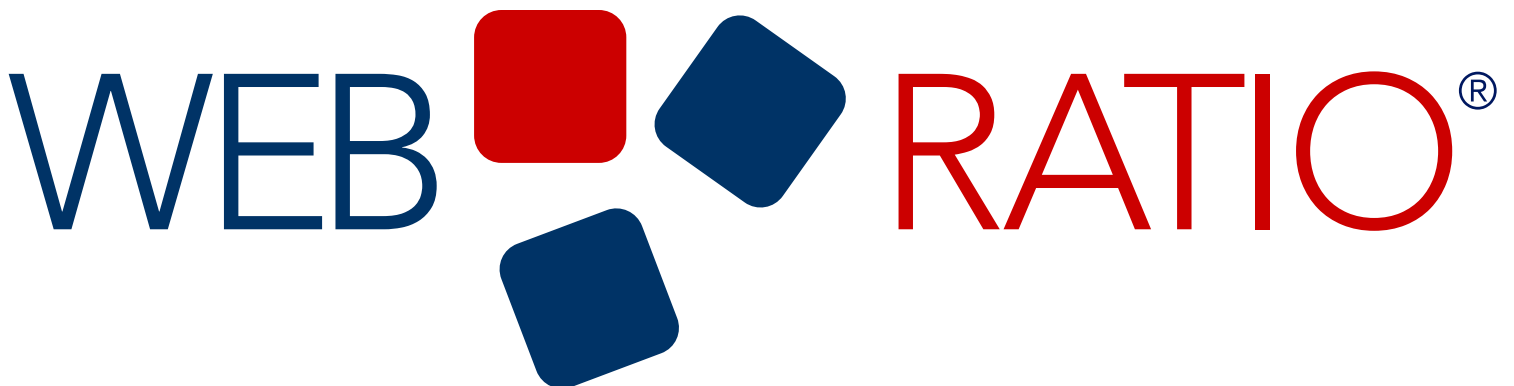
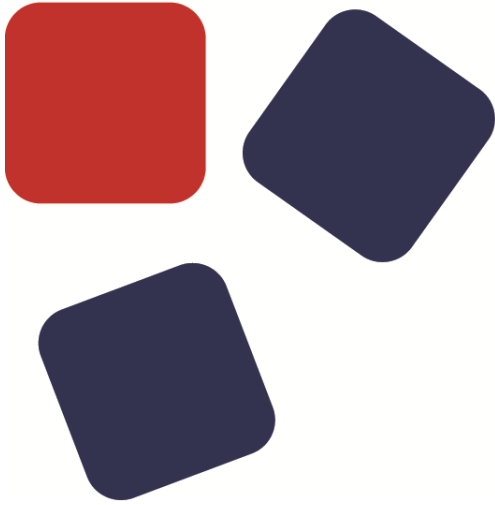


8.6

BPM Platform
Release Notes





RELEASE NOTES

WEBRATIO BPM PLATFORM 8.6

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RELEASE NOTES

INTRODUCTION

WebRatio BPM Platform is a powerful development environment that supports business Analysts in building an application that manages their business process through a BPM engine. Let's look at the main functionalities of this product release.



BPM ADMINISTRATION VIEW

BPM ADMINISTRATION VIEW

Business process administrators now have a dedicated application to manage all processes executed by the BPM engine. Features included in this Administration View are: running process management, process archives management, process definitions management and user management. The application is available at the URL `http://<host>:<port>/<app-name>/admin`. Read the following sections to learn more about each functionality.

Process Archives Management

Business process administrators can upload a new process archive to update the business processes executed by the BPM engine. The BPM engine automatically reads the process archive content and creates new versions for the contained business process definitions. Once the process archive is deployed, it becomes visible in the list of all process archives. It's possible to select a process archive to see its content in terms of business process definitions.

New Deploy ×

Select a *.par file to upload a new deployment

Nessun file selezionato

Live Process Definitions Management

Business process administrators can quickly overview which process definitions are currently live in the BPM engine. For each process definition, it's possible to see its detailed information.

Process Definition	
Code	
Name	ExpenseReport
Version	2
Description	This is a sample WebRatio BPMN Project. It shows a small business process. The process starts with the creation of an Expense Report by an Employee and it manages all the following approval steps.

