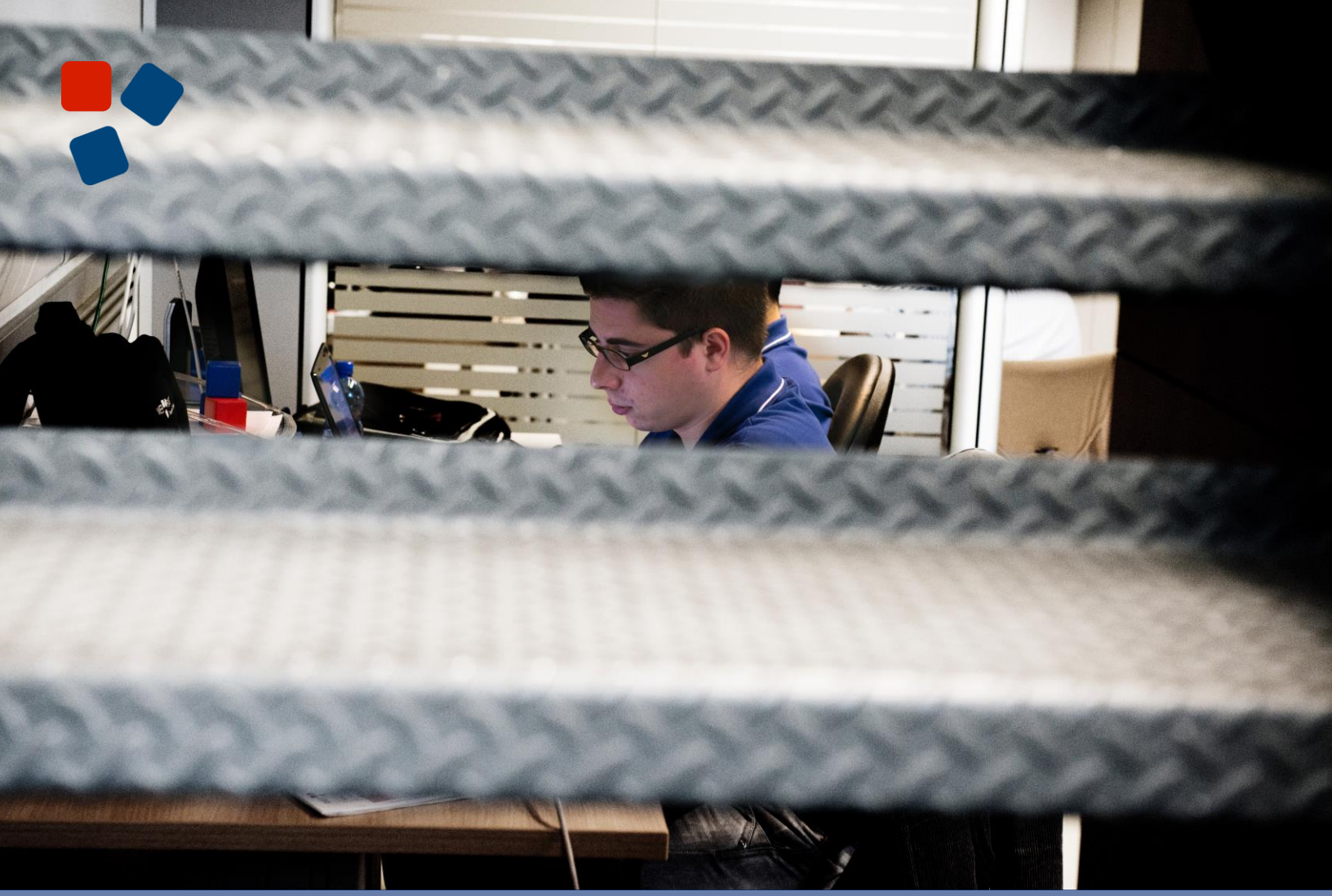
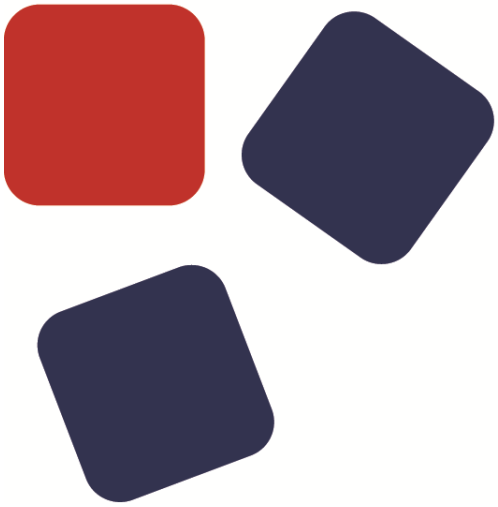


8.9 Mobile Platform Release Notes

WEB RATIO®



RELEASE NOTES

WEBRATIO MOBILE PLATFORM 8.9

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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.

