

The Eclipse STP Project

Overview and Demonstration
Adrian Skehill
IONA Technologies

Contents

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- Current STP Components
- Demonstration
- Upcoming Contributions
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- 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

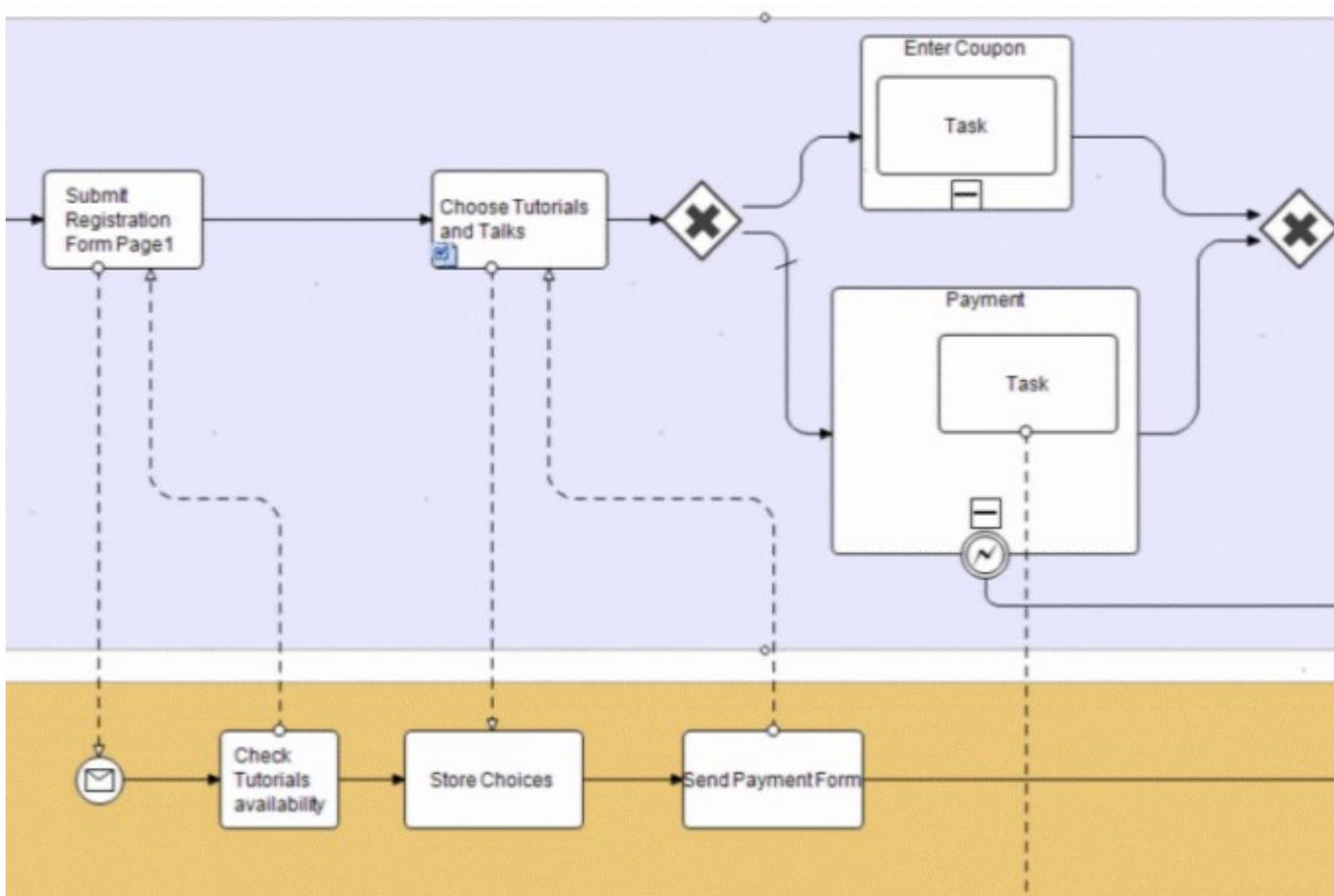
What's in it

Component	Description	Status
BPMN	BPMN Modeller	Active
Service Creation	Service Creation component for defining Web Services	Active
SOA Systems	Deployment piece for creating deployable services, and managment of runtimes	Active
B2J	BPEL To Java Generator Support	Dormant
Core	SCA 0.95 Model	Not Active

