Mangrove - SOA Modeling Framework
Creation Review

Wed, 17 Mar 2010

Outline

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Overview

- Mangrove is an integration project for uniting existing and future Eclipse SOA projects
- It is an evolution of the existing **STP Intermediate Model (IM)** component (available in the Eclipse Release Train)
- Proposed as subproject of Eclipse SOA TLP
- Excellent feedback received so far for the existing IM and for the Mangrove proposal

Project Background

- Initially created as the IM in Eclipse STP to bridge different editors and tools (e.g. BPMN and SCA)

- Based on a central EMF-metamodel

- Several in-out transformations available

- Mangrove will extend the IM scope to more editors and to runtime projects in the SOA TLP

Scope

- Focused on integrating existing and future subprojects of the Eclipse SOA TLP
  - Editors
  - Runtime
  - Deployment tools
  - Monitoring
- Mangrove does NOT aim to be a runtime project

Functional Description

- Keeps SOA workspace artifacts in sync automatically and continuously

- Updates model information in Editors with runtime data from monitoring

- Feeds model information to deployment tools and runtime tools

- Connects to SOA repositories to sync service information

Functional Areas

- **Core** - EMF-based meta-model and API
- **Branches** - Transformation Plug-ins
- **Phloem** – Builder Plug-in ensuring continuous updates between the Core, Tools and Editors
- **Leaves** Editor Extensions adding Mangrove-specific functionality to SOA editors (enrichment of SOA elements or configuration properties)
- **Roots** - Runtime Connections to and from runtime, monitoring and deployment to keep the "living" Core instance up-to-date with execution data

Initial Code Contribution

- The entire initial contribution is contained in the existing STP-IM component
  - http://dev.eclipse.org/svnroot/stp/org.eclipse.stp.intermediate-model/org.eclipse.stp.model/
  - Part of the Eclipse simultaneous release train
- The existing contributions that are currently submitted as bugzilla entries will be evaluated and integrated using the standard Eclipse Legal Process
- We do not foresee any legal issue as the proposed project is actually an evolution of the already established EPL-based STP-Intermediate Model component and all further code contributions will be performed following the regular Eclipse legal process. The entire initial contribution is already in Galileo.

Interactions with Eclipse Projects

- The entire Eclipse SOA TLP including:
  - BPMN Modeler Project and the related MDT/BPMN2 Proposal
  - SCA Tools Project
  - Swordfish
  - Upcoming eBAM Project
  - Upcoming eBPM Project
  - Upcoming Repository Project
  - Java Workflow Tooling Project (to be moved into SOA)
- Eclipse BPEL Project
- SOA Industrial Working Group for feedback and requirements
- Other Runtime projects

Committers (1/2)

- **Adrian Mos, INRIA (project lead)**
  - Adrian is a committer to the STP project and the component lead for the STP Intermediate Model component (which will become Mangrove). He currently serves as Technical Lead for Service Oriented Architecture (SOA) projects in the Tuvalu team in INRIA. Prior to this position, he has worked in both industrial and research environments focusing on building automated management solutions for enterprise Java systems. Adrian holds a PhD from Dublin City University, Ireland.
- **Andrea Zoppello, Engineering**
  - Andrea is an IT Architect with 10 years experience in web application design and development, J2EE and EAI open source frameworks. He's actually active in Spagic (open-source suite based on Eclipse) design and development, and on projects focused on EAI, Business Process Management, Workflow, and Data Integration. He has contributed to the STP-IM meta-model and transformations from BPMN and to BPEL and will continue to work on Mangrove to provide support for further transformations, in particular to the upcoming eBPM project for which he will be the lead.
- **Luca Barozzi, Engineering**
  - Luca is an IT Architect and Developer. Since 2000 he's been designing and developing J2EE and EAI open source frameworks and web applications. He contributed to the Spagic 3 Studio. In STP-IM he contributed to definition of JBI IM Runtime and IM Runtime integration with jBPM. In the Mangrove project he will work on integration between the Core and the upcoming eBPM project.
- **Fy Ravoajanahary, INRIA**
  - Fy currently serves as SOA engineer at INRIA. He's involved in several French and European collaborative projects where he leverages the STP-IM. In the context of his work on these projects, he also developed plug-ins based on STP-IM in order to extract performance information from SCA runtimes and display it in Eclipse STP editors. On Mangrove his main focus will be to extend Phloem builder components in order to synchronize SOA models by improving existing plug-ins and developing additional transformations.