IMPORTANT NOTICE

WebRatio is upgrading the online cloud builder that lets you build your Mobile Projects to Apache Cordova/PhoneGap 7. Mobile applications built from WebRatio 8.9.X uses a dedicated online cloud builder having Apache Cordova/PhoneGap 6. This version will stop working on July 31, 2018. Please update WebRatio Mobile Platform to the latest available release and check the release notes.

APACHE CORDOVA/PHONEGAP 6

Mobile applications generated with WebRatio 8.9 are based on Apache Cordova/PhoneGap 6. This upgrade solves all the security issues that affected Apache Cordova 4.1.1 or previous releases. More information about Apache Cordova and related security issues is available here: https://support.google.com/faqs/answer/6325474.

WARNING. Google Play is going to block the publishing of new mobile applications or updates that use pre-4.1.1 versions of Apache Cordova starting July 11, 2016.

Apache Cordova/PhoneGap 6 also changes the System Requirements needed for generated mobile applications. See the related section for further information.

MOVING FROM VERSION 8.8

This section aims to help you to migrate your project from version 8.8 to version 8.9. You must read this section if you have a custom mobile style project or a custom mobile components project in your workspace. Moreover, your projects must include the usage of Native Plugins.

You should review the Native Plugin list included in your projects, due to the update of Apache Cordova to version 6.2. If you are using a Native Plugin included in WebRatio, please check that the reference is still valid. If not, please update it, selecting the plugin again from the provided list. If you are using a Native Plugin which is not included in WebRatio, please download a new version of this plugin, checking that it is compliant with Apache Cordova 6.2.

You must read this section if you have a custom mobile style project in your workspace. You may have to change your custom templates and any JavaScript files included in the styles (also the extensions of Angular), by following these official migration notes:

- Migration from 1.3 to 1.4
- Migration from 1.4 to 1.5

MOVING FROM VERSION 8.9.5

This section aims to help you to migrate your project from version 8.9.5 to version 8.9.6. You must read this section if you have a mobile components project or a mobile style project in your workspace that uses or depends on the com.webratio.androidsupport Native Plugin, which is no longer available in the WebRatio installation folder.

- You must replace the eventual third party native plugin with the original version. Changes you may have made so that Android build work are no longer needed.
- You must remove any explicit references to the com.webratio.androidsupport Native Plugin.

MOVING FROM 8.9.6

This section aims to help you to migrate your project from version 8.9.6 to version 8.9.7. You must read this section if you have a custom mobile style project in your workspace. You should change your custom CSS files, if any, by following these guidelines:

- Remove the CSS classes created to decorate the background of the app before it was covered by the first screen because now the first screen of the app will no longer appear with an incoming animation from right to left.
- If you want to restore the animation, you can do so by copying the styles of the *wr-view-switch-enter* class in the *wr-view-switch-none* class; this procedure should be done for all combinations in which the *wr-view-switch-enter* class is used (for example as in "app.css" file of the MobileDefault style).
- The following CSS classes related to the animation of the splash screen are no longer available: *loading-wrapper*, *loading-spin*, *loading-message*. If you have used these custom classes, remove the related code.

FIXED IN 8.9.9

- Fixed the Find Model Problem option that could cause a java heap space error in some situations.
- Solved an issue related to the push notification tested with the Mobile Developer app that caused a mismatch error of the Sender Id parameter on Android devices.
- Fixed the synchronization algorithm so that the application does not get blocked when the device's storage memory is full. The user now sees an error message that warns about this situation.
- Fixed an issue that prevented the usage of the PBKDF2WithHmacSHA1 algorithm to encrypt passwords in the DataService project.
- Fixed an issue that made impossible to access GitHub from WebRatio Platform. This fix requires WebRatio Platform to work only with JDK 8.

