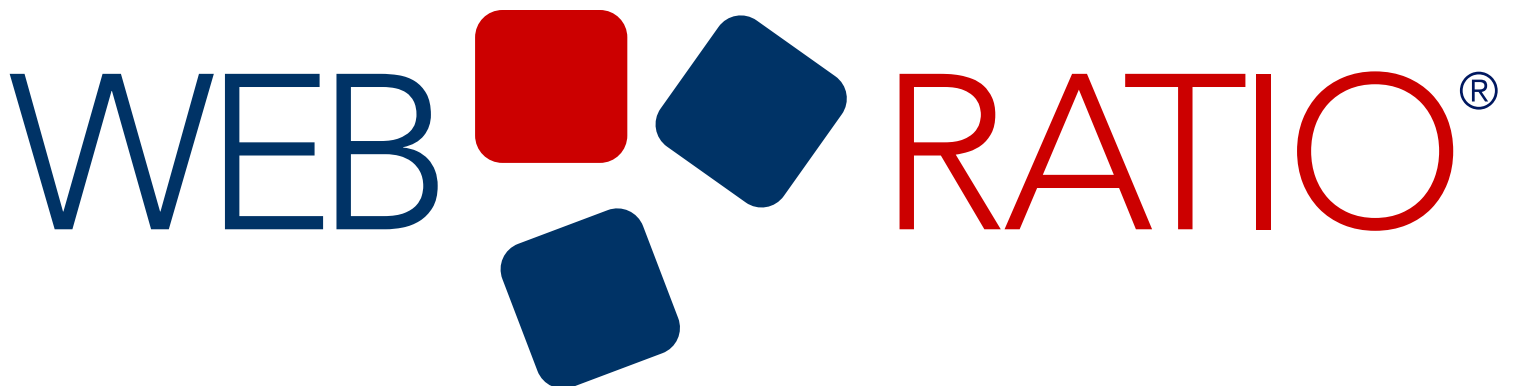
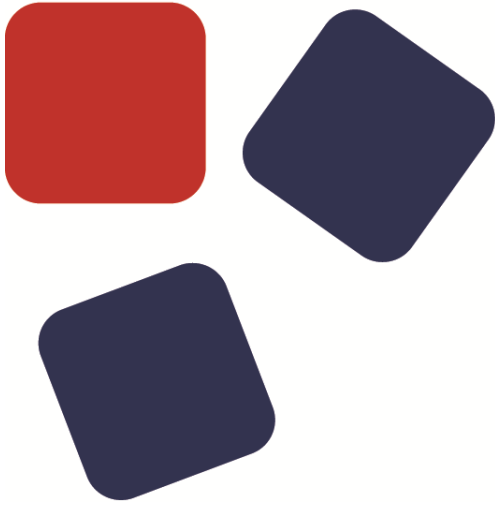


# 8.7 BPM Platform Release Notes





# RELEASE NOTES

WEBRATIO BPM PLATFORM 8.7

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## TABLE OF CONTENTS

Table of Contents.....	3
Introduction .....	4
REST API Improvements.....	5
Process Actions - Suspend and Resume .....	5
Historic Notes and Attachments.....	5
Notes.....	5
Attachments .....	6
Historic Process Diagram .....	6
Admin View Improvements .....	8
Historic Processes section.....	8
Process status management .....	9
Start a process .....	9
New Activation Option - License Server.....	10
Fixed in 8.7.4 .....	12
Fixed in 8.7.2 .....	12
Fixed in 8.7.1 .....	12
Fixed in 8.7.0 .....	12
Third Party Libraries.....	13
Java libraries .....	13
JavaScript libraries.....	21
Older Releases .....	24
System Requirements.....	24
WebRatio Development Platform.....	24
Operating System .....	24

