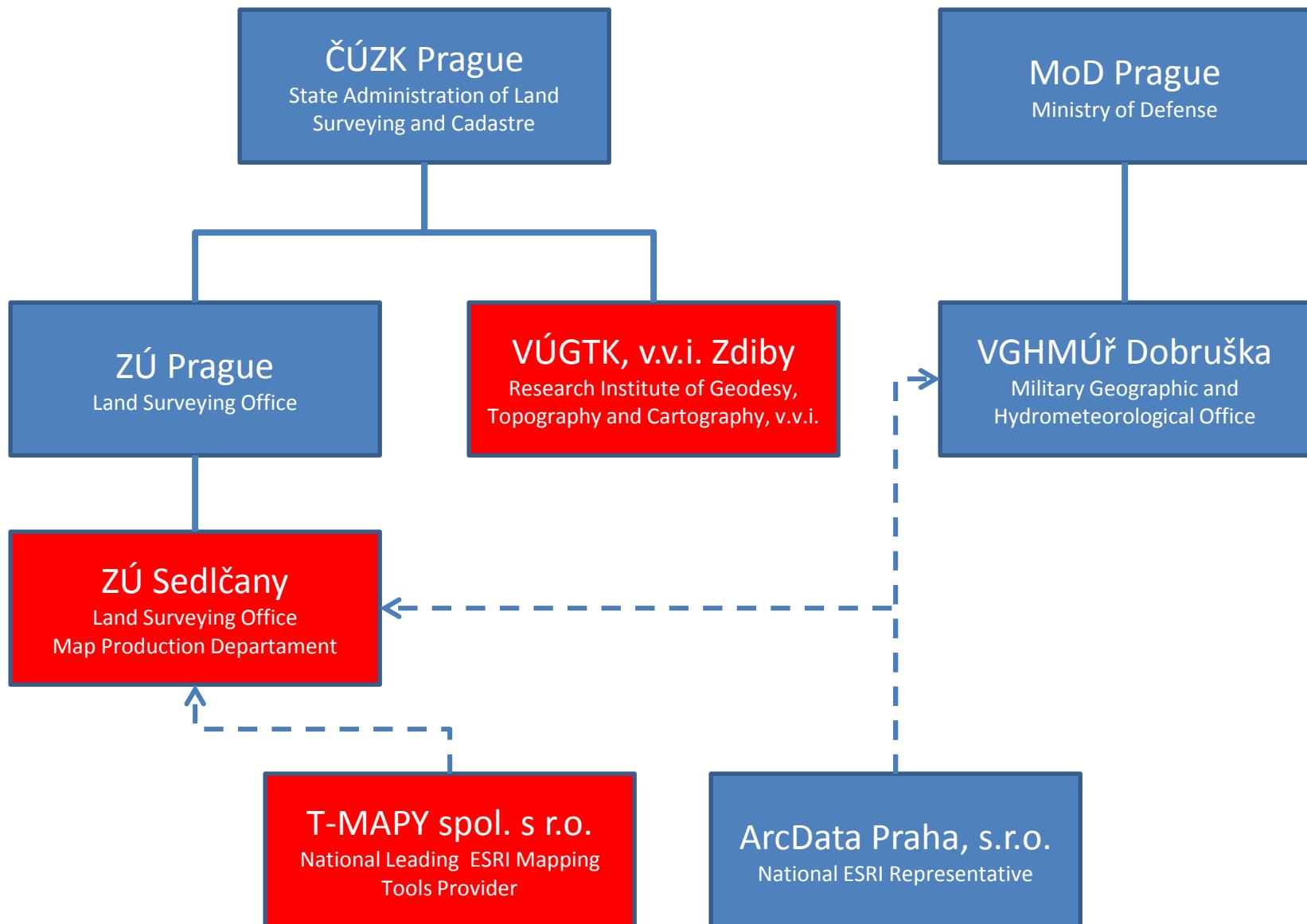
**19th ICA Workshop on Generalization
and Multiple Representation
Helsinki, Finland, 14th June 2016**

