The Eclipse STP Project

Overview and Demonstration
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Contents

- Introductory Content
- Current STP Components
- Demonstration
- Upcoming Contributions
- Schedules and Deliverables
- Getting Involved
- Questions
Intro: What is the STP?

- STP, also known as SOA Tools Platform is a collection of components for developers of SOA type applications
  - And SOA vendors to base their tooling on
- Covers the complete lifecycle from design & planning, development and deployment.
- Still in Incubation as we continue to develop out the components
- Heavy dependency on other projects and now integrating tighter with them
  - e.g WTP integration
## What's in it

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPMN</td>
<td>BPMN Modeller</td>
<td>Active</td>
</tr>
<tr>
<td>Service Creation</td>
<td>Service Creation component for defining Web Services</td>
<td>Active</td>
</tr>
<tr>
<td>SOA Systems</td>
<td>Deployment piece for creating deployable services, and management of runtimes</td>
<td>Active</td>
</tr>
<tr>
<td>B2J</td>
<td>BPEL To Java Generator Support</td>
<td>Dormant</td>
</tr>
<tr>
<td>Core</td>
<td>SCA 0.95 Model</td>
<td>Not Active</td>
</tr>
</tbody>
</table>
BPMN Modeller

- Reaching for stability.
- Complete support for BPMN-1.0 shapes and BPMN-1.1: more shapes and connections.
- Supports most of the shapes of BPMN 1.0, with exception of the group shape.
- Plan on supporting the additional shapes that have been brought by BPMN 1.1
- We want to make the tool very simple and usable.
- Community driven: annotations to link to the STP intermediate-meta-model.
BPMN (part 2)
Service Creation

- For creation and definition of individual services
- Provides mechanism for 2 means of defining web services:
  - Java First (Use JAX-WS Annotations)
  - WSDL First
- Integrates with code generators from runtime products (e.g. Apache CXF)
- Leverages WTP WSDL Editor for WSDL Definition
- Provides annotation support for creation of Java First services
- Supports SCA, JAX-WS and JAXWS-RI
SOA Systems

- Deployment Framework for STP Project
- Provides support for various runtimes
  - Tomcat, Jboss, etc.
- But very configurable
  - Artix Container Support
- Separates the packaging from deployment
  - STP To Build package (e.g. for CXF)
  - WTP Manages running servers, deploys etc
B2J

- Provides Access to generators for BPEL to Java
- BPEL Editor comes from other Eclipse project
STP Core

- Initially started out core model for STP
- Based on SCA 0.95
- Essentially a code generation based on the EMF Model
- Currently under review within the STP
  - Likely to be removed
- Replacement candidate identified...
  - Intermediate Model
- No STP Component uses this
Achievements To Date

- Released first major version of STP with Europa
  - released milestone 0.6.0
- Released 0.7.0 with Europa Fall release
Enough Powerpoint....

- Time for a demonstration
- Let's see some of this in action
New Components

- Four new contributions in the pipeline
  - WS-Policy Editor from SOPERA
  - SCA Assembly Editor from Obeo and SAP
  - Intermediate (Hybrid) Meta Model from INRIA / Engineering
  - EI Patterns Editor from Cimero
SOPERA contributions to STP

- WS-Policy editor with WTP-based look & feel
- Deployment solution for Eclipse Swordfish
- Validation framework
WS-Policy Editor

Scope
Graphical WS-Policy editor with look & feel inspired by WTP WSDL editor

State
Initial contribution on Oct 5th 2007

Next steps
- provide extension points for user-defined assertions
- merge with XEF-based policy editor
- integrate WS-Policy functionality
  - merge
  - intersect

Source: SOPERA
Deployment solution for Swordfish

Scope
Leverage the STP Deployment framework and WTP Server Tools API for deployment into Swordfish

State
1st implementation of WTP Server Tools components

Next steps
- prepare code for contribution
- integrate with STP deployment framework
- extend to support remote deployment
Deployment solution for Swordfish

**Scope**
Leverage the STP Deployment framework and WTP Server Tools API for deployment into Swordfish

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1st implementation of WTP Server Tools components

**Next steps**
- prepare code for contribution
- integrate with STP deployment framework
- extend to support remote deployment

Source: SOPERA
Graphical editor for constructing SCA composites

Top-down
1. Creation of a graphical representation
2. Generation of model code

Bottom-up
1. Introspection of components that have been developed
2. Generation of a graphical representation

Some features
- Drag and drop implementations, interfaces, and bindings that are in your workspace
- Navigate to the implementation: link with developer editors (Java, BPEL, ...)
- Future contributions from SCOrWare project (OW2)
- Based on
  - Eclipse 3.3 / EMF 2.3.0 (SCA 1.0 meta model) / GMF 2.0
- Status
  - IP Process still in progress...
  - And then part of the STP Incubator
- Committers
  - Stéphane Drapeau (Obeo)
  - Etienne Juliott (Obeo)
  - Bogdan Vatkov (SAP)
- You are welcome to share ideas, make contributions, test the graphical editor, ...
STP-Intermediate Model (IM)

- Bridges different SOA platforms
  - Workflow / process: e.g. BPMN, BPEL
  - Architecture specification: e.g. SCA, JBI
  - Service Creation: e.g. JAX-WS
- Facilitates interoperability between editors
  - Avoids duplication of data
  - Minimizes amount of transformation code
- Initial Contribution: INRIA (FR) and Engineering (IT)
  - .ecore file + EMF diagram available for consultation
  - pending legal approval
  - well received by the STP community
  - Multiple transformations already planned
STP-IM Transformations

- **To the STP-IM**
  - BPMN -> STP-IM: ongoing
  - SCA -> STP-IM: to be started
  - SC Editor -> STP-IM: to be started
  - JBI -> STP-IM: TBD
- **From the STP-IM**
  - STP-IM -> BPEL: ongoing
  - STP-IM -> JBI: ongoing
  - STP-IM -> SCA: to be started
  - STP-IM -> SC Editor: to be started
EI Patterns Editor

- Based on book from Gregor Hohpe & Bobby Woolf
- Provides a consistent vocabulary and visual notation framework to describe large-scale integration solutions
Other Changes taking place

- Migration to Subversion
- Looking at newer ways to integrate with code generators
- Build System Improvements
  - Buckminster
- Integration of components
  - Two Policy Editors
  - Intermediate meta model
Looking ahead – Release Schedule

- 0.8 – Q4 2007
- 0.9 – Q1 2008
- 1.0 – Q2 (Ganymede release)
Getting Involved

- Always looking for help!
  - Check out stp-dev@eclipse.org and see what developers are currently working on
- Checkout our website
  - www.eclipse.org/stp & wiki.eclipse.org/stp
- Join in for our weekly conference call
  - 11:00 CET Every Thursday
Q & A

- Many Thanks for listening...

- Feel free to drop me a line:
  - adrian.skehill@iona.com
Validation Framework

**Scope**
Extensible validation framework with pluggable validation engines

**State**
planned

**Next steps**
- extract existing validation solution from SOPERA
- refactor to support pluggable validation engines

Source: SOPERA