## 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.

## REST API IMPROVEMENTS



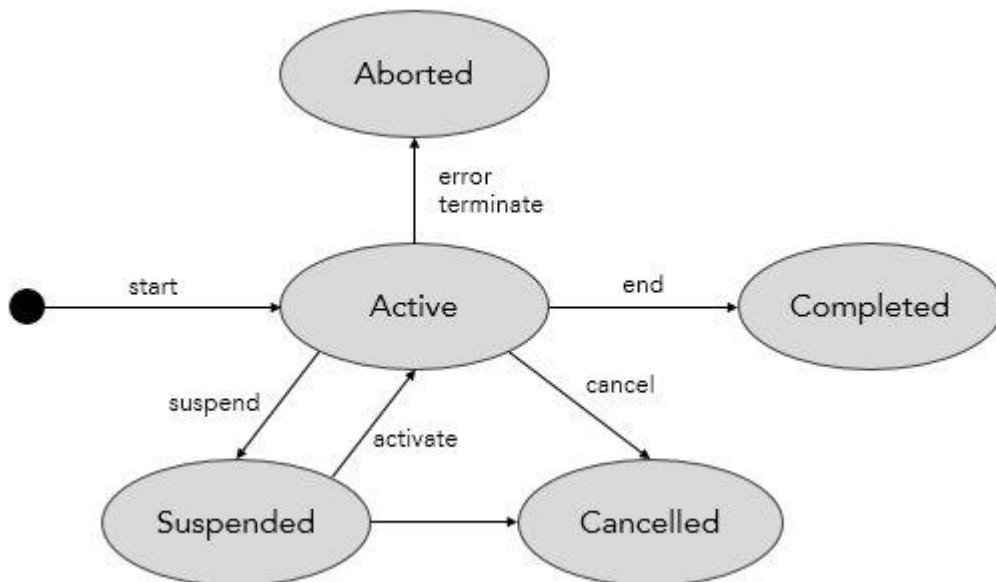
## REST API IMPROVEMENTS

### Process Actions - Suspend and Resume

You can now use the process actions method to suspend and resume a process. You can see a sample request above. The reported image shows the diagram of the available statuses and transitions of a process.

```
POST bpmengine/processes/{process-id}
```

```
{  
  "action": "suspend"  
}
```



### Historic Notes and Attachments

You can now retrieve notes and attachments of completed, cancelled and aborted processes. You can retrieve the notes list and the details of a specific note. The same applies for the attachments. It's possible to retrieve notes both for a process or a task; attachments are available only for processes. Below, you can find the list of the new methods available with a sample response.

#### Notes

```
GET /bpmengine/historic-processes/{process-id}/notes  
GET /bpmengine/historic-processes/{process-id}/notes/{note-id}  
GET /bpmengine/historic-tasks/{tasks-id}/notes  
GET /bpmengine/historic-tasks/{tasks-id}/notes/{note-id}
```

## RELEASE NOTES

```
{
  "data" : [ {
    "oid" : 1,
    "text": "note text",
    "createdAt": null,
    "user": "johndoe"
  } ]
}
```

### Attachments

GET /bpmengine/historic-processes/{process-id}/attachments

GET /bpmengine/historic-processes/{process-id}/attachments/{attachment-id}

The response contains the file identifier that can be used to download the attachment through the File Services.

```
{
  "data" : [ {
    "oid" : 1,
    "name" : "attachment",
    "fileId": "1167421e1e954ec99398b9849f2d5c47",
    "createdAt": null,
    "user": "johndoe"
  } ]
}
```

### Historic Process Diagram

You can now retrieve the BPMN diagram of a specific historic process, given its identifier. You can use the dedicated method. The response contains the file identifier that can be used to download the diagram through the File Services. See below for an example.

GET /historic-processes/{processId}/diagram

```
{
  "diagramId": "1167421e1e954ec99398b9849f2d5c47",
  "data": [
    {
      "oid": null,
      "name": null,
      "status": null,
      "createdAt": null,
      "claimedAt": null,
      "updatedAt": null,
      "user": null,
      "role": null,
      "coords": "648,750,379,435",
      "definition": {
        "id": "4$IC1MYMMV_VBGYG3.IC1QFMMS_QB18BG",
        "code": null,

```



## REST API IMPROVEMENTS

```
    "name": "Review Report",
    "description": "Check the total amount of the expense. Then
choose whether to approve or reject this request.",
    "type": "UserTask",
    "catchingMessages": [],
    "catchingSignals": []
  }
},.....]
}
```



## ADMIN VIEW IMPROVEMENTS

### Historic Processes section

The process administrator can now view the historic processes and their details. A historic process is a process that has been completed, aborted or cancelled. It's also possible to search among historic processes.

