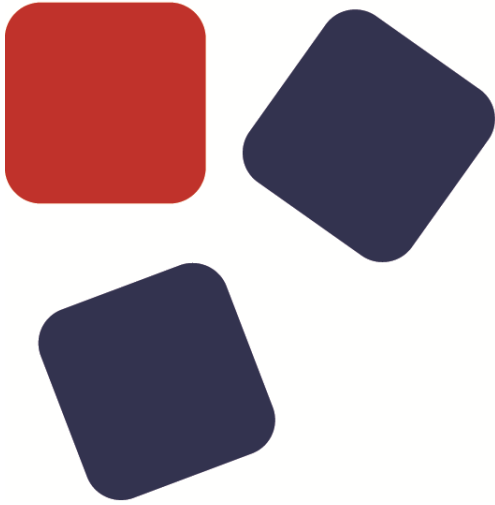




# 8.7 Mobile Platform Release Notes





# RELEASE NOTES

## WEBRATIO MOBILE PLATFORM 8.7

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### INTRODUCTION

WebRatio Mobile Platform is a powerful development environment that supports business users and IT developers in building mobile applications that can be installed on mobile phones and tablets. These mobile applications can work both offline, without the use of an Internet connection, or online, synchronizing the information with an external system, which can also be developed with WebRatio Mobile Platform.

Let's review the main functionalities of this product release.



## CUSTOM SYSTEM EVENTS

### CUSTOM SYSTEM EVENTS

WebRatio gives you the ability to easily extend the features available for your mobile and back-end applications and thus develop your own custom system events. You just have to use the dedicated projects available in WebRatio Mobile.

#### Mobile Custom Events

You can integrate your mobile applications' additional features with the device through the development of a mobile custom event. A system event is triggered when a specific situation happens on the device with the mobile application installed. An example is the Push Notification receive. What you need to have in order to create your system event is a mobile components project to use as a container and a Phone Gap plugin implementing the desired device integration and to listen to a specific event. Then, you need to configure a couple of properties to set how the system events can be used inside the Mobile Project and to write a few lines of JavaScript code to define the event runtime behavior.

The screenshot shows a web browser window with a tab titled 'Network'. Below the tab is a dialog box titled 'General Properties'. Inside the dialog, there is a section 'General Information' with the following fields:

- 10x10 Icon:
- 18x18 Icon:
- Name:
- ID Prefix:
- Name Prefix:
- Label:

At the bottom of the dialog, there is a tabbed interface with the following tabs: 'General' (selected), 'Sub-Elements', 'Native Plugins', 'Documentation', and 'Version'.

## RELEASE NOTES

```
1 /**
2  * Service for catching network.
3  */
4 export default wrm.defineService(wrm.core.AbstractCatcherService, {
5
6   initialize: function(descr) {
7     // TODO initialize the service from descriptor contents
8     // - return a promise (with no value) if doing asynchronous work
9
10    // this._attrValue = descr["model"]["attribute"];
11  },
12
13  subscribe: function(context) {
14    // TODO register a listener on an external service for getting notified
15    // about events; in the listener, call the notify function with an object
16    // containing any applicable information about the event
17    // - return a promise (with no value) if doing asynchronous work
18
19    var notify = context.getNotifierFunction();
20    // someEventGeneratingService.register(function(a, b) {
21    //   notify({
22    //     "info1": a,
23    //     "info2": b
24    //   });
25    // }
26  },
27
28  catchEvent: function(context, event) {
29    // TODO process the incoming event and prepare a result object
30    // containing the outputs to send along the Navigation Flow
31    // - return the object or a promise thereof
32
33    var eventParams = event.getParameters();
34    var output = {};
35    // output["bar"] = process(eventParams["info1"], eventParams["info2"])
36    return output;
37  },
38
39 });
```

