

## Java Workflow Tooling (JWT) Release review: JWT v0.5

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Marc Dutoo (Open Wide, FR)
Mickael Istria (Open Wide, FR)
Florian Lautenbacher (University of Augsburg, DE)
Christian Saad (University of Augsburg, DE)

## Overview



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## Introduction



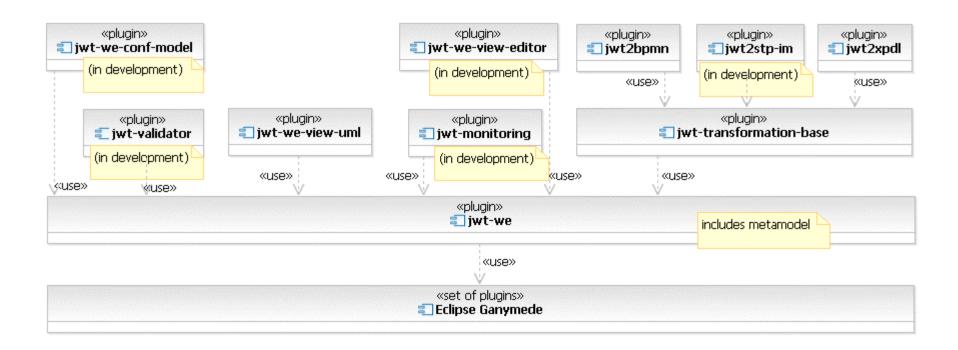
- Java Workflow Tooling (JWT) is a technology sub-project in Incubation phase (<a href="http://www.eclipse.org/projects/dev\_process/incubation-phase.php">http://www.eclipse.org/projects/dev\_process/incubation-phase.php</a>).
- JWT aims at providing a complete Business Process Management (BPM) and workflow tooling platform
  - with a special focus on a unified approach to BPM design, allowing to bridge the gap between BP representation, BP standards, BP engines, BP deployment environments (platforms, Information System, SOA)
- This second release covers improvements to the Workflow Editor as well as new components (transformations).
- These slides conform to the Eclipse Guidelines for a Release review which can be found under

http://www.eclipse.org/projects/dev\_process/release-review.php.

# Current JWT plugin structure



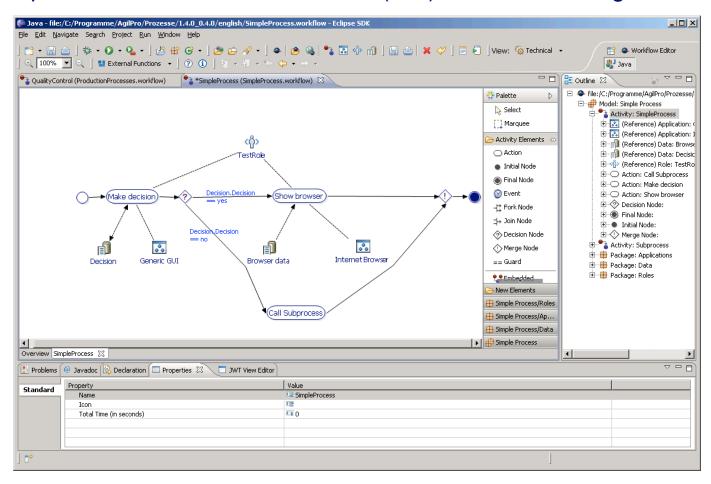
The main focus is currently the JWT Workflow Editor (JWT-WE)



## **Features**



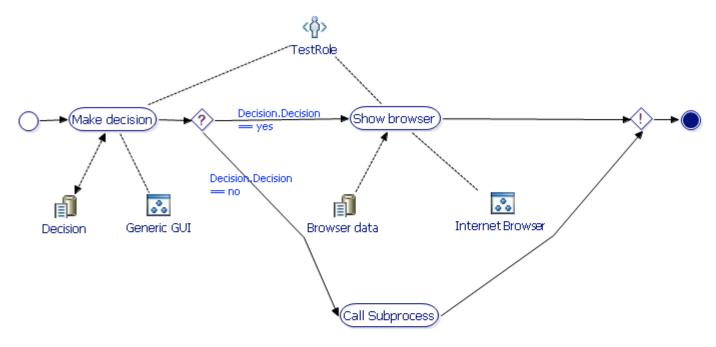
We improved the JWT Workflow Editor (WE) with the following features





### Features in the Workflow Editor (WE):

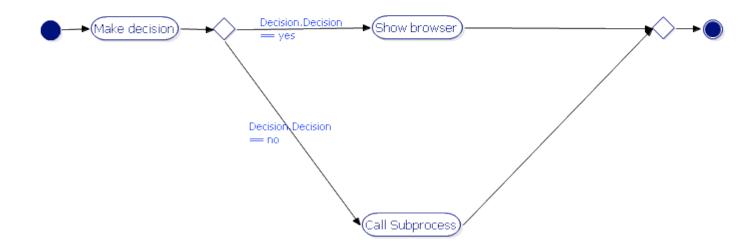
- Added extension points:
  - for additional figures
  - for customized views (such as an UML-Activity diagram view of the process)