Diagram Versions Active Processes History



BPM ADMINISTRATION VIEW



Running Processes Management

The BPM Administration View provides the full list of all running processes. Administrators can search for specific processes to see their details. Process details information comprehend the list of executed tasks so that it's possible to reassign a user task, send messages and signals to a task and retry failed service tasks.

Process Info		
Name	ExpenseReport # 3	
Status	ACTIVE	
Created	Dec 4, 2015	
Updated		
Active Since	13 days ago	

Process Definition		
Code		
Name	ExpenseReport	
Description	This is a sample WebRatio BPMN Project. It shows a small business process. The process starts with the creation of an Expense Report by an Employee and it manages all the following approval steps.	

Tasks							
Name ▲	Type	Status	Created ▲	Updated	User	Role	
Edit Report	UserTask	READY	Dec 4, 2015				<input type="button" value="Reassign"/>
New Expense Report	StartEvent	COMPLETED	Dec 4, 2015	Dec 4, 2015	michela		

Users Management

Administrators can manage users of the BPM engine. In particular, they can assign roles to users that register on the engine and manage users' profiles.

User Details Edit User

Name	John Doe
Username	john
E-mail Address	john.doe@myemail.com

Roles

Change password Delete



SUBPROCESS MODELING

SUBPROCESS MODELING

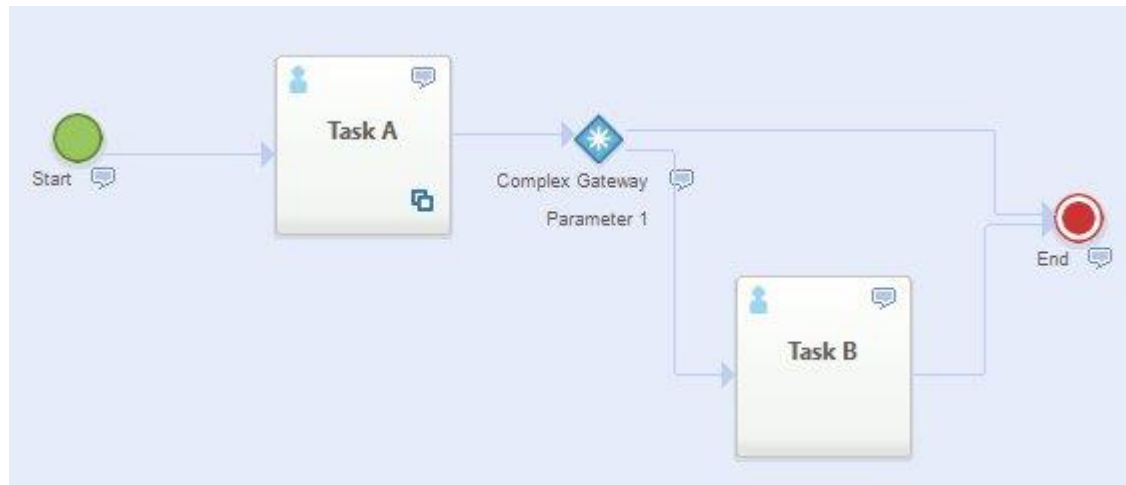
You can now model subprocesses in your business processes. A subprocess must reference a business process contained in the same BPMN project. You can set the "Execution Policy" of the subprocess by choosing between the following options: "Single," "Loop" and "Parallel." In the case of loop and parallel subprocesses, you can also set how many times the subprocess must be instantiated. An icon shows in the diagram which Execution Policy is applied. You can also bind business process parameters to the subprocess to specify how the subprocess interacts with the main one.



Parallel Subprocess [spr1]	
Id	spr1 [pool1#lane1#spr1]
Code	
Name	Parallel Subprocess
Instance Name	\${taskName}
Process	Subprocess
Input Binding	0 Parameter Bindings
Output Binding	0 Parameter Bindings
Execution Policy	Parallel
Loop Condition	
Nr. of Instances	Number of Instances

COMPLEX GATEWAY MODELING

You can now model the complex gateway behavior in your BPMN project. You can set which business process parameters are used by the gateway.