Ing. Radek Augustýn
www.vugtk.cz

Environment – Data Explosion



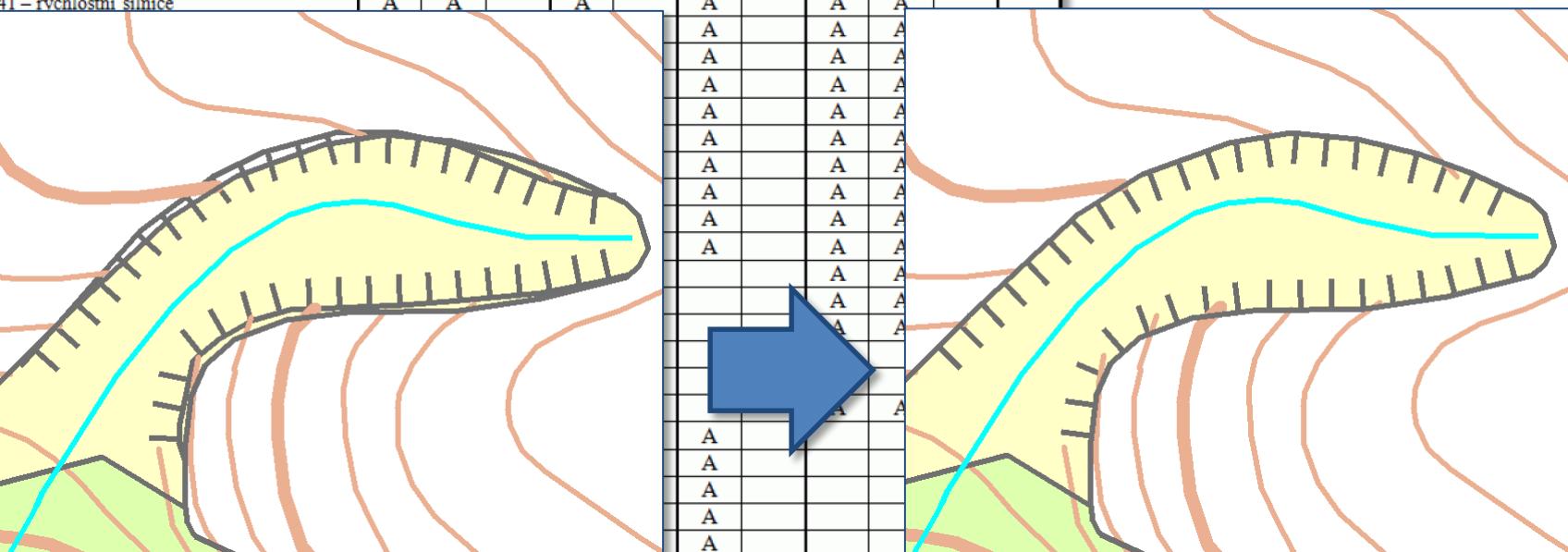
Key Players



Rule Based Generalization

| LÍCOVANÉ PRVKY: | | 171/01 – zed' | | | 412 – stromořadí | | 522 – hranice chr. úz. | | 606/01 – terénní stupeň | | | plochy* |
|---|----------|---------------|---------|--------|------------------|---------|------------------------|--------|-------------------------|---------|--------|---------|
| ŘÍDÍCÍ PRVEK | nástroj: | ven | dovnitř | na osu | ven | dovnitř | ven | na osu | ven | dovnitř | na osu | na osu |
| 171/01 – zed' | | A | A | | A | A | | | A | A | | |
| 172 – doplňková linie | | A | A | A | A | | | | A | A | A | |
| 201 – železnice | | A | A | | A | | A | | A | A | | |
| 202 – železnice | | A | A | | A | | A | | A | A | | |
| 203 – železnice | | A | A | | A | | A | | A | A | | |
| 204 – železnice | | A | A | | A | | A | | A | A | | |
| 205 – úzkorozchodná železnice | | A | A | | A | | A | | A | A | | |
| 206/01 – vlečka | | A | A | | A | | A | | A | A | | |
| 206/02 – úzkorozchodná vlečka | | A | A | | A | | A | | A | A | | |
| 240 – dálmice | | A | A | | A | | A | | A | A | | |
| 241 – rychlostní silnice | | A | A | A | | | A | A | A | A | | |
| 507 – hranice městské části, měst. obvodu | | | | | | | A | A | A | A | | |
| 521/01 – hranice užívání | | A | A | A | A | | | | A | A | A | A |
| 522 – hranice chráněného území | | | | | | | A | | | | | |
| 606/01 – terénní stupeň | | A | A | | A | | | | A | A | A | |
| 606/02 – terénní stupeň nad 15 m šířky | | | | | A | | | | | | | |

