SCA Tools: new & noteworthy

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SCA Tools

• Sub-project of the Eclipse STP project

• The SCA Tools project focuses on tools covering the SCA specifications
  - SCA meta-model
  - Editors (graphical, XML and form)
  - Project utilities (wizards, builder...)
  - Samples
  - Runtime support

• SCA (Service Component Architecture) is a set of specifications proposed by the Open SOA Consortium and which is about to be standardized by the OASIS consortium
SCA Domain Model

- EMF meta model based on the OSOA specifications of SCA
- Defines additional validation rules
- Extensible model: core + extensions (one per platform)
- Can be used in an Eclipse environment or standalone

**NEW**
- Core model upgrade
- Extension upgrades to support
  - Apache Tuscany 1.4
  - OW2 FraSCAti 0.5
SCA Composite Designer

• Graphical editor (GMF) to create SCA assembly files
• Complies with the version 1.0 of OSOA specifications
• Easily extensible
SCA Composite Designer

• Top-down approach
  ▪ Creation of an SCA graphical representation
  ▪ Generation of model code

• Some features
  ▪ DnD implementations, interfaces, and bindings
  ▪ Extensible: add new bindings, implementations and interfaces
  ▪ Navigate to the implementation: link with developer editors
  ▪ Arrange All / Resize

• NEW
  ▪ DnD from project and package explorers
  ▪ Create Java interfaces or implementations from the classpath
  ▪ Bottom-up approach
    ▪ Introspection of existing Java code
    ▪ Generation of an SCA graphical representation
SCA XML editor

• Customization of the WTP XML editor for SCA XML files
  ♦ Inherited features: syntax highlighting, formatting, ...
  ♦ Auto-completion for elements and attributes (names and values)
  ♦ Preference page to add new bindings, implementations & interfaces
NEW: SCA Form Editor

• Editor with a web-interface for SCA XML artifacts

• Cover all the XML aspects of SCA
  ◆ Manage elements as lists and filter by name
  ◆ Manage complex properties
  ◆ Handle constraining types, component types
  ◆ SCA explorer
NEW: Project utilities

- Focus on Java implementations

- Creation wizards refactored
  - Create a composite / composite diagram
  - Create SCA Java projects
  - Create a component type

- SCA Java Annotations available

- SCA Builder
  - Validate the SCA assembly
  - Validate Java artifacts
  - Add error markers (partially)

- Links with WSDL tools
  - Referenced web services
SCA samples

• A set of fully-functioning SCA projects
NEW: runtime support (incubating)

• Definition of SCA launch configurations
  ♦ Avoid dependencies between the project and the runtime

• Deploy SCA Java projects on platforms from Eclipse

• First targets
  ♦ Apache Tuscany 1.4
  ♦ OW2 FraSCAti 1.0

• Long-term targets
  ♦ Fabric3
  ♦ Newton
  ♦ OW2 PEtALS
  ♦ Eclipse Swordfish
Roadmap

• June 2008: SCA Tools 1.0.0 (Ganymede)

• April-May 2009
   Java introspection
   SCA Form editor completed
   Runtime support
   Online tutorials

• June 2009: SCA Tools 2.0.0 (Galileo)

• Summer 2009
   Reinforce the links between SCA Tools and the platform communities
    ▪ Tuscany, FraSCAti, Fabric3, Newton, SwordFish
   Model update
   SCA Form editor extensions
   SCA Builder: error markers visible in all the editors
More information

• SCA website

• SCA wiki
  ✦ http://wiki.eclipse.org/STP/SCA_Component

• SCA newsgroup
  ✦ news://news.eclipse.org/eclipse.stp.sca-tools
  ✦ Starting point for questions

• SCA Bugzilla
  ✦ Review and create Bugzilla entries

• SCA SVN repository

• Tutorial
Questions?