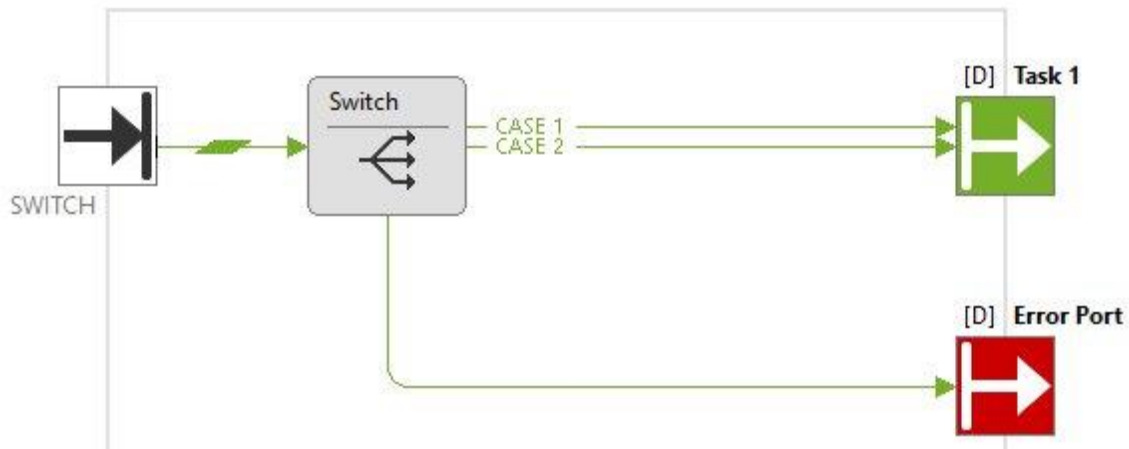
A complex gateway in a business process must reference a dedicated action definition that specifies its behavior. It's then possible to set input and output binding from the business process to the action definition.

Complex Gateway [gatcom1]	
Id	gatcom1 [pool1#lane1#gatcom1]
Code	
Name	Complex Gateway
Instance Name	\${taskName}
Parameters	1 Parameter
Action Definition	Complex Gateway Behavior [Complex Gateway]
Input Binding	1 Parameter Binding
Output Binding	1 Parameter Binding



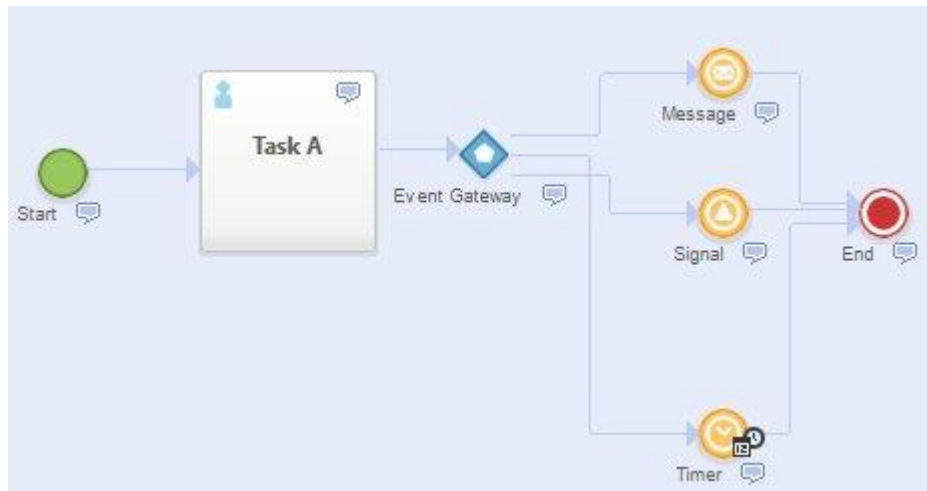
COMPLEX GATEWAY MODELING

The action definition has a number of Success Ports depending on the number of flows outgoing from the Complex Gateway. You can use all the available operation components to define the gateway behavior. An example would be to use a switch on a parameter to decide which port to reach and, thus, which sequence flow the business process must follow.



EXCLUSIVE EVENT-BASED GATEWAY IMPLEMENTATION

You can now model an exclusive event-based gateway in your business processes. The BPM engine is now able to properly manage this, enabling the sequence flow of the first event triggered among the ones modeled on outgoing flows.