* plochy = všechny prvky z vrstev Z_PlochaRuzna_P, Z_VegetacePlocha_P, Z_Voda_P



National Specific Generalization



Environment – simplified solutions

structure

Manual Generalization

Batch Processing

Rule Based Generalization

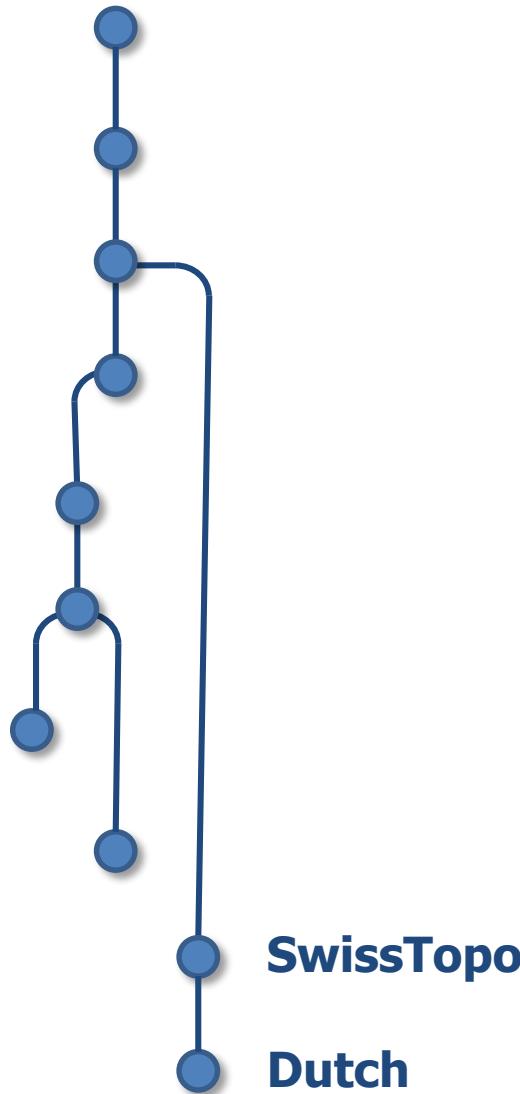
Constraints Based Modelling

Multi Agent

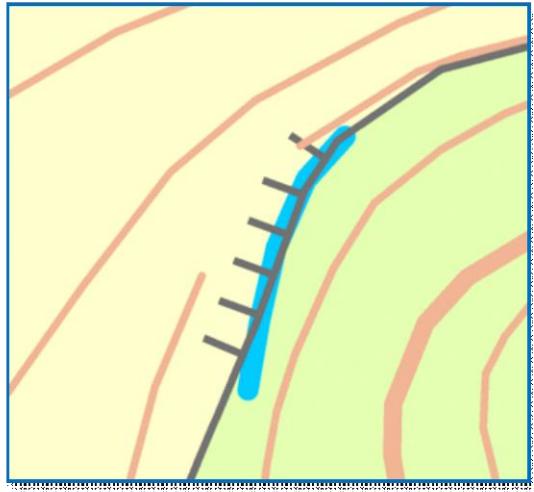
LaserScan/1Spatial

IGN Clarity

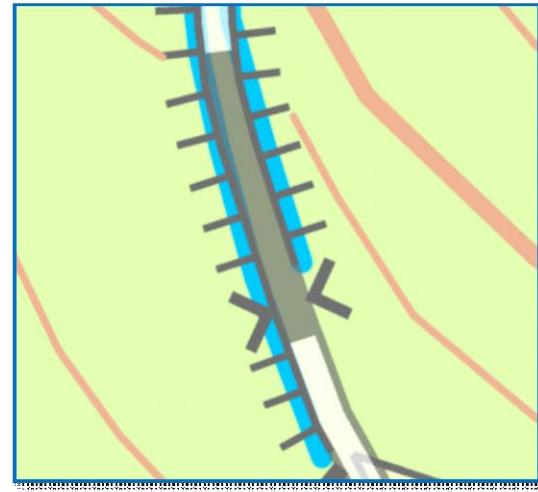
LAMPS - OS GB, IR



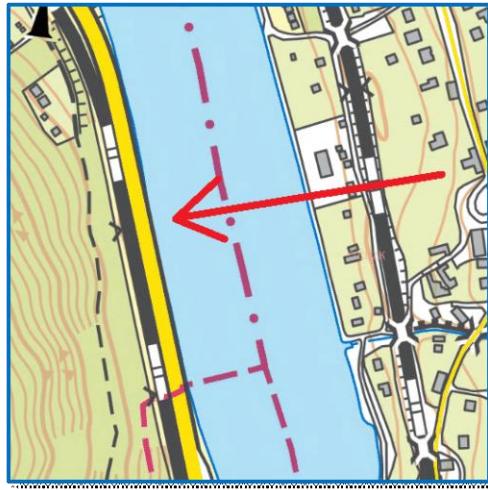
Snapping/alignment



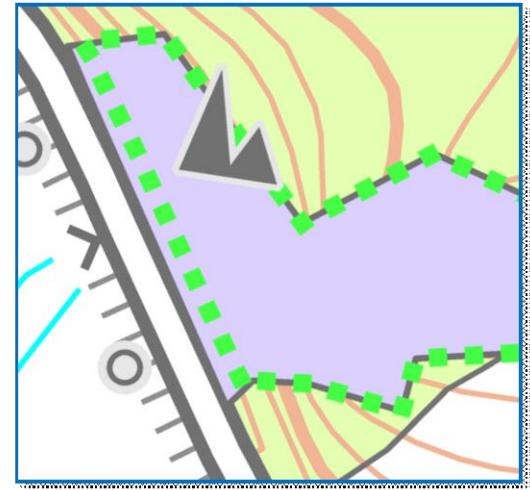
Geometries snapping



Rendering edges inner alignment



Rendering edges outer alignment



Rendering alignment with threshold

Cartographer Knowledge Fragment

Point displacement x Radek

localhost/Generalizace/web/Ontologies/CartographersKnowledge/Common/Colision/PointxPoint/Displacement/PointDisplace

Apps Generalizace Heap Temp Other bookmarks

Point displacement

[Generalization](#) [Create discussion](#)

[Cartographer's knowledge](#) | [Common rules](#) | [Symbols colision](#) | [Two points colision](#) | [Point displace](#)

- lower priority graphic is displaced in order to achieve not overlapping symbol renderings
- depending on symbol color, there must be a little space between them
- in the case point symbol is part of an area, it can not be displaced outside

[Situation 04 - Cross displaced from tower](#)

