

Graph Transformation as a Meta Language for Dynamic Modeling and Model Evolution

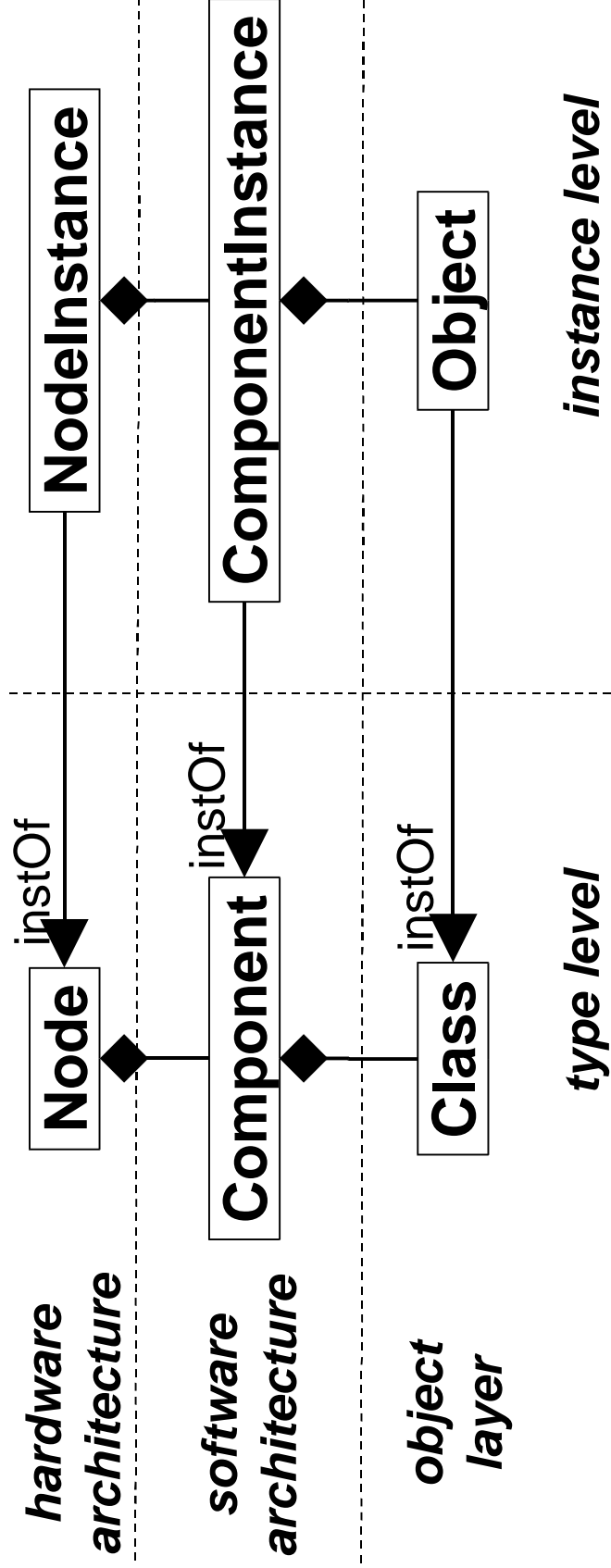
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Summary

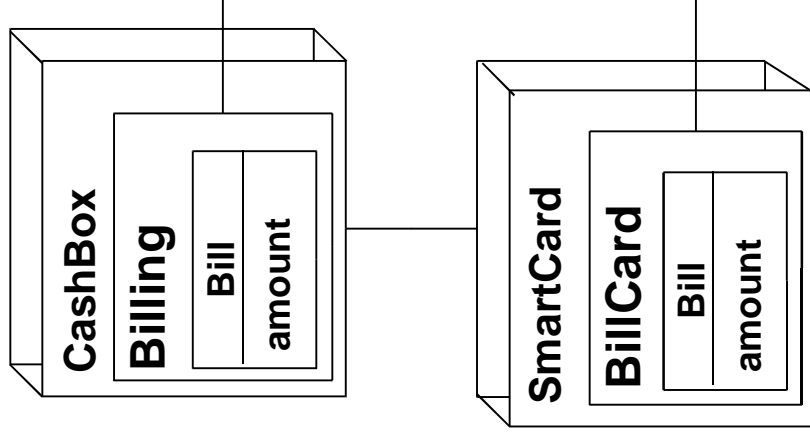
- **Model-oriented classification (2 dimensions)**
 - *Layer of hierarchy*
 - objects – SW components – HW components
 - *Level of typing*
 - class – instance
- **Formalization**
 - Meta modeling
 - Graph transformation