IMPORT AND EXPORT

You can now import business processes into an existing project using the File -> Import option available in the main menu. The business processes to import must be defined using the XPD L 2.1, XPD L 2.2 or BPMN 2.0 notation. You can also select a business processes and export them using the File -> Export option. You can also select the desired format. Available formats are XPD L 2.1, XPD L 2.2 and BPMN 2.0.





REST API IMPROVEMENTS

REST API IMPROVEMENTS

Filter, Sorting and Pagination

You can now use filters, define sorting and pagination on all REST API methods retrieving lists of objects. This is useful in case you are going to use the API to create a dedicated front-end.

Define Sorting

Sorting can be specified by adding the dedicated **"sort"** query string parameter to the request. The query string parameter contains the comma-separated list of all the attributes to be used for the sorting with a prefix specifying whether the sorting is ascendant (+) or descendent (-). The order used in the list is relevant because it is the same order used for retrieving and sorting elements.

GET <BASE_URL>/bpmengine/processes?**sort=-updatedAt,-createdAt**

The sorting used is also included in the response body. See below for an example.

```
{
  "data": [
    {
      "oid": 1,
      "name": "Expense Report #1",
      "status": "READY",
      "createdAt": "2015-12-03T10:17:49.343Z",
      "definition": {
        "id": "ABC123#",
        "code": "",
        "name": "Expense Report",
        "description": "Expense Report"
      }
    }
  ],
  "filter": "name eq 'ExpenseReport'",
  "pageSize": 10,
  "page": 1,
  "sort": ["-updatedAt", "-createdAt"],
  "totalCount": 100
}
```

RELEASE NOTES

Define pagination

You can now retrieve a limited number of elements and handle-paginated lists. You have to add the dedicated "page" and "pageSize" query string parameters to the request.

- **page**: This represents the page number (1 based).
- **pageSize**: This represents the number of elements contained on a single page. When 0 is used, it's possible to get the "totalCount" of the elements.

GET <BASE_URL>/bpmengine/processes?page=1&pageSize=20

The pagination is also contained in the response body. See below for an example.

```
{
  "data": [
    {
      "oid": 1,
      "name": "Expense Report #1",
      "status": "READY",
      "createdAt": "2015-12-03T10:17:49.343Z",
      "definition": {
        "id": "ABC123#",
        "code": "",
        "name": "Expense Report",
        "description": "Expense Report"
      }
    }
  ],
  "filter": "name eq 'ExpenseReport'",
  "pageSize": 10,
  "page": 1,
  "sort": ["-updatedAt", "-createdAt"],
  "totalCount": 100
}
```




REST API IMPROVEMENTS

Define filters

You can now retrieve elements satisfying conditions. You have to add the dedicated **"filter"** query string parameter to the request. The value of the query string parameter is a condition built following a specific syntax. You can find the documentation [here](#).

```
GET <BASE_URL>/bpmengine/processes?filter=name eq 'ExpenseReport'
```

The filter is also contained in the response body. See below for an example.

```
{
  "data": [
    {
      "oid": 1,
      "name": "Expense Report #1",
      "status": "READY",
      "createdAt": "2015-12-03T10:17:49.343Z",
      "definition": {
        "id": "ABC123#",
        "code": "",
        "name": "Expense Report",
        "description": "Expense Report"
      }
    }
  ],
  "filter": "name eq 'ExpenseReport'",
  "pageSize": 10,
  "page": 1,
  "sort": ["-updatedAt", "-createdAt"],
  "totalCount": 100
}
```

Notes and Attachments

You can now manage notes and attachments from the BPMN engine using the set of dedicated methods that allows you to read, create, update and delete notes. It's possible to have notes for both a process and a task; however, attachments are available only for a process.

Retry action on task

You can now use the PUT method available for tasks to retry service task execution. This may be necessary when a service task fails for some reason and you want to trigger its execution another time. You just have to call the dedicated method using the "RETRY" action for the task.

Actions on Process Definitions

You can now activate or deactivate a process definition using the dedicated REST API method. This is useful when you want to substitute a certain version of the process definition with another one. The proper way to accomplish this task is to deactivate the current running version and activate the desired one.



