ArchReviewWorkflowEngines

Here's a review of Open Source Workflow Engines that are written in Java:

Past Efforts: There has been past work on workflow ideas already in the wiki, please see WorkflowSystem

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Product	Description	Ranking
Apache OFBiz Workflow Engine	(WAS OFBiz Workflow Engine) The Open for Business Workflow Engine is based on the WfMC and OMG spec. OFBiz Workflow Engine uses XPDL as its process definition language. Apache is currently "Incubating" this project to become a full fledged Apache Project.	
Apache Agila	Agila is centered around Business Process Management, Workflow and Web Service Orchestration. It's composed of two specialized modules: Agila BPM and Agila BPEL. Agila BPM is basically handling tasks and users who have to complete these tasks. It's a very flexible and lightweight workflow component. Agila BPEL is a BPEL-compliant Web Services Orchestration solution	
Codehaus Werkflow	Werkflow is a flexible, extensible process- and state-based workflow engine. It aims to satisfy a myriad of possible workflow scenarios, from enterprise-scale business processes to small-scale user-interaction processes. Using a pluggable and layered architecture, workflows with varying semantics can easily be accomodated. (Under redevelopment)	
Open Business Engine	OBE is a flexible, modular, standards-compliant Open Source Java workflow engine. It is fully J2EE compliant, and supports several J2EE application servers, operating systems and databases. It implements several Workflow Management Coalition Open Standards (WfMC), to which it offers a variety of extensions and enhancements. OBE is equally suited to embedded or standalone deployment.	
OpenSymphony OSWorkflow	What makes OSWorkflow different is that it is extremely flexible.	
Zebra	Zebra is a workflow engine - originally developed to fill in the gaps in some commercial and open source workflow engines. The key differences between it and other workflow systems are able to model all the workflows described in workflow patterns, a GUI designer and Hibernate persistence layer.	
XFlow2	Inspired by simple workflow definition language in XFlow developed to improve its implementation. Externalized SQL in iBatis mapping files. Works as embedded workflow engine.	
Antflow	AntFlow is a tool for the automation and scheduiling of data system tasks, including those with complex dependencies and workflow logic. Antflow represents a new approach to simplifying system automation that leverages pipelines of hot folders chained together to perform a given task. Using XML, Antflow associates an automated task, such as data tran	

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OpenWFE	OpenWFE is an open source java workflow engine. It features 3 components, easily scalable : an engine, a worklist and a web interface. Its workflow definition language is inspired of Scheme, a Lisp dialect, though it is expressed in XML.	

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[ObjectWeb Bonita	http://bonita.forge.objectweb.org\ ]	Bonita is a flexible cooperative workflow system, compliant to WfMC specifications. A comprehensive set of integrated graphical tools for performing different kind of actions such as process conception, definition, instanciation, control of processes, and interaction with the users and external applications. 100% browser-based environment with Web Services integration that uses SOAP and XML Data binding technologies in order to encapsulate existing workflow business methods and publish them as a J2EE-based web services. A Third Generation Worflow engine based in the activity anticipation model.
Enhydra Shark	Shark is completely based on standards from WfMC and OMG using XPDL as its native workflow definition format. Storage of processes and activities is done using Enhydra DODS.	
jBpm	JBoss jBPM is a platform for multiple process languages supporting workflow, BPM, and process orchestration. jBPM supports two process languages: jPDL and BPEL. jPDL combines human task management with workflow process constructs that can be built in Java applications. Includes also a Visual Designer for jPDL and Eclipse-based tooling for BPEL.	

[ActiveBPEL](#)	ActiveBPEL engine is a robust runtime environment that is capable of executing process definitions created to the Business Process Execution Language for Web Services (BPEL4WS, or just BPEL) 1.1 specifications.
[YAWL](#)	YAWL (Yet Another Workflow Language), an open source workflow language/management system, is based on a rigorous analysis of existing workflow management systems and workflow languages. Unlike traditional systems it provides direct support for most of the workflow patterns (http://www.workflowpatterns.com). YAWL supports the control-flow perspective, the data perspective, and is able to interact with web services declared in WSDL. It is based on a distributed, web-friendly infrastructure.
[Taverna](#)	The Taverna project aims to provide a language and software tools to facilitate easy use of workflow and distributed compute technology within the eScience community. Taverna is both a workflow enactor and also an editing suite.
[JFolder](#)	JFolder (formerly PowerFolder) contains features critical to many applications - including web pages, workflow, security, persistence, email, file management, and data access.
[Micro-Workflow](#)	The micro-workflow framework targets developers who want to separate the control and logic aspects in their programs, thus making them flow independent. A well-factored flow independent application facilitates change because the most frequent business changes translate into process changes, thus leaving the code intact. Flow independence also fosters reuse, because domain objects make fewer assumptions about the control context in which they operate
[con:cern](#)	con:cern is a workflow engine based on an extended case handling approach. A process is described as a set of activities with pre- and postconditions. An activity is executed when its preconditions are met. It manipulates the process item, thereby creating postconditions. The process flow is determined at run-time. This approach is superior to the conventional process flow approach.

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[wfmOpen](#)	WfMOpen is a J2EE based implementation of a workflow facility (workflow engine) as proposed by the Workflow Management Coalition (WfMC) and the Object Management Group (OMG). Workflows are specified using WfMC's XML Process Definition Language (XPDL) with some extensions.	
[Freefluo](#)	Freefluo is a workflow orchestration tool for web services. It can handle WSDL based web service invocation. It supports two XML workflow languages, one based on IBM's WSFL and another named XScufl. Freefluo is very flexible, at its core is a reusable orchestration framework that is not tied to any workflow language or execution architecture. Freefluo includes extension libraries that enable execution of workflows written in a subset of WSFL.	
[Imixs](#)	The Imixs Workflow is an open source project based on Java technology. Imixs Workflow can be used in any kind of java application and provides a full featured Workflow Management System based on the Java EE 6 specification. It fulfills the requirements to a scalable, transactional, robust and simple deployable Java EE Workflow System. The Imixs Workflow Modeler is a Eclipse based technical workflow modeling tool.	

Dead and Gone

- Dead link [Bigbross Bossa](#) The engine is very fast and lightweight, uses a very expressive Petri net notation to define workflows, does not requires a RDBMS and is very simple to use and to integrate with java applications. Actually, it was designed to be embedded.

- Dead Link [ZBuilder](#) ZBuilder3 is a second generation of workflow development and management system which intends to be an open source product. It defines a set of standard JMX management interfaces for different workflow engines and their workflows.

- Dead Link / search engine [Twister](#) Twister's aim is to provide a new generation, easily integrable, B2B oriented workflow solution in Java, based on the latest specification efforts in this field. The process engine is based on the BPEL business process specifications and Web Services standards.