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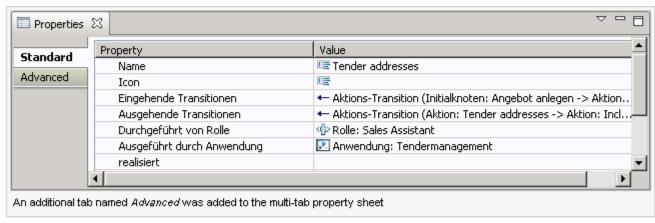


 Extension point: Possibility to add tabs to the Property Sheet (which switches automatically to the multi-tab display) from external plugins

Standard Sheet

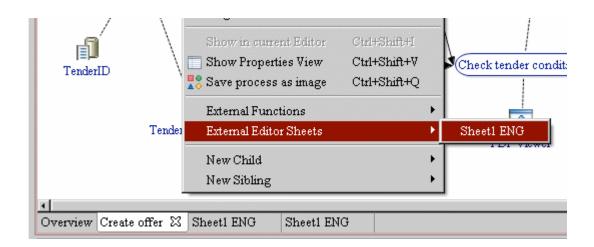
Properties 🛭 Value Property Tender addresses Name Icon Eingehende Transitionen ← Aktions-Transition (Initialknoten: Angebot anlegen -> Aktion: Tender a., ← Aktions-Transition (Aktion: Tender addresses -> Aktion: Include tender. Ausgehende Transitionen Durchgeführt von Rolle n Rolle: Sales Assistant Ausgeführt durch Anwendung Anwendung: Tendermanagement realisiert The classical property sheet without tabs that shows the model element properties

MultiTab Sheet



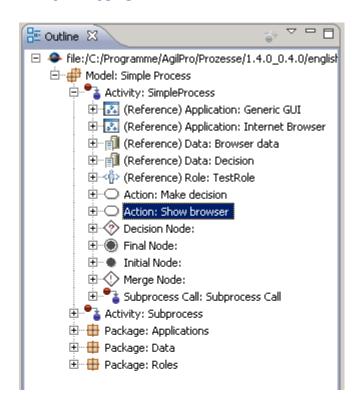


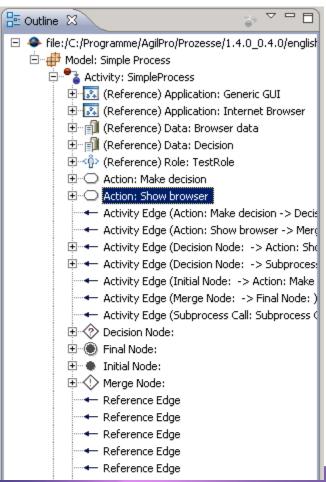
Extension point: Custom editor sheets by external plugins possible.
 By this companies can provide their information on additional windows.





Configuration of filters to show a better organized outline view With filters:
Without:

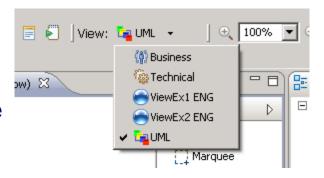






#### Features in the Workflow Editor (WE):

- List of different views now visible in a DropDownBox in the toolbar
- Possibility to customize the property editor in external plugins and listen to changes in the model
- Integration of other languages (French)
- Fixed bugs concerning connections in the model
- Better handling of copy and paste
- Improved workflow editor with colours and routers
- Improved the load and save possibilites
- Migrated to Eclipse Ganymede
- Several minor bug fixes





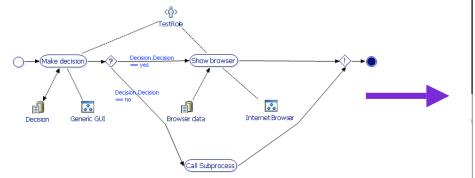
#### Features in other components: Transformations

 Have a common basis for transformations in JWT and use it in several already existing transformations

 Have a code generation: from JWT to the XML Process Definition Language (XPDL)

Model transformation: from JWT to the Business Process Modeling

Notation (BPMN)<sup>1</sup>



<sup>1</sup> the other way round is currently under development

## Non-code aspects



- Our website has been further improved.
- Several pages on the wiki exist that describe the usage of the Workflow Editor as well as extension possibilities by external plugins.
- There has been a presentation about JWT at the Eclipse Summit Europe 07 and EclipseCon08. We also submitted a talk to Eclipse Summit Europe 08.
- We are currently working on a publication for an Eclipse magazine describing the different features of JWT.

