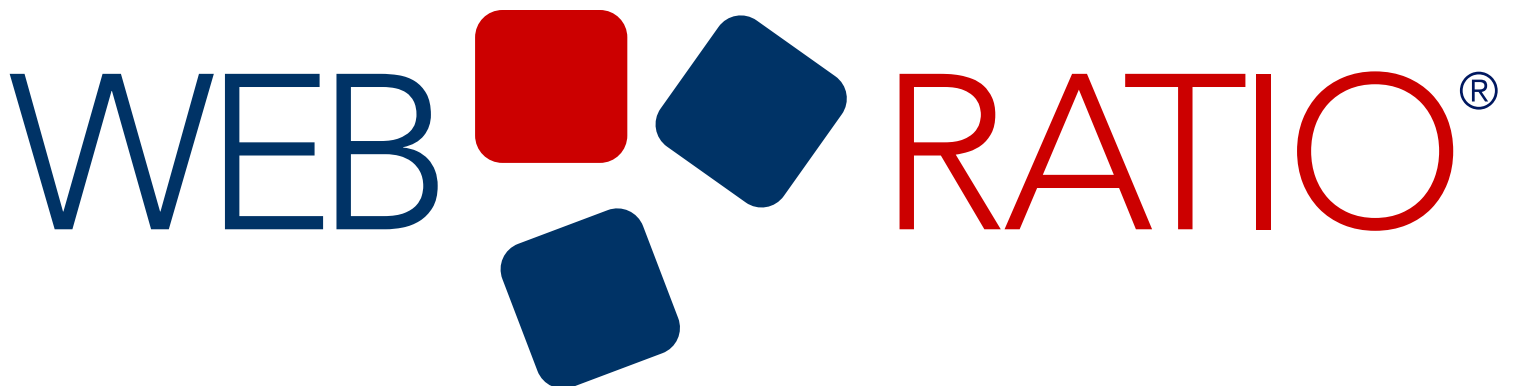
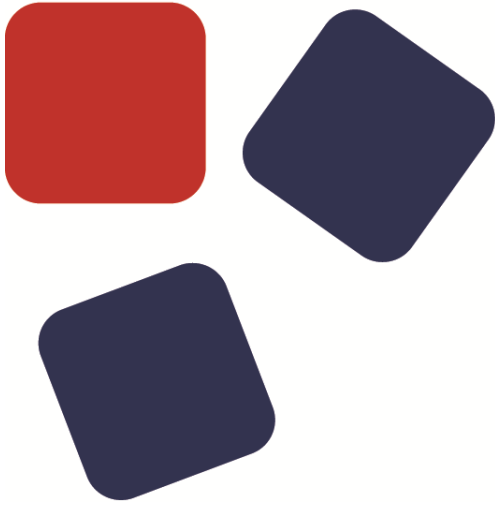


8.6 Mobile Platform Release Notes





RELEASE NOTES

WEBRATIO MOBILE PLATFORM 8.6

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RELEASE NOTES

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.



ASSISTED MOBILE APPLICATION UPDATE

ASSISTED MOBILE APPLICATION UPDATE

Mobile applications generated with WebRatio Mobile Platform are now able to react to the installation of a new version of the application. When a new version of the application is installed, the current application exchanges information with the back-end server to align local data. Then the application takes care of all changes in terms of data structure, updating it to the latest version; the application is also able to retrieve all data needed to let the user start immediately using the newer version. This feature is automatically included in all mobile applications built with this WebRatio version.

BUILD YOUR APP FOR SPECIFIC DEVICES

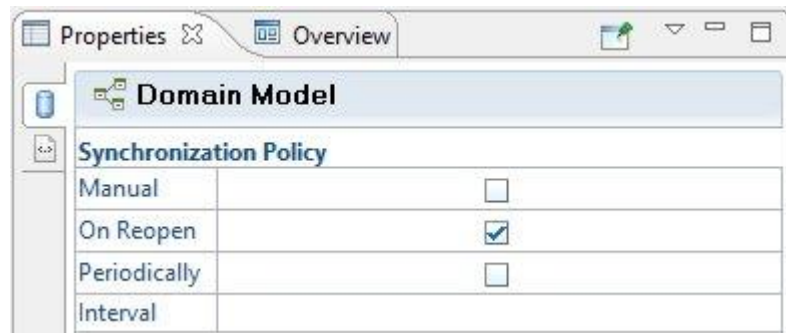
You can now build a mobile project by specifying what the target device(s) is(are). You just have to select between "Phone" and "Tablet" in the Android Build Configuration dialog and between "iPhone" and "iPad" in the iOS Build Configuration dialog. WebRatio uses this information to create the application package so that it can be installed only on the targeted devices.

