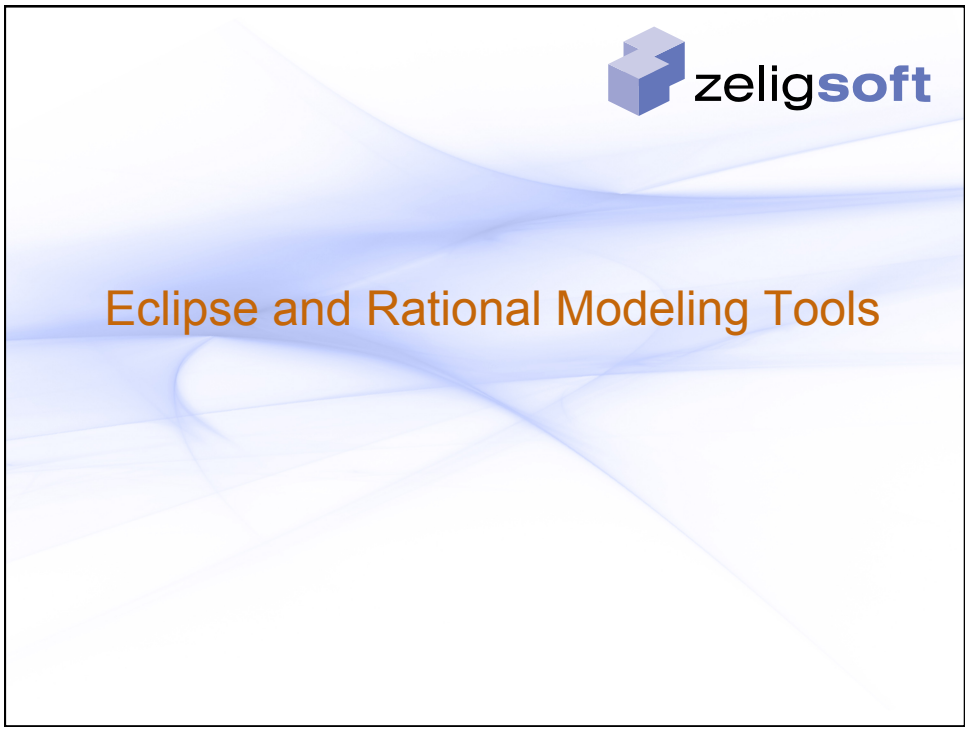

zeligsoft
Eclipse and Rational Modeling Tools


zeligsoft
Overview
In this module we explore the eclipse modeling tools in more detail
Look at the different projects and how they relate


zeligsoft
Goals
After this module you will
Have an understanding of Eclipse modeling projects
How they extend each-other
How they can be transformed into models and text
You will also have a roadmap for the rest of the training


zeligsoft
Agenda
Modeling in Eclipse
EMF, GMF, TMF, TCS
Tooling in Eclipse
MDT, EMFT,
Transformations
M2M, M2T

zeligsoft

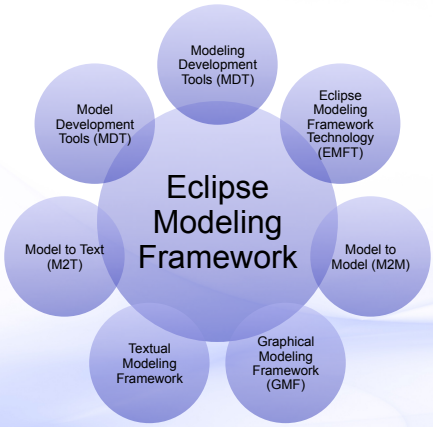
Eclipse Modeling Project

- Model-based development technologies
  - Frameworks
  - Tooling
  - Implementations of standards

