Why did I give up doing UML+Z (lessons learned)?

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Background

- From Z to Graphical notation (1994)
  - Object-Z
  - UML appeared in 1995
- From UML to Z (1996)
  - Static model (Class diagrams)

Good things with this

- Precise UML semantics
  - Z definitions for Class Diagrams artifacts
  - Type checkers
- pUML group

Bad things with this

- Nobody want to see formal notation
  - This is OK: we intended to hide Z
- Problem of hiding Z
  - Tracing back from type checkers to UML
  - Poor traceability feature

Why giving up?

- Appart from other focussings (components)
- OCL instead of Z
- Ability to express constraints at meta-model level
- Move towards a « profil-oriented » work (e.g., Whole-Part Relationship Profile [Belloir, 2004])

Lessons learned

- Formality is necessary
  - But formality has to be hidden
- Because it allows analysis
  - Backtracking from V&V tools is crucial
  - MDE / Transformation-based approaches can help for consistency checking
- Families of UML&FM
  - F->NF is easy (may be not F->UML)
  - NF->F start to be easy (thanks to transformations)
  - F+NF is the trick

Efforts and directions

- What ever level of formality you'll reach, you'll have to trace back to requirements (informal by essence)

- What need to be formalised is not that much the artifacts / model elements but the links between those artefacts
  - E.g., links between roles, viewpoints, etc.