Context Methodology SC

Activity Summary

Minneapolis Face-to-Face Meeting

June 7, 2002

Issues we were addressing

- **Nature of types created using the context methodology**
  - **Deep implications for schema design**
- **Continuing work on use cases**
  - **...because that would help solve some of the thorny issues**

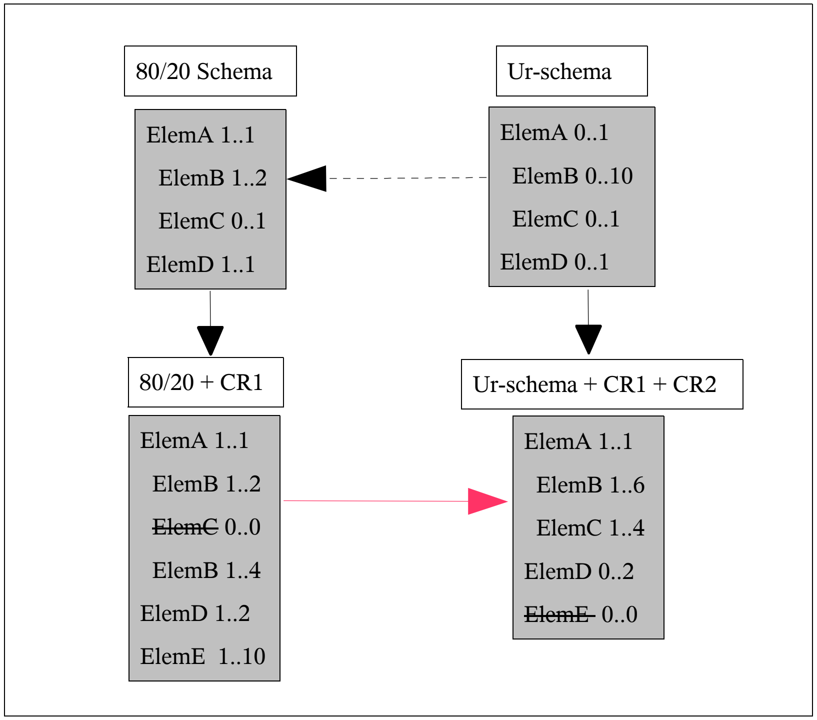
Three proposals for handling generated types

- TAAT (Transform At All Times)
- “Paella”
- Schematron

New Proposal1

- Minnesota Nice (or the Revisionist Papers)
- Two schemas for each document type:
    - UBL80/20 & Ur-schema
    - UBL80/20 has required and optional components
    - Ur-schema has only optional components declared in abstract types
- Context rules can only produce XSD valid type derivation
    - Context rules that would produce invalid type derivation in 80/20 must be applied to Ur-schema.

New Proposal1 (cont.)



80/20 Schema

ElemA 1..1
ElemB 1..2
ElemC 0..1
ElemD 1..1

Ur-schema

ElemA 0..1
ElemB 0..10
ElemC 0..1
ElemD 0..1

80/20 + CR1

ElemA 1..1
ElemB 1..2
~~ElemC~~ 0..0
ElemB 1..4
ElemD 1..2
ElemE 1..10

Ur-schema + CR1 + CR2

ElemA 1..1
ElemB 1..6
ElemC 1..4
ElemD 0..2
~~ElemE~~ 0..0

New Proposal2

- How are rules to be applied?
  - i.e. How long can the derivation chains be allowed to grow given 8 context drivers?
- Rule: when applying a context rule whose context driver has already been used, if the context driver's value has already been applied at the same or a higher point in the value's hierarchy, it must be applied above the point at which it has already been applied.
  - T(continent=Americas)->T'(country=US)->T''(city=Boston) but not T'''(country=Mexico)

New Proposal3

- Establish phase 1 and phase 2 for context rules
- Phase two is where we want to get
- Phase one is transitional, and establishes:
  - Can develop your own derivation off 80/20 or Ur by hand-coding an XSD module
  - Must describe, in UBL approved fashion, the context(s) applied
  - Must provide for the ability to “compute” the context of any derived type
  - Does not have to describe the delta(s)