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

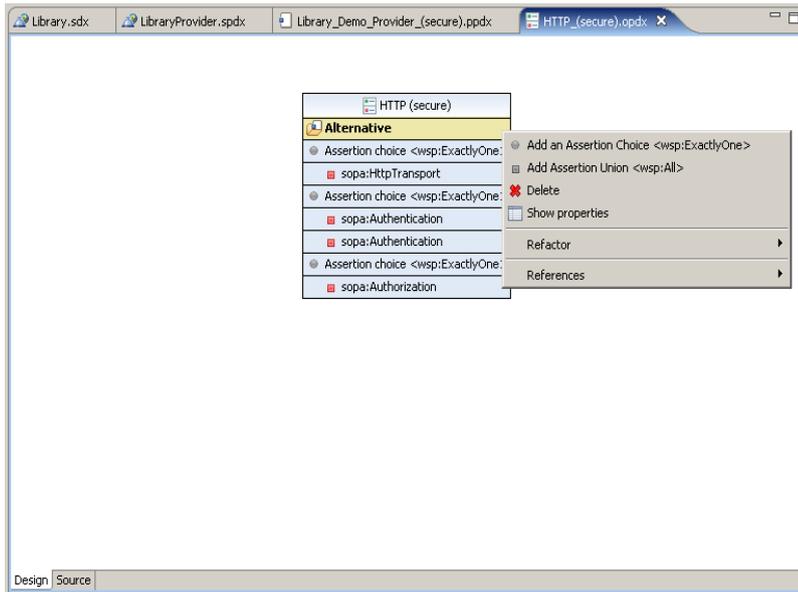
New Components

- 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

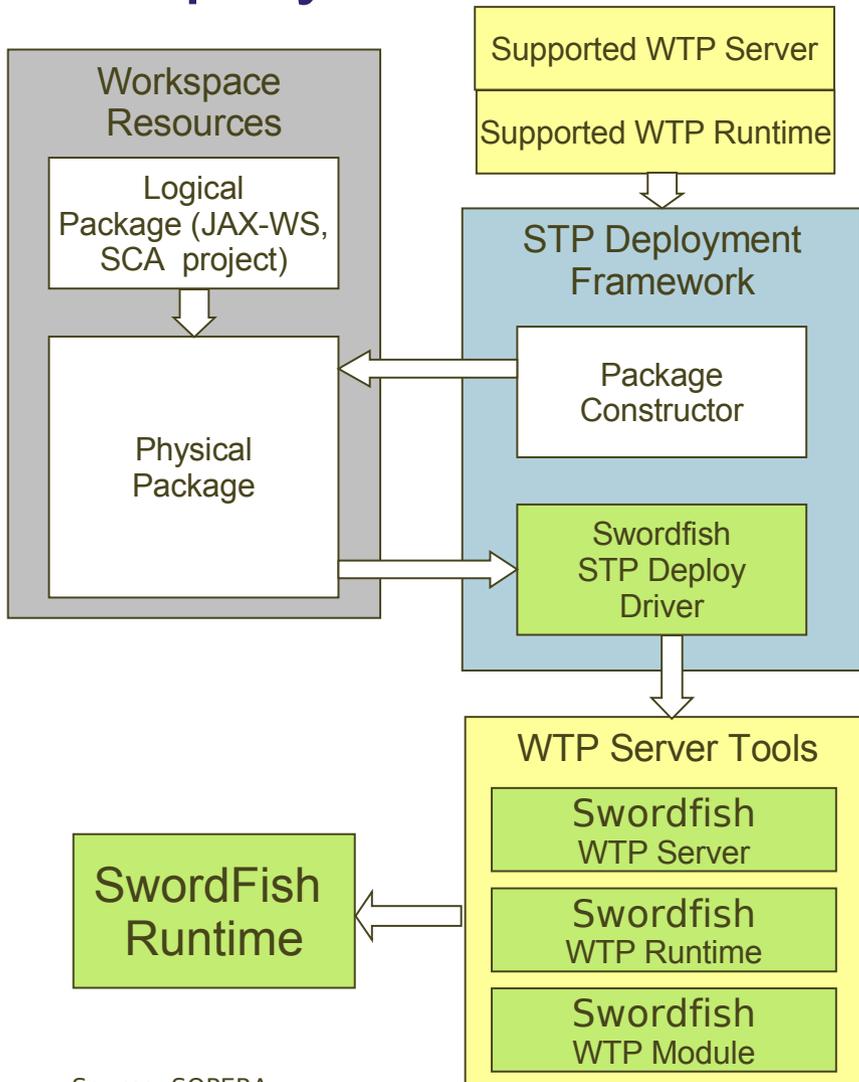
Initial contribution on Oct 5th 2007

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



Source: SOPERA

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

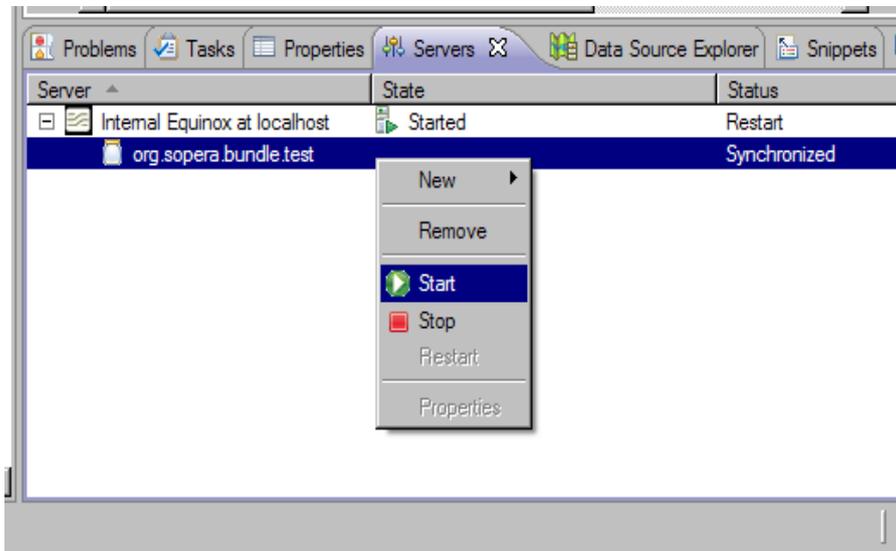
Leverage the STP Deployment framework and WTP Server Tools API for deployment into Swordfish

State

1st implementation of WTP Server Tools components

Next steps

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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)

SCA Assembly Graphical Designer (2/3)

File Edit Diagram Navigate Search Project Scripts Run Window Help

Tahoma 9 B I A 100%

Package Ex Hierarchy calculator.composite *calculator.composite_diagram

CalculatorService
 src
 calculator
 api
 AddService.java
 CalculatorService.java
 DivideService.java
 MultiplyService.java
 SubtractService.java
 lib
 AddServiceImpl.java
 CalculatorServiceImpl.java
 DivideServiceImpl.java
 MultiplyServiceImpl.java
 SubtractServiceImpl.java
 JRE System Library [jdk1.6.0_02]
 CompositeDesignerTest
 JRE System Library [jdk1.6.0_02]
 calculator.composite