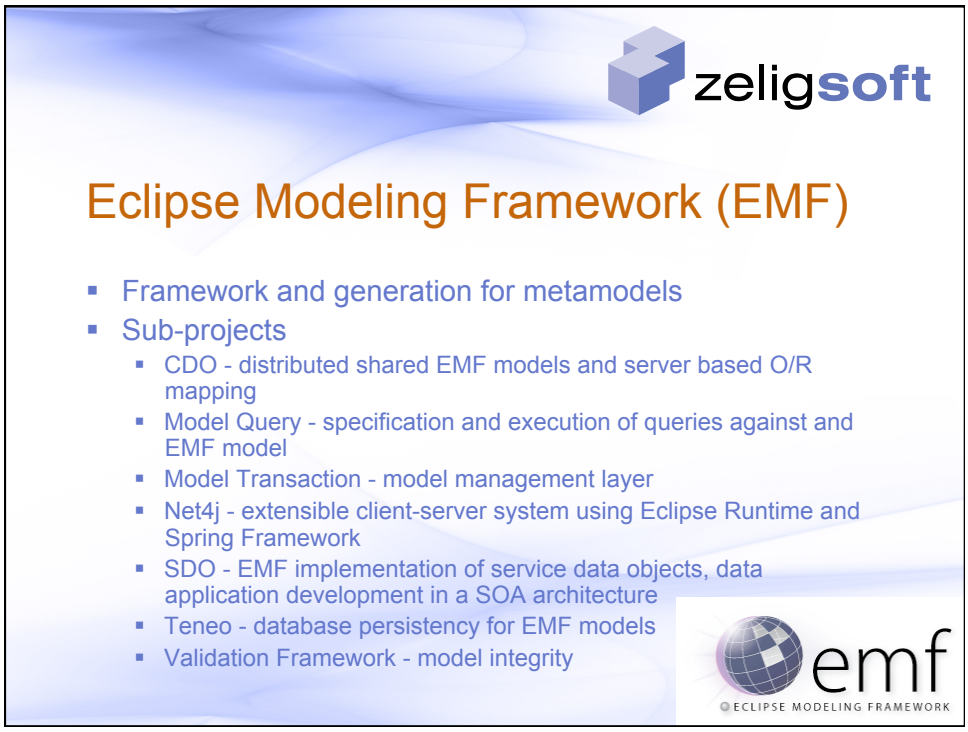
eclipse modeling PROJECT

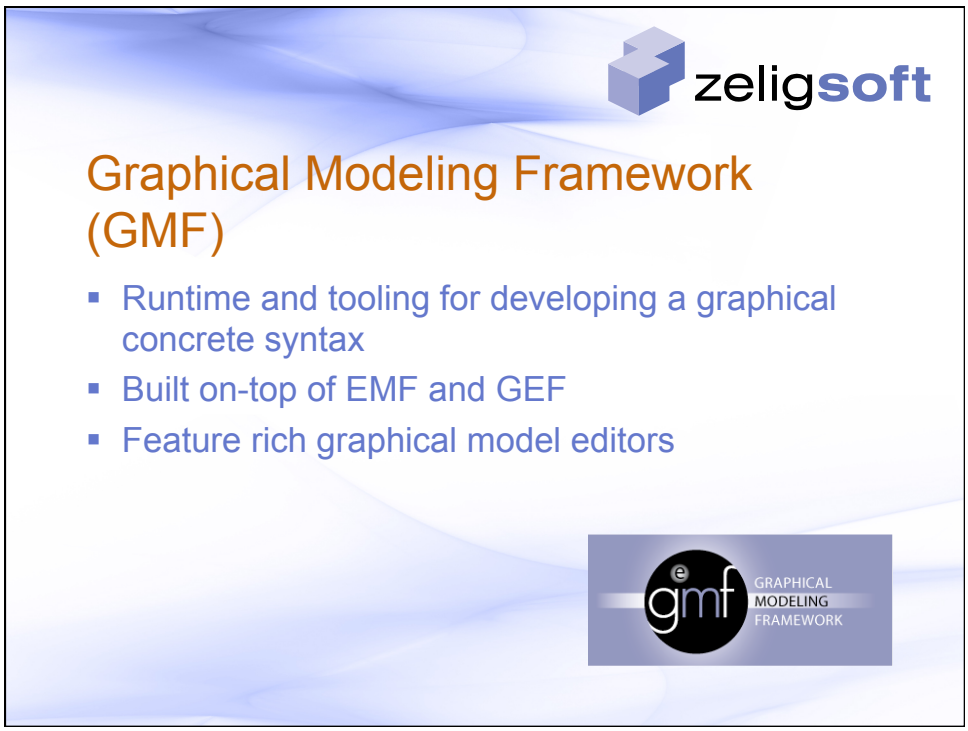
zeligsoft

Ecosystem of the Modeling Project



Toby McClean, Zeligsoft, 2008





Toby McClean, Zeligsoft, 2008

zeligsoft

Textual Modeling Framework (TMF)

- Runtime and tooling for developing textual concrete syntax
- Generation of editors and other tooling from a grammar
- Sub-projects
  - TCS
  - xtext

zeligsoft

TMF - TCS

- TCS - Textual Concrete Syntax
- Built on top of EMF
- Non-standards based language for annotating an abstract syntax model with textual syntax
- Able to generate
  - Grammar
  - Editor
  - Model to text transformation with traceability