Process Info ↻

Name	ExpenseReport # 1
Status	CANCELLED
Created	Jan 21, 2016
Updated	Jan 28, 2016
Active Since	7 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 Parameters Notes Attachments Involved Users Diagram

Name ▲	Type	Status	Created ▲	Updated	User	Role	↻
Confirm Receipts	UserTask	COMPLETED	Jan 22, 2016	Jan 22, 2016	employee	Treasurer	
Edit Report	UserTask	COMPLETED	Jan 21, 2016	Jan 22, 2016	employee	Employee	
Evaluate Expense	ExclusiveGateway	COMPLETED	Jan 22, 2016	Jan 22, 2016			
Evaluate Treasurer Approval	ExclusiveGateway	COMPLETED	Jan 22, 2016	Jan 22, 2016			
New Expense Report	StartEvent	COMPLETED	Jan 21, 2016	Jan 21, 2016	employee	Employee	

« 1 2 »

# ADMIN VIEW IMPROVEMENTS



## Process status management

The process administrator can now change the process status of a specific process, using the dedicated function in the process details page. He can decide to suspend, re-activate or to delete a process.

Process Info	
Name	ExpenseReport # 2
Status	ACTIVE
Created	Jan 21, 2016
Updated	
Active Since	7 days ago

## Start a process

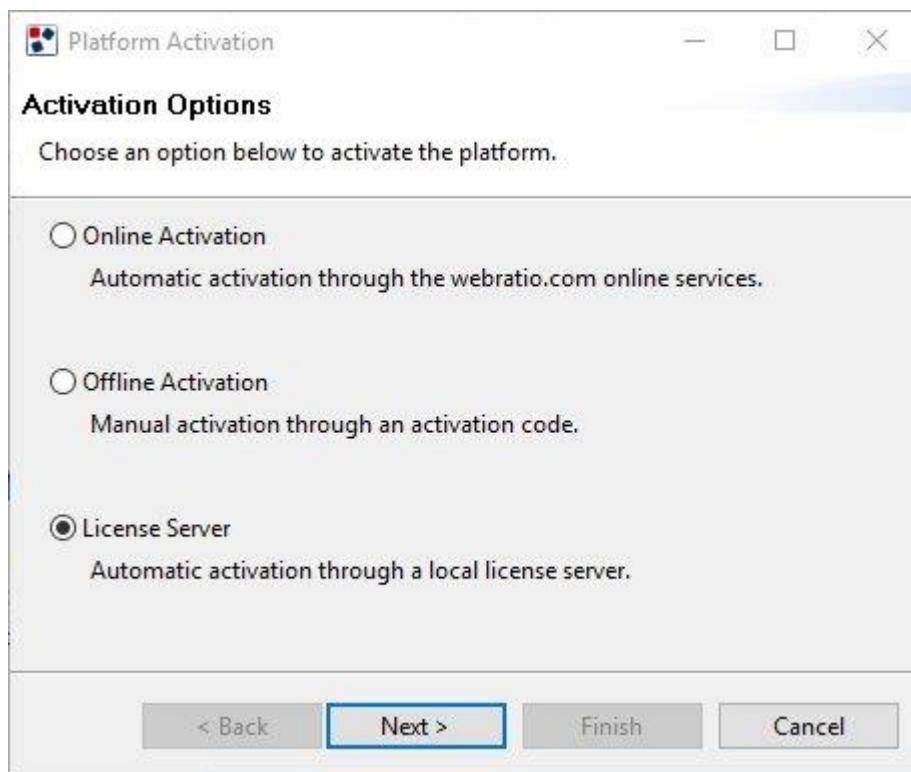
The process administrator can now start a process by choosing one of the deployed process definitions. It's possible to choose a specific start event to begin the process, and it's also possible to set the process parameter values.

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.

## NEW ACTIVATION OPTION - LICENSE SERVER

The WebRatio Mobile Professional Edition can be now activated using the new “license server” option. This activation option uses a local license server containing all the licensing information. The local license server must be installed and configured independently from WebRatio Platform.