The image shows two screenshots of build configuration dialogs. The top screenshot is for Android, with the label "Target Devices:" and two options: "Phone" (checked) and "Tablet" (unchecked). The bottom screenshot is for iOS, with the label "Target Devices:" and two options: "iPhone" (checked) and "iPad" (unchecked).

SYNCHRONIZATION POLICIES IMPROVEMENTS

The available synchronization policies have changed to let the user be more flexible in the configuration. Each class is synchronized when the user starts up the mobile application for the first time after an installation or an update. The user login with a new profile is also considered a first startup. This is a **built-in policy** that cannot be configured in the model of the mobile application and involves all the classes referencing the back-end. The synchronization triggered by first startup is executed in a synchronous way. This means that the user must wait until the end of the synchronization before being able to navigate the application.

Other configuration options are shown in the following image.



Manual

This policy states that the class is **not** synchronized using the smart synchronization algorithm. This means that the modeler takes care of the data belonging to this class by modeling a set of actions that are able to retrieve, create, update and delete remote information.

On Reopen

This policy ensures that the class is synchronized every time the user brings the application to the foreground or starts up the mobile application (except for the start-up after installation or an update). It's possible to set the minimum interval between two synchronizations triggered by the reopen event by setting the "Interval" property. The synchronization triggered by the reopen event is executed in an asynchronous way. This means that the user interaction is not affected by the synchronization.

Periodically

This policy ensures that the class is synchronized at regular intervals. It's possible to set the desired interval by setting the "Interval" property. This kind

SYNCHRONIZATION POLICIES IMPROVEMENTS



of synchronization is executed in an asynchronous way. This means that the user experience is not affected by the synchronization.

DATA SERVICE API WEB REPRESENTATION

Data Service projects publish a set of REST Web services that can be used by mobile applications to synchronize. In this release, WebRatio Mobile Platform provides, a Web representation of the API, generated by Swagger, that is published on the dedicated URL (<http://<host>:<port>/swagger>). Using this Web interface, you can try the Web services execution directly from your Web browser.

Acme Backend API

This is the Web representation of the Acme Backend API.

Data Services		Show/Hide	List Operations	Expand Operations
DELETE	/data/Company/{objectId}			
GET	/data/Company/{objectId}			
PUT	/data/Company/{objectId}			
POST	/data/Company			
File Services		Show/Hide	List Operations	Expand Operations
GET	/files/download/{fileId}			
POST	/files/upload/{fileId}			
User Services		Show/Hide	List Operations	Expand Operations
POST	/users/register			
POST	/users/login			

[BASE URL: /AcmeBackend , API VERSION: 1.0.0]



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.

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": "Allair",
      "price": 3200,
      "description": 3200
    }
  ],
  "timestamp": "2015-12-18T14:15:00.687Z",
  "checksum": 0,
  "deletedObjectIds": [ 0 ],
  "filter": "name eq 'Allair'",
  "pageSize": 10,
  "page": 1,
  "sort": ["-updatedAt", "-createdAt"],
  "totalCount": 100
}
```

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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": "Allair",
      "price": 3200,
      "description": 3200
    }
  ],
  "timestamp": "2015-12-18T14:15:00.687Z",
  "checksum": 0,
  "deletedObjectIds": [ 0 ],
  "filter": "name eq 'Allair'",
  "pageSize": 10,
  "page": 1,
  "sort": ["-updatedAt", "-createdAt"],
  "totalCount": 100
}
```



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 here find the documentation.

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

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

```
{
  "data": [
    {
      "oid": 1,
      "name": "Allair",
      "price": 3200,
      "description": 3200
    }
  ],
  "timestamp": "2015-12-18T14:15:00.687Z",
  "checksum": 0,
  "deletedObjectIds": [ 0 ],
  "filter": "name eq 'Allair'",
  "pageSize": 10,
  "page": 1,
  "sort": ["-updatedAt", "-createdAt"],
  "totalCount": 100
}
```

MOVING FROM VERSION 8.5

This section aims to help you to migrate your project from version 8.5 to version 8.6. You must read this section if you have a custom backend synchronization on your projects. You should change your custom synchronization model, if any, by following these guidelines:

- It is need to enable the new property `On Reopen`, if the previous behavior was desired, so that it disables periodic synchronization in favor of the subsequent launches, subsequent accesses and resume.