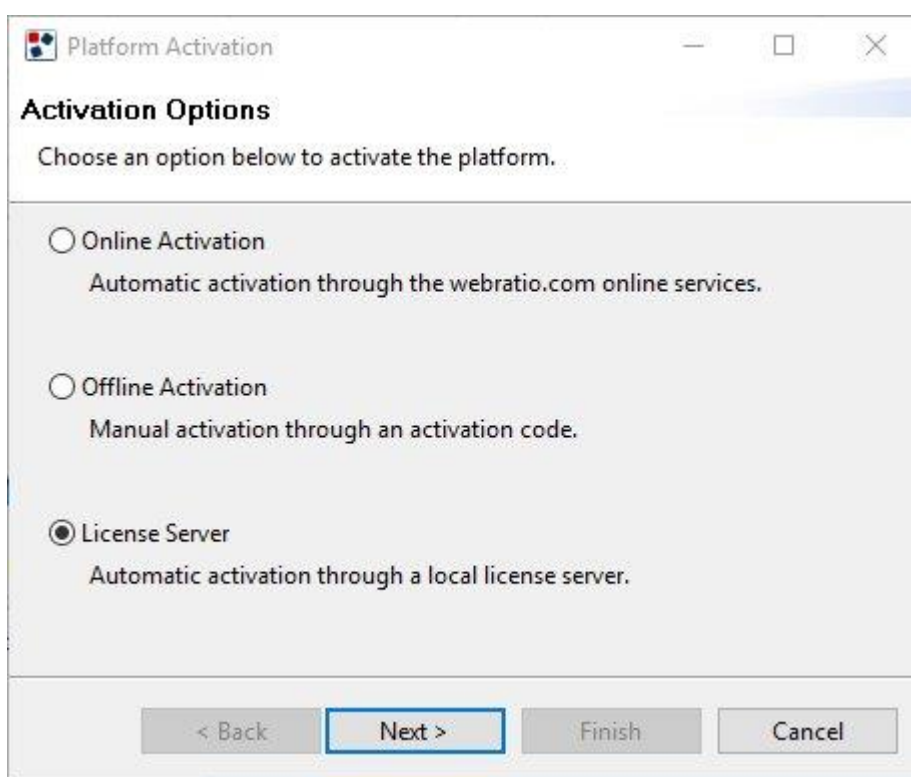


## NEW ACTIVATION OPTION - LICENSE SERVER

## 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 URL connection 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.

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

## USER SERVICES - LOGIN API CHANGE

The User Services - Login method available in the back-end REST API now has a new structure for the request. See below for an example. Mobile applications generated with a previous version of WebRatio Platform still work since the back-end accepts requests with both the new structure and the old one.

```
{
  "username": "string",
  "password": "string",
  "device": {
    "deviceId": "string",
    "notificationDeviceId": "string",
    "model": "string",
    "platform": "string",
    "platformVersion": "string",
    "browser": "string"
  }
}
```



## FIXED IN 8.7.4

### FIXED IN 8.7.4

- Fixed a problem relative to the download of several images on the mobile app that failed to save them correctly in the app's local database.
- Improved the query related to a table in the synchronization process that has more parameters in input for the MySQL Server database.
- Fixed a problem related to Back Event and Submit Event in a mobile project that were not added, respectively, on the Screen and the Form component.
- Improved the query related to an association of one-to-many cardinality during the synchronization process.
- Fixed a problem in the Domain Model of a mobile project. Now it is possible to manually map the attributes of the App User with the User class of the dataservice project.
- Fixed an error of the Find Model Problems option for mobile projects. Now the command does not report the "Invalid referenced Class" error for the "remoteOid" attribute of the App User, when the class is properly mapped.
- 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 8.7.3