When WebRatio starts for the first time, it requires a valid user and serial to activate the license. The next step is to decide which activation option should be used. You will see a dialog like the following:



The activation through the local license server is the third option available. This option requires you to provide the connection URL to the local license server and eventually the proxy settings so that WebRatio Platform can connect to the local license server for the license activation.

# NEW ACTIVATION OPTION - LICENSE SERVER



Platform Activation

## License Server Configuration

Modify the following server configuration

Server

URL:

If you are behind a firewall or use a proxy to access web pages, check your proxy settings below.

Use Proxy:

Proxy Address:

Proxy Port:

Use Proxy Authentication:

Authentication Username:

Authentication Password:

< Back   Next >   Finish   Cancel

### FIXED IN 8.7.4

- Fixed a problem in the Domain Model of a mobile project. Now it is possible to manually map the attributes of the App User when they are based on a class that generalizes the User class in the dataservice project.

### FIXED IN 8.7.2

- Fixed an error of the Find Model Problems option for BPMN projects. Now, the command properly reports an error when a selector component misses the related Data Binding property.
- Fixed the Find Model Problems option of BPMN projects. Now, the command properly reports the error related to the Domain Model.
- Fixed the Find Model Problems option of BPMN project. Now the command properly reports errors related to primary keys not aligned between model and database.

### FIXED IN 8.7.1

- It is now possible to choose a class of the System Model as Data Binding of the Selector Component in an Action Definition of all types except for the "Generic" type.
- A user having the "process administrator" role can now start all the process definitions.

### FIXED IN 8.7.0

- Improved the generation of a business process that has no default schema set in the database node. Now when the process is generated, an error is reported.
- Fixed a problem related to the Library update in the BPM engine that caused a "Class Not Found" error when the REST API is invoked.
- Fixed the runtime behavior of the Email operation. Now when the SMTP server is not properly configured, the Email operation follows the KO Flow modeled in the action definition.



## THIRD PARTY LIBRARIES

## THIRD PARTY LIBRARIES

### Java libraries

Library	Link
<b>ANTLR 2.7.7</b> 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.	<a href="#">ANTLR 2</a>
<b>Apache Commons BeanUtils Core 1.8.3</b> BeanUtils component provides easy-to-use wrappers around the Java language Reflection and Introspection APIs.	<a href="#">BeanUtils</a>
<b>Apache Commons Codec 1.10</b> Apache Commons Codec (TM) software provides implementations of common encoders and decoders such as Base64, Hex, Phonetic and URLs.	<a href="#">Codec</a>
<b>Apache Commons Collections 3.2.1</b> Commons-Collections builds upon the JDK data structures classes by providing new interfaces, implementations and utilities that accelerate development of most significant Java applications.	<a href="#">Collections</a>
<b>Apache Commons DBCP 1.4</b> This Commons package provides Database Connection Pools facilities.	<a href="#">DBCP</a>
<b>Apache Commons Digester 1.8.1</b> 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.	<a href="#">Digester</a>
<b>Apache Commons Exec 1.2</b> Allow to execute the external processes from Java.	<a href="#">Exec</a>
<b>Apache Commons HttpClient 3.1</b> HttpClient provides an efficient, up-to-date, and feature-rich package implementing the client side of the most recent HTTP standards and recommendations.	<a href="#">HttpClient</a>
<b>Apache Commons IO 2.4</b> Commons IO is a library of utilities to assist with developing IO	<a href="#">IO</a>

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functionality.

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**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.

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**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.

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**Apache Cordova 3.6.3**[Cordova](#)

Apache Cordova is an open-source mobile development framework.

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**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.