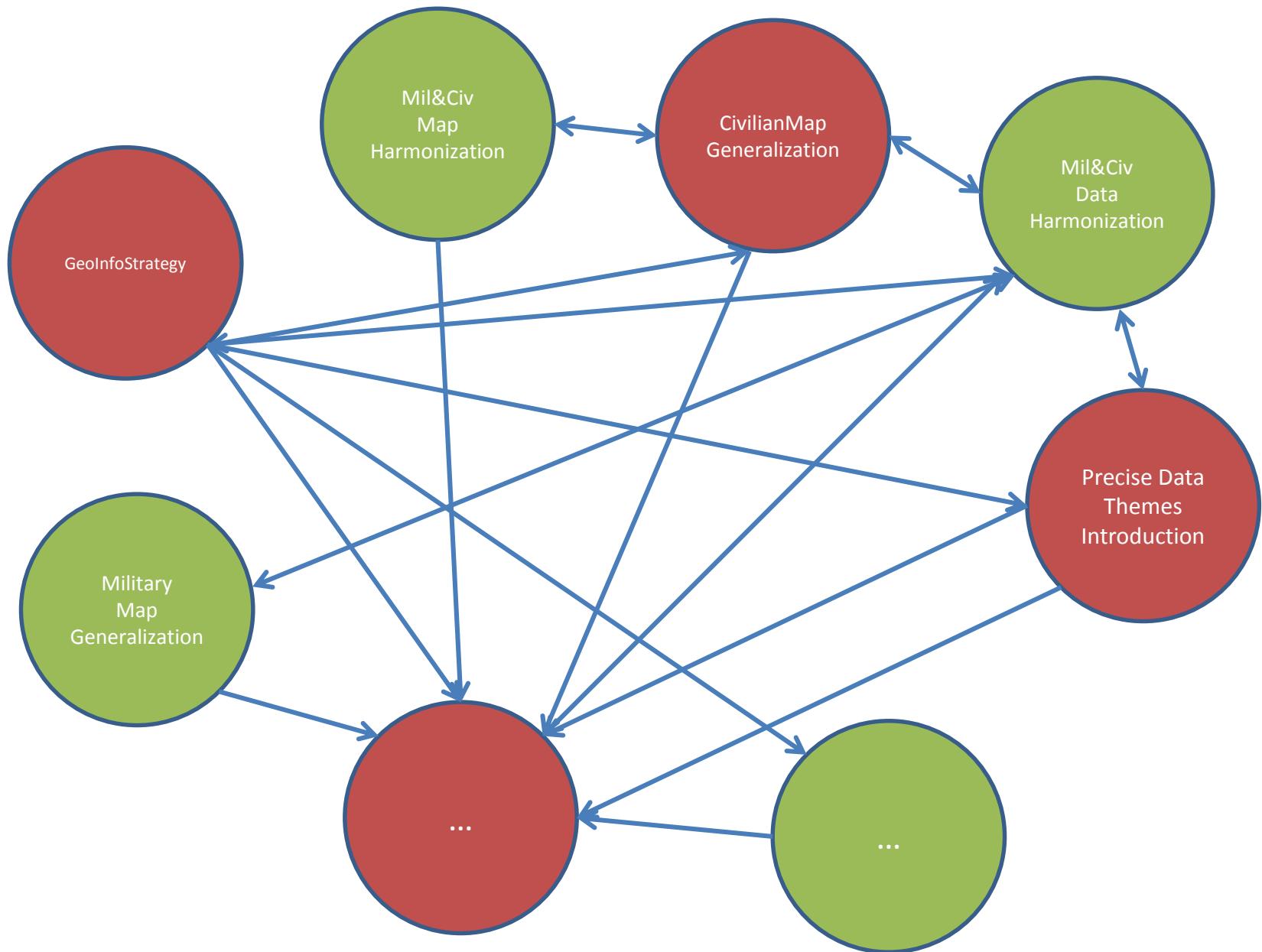
Properties

Two points colision operators [displacement reduction](#) [symbolization by complex symbol](#) [symbol modification](#) List

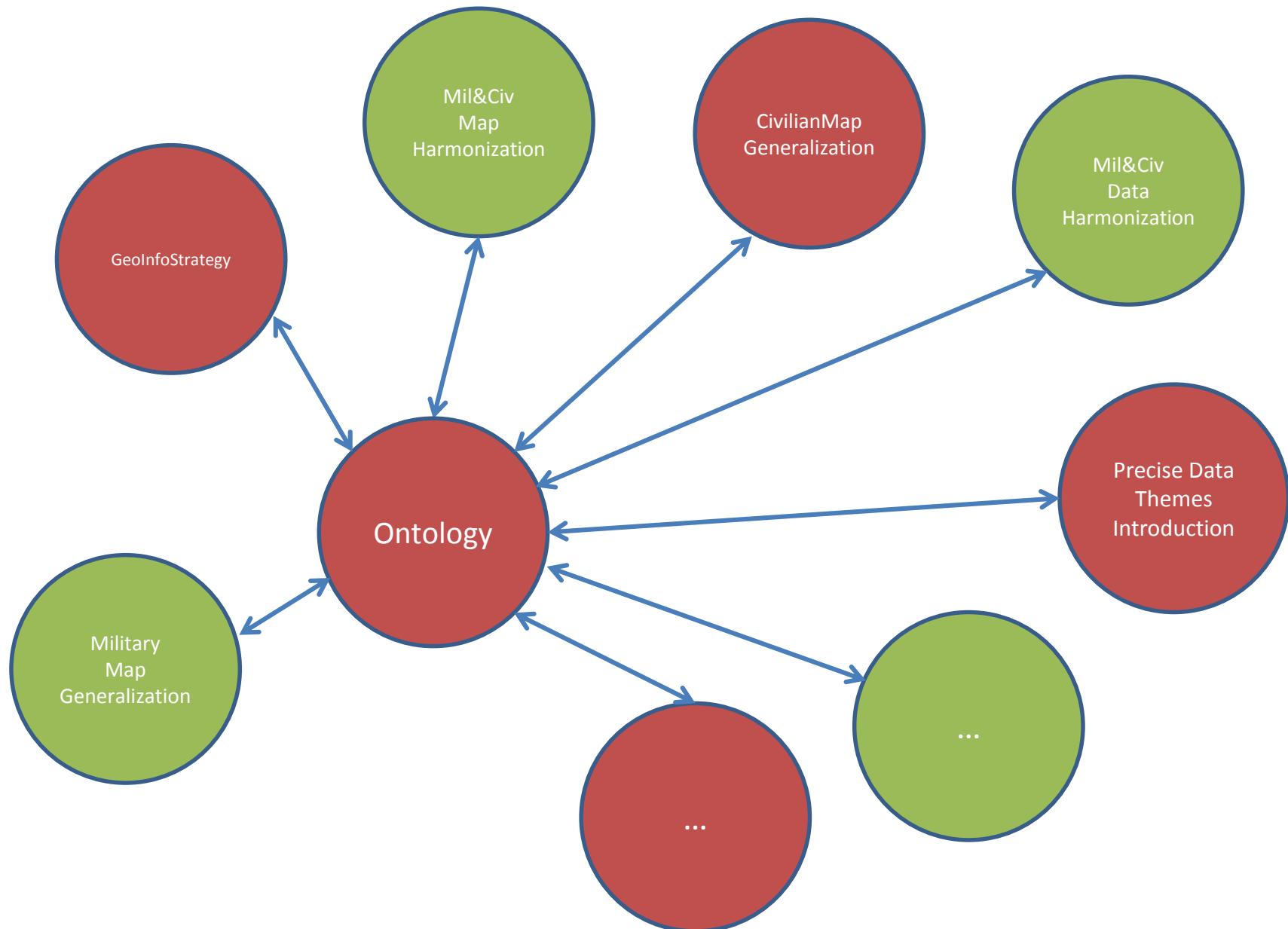
HTML JSON RDF

14.03.2016 09:44:35

CZE Geospatial World Components



CZE Geospatial World Components



10+25k requirements

Situace č.46 - Odsuny a vypouštění bodových značek

www.vugtk.cz/euradin/TB04CUZK001/03_CartographicSituations/web/Situation_46.html

Situace č.46 – Odsuny a vypouštění bodových značek

Seznam Statistika

Ukázka Mapy Zabaged

Generalizace bodových prvků - (Z_StavebníObjekt_B - kříž, pomník).

