



Java Workflow Tooling (JWT)

Indigo Review

Release Review

Marc Dutoo (Open Wide, FR)

Christian Saad (University of Augsburg, DE)

Overview



- About JWT
- Release 1.1
- Communication

About JWT - Overview



Java Workflow Tooling (JWT) aims at providing a complete Business Process Management (BPM) and workflow tooling platform

A special focus lies on a unified approach to BPM design, allowing to bridge the gap between different process representations, standards, engines and deployment environments (platforms, information systems, SOA)

Goals

- Support for workflow and business process modeling, deployment, execution and monitoring inside Eclipse
- Provide a complete, flexible, interoperable and usable BPM toolkit
- Set of generic and extensible plugins and APIs
- Extensions allowing support for specific business representations, process language formats, process engines, service platforms, etc.
- Targeting and supporting SOA in close collaboration with Eclipse SOA projects : BPMN, SCA, Mangrove and others

JWT Screenshot



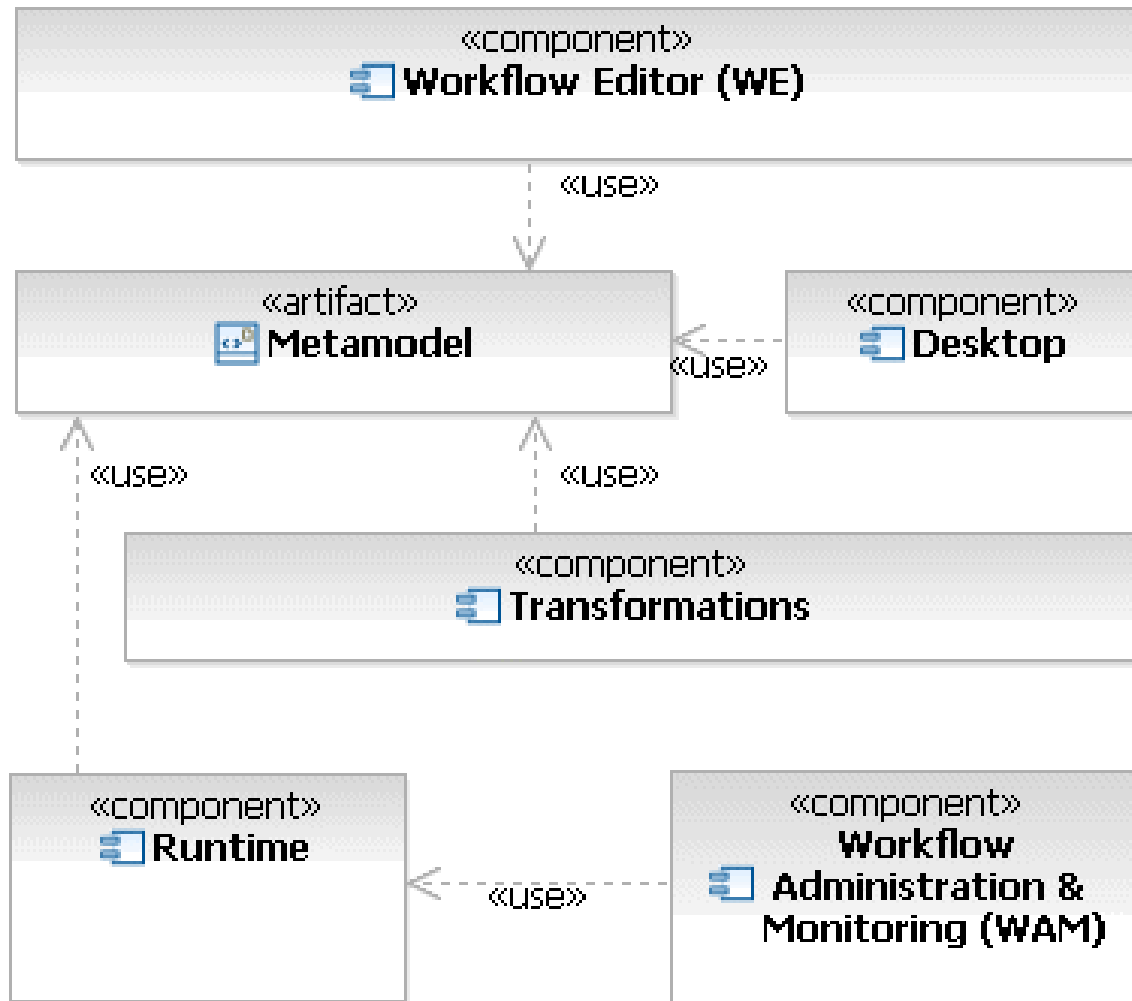
The screenshot displays the Eclipse Workflow Editor interface. The main workspace shows a BPMN diagram for a workflow named "SimpleProcess". The diagram starts with an "Initial Node" leading to a "Make decision" activity. From "Make decision", there are two outgoing transitions: one labeled "Decision.Dedision == yes" leading to a "Show browser" activity, and another labeled "Decision.Dedision == no" leading to a "Subprocess Call" activity. The "Show browser" activity has an outgoing transition to the "Subprocess Call" activity. The "Subprocess Call" activity is connected to a "Final Node".

