From Product Manufacturer to Eclipse MDSD Projects

The Transformation of Gentleware AG

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Gentleware AG

- Founded in 2000
- Founder and CEO: Dr. Marko Boger
- Development and Distribution of UML modeling tools
  - Poseidon for UML
  - Apollo for Eclipse
- More than 2,000,000 downloads
- MDSD Consulting and Projects
  - DSL Design
  - Model Editor in Eclipse
  - Generator in openArchitectureWare
Paradigms over Time

- Assembler
- Procedural
- Object Oriented
- Frameworks (OOP)
- Model Driven

Abstraction Level

Time


Observations on MDSD

- The Paradigm of Model Driven Software Design is becoming a reality
- It is NOT based on UML
- Instead it is based on DSLs

UML 1 Metamodel for States
UML 1 vs UML 2 for States
Gentleware joined the b+m Group

- IT Service Provider
- Focus on model driven software projects
- Initiator of the openArchitectureWare Generator Framework
- Active in a variety of domains
- Founded in 1994
- Turnover in 2006: 20,8 Mio. €
- Team: 227 Employees
- www.bmiag.de
The joint b+m Gentleware Service

- b+m Engineering

Our Development Process

Model

1. DSL Design
2. Model Editor in Eclipse
3. Generator in oAW

Business
GMF Development Process

Apollo for Eclipse
Apollo for Eclipse

Features:
- Fully synchronized roundtrip engineering for Java <-> UML2
- Scalability
- Code discovery

Challenges:
- Build one of the first commercial products based on GMF
- Build Gentlemware's first product based on Eclipse
- Switch to Eclipse IDE for development
- IDE is part of the product
- Build/test infrastructure
- Learn how to use a lot of new frameworks
- Keep compatibility with other Eclipse plug-ins
- UML2 / GMF mismatches
- Improve scalability of EMF and GMF
Flowers

- Showcase for modeling abstractions and tooling for screen based J2EE applications
  - Entity, Service, Screenflow
  - Integration into WTP
- Sample code generator for Hibernate, Spring, WebFlow
- Enabling rapid prototyping for J2EE
  - Model and see results immediately

Hermes
Hermes

- Prototype for modeling SOA applications
  - BPM, Services, Screenflows
- Bridges connecting model elements from different (meta)model partitions
  - UI as popup buttons and properties
- Model validation

Zeus
Zeus

- J2EE application modeling environment
- Challenges
  - Integration into existing MDSD tool chain
  - Model browser
  - Non-canonical diagrams
  - Diagram repair
  - Automatically adding connections
  - Generated bridge UI
  - Model validation

Akepios