Capitalisation problem in research

Example of a new platform for generalisation: CartAGen
Capitalisation problem in research

How to combine all these works?

Build a collaborative platform
[Edwardes & al 2007]

Production lines
- sturdiness
- maintenance
- efficiency

Pure research
- freedom
- control
- research tools
[Stoter & al 2010]
Generalisation platform requirements

Integrate work:
- in generalisation
- in other domains

Respect data models

- sharing
- self improvement
- customisation
- adapted to Web services

Usual GIS functionalities:
- archiving
- analysis
- display
- additional tools
- ...

 PLATFORM CORE (interfaces)

Analysis component
- generalisation models
- Gothic treatments
- java algorithms
- ...

Display component
- Clarity / JADE
- GeOxygene
- independent GUI
- ...

Archiving component
- Gothic
- ArcGIS
- PostGIS
- ...

Component-based architecture

[Rütschlin 2000]
Specific case: CartAGen

Different work environments

Independent developments
- PlaGe
- Stratège

Commercial softwares
- Lamps2
- Clarity

Different models

[CartACom]

[Duchêne 2004]
Lamps2 ('iSpatial')

[Gaffuri 2009]
GAEL
Java / GeOxygene

[Agent]

[Russ 1999]
Clarity ('iSpatial')

[Taillardier 2008]
Knowledge revision
Java / GeOxygene
Specific case: CartAGen

Clarity + Gothic
- close to production lines
- strong topology engine
- lots of algorithms

External GUI + Java
- more suited for research
- easier to import code

Where to put the cursor?
System architecture

- Possibility to change the components
- Possibility to add new components
Treatments all in Java (most of algorithms & models)

Treatments using Gothic through geometry conversions (some basic algorithms)

Treatments all in Gothic through a cache commit (eg. topological engine)
Possibilities for a different use

Clarity (Gothic objects)

CartAGen dataset
Possibilities for customisation

Example of research tool: module to perform process traceability
First results

- Urban block generalisation
- Computation of city shapes
- Road generalisation (using Gothic)
- …
Perspectives

- Import models & algorithms
- Develop the platform core

- Control & mastery
- Basis for further work
- Developments of Web services
- Possibility of sharing
Capitalisation problem in research

Example of a new platform for generalisation: CartAGen

Thanks for your attention

and see you at the demonstration session