The interface includes several panels:

- Navigator:** Shows the project structure with "SimpleProcess.workflow" selected.
- Palette:** Lists activity elements such as Action, Initial Node, Final Node, Event, Fork Node, Join Node, Decision Node, Merge Node, and Guard.
- Outline:** Shows the model structure, including "Activity: SimpleProcess" and its sub-elements like "Action: Make decision", "Decision Node", and "Subprocess Call: Subproces".
- Properties:** Shows the properties of the selected "Subprocess Call" activity, including its name, icon, and outgoing transitions.

Property	Value
Name	Subprocess Call
Icon	[Icon]
Ingoing Transitions	← Activity Edge (Decision Node: -> Subprocess Call: Subprocess Call)
Outgoing Transitions	← Activity Edge (Subprocess Call: Subprocess Call -> Merge Node:)
Links to	Activity: SimpleProcess

About JWT - Components of JWT



About JWT - Status



- JWT is a mature project in Eclipse SOA, already part of the yearly release train since Galileo
- The usage of JWT (Workflow Editor, Transformations, ...) is well documented in its Wiki
- Several pages on the wiki provide developer documentation. All extension possibilities by external plugins are documented there, and have examples that are available at least in the SVN.
- Ongoing development and active mailing list

About JWT - Maturity



- The build process is automatized for continuous integration and runs JUnit tests
- Since Galileo in the yearly release train
- Well-documented in Wiki
- Several example plugins are available that demonstrate the usage
- JWT is used in development and production
 - It has been integrated in several third-party solutions like e.g. AgilPro or OW2 Scarbo. **OW2 Scarbo 1.2 has been released** in November 2011 and is **used in production** by ANCV in Paris, France.
 - Mailing list exchanges show new products being built on JWT, by companies like Mastek LTD, India and research work being done by labs like the German University in Cairo, Egypt.

Release 1.1 – Features & BugFixes



- No major new features have been added since the last release. The BPMN view feature has been delayed until the next one.
- The Runtime API has been enriched with additional capabilities
 - #327474 Better access to aspects in transformation
 - #329362 JWT WAM API improvements (cancel / delete, query / finders)
- We focused on patching bugs reported by the community outside the core development team.
 - #312218 bug on automatic opening file with aspects
 - #312485 Aspects : "right click > New child aspect" not available in JWT 0.7 and previous
 - #314733 After a copy/paste, (patchable) inconsistency in references
 - #318555 minor ui improvements
 - #324581 conf model is created for view elements
 - #329364 Build problems in SVN 1.0+
 - #345434 Please export more packages, so I can create my own wizards.
 - Doc & Howtos have also been enriched in the process, see e.g. http://wiki.eclipse.org/JWT_Metamodel_Extension#Aspects_Howto

Release 1.1 – APIs



- The code conforms to the Eclipse Quality.
- The code has been implemented by committers of the project.
- The API has been officially declared (using PDE tooling) in prior to this release.
- Several examples have been tested and several jUnit tests exist.
- Build (includes unit testing) has been fully automated in CBI and is easily repeatable.