FIXED IN 8.9.8

- Fixed a runtime behavior of the DataService Project that caused an error when you try to execute a data service call, if you configure cache on the Data Services node.
- Fixed a problem related to the JSON I/O Operation in "Export" mode. Now the operation returns a json with a correct value for derived attributes.
- Fixed a runtime behavior of the Bottom Bar in a Mobile App that caused the unexpected disappear of the bar when you rapidly clicked on a field of a form and then on the white background outside the field for more times.
- Fixed a problem related to the wrong update operation performed on Classes exposed by the Data Service in Read only mode. In this scenario the sync process does not try to perform the update action of the outgoing data from device to Data Service now.
- Fixed an error related to the publication of the "Update" service for the User Services. Now in the response service the "oid" and the "token" attributes are not shown.
- Fixed a runtime behavior of a mobile application. Now the options of the selection field of a form are correctly shown when you emulate the mobile app with a device or you build the mobile app.
- Fixed an error related to missing dependencies of libraries defined in the Data Service project on the startup of WildFly 9. The deploy of the war file is completed with success now.
- Fixed a runtime error related to the visualization of the Map View Component in a mobile app. Now the map is correctly shown when you exit and then quickly re-enter in the screen that containing it.
- Improved the execution of query related to the 1 to N associations exposed by the Data Service.
- Fixed an error related to the publication of User Services. Now if you select in the "Attributes" property of the User Services only some attributes, the service genereted shows correctly only the selected attributes with the "username" attribute.

FIXED IN 8.9.7

- Fixed an error related to the user services published from a data service project. Now, the service properly returns a NULL value when a BLOB attribute published by the service is empty.
- Fixed an error related to the Domain Model of a data service project that caused a generation error when on an attribute of a class is set a value in the "Fixed Char Length" property present in the "Mapping" tab in its Properties View.
- Fixed a problem related to the data service project that wrongly used cached data when a BLOB attribute of a class is retrieved using the file service.
- Fixed an error related to the "files/download" service. Now, the service properly returns a 404 HTTP status code when the requested file is not present at the referenced path on the server.
- Improved the "Find References" command. Now, it's possible to correctly find screens in which a specific role is set as access right.
- Fixed the swagger section related to a modeled REST web service. Now, the "Authorization" field is reported when the web service is set as "protected".
- Fixed a runtime problem with the mobile application. Now, the first screen seen by the user is no longer refreshed twice when the synchronization is running underground.
- Fixed a problem related to the delete service of a class published from the data service project. Now, the service prevents the deletion of an object if it is not visible to the user requiring the operation. Visibilities are set modeling restrictions on the service class.
- In the "Build Configuration" dialog of the mobile project, the "Variables.." option is now available. There is a button next to the "Keystore File" property to use a variable specified in the project to refer to the full path of the local workspaces.
- Fixed a problem related to the variable used in the "Output Path" property to deploy a data service project that prevents generation of the project in the correct folder when the variable does not exist or has a blank value.

FIXED IN 8.9.6

- Fixed a problem with the Update operation used in mobile projects. The operation now properly updates all selected items with corresponding new data as long as the "bulk" property is enabled.
- Fixed a problem related to the Android build of a mobile app when certain third-party plugins were used. The com.webratio.androidsupport plugin is no longer available in WebRatio, so all third-party plugins that depend on the Android Framework are properly included in the build. For further information, please see "Moving from WebRatio 8.9.5".
- Fixed a problem related to the Map Component in a mobile app on Android devices. Now, multiple markers are correctly shown in the map.
- Fixed a problem related to a published Class in a data service project; this problem prevented users from selecting an association by opening the dialog related to the "Associations" property.
- Fixed the generation of mobile projects. Now, all generation errors are properly reported in the Generation View instead of only being reported in the Console View.
- Fixed a problem related to the splash screen for an Android device that caused its deformation, despite the creation of all splash screens to meet the various resolutions.
- Fixed the "handshake failure" problem related to the Restful Request Response used in mobile projects to call a web service with a SSL protocol. A new property "SSL protocol" is available to specify secure connections.
- Fixed the behavior of the mobile application when an updated of App User must be performed. Now the update operation also saves changes of the eventual blob attributes added to the App User.
- Fixed a problem related to a decimal attribute used as Sort Attribute or as Attribute Condition on a List component. The comparison has been fixed to ensure that sorting and conditions work as expected.