Meta Model: Hierarchy and Typing

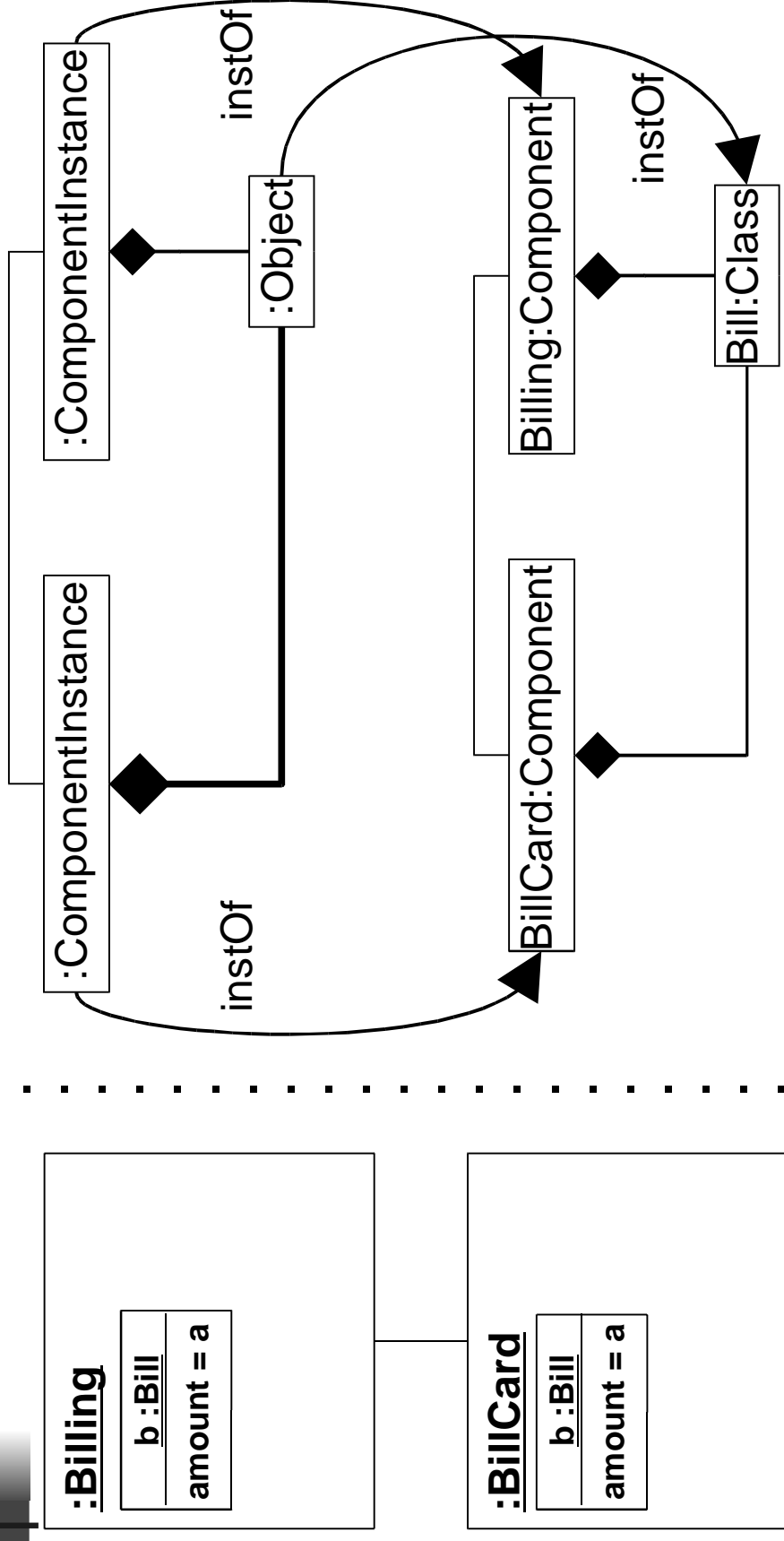


Example: Type Level Hierarchy

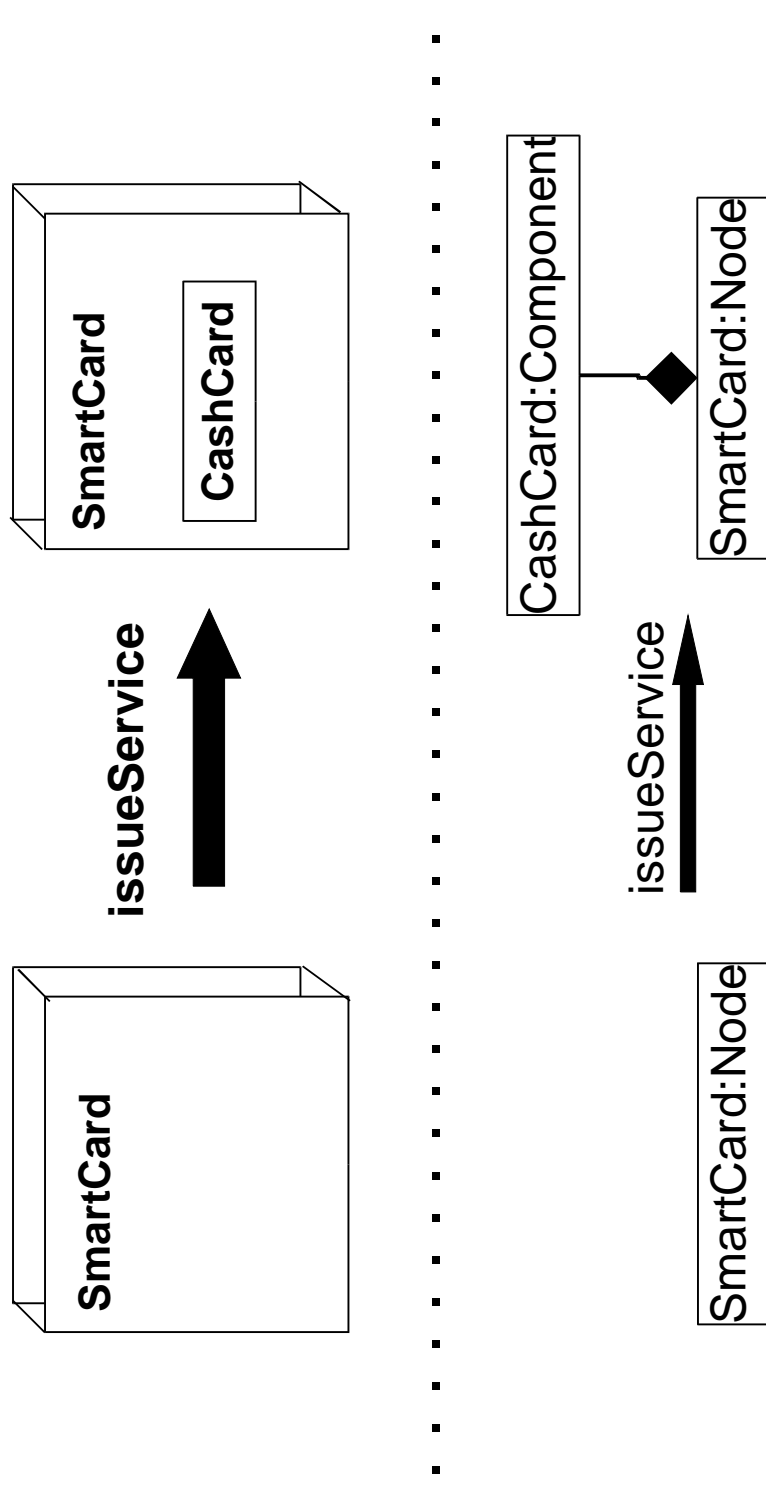
- A *CashBox* node may host a *Billing* component for creating (and storing) *Bill* objects
- A *SmartCard* node containing a *BillCard* component accepts a *Bill* object from a *CashBox*