 calculator.composite_diagram

```

    graph LR
      subgraph CalculatorComposite
        direction TB
        CalcIn[Calc]
        subgraph CalculatorServiceComponent
            direction TB
            CalcOut[Calc]
            AddSe[AddSe]
            Substr[Substr]
            Multi[Multi]
            Divid[Divid]
        end
        AddSe --> AddSeComp[Add Service Component]
        Substr --> SubstrComp[Subtract Service Component]
        Multi --> MultiComp[Multiply Service Component]
        Divid --> DividComp[Divide Service Component]
      end
      CalcIn -.-> CalcOut
  
```

Palette

- Select
- Zoom
- Note
- Component
- Composite
- Service
- Reference
- Property
- Connectors
- Wire
- WireTarget
- Promote
- Binding
- SCABinding
- WebServiceBind...
- Interface
- JavaInterface
- WSDLPortType
- Implementati...
- JavaImplement...
- SCAImplement...

Task List

Find: All

Uncategorized

Outline

Problems @ Javadoc Declaration Properties

Component AddServiceComponent

Core	Property	Value
	Autowire	false
	Constraining Type	
	Name	AddServiceComponent
	Policy Sets	
	Requires	

- 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 Juliot (Obeo)
 - Bogdan Vatkov (SAP)
- You are welcome to share ideas, make contributions, test the graphical editor, ...

