

Anantha Narayanan

Professor Gabor Karsai
Institute for Software Integrated Systems
Vanderbilt University



ISIS



- Domain Specific Modeling, Meta Modeling
- GME: Generic Modeling Environment
 - Meta-programmable, configurable
 - Integrated environment
 - Generic APIs
- UDM: Universal Data Modeling
 - Domain specific APIs
 - Persistence formats
 - GME, XML, binary



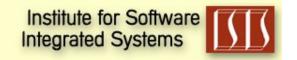
ISIS



- GReAT: Graph Rewriting And Transformation
 - GT based model transformations within GME
 - UML class diagrams as type graphs
 - Dataflow based explicit sequencing of rules
 - Parallelism, conditional branching
 - Code generator, debugger







- Verification of Model Transformations
 - Semantic verification
 - Specification of semantic correctness
 - Evaluation of semantic correctness
 - Instance based verification



Current Interest Integrated Systems



- Model Migration
 - Meta-models evolve over time
 - Upgrade old models to new version of the meta-model
 - Bigger challenge: Translator migration



Goals



- Interaction with research community
- Do you face these problems?
 - Semantic errors in transformations
 - Model migration issues
- How do you deal with the problems?
- Are there high level solutions applicable to different approaches?