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**Apache JempBox 1.5.0**[JempBox](#)

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

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<b>Apache POI 3.11</b>	<a href="#">POI</a>
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).	
<b>ASM 3.3.1</b>	<a href="#">ASM</a>
ASM is an all purpose Java bytecode manipulation and analysis framework.	
<b>AWS SDK for Java 1.9.33</b>	<a href="#">AWS SDK</a>
The SDK helps take the complexity out of coding by providing Java APIs for many AWS services.	
<b>Aho-Corasick</b>	<a href="#">Aho-Corasick</a>
Aho-Corasick algorithm is used for finding occurrences of words in text and it is faster than other common algorithms.	
<b>c3p0 0.9.5</b>	<a href="#">c3p0</a>
c3p0 is an easy-to-use library for augmenting traditional JDBC drivers with JNDI-bindable DataSources, including DataSources that implement Connection and Statement Pooling.	
<b>Dom4j 1.6.1</b>	<a href="#">Dom4j</a>
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.	
<b>Ehcache 2.10.0</b>	<a href="#">Ehcache</a>
Ehcache is an open source, standards-based cache that boosts performance, offloads your database, and simplifies scalability.	
<b>FontBox 1.5.0</b>	<a href="#">PDFBox</a>
FontBox is a Java library used to obtain low level information from font files. FontBox is a subproject of PDFBox.	
<b>Groovy 2.4.0</b>	<a href="#">Groovy</a>
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.	
<b>Guava 18.0</b>	<a href="#">Guava</a>
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.	

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<b>H2 1.3.176</b>	<a href="#">H2</a>
H2 is a Java SQL in-memory databases database, very fast, open source, with JDBC API.	
<b>HK2 2.2.0</b>	<a href="#">HK2</a>
HK2 is an implementation of JSR-330 in a JavaSE environment.	
<b>Hibernate 4.2.17</b>	<a href="#">Hibernate</a>
Hibernate is a object relational database persistence API that is the "de facto" standard for persistence in Java.	
<b>iText 2.1.7</b>	<a href="#">iText</a>
iText is an open source library that allows to create and manipulate PDF documents.	
<b>Jackson 1.9.13</b>	<a href="#">Jackson</a>
Jackson is a multi-purpose Java library for processing JSON data format.	
<b>Jackson 2.4.5</b>	<a href="#">Jackson</a>
Jackson is a multi-purpose Java library for processing JSON data format.	
<b>Jakarta Oro 2.0.8</b>	<a href="#">Oro</a>
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.	
<b>Java Annotation API 1.2</b>	<a href="#">Annotation</a>
This JSR will develop annotations for common semantic concepts in the J2SE and J2EE platforms that apply across a variety of individual technologies.	
<b>Java Persistence 2.0 API 1.0.1</b>	<a href="#">Persistence</a>
The Java Persistence API provides a POJO persistence model for object-relational mapping.	
<b>Java Transaction API 1.1</b>	<a href="#">Transaction</a>
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.	
<b>Java Validation API 1.1.0</b>	<a href="#">Validation</a>
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.	

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<b>JavaMail API 1.5.2</b>	<a href="#">Mail</a>
<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>	
<b>Javassist 3.18.2</b>	<a href="#">Javaassist</a>
<p>Javassist (Java programming assistant) is a load-time reflective system for Java. It is a class library for editing bytecodes in Java.</p>	
<b>JAX-RS 2.0</b>	<a href="#">JAX-RS</a>
<p>JAX-RS is a Java programming language API that provides support in creating web services according to the REST architectural pattern.</p>	
<b>JBoss Logging 3.1.4</b>	<a href="#">Logging</a>
<p>JBoss Logging is a "logging bridge" providing integration with numerous logging frameworks.</p>	
<b>Jaxen 1.1.6</b>	<a href="#">Jaxen</a>
<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>	
<b>JCaptcha 1.0</b>	<a href="#">Captcha</a>
<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>	
<b>JCommon 1.0.15</b>	<a href="#">JCommon</a>
<p>JCommon is a Java class library that contains miscellaneous classes for chart displaying.</p>	
<b>JempBox 1.5.0</b>	<a href="#">PDFBox</a>
<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>	
<b>Jersey 2.6</b>	<a href="#">Jersey</a>
<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>	
<b>Jericho HTML Parser 3.3</b>	<a href="#">Jericho</a>
<p>Jericho HTML Parser is a java library allowing analysis and</p>	

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

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

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### **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.

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### **Saxon 6.5.5**

[Saxon](#)

Saxon is a Java XSLT and XQuery Processor.

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### **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.

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### **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.