- Improved the data service method called with the delta parameter, now the checksum information is reported in the response.
- Fixed an error related to the mapping of an association in Domain Model of mobile projects. Now, the name of the association role in the “Server Association” dialog is correctly shown.
- Fixed a problem in the Domain Model of mobile projects. Now a Class is correctly removed when all item (attributes and class) are selected.
- Fixed a problem in the Domain Model of dataservice projects that lost the User services associations when a non-involved class was removed.
- Fixed an error of the Find Model Problems option for dataservice projects. Now, the command does not report the error when an association is properly set as database view, if a class is mapped over a view, and this association is mapped over the same view.
- Improved the performance of the synchronization algorithm included in a mobile application related to the one to many associations exposed by the classes with cardinality to many.
- Fixed a problem of the performances of the synchronization algorithm included in a mobile application that sometimes prevented the running of the alignment of all associations.
- Fixed an error in the Domain Model of a mobile project. Now, the Server attribute dialog, shows all attributes of the selected sever class when this class generalizes the User class.
- Improved the performance of the synchronization algorithm, included in a mobile application, when the tables have many rows.
- Fixed the Find Model Problems option of dataservice project. Now the command properly reports error related to a wrong mapping of the associations in the Domain Model.
- Fixed a problem of the synchronization algorithm included in a mobile application that caused an error when used the type of the source key for the target key of the association.



## FIXED IN 8.7.2

## FIXED IN 8.7.2

- Fixed an error of the mapping property in mobile projects. Now, the dialog shows the proper list of server association roles and the selected association role is properly set in the mapping property.
- Improved the performances of the synchronization algorithm included in a mobile application. Now, the phase in which all associations are aligned is faster.
- Fixed an error of the Find Model Problems option for mobile 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 data service projects. Now, the command properly reports the error related to the Domain Model.
- Fixed an error of the Find Model Problems option for mobile projects. Now, the command does not report the "Invalid association mapping" error when the association is properly mapped.
- Fixed the Find Model Problems option of data service project. Now, the command properly reports error related to primary keys not aligned between model and database.
- Fixed an error of the Find Model Problems option for mobile projects. Now, the command does not report the "Invalid referenced class" error for the App User class when the class is properly mapped.
- Fixed an error of the mapping property in mobile projects. Now, the dialog properly shows all of the available server attributes related to the selected server class.
- Fixed the read method published with data services. Now, the checksum property is not included anymore in the response when the data service for that class does not have any restriction modeled.
- Fixed a generation error of a mobile project. Now, it is possible to generate it when it is associated with a dataservice project not present in the workspace.

### FIXED IN 8.7.1

- Fixed a problem of the Register service method in the swagger page. Now, the token is not required to execute the service.
- Improved the synchronization process performances of a mobile app with the back end when there are many associations to be aligned.
- Improved the Find Model Problems command of the Mobile project. Now, WebRatio reports a warning when a synchronized class has an attribute with the server attribute property missing.
- Fixed a problem of the PC emulator. Now, the Reset Local Data button works properly and deletes the local database and all other stored local application data.
- Fixed a problem of the update process on a mobile app that prevented retrieval of the data of new columns of the App User class.
- The Console View now reports a message saying that the generation of the mobile project has been completed successfully.

### FIXED IN 8.7.0

- Fixed a problem of the Back event. Now, the mobile application shows the previous screen, positioning the scroll at the same place where it was before leaving that screen.
- Fixed a problem of the Request Response operation in data service projects. Now the tool properly shows the available input parameters only once when two methods have the same name. Previous versions show the same input parameter twice.
- Fixed the Convert To option available in mobile projects. Now, when a view component is converted to another one, the attached events are properly maintained in the Grid of the Layout View.
- Fixed an error in the runtime of the mobile application that in some situations caused the wrong re-computation of the screen content after the back button was used.
- 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.

---

**Apache Derby 10.5.3.0**[Derby](#)

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

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**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.

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## THIRD PARTY LIBRARIES

<b>Apache POI 3.11</b>	<a href="#"><u>POI</u></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="#"><u>ASM</u></a>
ASM is an all purpose Java bytecode manipulation and analysis framework.	
<b>AWS SDK for Java 1.9.33</b>	<a href="#"><u>AWS SDK</u></a>
The SDK helps take the complexity out of coding by providing Java APIs for many AWS services.	
<b>Aho-Corasick</b>	<a href="#"><u>Aho-Corasick</u></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="#"><u>c3p0</u></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="#"><u>Dom4j</u></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="#"><u>Ehcache</u></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="#"><u>PDFBox</u></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="#"><u>Groovy</u></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="#"><u>Guava</u></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.	

<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.	