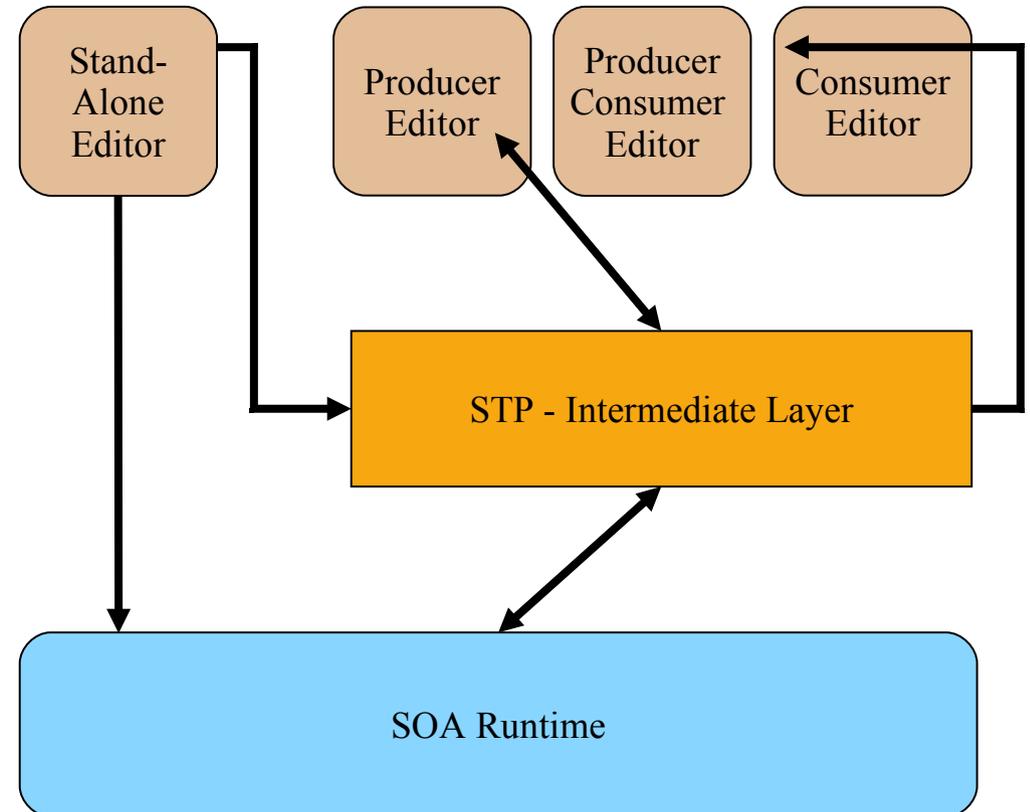


STP-Intermediate Model (IM)