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### **Standard Taglib 1.2.1**

[Taglib](#)

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

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### **Textmining Extractors 1.0**

[Textmining](#)

Java API to extract Microsoft Word documents.

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### **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

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

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**XMLBeans 2.6.0**

[XMLBeans](#)

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

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**XMLSchema 1.4.7**

[XMLSchema](#)

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

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**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.

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## JavaScript libraries

Library	Link
<b>Angular 1.3.16</b> AngularJS is a toolset for building the framework most suited to your application development.	<a href="#">Angular</a>
<b>Angular UI Router 0.2.13</b> UI Router is the de-facto solution to flexible routing with nested views in AngularJS.	<a href="#">UI Router</a>
<b>Babel Loader 5.0.0</b> Babel Loader allows transpiling JavaScript files using Babel and webpack.	<a href="#">Babel</a>
<b>Big Js 2.5.2</b> Big Js is a small, fast JavaScript library for arbitrary-precision decimal arithmetic.	<a href="#">BigJs</a>
<b>Cldr Js 0.4.1</b> 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.	<a href="#">Cldr</a>
<b>CKeditor 4.3</b> 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.	<a href="#">CKeditor</a>
<b>ES6 Promises 2.2.0</b> Promises are a pattern that helps with one particular kind of asynchronous programming.	<a href="#">Promises</a>
<b>ExplorerCanvas 3</b> ExplorerCanvas bring HTML5 canvas tag functionalities to Internet Explorer.	<a href="#">Canvas</a>
<b>Flotr2 2.0</b> Flotr2 is a plotting library to draw HTML5 charts and graph.	<a href="#">Flotr2</a>
<b>Ionic 1.0.0</b> Ionic is a powerful HTML5 SDK that helps you build native-feeling mobile apps using web technologies like HTML, CSS, and Javascript.	<a href="#">Ionic</a>
<b>JayData 1.3.6</b> JayData is a standards-based, cross-platform Javascript library	<a href="#">JayData</a>

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and a set of practices to access and manipulate data from various online and offline sources.	
<b>jQuery Timepicker Addon 1.4.5</b>	<a href="#">Timepicker</a>
Timepicker extends jQuery UI Datepicker for entering times and timestamps.	
<b>jQuery 1.7.2</b>	<a href="#">jQuery</a>
jQuery is a fast, small, and feature-rich JavaScript library with an easy-to-use API that works across a multitude of browsers.	
<b>jQuery BBQ 1.2.1</b>	<a href="#">BBQ</a>
BBQ is a jQuery plug-in that allows simple, yet powerful bookmarkable #hash history.	
<b>jQuery Cookie 1.3.1</b>	<a href="#">Cookie</a>
A simple, lightweight jQuery plugin for reading, writing and deleting cookies.	
<b>jQuery DialogExtend 1.0</b>	<a href="#">Dialog</a>
A simple, lightweight jQuery plugin for Maximizing and Minimizing Buttons for UI Dialog.	
<b>jQuery UI 1.9.2</b>	<a href="#">UI</a>
jQuery UI is a curated set of user interface interactions, effects, widgets, and themes built on top of the jQuery JavaScript Library.	
<b>JsDump 1.0.0</b>	<a href="#">JSDump</a>
This script library can dump any type of Javascript data (or most), thus, generating a string out of the received information.	
<b>JsHashtable 2.1</b>	<a href="#">JSHashtable</a>
JsHashtable is a standalone implementation of hash table in JavaScript.	
<b>ParseURI 1.2.2</b>	<a href="#">ParseURI</a>
Split URLs in JavaScript.	
<b>Respond.js 1.4.0</b>	<a href="#">Respond</a>
Respond is a fast & lightweight polyfill for min/max-width CSS3 Media Queries (for IE 6-8, and more).	
<b>Underscore 1.3.3</b>	<a href="#">Underscore</a>
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.	

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**Underscore String 2.2.0rc**[Underscore](#)

Underscore String is a String manipulation extensions for Underscore.

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**XRegExp 2.0.0**[XRegExp](#)

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

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**Webpack 1.8.5**[Webpack](#)

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

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## RELEASE NOTES

### OLDER RELEASES

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

- [WebRatio BPM Platform 8.6 Release Notes](#)
- [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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