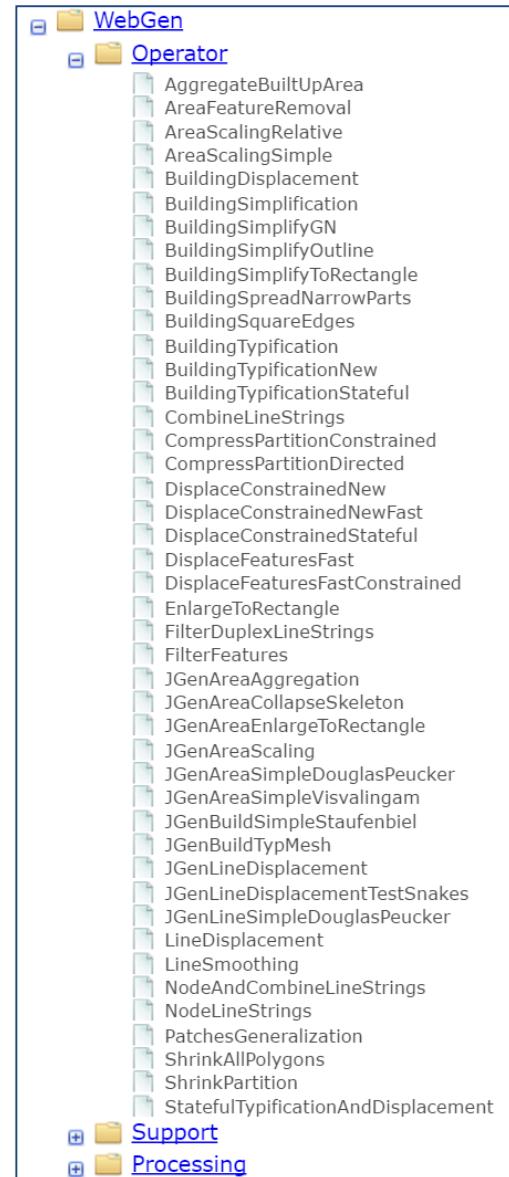
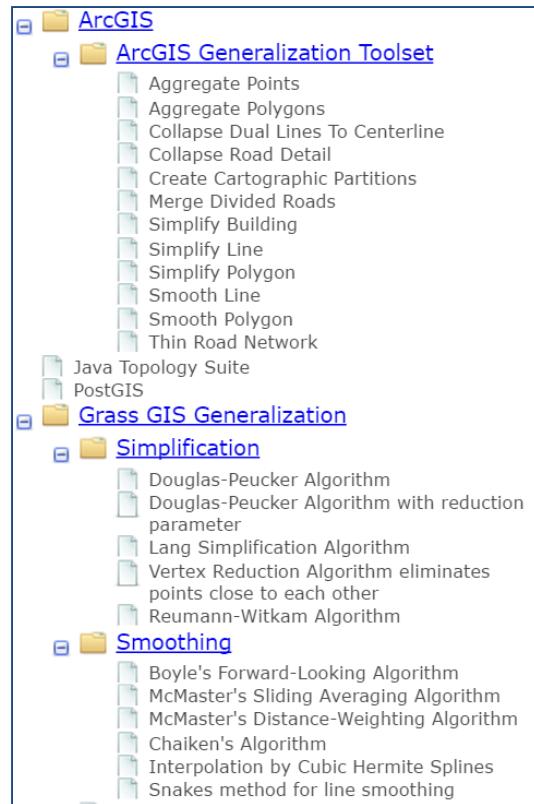
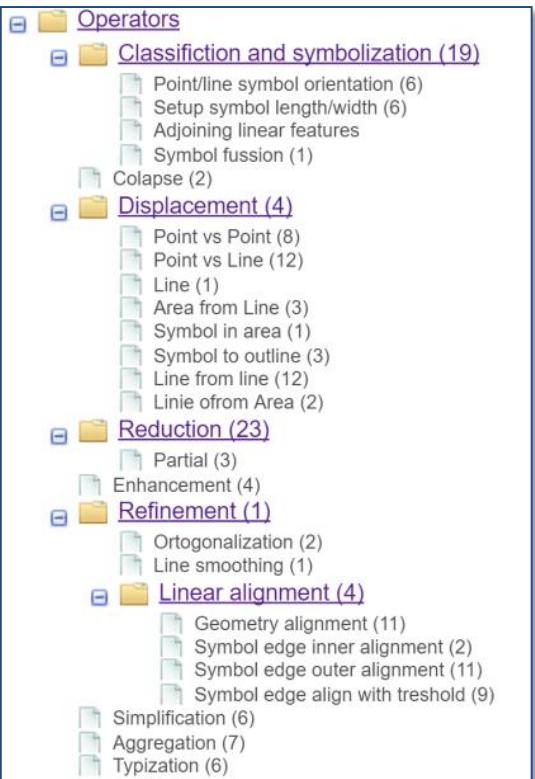
ZÚ Sedlčany