- 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



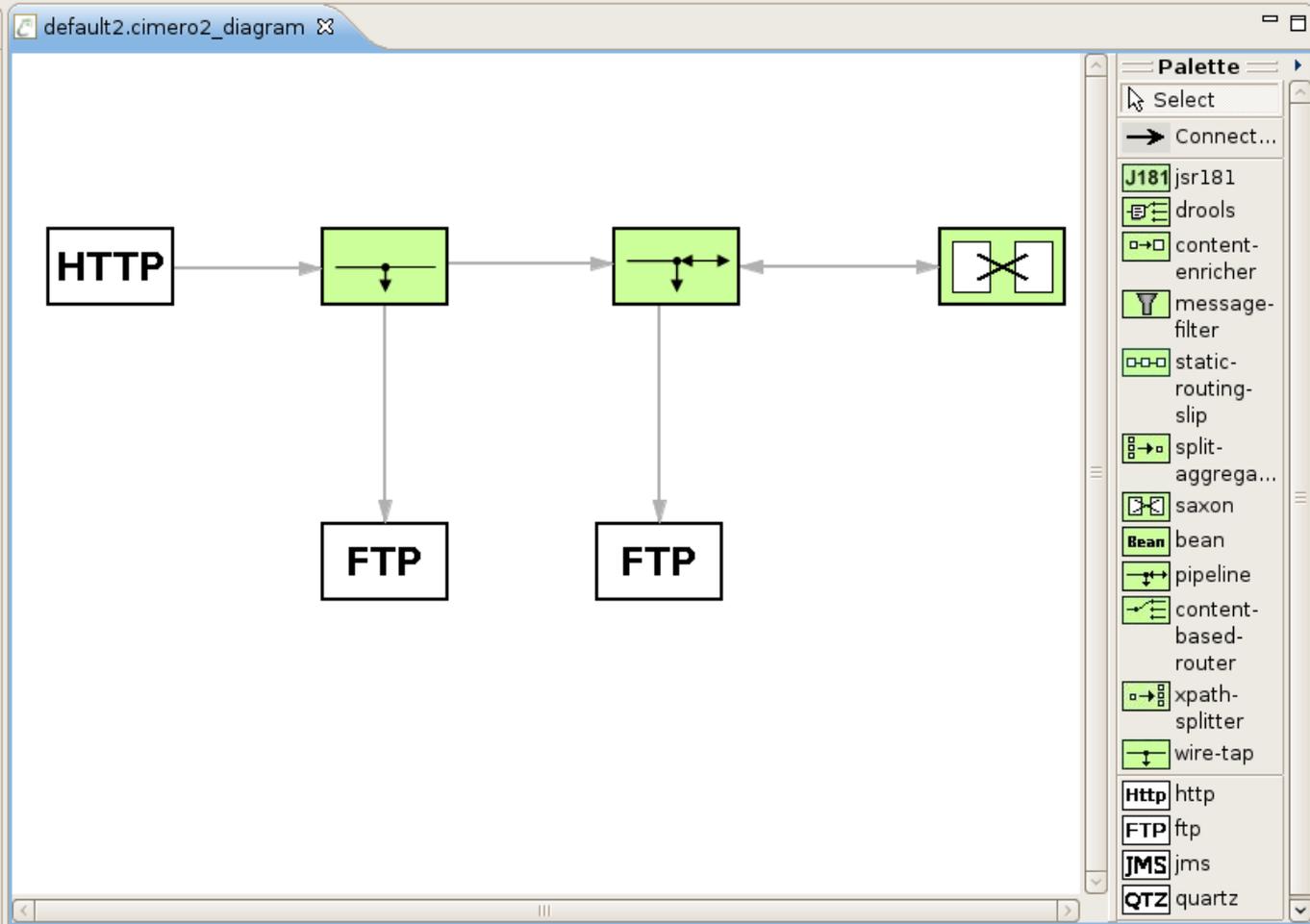
EI Patterns Editor

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

Sans 9 B I A 100%

Package Hierarchy

- CimeroEditor
- CimeroEditor.diagram
- CimeroEditor.edit
- CimeroEditor.editor
- CimeroEditor.generator
- testCimero
 - default2.cimero2
 - default2.cimero2_diagram



Outline

Problems Javadoc Declaration Console Properties Error Log

Graph default2

Core	Property	Value
Rulers & Grid	Name	default2
Appearance		

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)

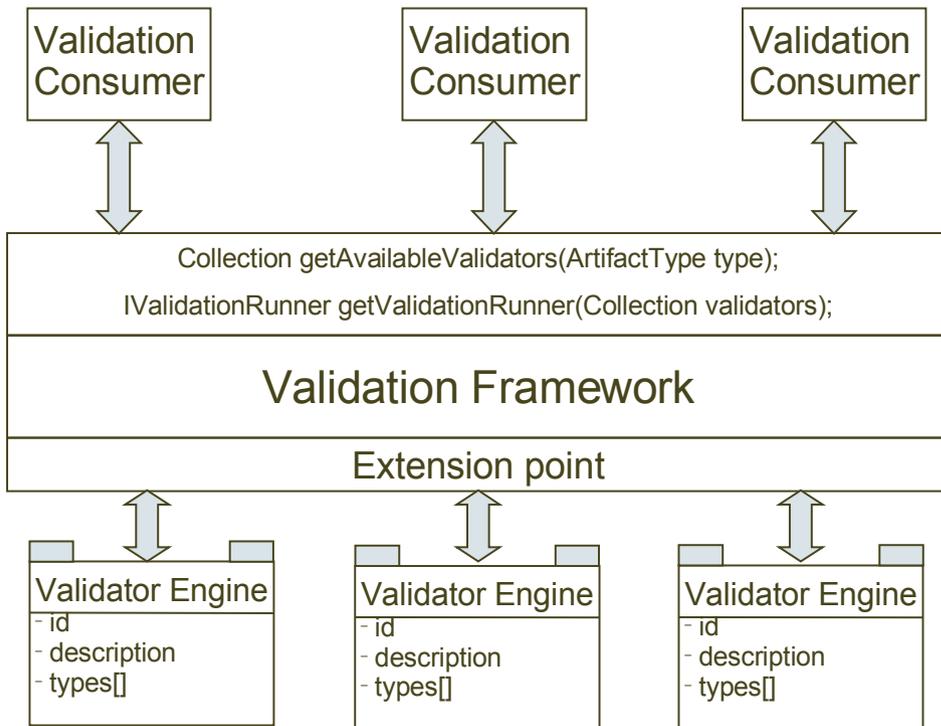
Getting Involved

- 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



Source: SOPERA

Scope

Extensible validation framework with pluggable validation engines

State

planned

Next steps

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