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1st Meeting:

WP 03 - Revision of the LoD Concept

July 9th, 2014

Agenda (tentative)

1) Organization
   - Minutes
   - Lunch (sandwiches at 1 pm?)
2) Revision of LoD Concept
   - Reviewer amendment
   - General aim / purpose of LoD concept (60 min)
   - Deficits of the current LoD concept (30 min)
   - Proposals for modifying the LoD concept (10-15 min each)
   - First Discussion

Revision of LoD Concept

- Motivation: Need for Revision (Indoor-LoDs missing, Indoor in LoD4 only, …)
- LoD concept crucial for development of CityGML 3.0
  - Nearly all other WPs depend on LoD-WP
- Current LoD-concept: accepted by market, most cited concept of CityGML by scholars
- Take care that the current concept is retained as much as possible
  - Transformation of data sets with standard methods
  - Naming of labels not completely different, ideally: current labels same meaning in new concept

Revision of LoD Concept

- General aim / purpose of LoD concept
  1. Providing concise labels for
     - Assessing Suitability for applications (one means)
       - Specification, what data must be captured
       - Data representation specification
  2. Supporting as much applications as possible
  3. Base for multiple representations

Deficits of the current LoD concept

- Definitions not precise
  - Must an LoD be complete?
  - Geometrical complexity of LoDX?
  - If feature types are optional, you can not tell from the LoD label whether a feature type is included or not
- Coupling of geometrical detail level and semantical detail level, problems for applications
  - e.g., energy performance assessment (LoD2 outer shell + openings)

Deficits of the current LoD concept

- Coupling of geometrical detail level and indoor structures, problems for applications
  - Energy: thermal shell (LoD1/LoD2), LoD1 rooms
  - LoD1 outer shell, rooms in LoD4
  - outer shell not important for: indoor navigation, facility management, land administration, property taxation (internal volume)
  - Storeys in LoD1 or 2, Workflows CityGML –IFC, IFC - CityGML
  - Stacking of floor plans
  - Security (fire fighting)

Open Questions

- Should Textures/Materials be included?
- Use Cases?

Revision of LoD Concept

- Aspects covered (discussion postponed to next meeting):
  1. geometrical complexity
  2. geometrical detail level
  3. geometrical resolution
  4. geometrical accuracy (deviation from real world)
  5. semantical richness (feature types)
  6. Attributes
  7. Appearance

Proposals for modifying the LoD concept (10-15 min each)

1. Claus Nagel
2. Ki-Joune Li (indoorLoDs)
3. Filip Biljecki (postponed to next meeting)
4. Joachim Benner/Karl-Heinz Häfele (postponed to next meeting)