FIXED IN 8.6.1

FIXED IN 8.6.1

- Fixed a problem related to the build procedure of the BPM process that caused a generation error.
- Fixed a problem related to the parameters with DATE, TIME and TIMESTAMP type used in a message that prevented sending messages using the Admin View.
- Fixed a problem related to the "Intermediate Catching Message" that caused a wrong update of parameter processes.
- Fixed a problem with the import XPDL process that caused a warning message and did not correctly import the start event and the first task.
- Fixed a problem that prevented a service task from being executed successfully when it contained a custom component.

FIXED IN 8.6.0

- Fixed a problem related to a BPM sample project downloaded from the WebRatio Add-ons that prevented uninstalling it.

THIRD PARTY LIBRARIES

Java libraries

Library	Link
<p>ANTLR 2.7.7</p> <p>ANTLR is a language tool that provides a framework for constructing recognizers, compilers, and translators from grammatical descriptions containing Java, C#, C++, or Python actions.</p>	<p>ANTLR 2</p>
<p>Apache Commons BeanUtils Core 1.8.3</p> <p>BeanUtils component provides easy-to-use wrappers around the Java language Reflection and Introspection APIs.</p>	<p>BeanUtils</p>
<p>Apache Commons Codec 1.10</p> <p>Apache Commons Codec (TM) software provides implementations of common encoders and decoders such as Base64, Hex, Phonetic and URLs.</p>	<p>Codec</p>
<p>Apache Commons Collections 3.2.1</p> <p>Commons-Collections builds upon the JDK data structures classes by providing new interfaces, implementations and utilities that accelerate development of most significant Java applications.</p>	<p>Collections</p>
<p>Apache Commons DBCP 1.4</p> <p>This Commons package provides Database Connection Pools facilities.</p>	<p>DBCP</p>
<p>Apache Commons Digester 1.8.1</p> <p>The Digester package lets configure an XML -> Java object mapping module, which triggers certain actions called rules whenever a particular pattern of nested XML elements is recognized.</p>	<p>Digester</p>
<p>Apache Commons Exec 1.2</p> <p>Allow to execute the external processes from Java.</p>	<p>Exec</p>
<p>Apache Commons HttpClient 3.1</p> <p>HttpClient provides an efficient, up-to-date, and feature-rich package implementing the client side of the most recent HTTP standards and recommendations.</p>	<p>HttpClient</p>
<p>Apache Commons IO 2.4</p> <p>Commons IO is a library of utilities to assist with developing IO</p>	<p>IO</p>



functionality.

Apache Commons Lang 2.6

[Lang](#)

Lang provides a host of helper utilities for the java.lang API, notably String manipulation methods, basic numerical methods, object reflection, concurrency, creation and serialization and System properties.

Apache Commons Logging 1.1.3

[Logging](#)

The Logging package is an ultra-thin bridge between different logging implementations. A library that uses the commons-logging API can be used with any logging implementation at runtime.

Apache Commons Net 3.3

[Net](#)

Apache Commons Net library implements the client side of many basic Internet protocols. The purpose of the library is to provide fundamental protocol access, not higher-level abstractions.

Apache Commons Pool 1.6

[Pool](#)

Pool provides an Object-pooling API, with three major aspects: a generic object pool interface that clients and implementers can use to provide easily interchangeable pooling implementations, a toolkit for creating modular object pools, several general purpose pool implementations.

Apache Cordova 3.6.3

[Cordova](#)

Apache Cordova is an open-source mobile development framework.

Apache Derby 10.5.3.0

[Derby](#)

Apache Derby is an open source relational database implemented entirely in Java.

Apache FontBox 1.5.0

[FontBox](#)

Apache FontBox library is an open source Java tool to obtain low level information from font files.

Apache HttpComponents 4.3.6

[HttpComponents](#)

Apache HttpComponents project is responsible for creating and maintaining a toolset of low level Java components focused on HTTP and associated protocols.

Apache JempBox 1.5.0

[JempBox](#)

JempBox is an open source Java library that implements Adobe's XMP(TM) specification.