Release 1.1 – Non-Code Aspects

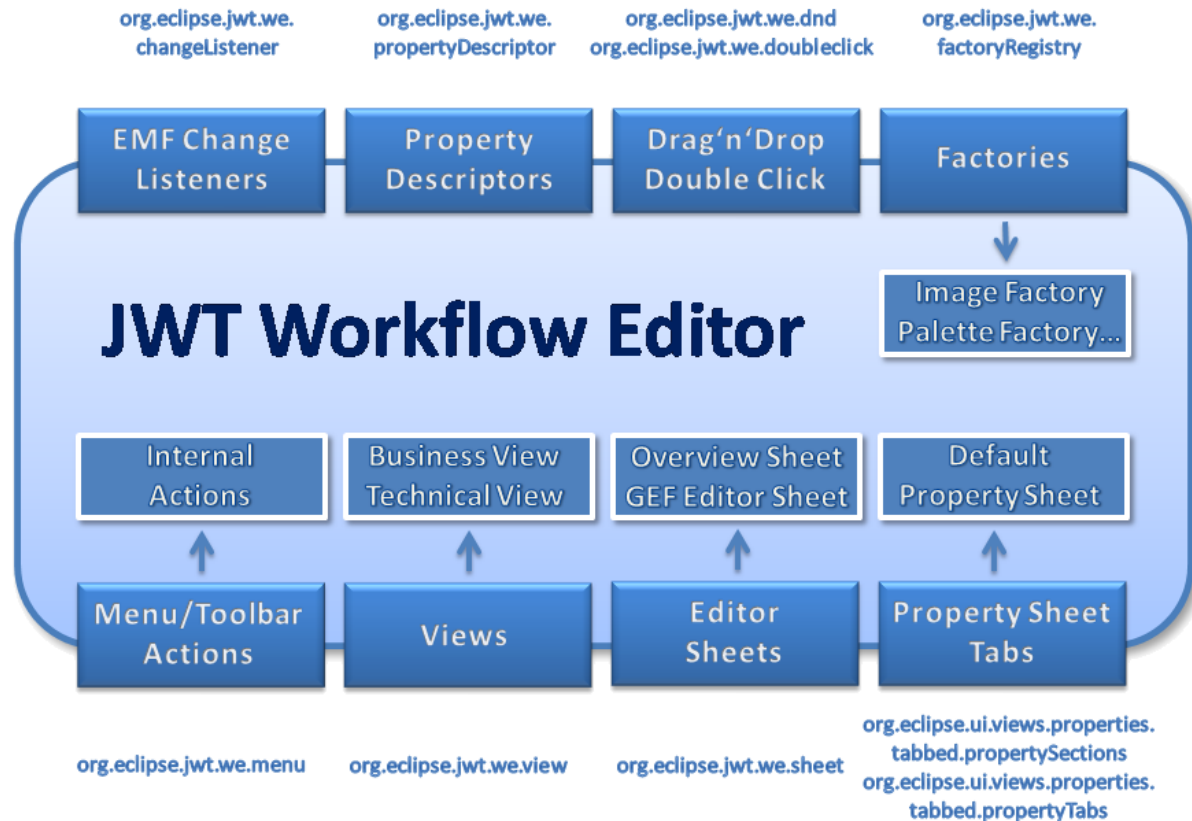


- Documentation is up to date and constantly improved, mailing lists and bugzilla are constantly used, news are written on the website.
- Until this date, two articles about JWT have been published in the german „Eclipse Magazin“
- Several presentations about or involving JWT have been given
 - Eclipse Summit Europe 07, EclipseCon08, Open World Forum 2008, EclipseCon09, Solutions Linux 2009, Eclipse Forum Europe 2009, Eclipse Europe Summit 2009 and EclipseCon10
- **Eclipse DemoCamp Indigo 2011** in Grenoble, 2011 June 28
 - « From design & development to live collaboration in the SOA Space, using Eclipse Mangrove and EasySOA Core » by Alain Boulze & Marc Dutoo, see http://wiki.eclipse.org/Eclipse_DemoCamps_Indigo_2011/Grenoble

Release 1.1 – Architectural issues



- Several extension points available that are already used by plugins in order to extend the JWT Workflow Editor.



Release 1.1 – Tool usability



- JWT enables a user to model his/her processes and workflows and use these models not only for documentation, but also for execution.
- The model can be used to generate code in different languages (such as XPDL)
- The model can be transformed to other models (e.g. SOA BPMN & Mangrove).
- It provides a lot of extension points where others can build on it and extend several parts of the editor, see http://wiki.eclipse.org/JWT_Extensions
- If necessary, the meta-model can be adapted to the needs of each user through Aspect Oriented Modeling.