Toby McClean, Zeligsoft, 2008

zeligsoft

TMF - xtext

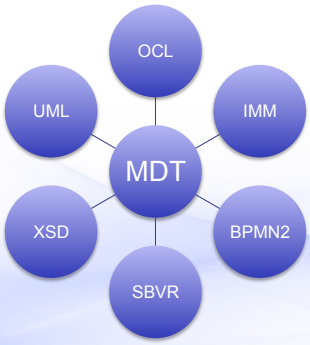
- Developed as part of the openArchitectureWare
- Built on-top of EMF and ANTLr
- From proprietary grammar language
  - Generate editor - syntax highlighting and code completion
  - Generate EMF abstract syntax model
  - Generate integration with generation framework
  - Generate integration with semantic validation framework

xtext

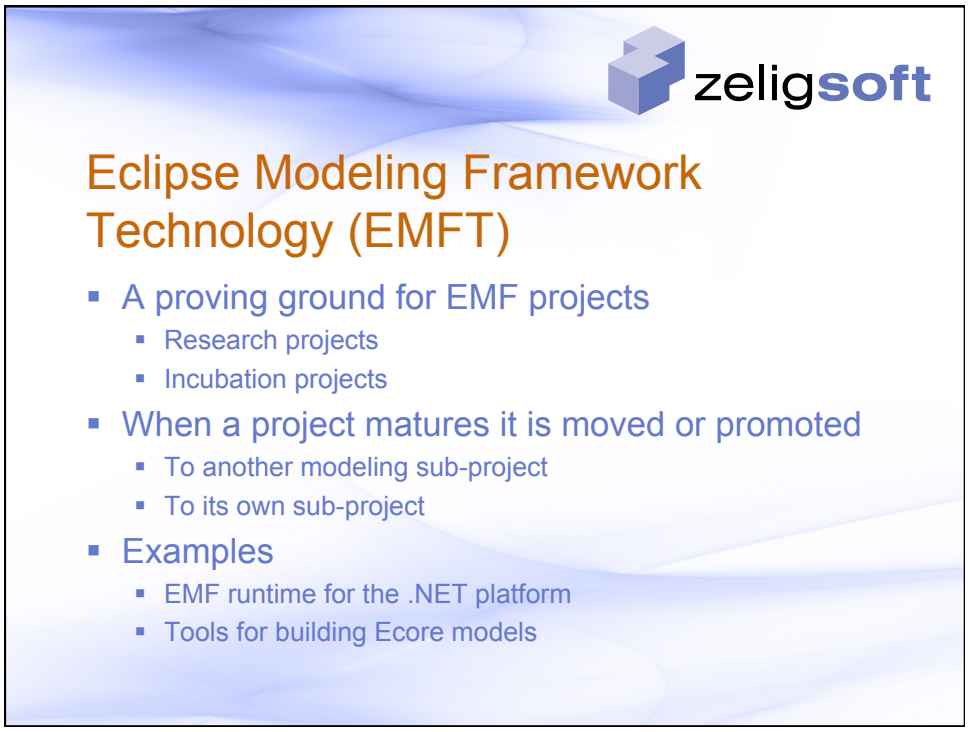
zeligsoft

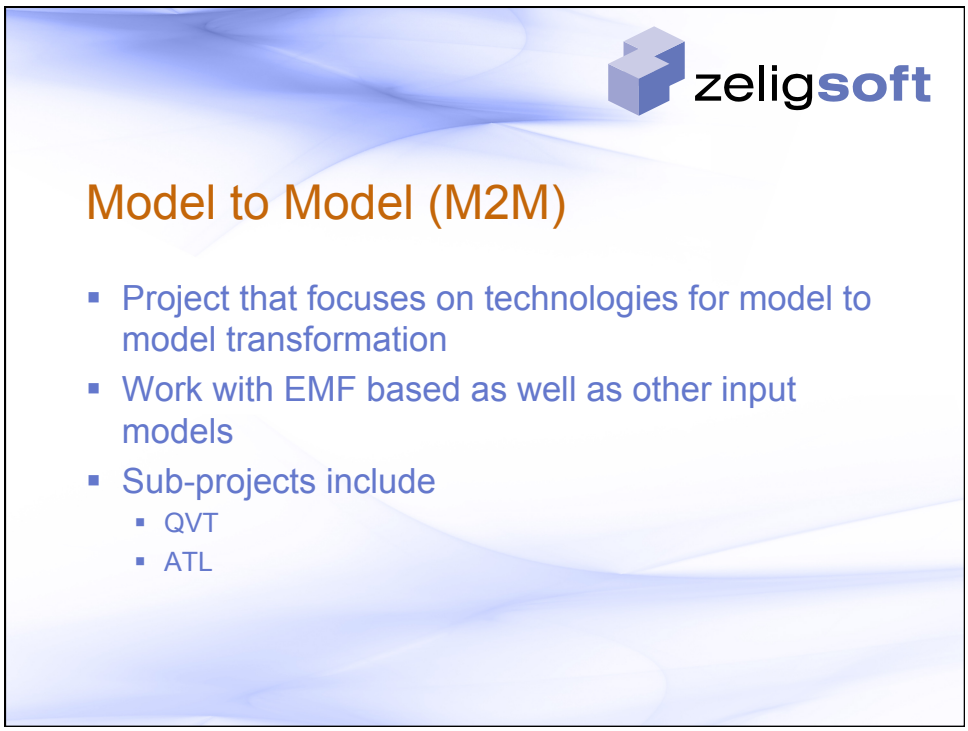
Model Development Tools (MDT)