Větší počet bodových prvků vytváří několik uskupení v nichž vznikly vzájemné kolize mezi bodovými značkami a ostatními liniovými a plošnými prvky. Nahuštění bodových značek a vzájemné kolize budou řešeny snížením jejich počtu odstraněním a odsuny vybraných prvků.

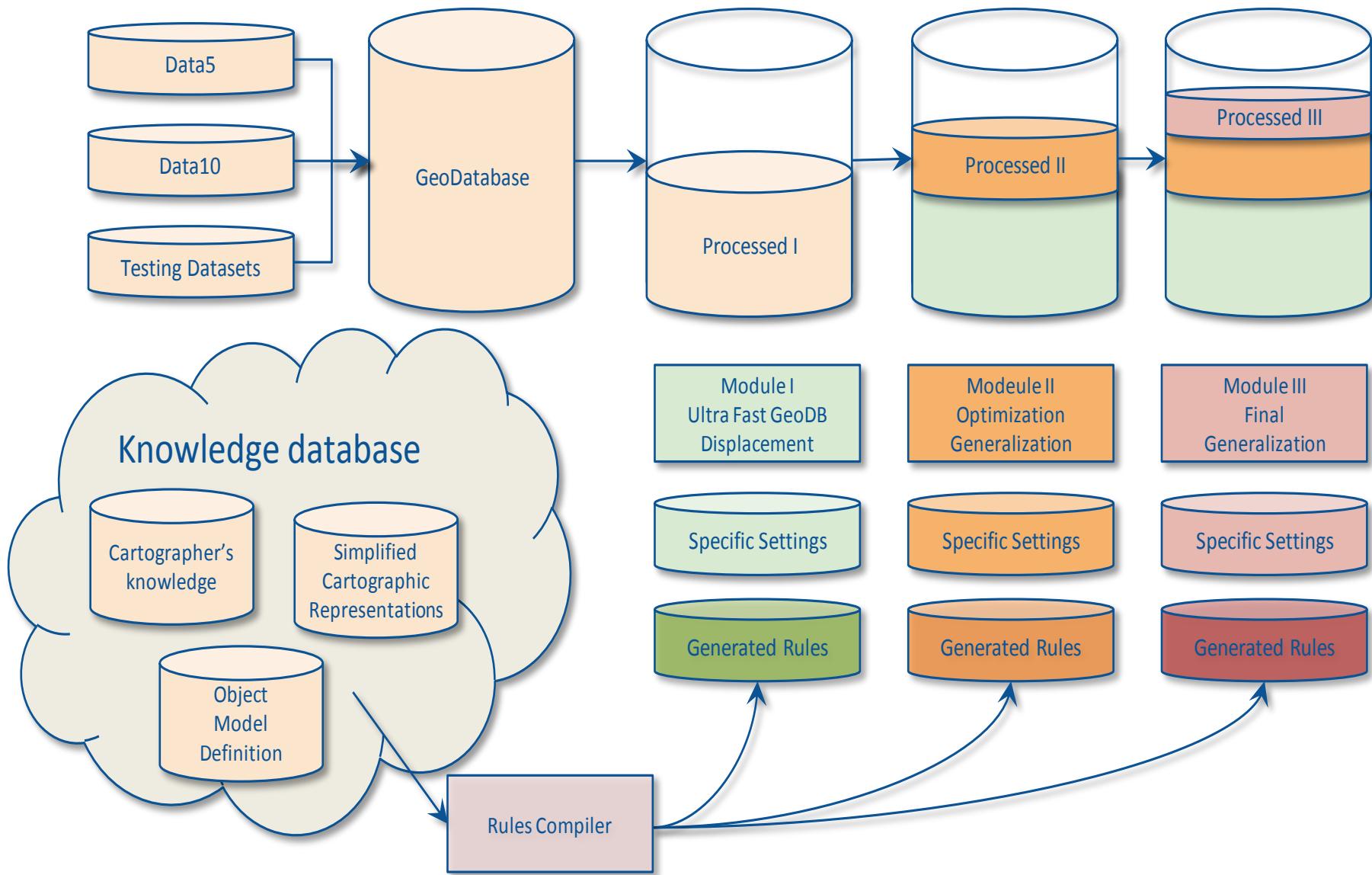
[Odsun](#)
[Vypuštění](#)