Apache POI 3.11	POI
Apache POI is a facility to create and maintain Java APIs for manipulating various file formats based upon the Office Open XML standards (OOXML) and Microsoft's OLE 2 Compound Document format (OLE2).	
ASM 3.3.1	ASM
ASM is an all purpose Java bytecode manipulation and analysis framework.	
AWS SDK for Java 1.9.33	AWS SDK
The SDK helps take the complexity out of coding by providing Java APIs for many AWS services.	
Aho-Corasick	Aho-Corasick
Aho-Corasick algorithm is used for finding occurrences of words in text and it is faster than other common algorithms.	
c3p0 0.9.5	c3p0
c3p0 is an easy-to-use library for augmenting traditional JDBC drivers with JNDI-bindable DataSources, including DataSources that implement Connection and Statement Pooling.	
Dom4j 1.6.1	Dom4j
dom4j is an open source library for working with XML, XPath and XSLT on the Java platform using the Java Collections Framework and with full support for DOM, SAX and JAXP.	
Ehcache 2.10.0	Ehcache
Ehcache is an open source, standards-based cache that boosts performance, offloads your database, and simplifies scalability.	
FontBox 1.5.0	PDFBox
FontBox is a Java library used to obtain low level information from font files. FontBox is a subproject of PDFBox.	
Groovy 2.4.0	Groovy
Groovy is an agile and dynamic language for the Java Virtual Machine that builds upon Java but has additional power features inspired by languages like Python, Ruby and Smalltalk and compiles straight to Java bytecode.	
Guava 18.0	Guava
The Guava project contains several of Google's core libraries: collections, caching, primitives support, concurrency libraries, common annotations, string processing, I/O, and so forth.	



H2 1.3.176	H2
<p>H2 is a Java SQL in-memory databases database, very fast, open source, with JDBC API.</p>	
HK2 2.2.0	HK2
<p>HK2 is an implementation of JSR-330 in a JavaSE environment.</p>	
Hibernate 4.2.17	Hibernate
<p>Hibernate is a object relational database persistence API that is the "de facto" standard for persistence in Java.</p>	
iText 2.1.7	iText
<p>iText is an open source library that allows to create and manipulate PDF documents.</p>	
Jackson 1.9.13	Jackson
<p>Jackson is a multi-purpose Java library for processing JSON data format.</p>	
Jackson 2.4.5	Jackson
<p>Jackson is a multi-purpose Java library for processing JSON data format.</p>	
Jakarta Oro 2.0.8	Oro
<p>The Jakarta-ORO Java classes are a set of text-processing Java classes that provide Perl5 compatible regular expressions, AWK-like regular expressions, glob expressions, and utility classes for performing substitutions, splits, filtering filenames, etc.</p>	
Java Annotation API 1.2	Annotation
<p>This JSR will develop annotations for common semantic concepts in the J2SE and J2EE platforms that apply across a variety of individual technologies.</p>	
Java Persistence 2.0 API 1.0.1	Persistence
<p>The Java Persistence API provides a POJO persistence model for object-relational mapping.</p>	
Java Transaction API 1.1	Transaction
<p>Java Transaction API specifies standard Java interfaces between a transaction manager and the parties involved in a distributed transaction system: the resource manager, the application server, and the transactional applications.</p>	
Java Validation API 1.1.0	Validation
<p>Validation is a Java specification which lets you express constraints on object models via annotations, provides the APIs to validate and reports the set of violations.</p>	

JavaMail API 1.5.2	Mail
<p>The JavaMail API is a set of abstract APIs that model a mail system. The API provides a platform independent and protocol independent framework to build Java technology based email client applications. The JavaMail API provides facilities for reading and sending email. Service providers implement particular protocols.</p>	
Javassist 3.18.2	Javaassist
<p>Javassist (Java programming assistant) is a load-time reflective system for Java. It is a class library for editing bytecodes in Java.</p>	
JAX-RS 2.0	JAX-RS
<p>JAX-RS is a Java programming language API that provides support in creating web services according to the REST architectural pattern.</p>	
JBoss Logging 3.1.4	Logging
<p>JBoss Logging is a "logging bridge" providing integration with numerous logging frameworks.</p>	
Jaxen 1.1.6	Jaxen
<p>Jaxen is an open source XPath library written in Java. It is adaptable to many different object models, including DOM, XOM, dom4j, and JDOM.</p>	
JCaptcha 1.0	Captcha
<p>JCAPTCHA stands for Java Completely Automated Public Test to tell Computers and Humans Apart. It is the open source java framework for captcha definition and integration.</p>	
JCommon 1.0.15	JCommon
<p>JCommon is a Java class library that contains miscellaneous classes for chart displaying.</p>	
JempBox 1.5.0	PDFBox
<p>The Apache JempBox library is an open source Java tool that implements Adobe's XMP(TM) specification. JempBox is a subproject of Apache PDFBox.</p>	
Jersey 2.6	Jersey
<p>Jersey provides it's own API that extend the JAX-RS toolkit with additional features and utilities to further simplify RESTful service and client development.</p>	
Jericho HTML Parser 3.3	Jericho
<p>Jericho HTML Parser is a java library allowing analysis and</p>	

