

Ecore Diagram Editor Proposal

Towards A Basic Ecore Oriented MDD Environment

Anyware Technologies / TOPCASED

david.sciamma@anyware-tech.com

Plan

- Introduction
- Context
- Ecore Editor
- Architecture
- Contribution
- Coordination
- Interested Parties
- Conclusion

Introduction

- Eclipse Modeling Framework
 - ▶ De facto standard with large audience
 - ▶ Ecore tools from edition to code generation
- Additional EMF Tools
 - ▶ Validated : Queries, Validation, Transaction, ...
 - ▶ Incubating : Search, Compare, ...

Introduction

- Challenges

- ▶ To simplify Ecore MDD user experience
- ▶ To organize interactions with all EMF tools (Search, Compare, ...)
- ▶ Ease & Fasten Model to Code to Model to ... Iterative process

Context

- GMF Project Ecore Diagram Editor Example
 - ▶ Exemplary tool without full Ecore Editing Support
 - ▶ Fully generated
 - ▶ No code customizations
 - ▶ Not consistent with legacy Ecore editors
- Ecore Driven Development : Facts
 - ▶ Ecore MDD Learning curve is steep
 - ▶ Tree based models can be confusing compared to graphs
 - ▶ Ecore MDD roundtrip engineering is complex and multi modal

Ecore Diagram Editor

- To Simplify Ecore Editing
 - ▶ Provide intuitive GMF based Diagram Editor
 - ▶ Multi Diagram support
 - ▶ EMF Generics Aware (Tentative)
- To Organize Ecore Development « Tool Chain »
 - ▶ To be able to drive Ecore legacy tools from editor

Ecore Diagram Editor

- To Ease Interactions With Existing Ecore Based Tools
 - ▶ Compare, Search, Codegen & others seamless integrations
- A Foundation For An Ecore MDD Environment
 - ▶ Ecore perspective, nature organizing all existing & new features

Ecore Diagram Editor : Details (1)

- GMF Based
 - ▶ Customized generated GMF editor
 - ▶ Priority 1 : To reduce code customization
 - ▶ Priority 2 : To extend with external plugins only
- Integrations
 - ▶ EMFT Search, EMFT Compare & others
 - ▶ Ecore infrastructure
 - Validation : diagram decoration (live ?)
 - Codegen : builder ?

Ecore Diagram Editor : Details (2)

- Ecore Perspective
 - ▶ Ecore Support in existing Common Navigator
 - ▶ Only Ecore Wizards as default
 - ▶ Properties, Console, Search, Outline Views by default
 - ▶ Hierachy, References in addition to Ecore Navigator View
- Search Integration
 - ▶ Popup Menu contributions for EReferences
 - ▶ Find (no replace)
 - ▶ Open EType/EPackage dialogs

Contribution

- **Committers**
 - ▶ 3 part time contributors from Anyware Technologies
- **Initial Contribution**
 - ▶ Ecore Diagram Editor
 - ▶ Ecore Tabbed Properties
 - ▶ Ecore perspective

Coordination

- Release

- ▶ Being part of Ganymede release
- ▶ Synchronize with other projects
 - GMF, EMF, EMFT (search|compare), ... How ?

- Process

- ▶ Ecore Diagram Editor Project
 - In EMFT ?
 - In MDT ?
 - Under EMF ?

Interested Parties

- Audience

- ▶ Ecore users

- Need simple & intuitive editor features

- ▶ Ecore developers

- Need open & extensible APIs

- Participants

- ▶ Anyware Technologies

- ▶ Topcased consortium

- ▶ Others ?

Conclusion

- Keys To Success
 - ▶ Keep it simple
 - ▶ Do it clean
 - ▶ Make it reliable
 - ▶ Integrate it to existant
- Goal
 - ▶ Ganymede Release : June 2008
- Let's Do It !