12.11.2015 06:23:17

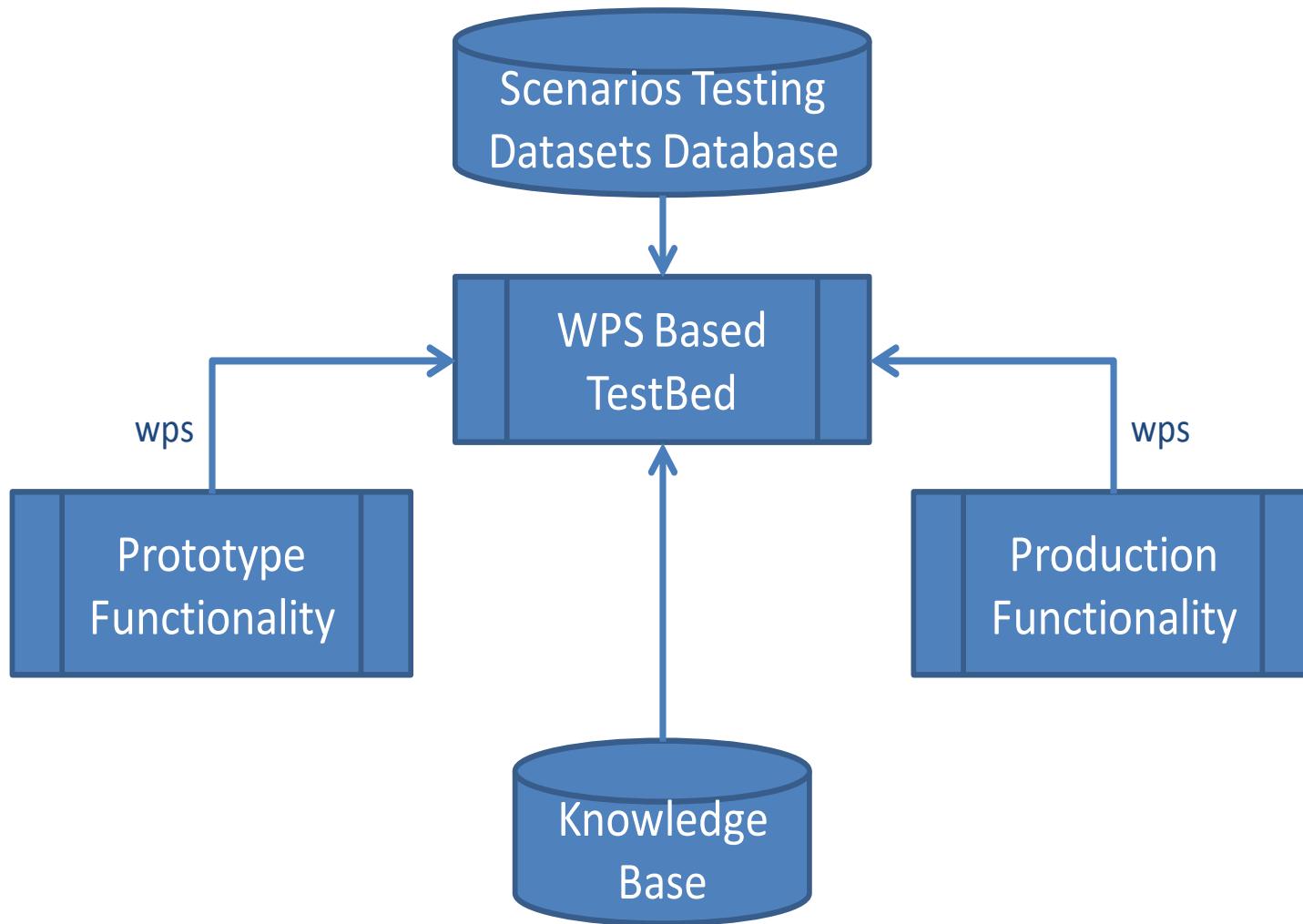
Requirements and options



10+25k requirements



WPS TestBed



The way ahead

- 10k+25k cost saving project
- Coordinate CZ Technological Agency requirements with Agile practice

Questions???