THIRD PARTY LIBRARIES



manipulation of parts of an HTML document, including server-side tags, while reproducing verbatim any unrecognised or invalid HTML

JFreeChart 1.0.12	FreeChart
JFreeChart is a Java chart library that makes it easy for developers to display professional quality charts in their applications.	
Joda-Time 2.4	Joda-Time
Joda-Time provides a quality replacement for the Java date and time classes.	
Json-smart 1.3	Json-smart
Json-smart is a performance focused, JSON processor lib.	
JSP API 2.2.1	JSP
JSP provides a container independent implementation of JSP 2.1.	
JSR-330 2.2.0.b25	JRS-330
JSR-330 standardizes annotations like @Inject and the Provider interfaces for Java platforms.	
JSR 305 1.3.9	JSR305
JSR 305 works to develop standard annotations (such as @NonNull) that can be applied to Java programs to assist tools that detect software defects.	
JSTL API 1.2.1	JSRL
JSTL is a standard tag library for JSP pages.	
Log4j 1.2.17	Log4j
Apache log4j is a logging library for Java.	
Logstash log4j extensions 1.6.0	Logstash
Logstash is an open source data collection engine with real-time pipelining capabilities.	
Lucene 2.3.2	Lucene
The Apache Lucene™ project develops open-source search software.	
Metrics 3.0.2	Metrics
Metrics is a Java library which gives you unparalleled insight into what your code does in production.	
MIMEpull 1.5	MIMEPull
Mimepull project provides a streaming API to access attachments parts in a MIME message.	
PDFBox 1.5.0	PDFBox
Apache PDFBox is an open source Java tool for working with PDF	

documents. This project allows creation of new PDF documents, manipulation of existing documents and the ability to extract content from documents.

Quartz 2.1.7

[Quartz](#)

Quartz is a richly featured, open source job scheduling library that can be integrated within virtually any Java application - from the smallest stand-alone application to the largest e-commerce system.

Saxon 6.5.5

[Saxon](#)

Saxon is a Java XSLT and XQuery Processor.

Slf4j 1.7.10

[Slf4j](#)

The Simple Logging Facade for Java is a simple facade or abstraction for various logging frameworks (e.g. java.util.logging, logback, log4j) allowing the end user to plug in the desired logging framework at deployment time.

Spring Framework 4

[Spring](#)

- Spring AOP 4.1.4
- Spring Beans 4.1.4
- Spring Context 4.1.4
- Spring Context Support 4.1.4
- Spring Core 4.1.4
- Spring Expression Language 4.1.4
- Spring Web 4.1.4
- Spring Web MVC 4.1.4

The Spring Framework provides a comprehensive programming and configuration model for modern Java-based enterprise applications - on any kind of deployment platform.

Standard Taglib 1.2.1

[Taglib](#)

Apache Standard Taglib is an implementation of the JSP Standard Tag Library specification.

Textmining Extractors 1.0

[Textmining](#)

Java API to extract Microsoft Word documents.

Vert.x 2.0.2

[Vert.x](#)

Vert.x lets your app scale with minimal hardware.

WSDL4j 1.6.3

[WSDL4j](#)

The Web Services Description Language for Java (WSDL4J) allows the creation, representation, and manipulation of WSDL



documents. Is the reference implementation for JSR110 'JWSDL' (jcp.org).

XMLBeans 2.6.0

[XMLBeans](#)

XMLBeans is a technology for accessing XML by binding it to Java types.

XMLSchema 1.4.7

[XMLSchema](#)

XMLSchema is a lightweight Java object model that can be used to manipulate and generate XML schema representations.

ZXing 3.1.0

[ZXing](#)

ZXing is an open-source, multi-format 1D/2D barcode image processing library implemented in Java, with ports to other languages.

