

Mini-talk: Modeling Environments as Transformation Environments

Andrzej Wąsowski

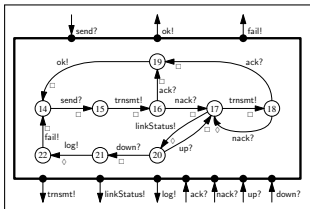
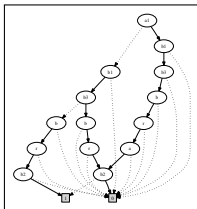
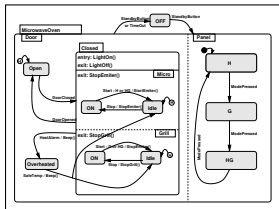
IT University of Copenhagen, Denmark



GRACE-BX meeting 15 December 2008, Shonnan Village, Japan

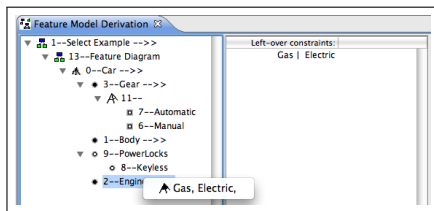
Research Background

- PhD in code generation for embedded systems (statecharts stuff)
- Post-doc in constraint programming with applications to interactive configurations
- Concurrency (behavioral variability models, 3-valued reasoning, compositional reasoning)

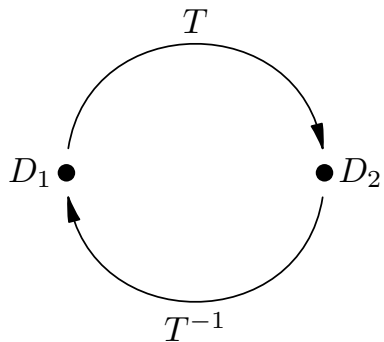


Current Research Interests

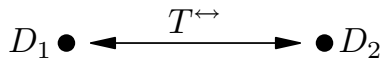
- Stochastic models of computation
- Component based software development, product line architectures
- **Domain specific modeling** environments with intelligent guidance, error reporting, etc.