- Project that focuses on industry stand models

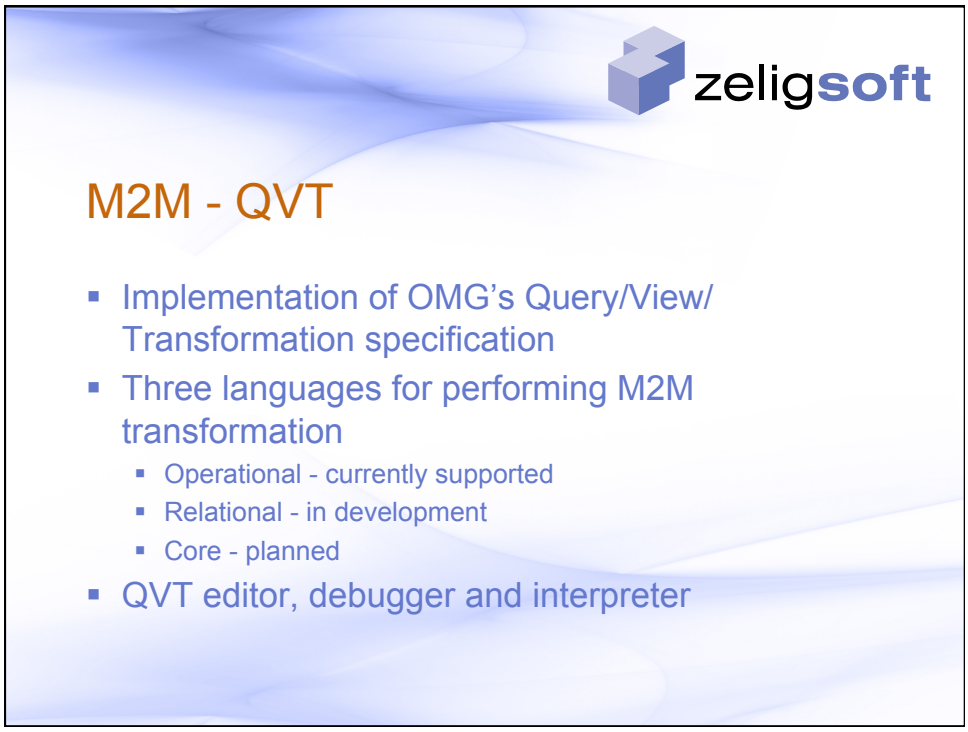


Toby McClean, Zeligsoft, 2008

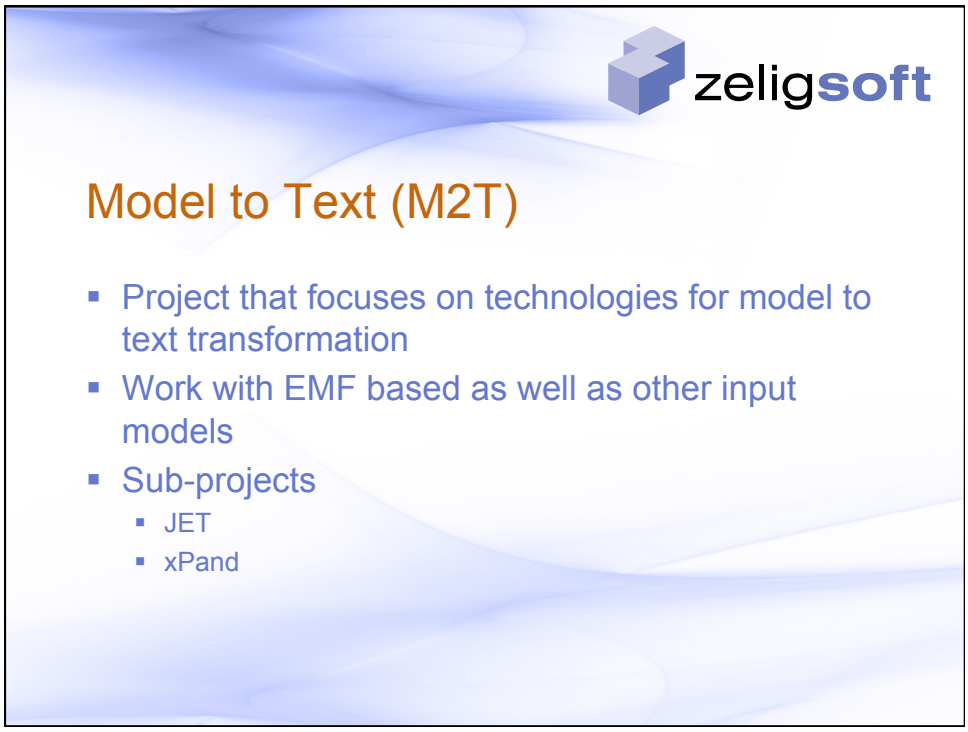




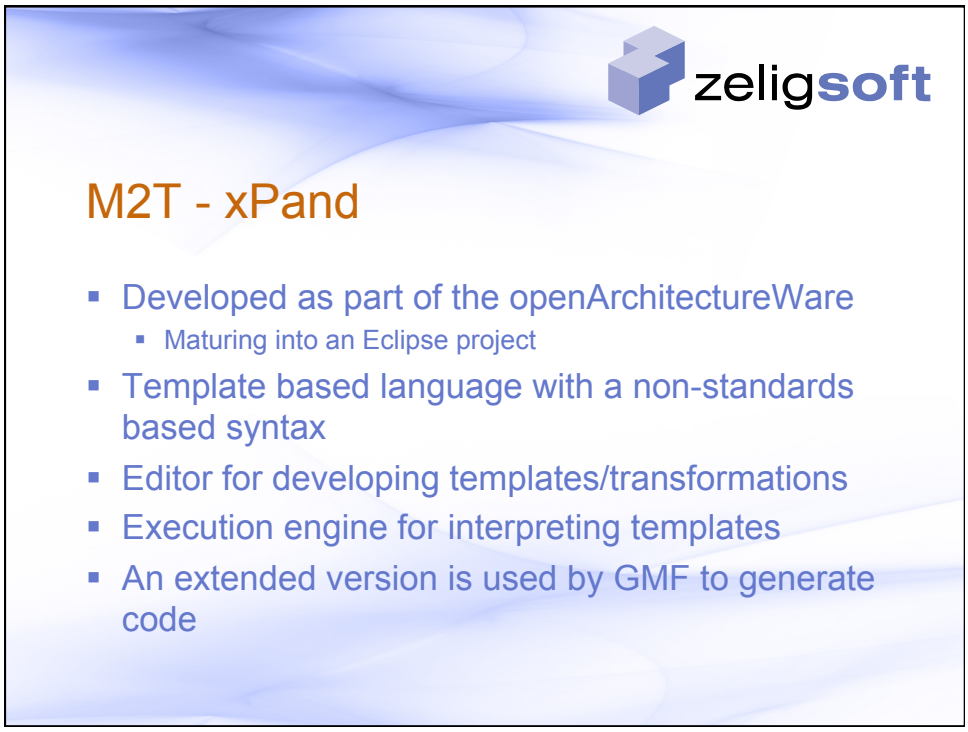
Toby McClean, Zeligsoft, 2008



Toby McClean, Zeligsoft, 2008


zeligsoft
Model to Text (M2T)
Project that focuses on technologies for model to text transformation
Work with EMF based as well as other input models
Sub-projects
JET
xPand


zeligsoft
M2T- JET
JET - Java Emitter Templates
Template based language with an JSP like syntax
Editor for developing templates/transformations
Execution engine for executing transformation
Used by EMF to generate code


zeligsoft
M2T - xPand
Developed as part of the openArchitectureWare
Maturing into an Eclipse project
Template based language with a non-standards based syntax
Editor for developing templates/transformations
Execution engine for interpreting templates
An extended version is used by GMF to generate code


zeligsoft
Summary
The projects are nicely layered
Good effort to keep things separated
Ability for users to pick and choose what they want
Lots of content to go through this week

zeligsoft

Questions