Third Biannual Workshop on Eclipse Open Source Software and OMG Open Specifications Program

- Papyrus
Papyrus tool
Papyrus

Open source modeler for UML & SysML

- The Eclipse UML Graphical Modeler
- Support agreement with Mia-Software
- Kernel of Scade System product of Esterel Technologies
- Integrated in TOPCASED
- Ergonomic adaptation for RSA users
Papyrus

UML graphical modeler with customization features
• **Tool customization (Palette)**
  - Reuse and extend existing tools
  - Customize behavior: stereotype application, appearance, …

• **Model tree view (Model explorer)**
  - Based on EMFFacet project
  - Customize content and appearance

• **Property view**
  - On-the-fly and static customization
  - Add/remove editable properties
• From Modeling wizards
  ▪ 1st International Master Class on Model-Driven Engineering
  ▪ Sep. 30 - Oct. 2, 2010 - Oslo, Norway
  ▪ [http://modelingwizards.isti.cnr.it/](http://modelingwizards.isti.cnr.it/)
Current Status
• Papyrus v0.8
  - Available on Eclipse Indigo, since June 2011
  - Based on UML2 2.2 implementation made by Eclipse UML2 project
  - SysML 1.1 profile support
  - MARTE profile support
  - Open source project available under EPL licence (http://www.eclipse.org/legal/epl-v10.html)

• Main Features
  - UML2 and SysML graphical editors
  - Advanced support of the UML profiles
    - MARTE, SysML
  - Open and extensible architecture
  - Customizable tool
    - Palette
    - Property views
    - Model explorer
• Improved Ergonomics
  ▪ Diagram navigation
    » Automatic
    » Custom
  ▪ Link arrangement heuristics

• Diagram export as image
  ▪ Copy/paste of diagrams in Word also

• Customizable display
  ▪ Look and feel of elements
  ▪ Content of the elements

• Drag and Drop customizable feature
  ▪ Actions specific to the context
    » Ex: Drag and drop of a Block on a part => changes the type of the Part
• UML diagram editors

Diagram coverage / UML2 abstract syntax
2012 Roadmap
• Stabilization and improvement of central architecture
  ▪ Model lifecycle and interaction
  ▪ GMF and tables integration inside the tool
• Improvement of existing editors
• New UML2 editors (interaction overview and timing diagram editors)
• UML2 and SysML norms:
  ▪ UML2: migration to the 2.4 version
  ▪ SysML: version unchanged (1.1)
• Migration to Eclipse 4.2 platform version
  ▪ 3.8 compatible

• More functionalities
  ▪ Revision mode (similar to Word)
  ▪ Simulation support (demo)
  ▪ Support of diagram and language evolutions
• Demonstration
  ▪ Stereotypes Management in Papyrus
  ▪ Animation / simulation on Papyrus
    » fUML: foundational subset for executable Models (OMG standard)
    » ALF: Action language for fUML
  ▪ CSS support in the diagrams

• Questions