## THIRD PARTY LIBRARIES

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### JavaMail API 1.5.2

[Mail](#)

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.

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### Javassist 3.18.2

[Javaassist](#)

Javassist (Java programming assistant) is a load-time reflective system for Java. It is a class library for editing bytecodes in Java.

---

### JAX-RS 2.0

[JAX-RS](#)

JAX-RS is a Java programming language API that provides support in creating web services according to the REST architectural pattern.

---

### JBoss Logging 3.1.4

[Logging](#)

JBoss Logging is a "logging bridge" providing integration with numerous logging frameworks.

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### Jaxen 1.1.6

[Jaxen](#)

Jaxen is an open source XPath library written in Java. It is adaptable to many different object models, including DOM, XOM, dom4j, and JDOM.

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### JCaptcha 1.0

[Captcha](#)

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.

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### JCommon 1.0.15

[JCommon](#)

JCommon is a Java class library that contains miscellaneous classes for chart displaying.

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### JempBox 1.5.0

[PDFBox](#)

The Apache JempBox library is an open source Java tool that implements Adobe's XMP(TM) specification. JempBox is a subproject of Apache PDFBox.

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### Jersey 2.6

[Jersey](#)

Jersey provides its own API that extend the JAX-RS toolkit with additional features and utilities to further simplify RESTful service and client development.

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### Jericho HTML Parser 3.3

[Jericho](#)

Jericho HTML Parser is a java library allowing analysis and

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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 LuceneTM 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.

---

### **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

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documents. Is the reference implementation for JSR110 'JWSL' (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>

<hr/> and a set of practices to access and manipulate data from various online and offline sources. <hr/>	
<b>jQuery Timepicker Addon 1.4.5</b>	<a href="#">Timepicker</a>
Timepicker extends jQuery UI Datepicker for entering times and timestamps. <hr/>	
<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. <hr/>	
<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. <hr/>	
<b>jQuery Cookie 1.3.1</b>	<a href="#">Cookie</a>
A simple, lightweight jQuery plugin for reading, writing and deleting cookies. <hr/>	
<b>jQuery DialogExtend 1.0</b>	<a href="#">Dialog</a>
A simple, lightweight jQuery plugin for Maximizing and Minimizing Buttons for UI Dialog. <hr/>	
<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. <hr/>	
<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. <hr/>	
<b>JsHashtable 2.1</b>	<a href="#">JSHashtable</a>
JsHashtable is a standalone implementation of hash table in JavaScript. <hr/>	
<b>ParseURI 1.2.2</b>	<a href="#">ParseURI</a>
Split URLs in JavaScript. <hr/>	
<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). <hr/>	
<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. <hr/>	



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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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### OLDER RELEASES

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

- [WebRatio Mobile Platform 8.6 Release Notes](#)
- [WebRatio Mobile Platform 8.5 Release Notes](#)
- [WebRatio Mobile Platform 8.4 Release Notes](#)
- [WebRatio Mobile Platform 8.3 Release Notes](#)
- [WebRatio Mobile Platform 8.2 Release Notes](#)
- [WebRatio Mobile Platform 8.1 Release Notes](#)
- [WebRatio Mobile Platform 8.0 Release Notes](#)



## SYSTEM REQUIREMENTS

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### 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

#### Java

When running WebRatio Development Platform on a computer you will need the Java Runtime Environment (JRE) 1.7 or higher.

You can download JDKs here:

<http://www.oracle.com/technetwork/java/javase/downloads/index.html>

### WebRatio Generated Server Applications

#### Application Server

When running WebRatio Generated Server Applications on a server you will need a Java Application Server compatible with Servlet 3.0 and JSP 2.2.

#### Java

When running WebRatio Generated Server Applications on a server you will need the Java Runtime Environment (JRE) 1.6 or higher.

You can download JDKs here:

<http://www.oracle.com/technetwork/java/javase/downloads/index.html>

### WebRatio Generated Mobile Applications

The Mobile Apps generated with WebRatio Mobile Platform are compatible with:

- Android 4.0.3 or higher
- iOS 7 or higher

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