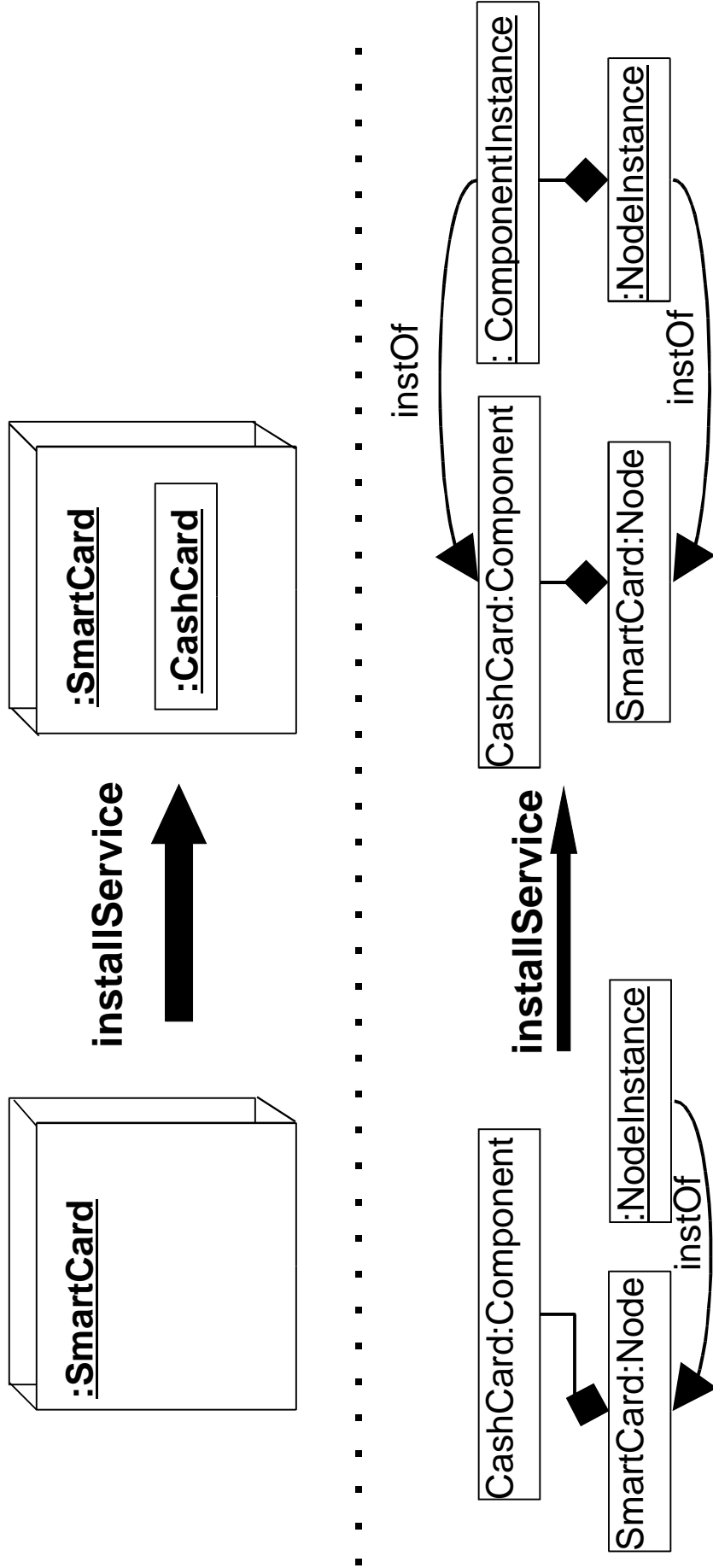
Example: (Type and) Instance Level



Example: Type Level Transformation Rule



Example: Instance Level Transformation Rule





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