Release 1.1 – End-of-Life



- There are no features that are end-of-life'd in this release.

Release 1.1 – Bugzilla



- 19 bugs / feature requests have been closed since the last release

Component	Version							Total
	0.3.0	0.4.0	0.5.0	0.6.0	0.7.0	1.0.0	unspecified	
Desktop	<u>1</u>	.	.	.	<u>3</u>	<u>1</u>	<u>4</u>	<u>9</u>
Metamodel	.	.	.	.	<u>5</u>	<u>1</u>	.	<u>6</u>
Releng	.	.	.	<u>3</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>8</u>
Transformations	.	.	.	<u>15</u>	<u>5</u>	<u>2</u>	.	<u>22</u>
WE	<u>37</u>	<u>32</u>	<u>40</u>	<u>70</u>	<u>46</u>	<u>12</u>	<u>14</u>	<u>251</u>
Wam	.	.	.	.	.	<u>1</u>	.	<u>1</u>
Website	.	.	.	.	<u>2</u>	.	<u>1</u>	<u>3</u>
Yearly Release	<u>1</u>	.	.	<u>5</u>	.	.	<u>25</u>	<u>31</u>
Total	<u>39</u>	<u>32</u>	<u>40</u>	<u>93</u>	<u>63</u>	<u>19</u>	<u>45</u>	<u>331</u>

- There are currently 55 non-critical bugs / feature requests which have been moved to the next release

Component	Version		Total
	1.1.0	1.2.0	
Desktop	<u>1</u>	.	<u>1</u>
Metamodel	<u>5</u>	.	<u>5</u>
Releng	<u>3</u>	.	<u>3</u>
Transformations	<u>8</u>	.	<u>8</u>
WE	<u>28</u>	<u>9</u>	<u>37</u>
Wam	<u>1</u>	.	<u>1</u>
Total	<u>46</u>	<u>9</u>	<u>55</u>

Standards



The relationship to existing standards has been achieved by the following:

- Addition of a UML Activity diagram view
 - Addition of a EPC model view
 - Transformation to the Eclipse STP BPMN modeler
 - Codegeneration of XPD L possible
-
- Existing transformation to the SOA Mangrove model (formerly STP IM), which aims to bridge different standard oriented tools within the STP project, like BPMN and SCA editors or BPEL.

UI Usability



- The Workflow Editor supported originally several languages such as English, German and French. For the latest releases we collaborated with Babel so that much more languages now exist.
- Several wizards exist to ease the usage of the Workflow Editor.
- All transformations are easily selectable via Import and Export menus thanks to the transformation base.
- The Eclipse User Interface Guidelines have been followed.
- UI usability has been improved since last release but a more in depth UI walkthrough is still planned for the following release.

Communities



- Active bugzilla usage by the committers and others (extenders).
- Many discussions on the mailing list, inside JWT as well as with partners from the SOA projects (**Mangrove**, BPMN, etc.).
- Discussions with several companies (Bull, jBoss, **upcoming INRIA spinoff**) have produced collaboration (ex. BPM model comparison, FactoryRegistry) and keep feeding JWT's requirements.
- Solutions built on JWT include AgilPro and OW2 Scarbo (Open Source). Mailing list exchanges show new products being built on JWT.
- Coordination with several OW2 projects such as Bonita, Orchestra, FraSCAti, Spagic, Scarbo.
- The University of Augsburg is an official Eclipse Foundation Member

IP Issues



- The code has been committed by individuals who are either committers of the project themselves or their foundation. Code contributions from others have undergone a CQ.
- The contribution questionnaires for all components have been completed.
- The legal information has been inserted into the source code as described in the Eclipse IP Policy.
- There are no outstanding CQs and the IP log has been committed and approved for this release.



Project plan and IP log

- The current project plan can be found at
 - <http://www.eclipse.org/projects/project-plan.php?projectid=technology.jwt>
- The IP log can be found at
 - http://www.eclipse.org/projects/ip_log.php?projectid=technology.jwt
 - Currently no open IP requests

Communication



- **Project Leads**
 - Marc Dutoo, Open Wide
 - Christian Saad, University of Augsburg (also release manager)
- **Communication Channel**
 - JWT Mailing List: jwt-dev@eclipse.org