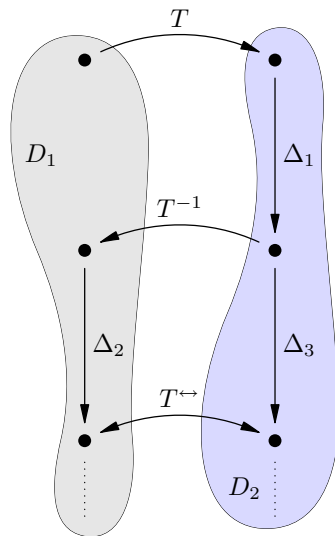
Bidirectional TX as a Synchronizer



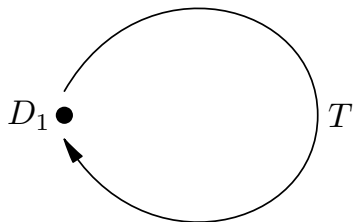
Bidirectional TX as a Synchronizer



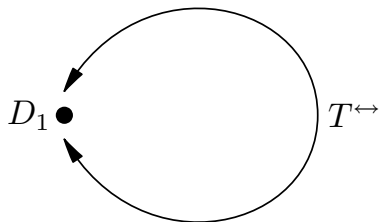
Bidirectional TX as a Synchronizer



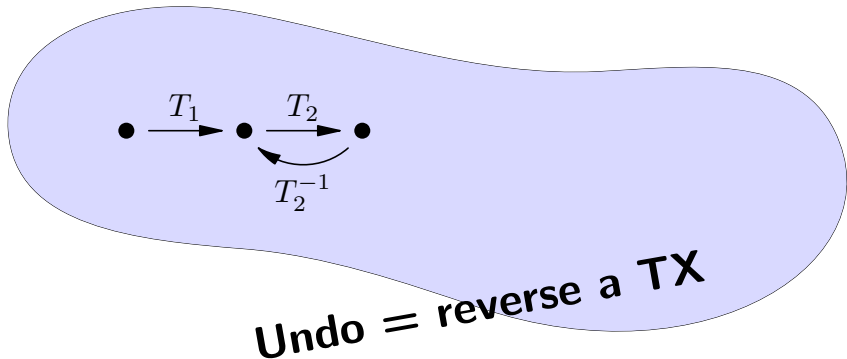
Another View: Bidirectional Endo-TX



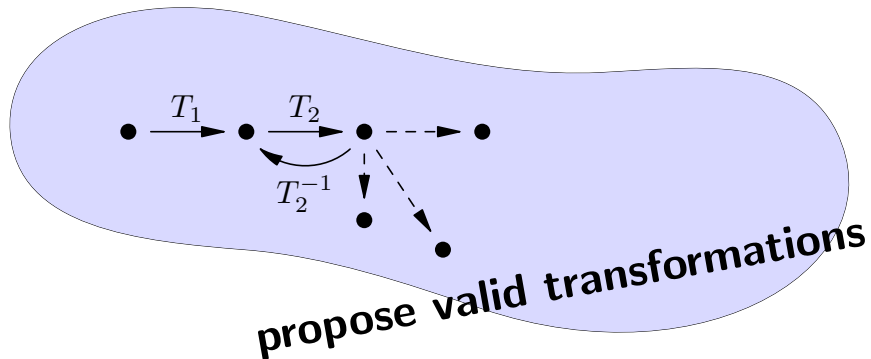
Another View: Bidirectional Endo-TX



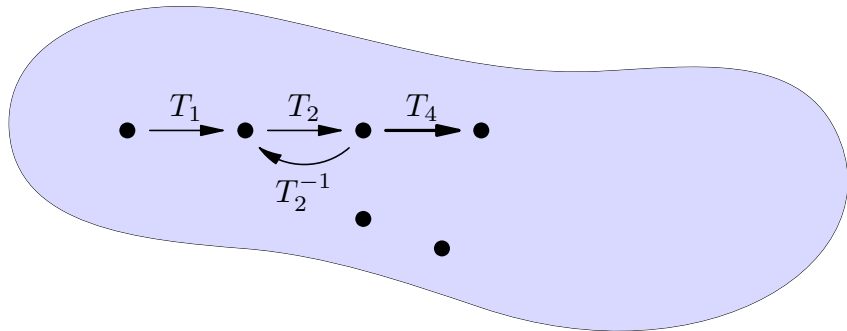
Endo-TX in Modeling Environments



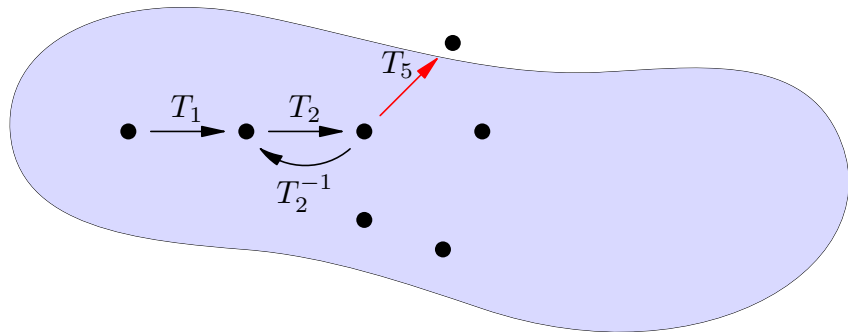
Endo-TX in Modeling Environments



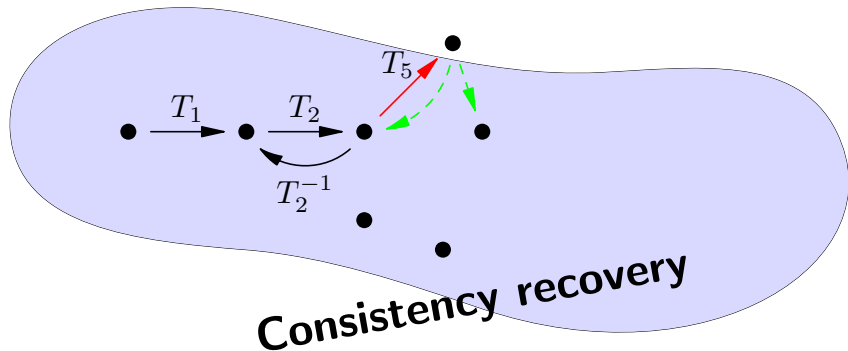
Endo-TX in Modeling Environments



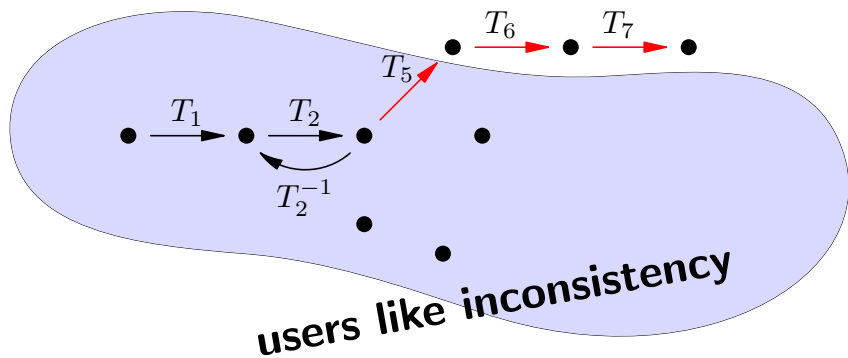
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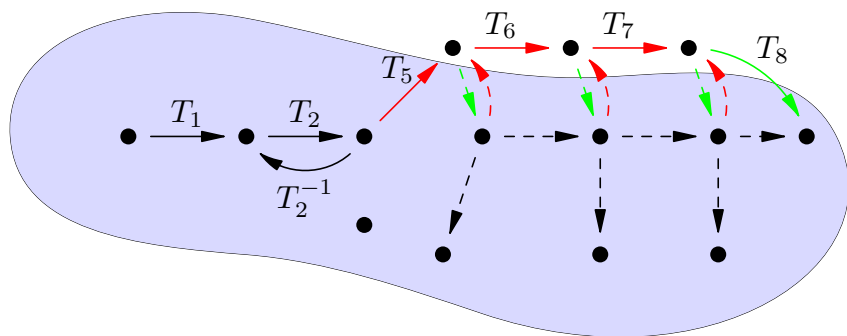