## **APIs**

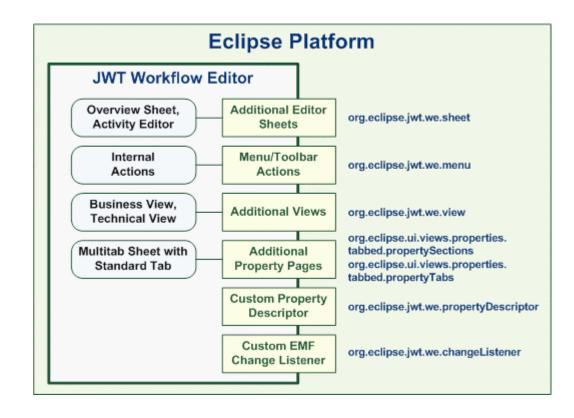


- The code conforms to the Eclipse Quality.
- The code has been implemented by committers of the project.
- Several examples have been tested.

## Architectural issues



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



# 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. STP BPMN).
- It already provides several extension points where others can build on it and extend several parts of the editor.
- In the next release we will provide the user also with the possibility to adapt the underlying metamodel to his/her needs.

## **End-of-Life**



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

# Bugzilla



- There are already 114 closed and fixed bugs for JWT (mostly the Workflow Editor).
- Bugzilla currently knows 28 open bugs where most of them are feature requests for version 0.6.0. No P1 or P2 bugs, only P3 bugs are outstanding.

## **Standards**



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

- Addition of a UML Activity diagram view
- Transformation to the Eclipse STP BPMN modeler
- Codegeneration of XPDL now possible
- Additionally, we are currently working on a transformation to the STP-IM, which aims to bridge different standard oriented tools within the STP project, like BPMN and SCA editors, and others are envisioned (BPEL...).

# Standards (cont.)



- Though it is out of scope for this release, it is worth noting JWT is being enriched on the runtime side also:
  - Runtime process APIs allowing workflow engines in a standard way
    - 1. to integrate with any java workflow engine
    - 2. To provide service orchestration features using any service platform. They are set to be contributed in the WAM component.
  - Its proof of concept implementation on top of the Bonita Engine and the SCA standard compliant Frascati service platform. Because of licensing issues it will not be contributed to JWT, but will still be open sourced in the JWT4SCOrWare suite on http://www.scorware.org/.

## **UI** Usability



- The Workflow Editor supports several languages, currently implemented are English, German and French.
- Several wizards exist to ease the usage of the Workflow Editor.
- All transformations are easily selectable in the Workflow Editor thanks to the transformation base.
- The Eclipse User Interface Guidelines have been followed.

## Schedule



- The project JWT is on the one hand focused on the Workflow Editor and transformation part, on the other hand we aim to be a platform for SOA and SCA (together with the current STP projects) and the French friend project SCOrWare.
- New components are already planned, but not included in this release:
  - model transformation to STP-IM
  - a monitoring component for process engines
  - Runtime workflow and orchestration APIs
- We are currently developing an extension mechanism to allow other people and companies to extend the existing metamodel by aspects in external plugins.

## Communities



- User involvement still rare, but already many discussions with several companies who explained their need for workflow tooling within Eclipse.
- Active bugzilla usage by the committers
- Many discussions on the mailing list, inside JWT as well as with partners from the STP projects (STP IM, etc.)
- Newsgroup not used too much.
- Coordination with several OW2 projects, most prominently the partner SCOrWare project, but also others like Bonita or Orchestra.
  - SCOrWare will release JWT4SCOrWare, a full BPM SOA suite building both on JWT and the SCOrWare service platform and tools
  - Strong interest in JWT from Bull (editor of Bonita)

## IP Issues



- The code has been committed by individuals who are either committers of the project themselves or their foundation.
- The contribution questionaires for the additional components have been completed.
- The legal information has been inserted into the source code as described in the Eclipse IP Policy.
- The code has been approved by the EMO-IP-Team under CQ 2694, 2698, 2699 and 2701 as described on our IP Log http://www.eclipse.org/projects/ip\_log.php?projectid=technology.jwt.

## **Project Plan**



- The next release (0.6) is scheduled for December 14th, 2008 (rescheduled) and from then on a new release is planned at least every half a year. Version 0.7 is currently planned to be released in February 13th, 2009.
- Integration within the yearly release (Galileo) of 2009 is currently discussed.
- The next release will consist of
  - an updated version of the workflow editor with aspect mechanisms in order to allow users
  - minor bugfixes as well as
  - an additional transformation: JWT to STP-IM.

## **Notes**



The Eclipse development process document and the Guidelines document have been read and approved by the project leads and committers of the JWT project.

# Thanks for reading this document!



- Marc Dutoo (Project Co-Lead) Open Wide, FR
- Florian Lautenbacher (Project Co-Lead) University of Augsburg, DE
- Miguel Valdez Faura (Technology Advisor) Bull, FR
- Alain Boulze (Market Advisor) INRIA / OW2, FR
- Fabrice Dewasmes (Vision Advisor) Pragma Consult, LU
- Christian Saad University of Augsburg, DE
- Mickael Istria, Loic Descotte, Guillaume Decarnin Open Wide, FR
- Stephane Drapeau Obeo, FR
- Pierre Vigneras, Steve Egbert Bull, FR
- Adrian Moss INRIA / OW2, FR
- and many others...

## The JWT project team