JavaScript libraries

Library	Link
Angular 1.3.16 AngularJS is a toolset for building the framework most suited to your application development.	Angular
Angular UI Router 0.2.13 UI Router is the de-facto solution to flexible routing with nested views in AngularJS.	UI Router
Babel Loader 5.0.0 Babel Loader allows transpiling JavaScript files using Babel and webpack.	Babel
Big Js 2.5.2 Big Js is a small, fast JavaScript library for arbitrary-precision decimal arithmetic.	BigJs
Cldr Js 0.4.1 CLDR provides key building blocks for software to support the world's languages, with the largest and most extensive standard repository of locale data available.	Cldr
CKeditor 4.3 CKEditor is a ready-for-use HTML text editor designed to simplify web content creation. It's a WYSIWYG editor that brings common word processor features directly into web pages.	CKeditor
ES6 Promises 2.2.0 Promises are a pattern that helps with one particular kind of asynchronous programming.	Promises
ExplorerCanvas 3 ExplorerCanvas bring HTML5 canvas tag functionalities to Internet Explorer.	Canvas
Flotr2 2.0 Flotr2 is a plotting library to draw HTML5 charts and graph.	Flotr2
Ionic 1.0.0 Ionic is a powerful HTML5 SDK that helps you build native-feeling mobile apps using web technologies like HTML, CSS, and Javascript.	Ionic
JayData 1.3.6 JayData is a standards-based, cross-platform Javascript library	JayData



and a set of practices to access and manipulate data from various online and offline sources.

jQuery Timepicker Addon 1.4.5

[Timepicker](#)

Timepicker extends jQuery UI Datepicker for entering times and timestamps.

jQuery 1.7.2

[jQuery](#)

jQuery is a fast, small, and feature-rich JavaScript library with an easy-to-use API that works across a multitude of browsers.

jQuery BBQ 1.2.1

[BBQ](#)

BBQ is a jQuery plug-in that allows simple, yet powerful bookmarkable #hash history.

jQuery Cookie 1.3.1

[Cookie](#)

A simple, lightweight jQuery plugin for reading, writing and deleting cookies.

jQuery DialogExtend 1.0

[Dialog](#)

A simple, lightweight jQuery plugin for Maximizing and Minimizing Buttons for UI Dialog.

jQuery UI 1.9.2

[UI](#)

jQuery UI is a curated set of user interface interactions, effects, widgets, and themes built on top of the jQuery JavaScript Library.

JsDump 1.0.0

[JsDump](#)

This script library can dump any type of Javascript data (or most), thus, generating a string out of the received information.

JsHashtable 2.1

[JsHashtable](#)

JsHashtable is a standalone implementation of hash table in JavaScript.

ParseURI 1.2.2

[ParseURI](#)

Split URLs in JavaScript.

Respond.js 1.4.0

[Respond](#)

Respond is a fast & lightweight polyfill for min/max-width CSS3 Media Queries (for IE 6-8, and more).

Underscore 1.3.3

[Underscore](#)

Underscore is a utility-belt library for JavaScript that provides a lot of the functional programming support like both the usual functional suspects: map, select, invoke - as well as more specialized helpers: function binding, javascript templating, deep equality testing, and so on.

Underscore String 2.2.0rc

[Underscore](#)

Underscore String is a String manipulation extensions for Underscore.

XRegExp 2.0.0

[XRegExp](#)

XRegExp is an open source JavaScript library that provides augmented and extensible regular expressions.

Webpack 1.8.5

[Webpack](#)

Webpack allows to split your codebase into multiple bundles, which can be loaded on demand.



OLDER RELEASES

OLDER RELEASES

Here you can find the release notes of previous WebRatio BPM Platform releases:

- [WebRatio BPM Platform 8.5 Release Notes](#)
- [WebRatio BPM Platform 8.4 Release Notes](#)

SYSTEM REQUIREMENTS

WebRatio Development Platform

Operating System

- Microsoft Windows Vista or higher, 64 bit
- Linux, 64 bit
- Mac OSX 10.7 (Lion) or higher, 64 bit

Installing WebRatio Development Platform also requires:

- Disk Space: 600 MB
- RAM: 4 GB minimum, suggested is 8 GB

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