Endo-TX in Modeling Environments



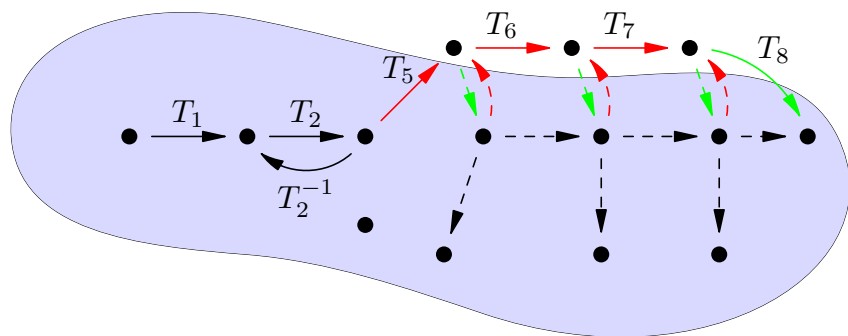
Endo-TX in Modeling Environments



Endo-TX in Modeling Environments



Endo-TX in Modeling Environments



- Resembles synchronization between 2 domains
- We synchronize D with \bar{D} in a sense.

Talk: BX in Modeling Environments

- Talk
 - Define: guidance, consistency recovery, guidance under inconsistency, error reporting (discuss details for feature diagrams)
 - Propose constraint encoding and BDD-based/MAXSAT based algorithms for solving the problems
 - Warning: work in progress
- Discussion topics
 - Understand/transform models **with constraints** (DSLs)
 - Understand/transform **inconsistent** models (DSLs)