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
  - Hierarchy, 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 !