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INSPIRE-ID with Change detection tool

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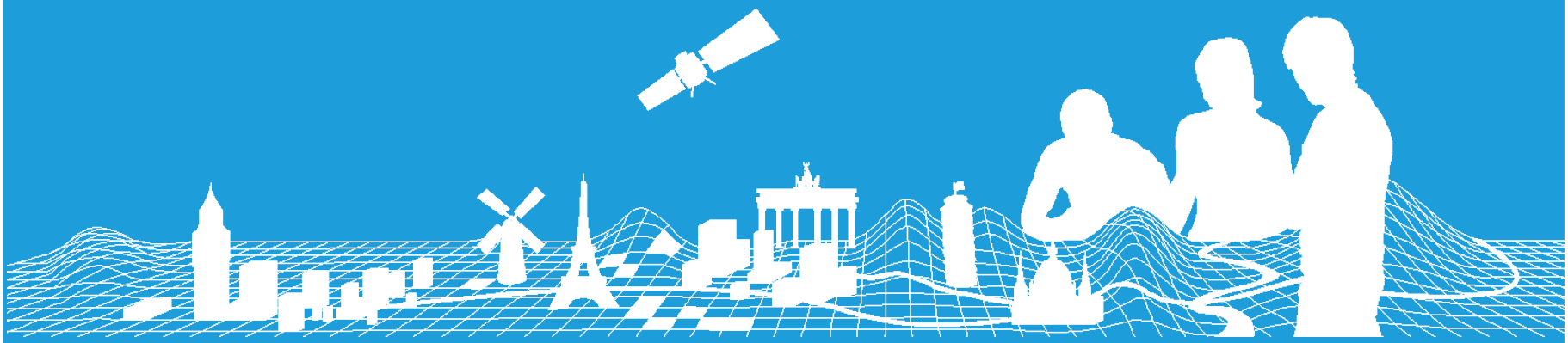

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INSPIRE-ID and life-cycle

- Purpose
  - Persistent and unique IDs for all objects
  - Life-cycle information (creation date, end date, version number)
- Very difficult to handle for the NMCAs
- Idea: maintain the UIDs and life-cycle information centrally!

Change detection tool

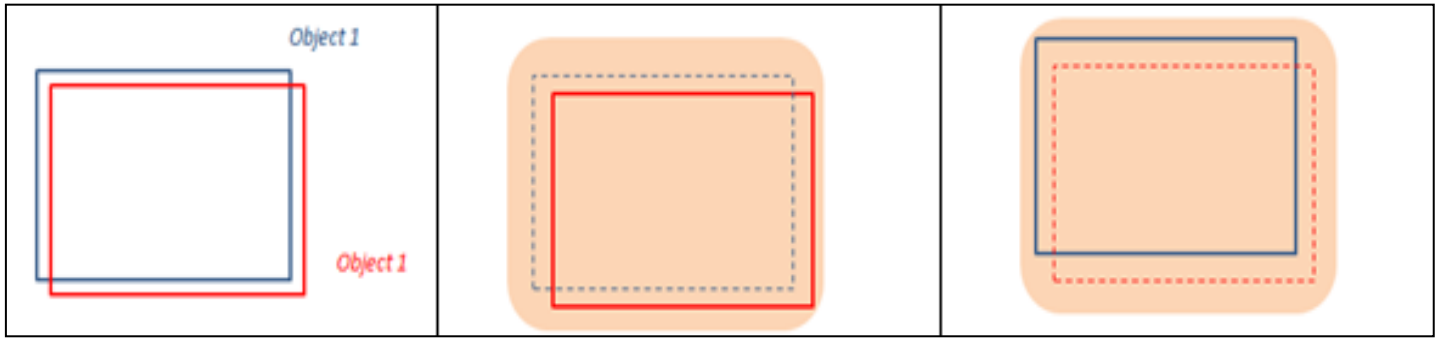
- Developed for ELF by IGN France
- Computes creations, modifications and deletions of objects between two releases
- A UID manager tool that updates UIDs and life-cycle information
- A tool to initialize the UIDs and life-cycle
- Input/output: PostgreSQL/PostGIS

Preparations

- Load two datasets into PostGIS
  - ERM v8 as release t1
  - ERM v9 as release t2
- Add required fields
  - uuid, version, namespace, beginLifespanVersion, endLifespanVersion
- Initialize UIDs and life-cycle information for release t1
- -> initialization was all successfull!!!

Results

Example: feature type with one geometry



Geometries in buffer:

- Identifier is kept
- Version is incremented

Results on ERM v8 and v9, full europe

Feature type	Number of objects ERM v9	Processing time	Deletion	Creation	Modification
BuiltupA	37 K	< 3 min	99	132	4
BuiltupP	275 K	< 8 min	609	751	58 K
Lakeresa	103 K	< 20 min	8 K	8 K	23 K
RoadL	2 497 K	Memory full			
WatrcrsL	1 150 K	< 3 days	147 K	151 K	436 K

Next steps

- Testing with different geometric thresholds and methods
- Testing with projected data (ERM has geographic coordinates)
- Testing on a server
- Processing the whole RoadL featureclass
- Cross-validation of the results with other tools like FME

Thank you for your attention

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