You must read this section if you have a custom localization on your projects. With the introduction of new localized messages related to user experience with the update app, it is need to check the following keys, if any, in the localization dialog:

- `dialog.button.Cancel`
- `dialog.button.Reset`
- `loginDialog.title`
- `update.loginDialog.message`
- `update.resetDialog.message`
- `update.networkDialog.message`
- `notification.updateError`
- `notification.updateProgress`



MOVING FROM VERSION 8.5

You must read this section if you have a custom component project in your workspace. You should change your custom component service, if you have one, by following these guidelines:

- Update the code for the custom components that use the **synchronize** method of the service *DataSyncService*:

OLD CODE

```
dataSyncService.synchronize(entity, token, state)
```

NEW CODE

```
dataSyncService.synchronhize({  
  entities: [entity],  
  token: token  
}, state)
```

- Change the **select** and **selectOne** methods of the Data Service (*dataService.execute*):
 - For the option **filter** you need to pass directly any object expression that was passed to **prepareCondition**
 - Remove the "include" option
 - It is necessary to add the new **outputConfig: { useNames: true }** option

OLD CODE

```
dataService.execute(function(d) {  
  return d.select("cls1", {  
    include: "role1",  
    output: ["att1"],  
    filter: dataService.prepareCondition("cls1",  
    expressionObject)  
  });  
});
```

NEW CODE

```
dataService.execute(function(d) {  
  return d.select("cls1", {  
    output: ["att1", "role1.att2"],  
    outputConfig: { useNames: true },  
    filter: expressionObject  
  });  
});
```

FIXED IN 8.6.3

- Fixed a problem of iOS apps that was refused from the Apple Store because they stored a few MBs of data in the local database that should not be considered.
- Fixed a problem of the update of an entity that caused an error when had a derived attribute with an entity not synchronized.
- Fixed a problem of the build process that prevented the resulting APK package to be properly installed on an Android device. The issue was related to the presence of a QRCode view component or operation in the mobile project.
- Fixed a problem of the Request Response operation in a dataservice project. Now the operation associated to a WSDL that contains two methods having the same name, shows correctly the different parameters.
- Fixed a problem of the Domain Model in a Mobile Project. Now when you add a Class to the Domain Model, the synchronization policy is left empty in order to inherit properties from the ancestor elements, if any.
- Improved the migration algorithm for the synchronization properties in a mobile project. Now if the synchronization policy is set on the entire Domain Model, the migration properly transform these settings in the new ones and apply them only to the Domain Model element and not on each Class of the Domain Model.
- Improved the support of HTTP(S) proxy and SOCKS proxy required by the mobile build process.
- The created page to download the app build is now the same for the Android and iOS device.
- Fixed a problem of the Find Model Problem command. Now the "Invalid value of the layout parameter" error is not reported anymore. The fake error was due to a layout parameter of a mobile project that has a value containing a special character (e.g. &).



FIXED IN 8.6.2

FIXED IN 8.6.2

- Fixed a problem of the app that caused the screen to be wrongly refreshed losing content when the app in background was reopened.
- Fixed a problem of the Send Notification operation that returned an error when it tries to send a notification to a device that does not longer have the app installed. Now the operation ends successfully and writes in the log that the notification was not sent to a specific device.
- Improved the performances of the synchronization algorithm so that now a login with a different user is faster.
- Fixed the app update process behavior that did not work properly when the older version of the app was built with WebRatio Mobile Platform 8.5.

FIXED IN 8.6.1

- Fixed the layout for the camera emulator on PC. Now the “Cancel” button is entirely visible on the screen.
- Fixed the wadl published for data service projects. Now BLOB attributes are correctly reported as string in the wadl, since the Web service gives back the file identifier.

FIXED IN 8.6.0

- Fixed a problem with a validation error in the form of a mobile app that had not been updated correctly.
- Fractional numbers are now stored with the correct precision in the local database of the mobile application.
- Fixed a problem in a mobile projects containing a 1:1 association between classes in the Domain Model that caused a synchronization error on the generated mobile application.
- Fixed a problem in a mobile project containing an association that has one role mapped on a back-end server. Now the synchronization works properly, handling the association using the proper REST API service.

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 Mobile Platform releases:

- [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

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.

RELEASE NOTES

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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