Committers (2/2)

- **Gianfranco Boccalon, Engineering**
  - Gianfranco, serving as Spagic and Spago Project Leader, is a Senior Consultant at Engineering Ingegneria Informatica with long experience in the IT field. He has valuable expertise in J2EE architectures and frameworks, in the SOA environment and in software development methods, with a specific focus on performance testing and measurements. Before joining SpagoWorld team, he worked in the development of CAD applications and in consultancy and software development for financial applications. He is currently working on Spagic evolution in the SOA domain. He has been contributing to the definition of IM Runtime for both JBI and BPEL and to plug-in development for IM integration with the BPMN editor. In the Mangrove project he will work on integration between the Core and the upcoming eBPM.

- **Juan Cadavid, INRIA**
  - Juan Cadavid is a PhD student in the Triskell team at INRIA, particularly interested in the domains of business modeling, service-oriented modeling and MDE. In the context of the Google Summer of Code program in 2008, he has contributed to the STP-IM transformations from and to BPMN and SCA using tools of the Eclipse Modeling project, as well as developed the initial contribution for the Phloem component (previously known as the STP-IM builder), mentored by Adrian Mos. He will continue to work on Mangrove to provide support for further transformations (now known as Branches) as well as improve the Phloem component, leveraging different MDE techniques and tools.

- **Luca Rossato, Engineering**
  - Luca is an IT Developer with 3 year experience in web development, J2EE and SOA. On March 2009 he joined the Spagic group and during the last year he participated in the development of the Spagic platform. He has been contributing to the definition of IM Runtime for both JBI and BPEL and to plug-in development for IM integration with BPMN editor. On Mangrove he will work on integration between the Core and the eBPM project.

Mentors

- Cédric Brun – **Obeo**
- Antoine Toulmé – **Intalio**
- Oliver Wolf - **SOPERA**

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Interested Parties

- Stéphane Drapeau, **Obeo**
- Oisín Hurley, **Progress Software**
- Oliver Wolf, **SOPERA**
- Vincent Zurczak, **EBM WebSourcing**
- Antoine Toulmé, **Intalio**
- Marc Dutoo, **OpenWide**
- Paul Brebner, **NICTA**

Roadmap

- EclipseCON 2010
  - Project creation. Evaluation of outstanding bugzilla contributions for integration in the code-base (in particular the initial top-down builder and additional transformations). This will be done following the regular Eclipse processes.

- Eclipse Summit Europe 2010
  - Significantly improved builder (2-way updates). Graphical Editor for the Mangrove core instance. Outline View. Integration with QoS data sources in a standard way. Preferences pane to control behavior of Mangrove. Initial deployment support for SOA TLP targets. Initial integration with service repositories. Initial integration with model repository.

- EclipseCON 2011: Extended implementation of the above.

Links and Communication Channel

- Communication Channel: Mangrove Forum
  - http://www.eclipse.org/forums/eclipse.mangrove

- The Mangrove Proposal
  - http://www.eclipse.org/proposals/mangrove/

- Existing STP Intermediate Model Web-Sites
  - http://eclipse.org/stp/im/
  - http://wiki.eclipse.org/STP_Intermediate_Metamodel

- Eclipse Live Webinar for STP-IM
  - http://live.eclipse.org/node/505

- EclipseCON 2010 Mangrove-Related Talks
  - http://www.eclipsecon.org/2010/sessions/?page=sessions&id=1184
  - http://www.eclipsecon.org/2010/sessions/?page=sessions&id=1180

THANK YOU!