FIXED IN 8.9.5

- Improved the algorithm used by the mobile app for storing synchronized data to speed up this process.
  The mobile application performance has improved thanks to this fix; moreover, the memory has been lowered.
- The synchronization algorithm had a memory leak that caused the mobile app to be unexpectedly closed by an iOS device when too much memory was used.
  The mobile application performances has improved thanks to this fix; moreover, the memory usage has been lowered on all devices.
- Fixed a problem related to the Debug build for Android devices. Now, if you specify the certificates for the Debug build in its configurations, you can properly debug the mobile app.
- The layout showing blob attributes has been improved. Now, the button for opening the document is enabled only if the file has been properly downloaded.
  If the file is not available or its download is in progress, the button is disabled; users now have an icon that indicates file status.

FIXED IN 8.9.4

- Improved the database connections by increasing the default connection time.
- Fixed the Find Model Problems option of data service project. Now the command properly reports errors related to a wrong configuration of the Collection Validation Rule.
- Fixed an error of the Find Model Problems option for mobile projects. Now the command does not report the fake error when both address and latitudes/longitudes are bound on different flows for the Map component.
- Fixed the Find Model Problems option for mobile projects. Now the command properly reports errors when two attributes of the same class have the same name (ignores case).
- Fixed the code of the sample template presented for the Hierarchy Component when you create a new template for it.
- Fixed an error of a mobile app built for iOS that caused a block on the application. Now the mobile app shows a popup with a message when the user login is not successful due to the unavailability of the backend application.
- Improved the mobile application performances. Now the management of the connections to the local database are properly opened and closed whenever it is necessary.
- Improved the build process of the mobile app. Now the build process is automatically interrupted when an error occurs during the generation of the app.
- Improved the build process of the mobile app. Now the Generation Error View shows all errors that occur during the generation of the app as they happen using the Generate and Run command.

FIXED IN 8.9.3

- Fixed an error related to the Map component that reported errors in console when the mobile app was emulated on the PC.
- Fixed a problem in the PC Emulator when displaying a dialog box that caused the block of the tool without showing a dialog and caused the console crashed.
- Fixed a problem related to the push notifications in the mobile app. Now if there are two or more notification events, the receiving of the push notifications works properly.
- Fixed a problem related to the synchronization process that caused its interruption with several errors in console when the server cannot collect all objects due to a Java heap space error.

FIXED IN 8.9.2

- Fixed a problem of the Restful Request Response component that did not recognize characters with a diaeresis correctly when the content encoding charset was not provided.
- Fixed the Find Model Problems option for mobile projects. Now the command properly reports errors when the Data Services Schema is wrong.
- Improved the Login & Home pattern added in mobile projects. Now, the event placed on the Form component is an OnSubmit event, in order to have the device keyboard show the submit button.
- Fixed an error related to a singleton class in mobile projects. Now, when an association is added on a singleton class, the "1" cardinality is automatically set on the side of this class.
- Fixed the Find Model Problems option for mobile projects. Now the command properly reports errors related to the lack of the Login screen when some classes are mapped with the backed and the base URL is filled.
- Fixed a problem of the List component that prevented the "Distinct" property set on the component from working properly.
- Fixed an error related to a response of the backend that mistakenly returned "200 OK" instead "404" when the URL called with the Response Request Response operation does not exist.

FIXED IN 8.9.1

- The Angular JS has been upgraded to version 1.5.5, which contains lots of bug fixes and performance improvements and will enable the use of the newer Ionic 1.1.x, with similar benefits.

FIXED IN 8.9.0

- Fixed a runtime problem of the mobile application that caused a delay between the synchronization end and the screen computation.
- Fixed a problem of the mobile application that caused content not to be rendered in the screen in some situations.
- Fixed the runtime behavior of the Read service so that now special characters are correctly included in the response even when the service retrieves more than 1000 records.
- Fixed a runtime problem of the mobile application that prevented the propagation from working properly when navigating a link that remains in the same screen with additional content.
- Fixed the synchronization algorithm that prevented a new object from being properly sent to the back-end when it was updated immediately after its creation.

THIRD PARTY LIBRARIES

Java libraries

Library	Link
ANTLR 2.7.7 ANTL is a language tool that provides a framework for constructing recognizers, compilers, and translators from grammatical descriptions containing Java, C#, C++, or Python actions.	ANTLR 2
Apache Commons BeanUtils Core 1.8.3 BeanUtils component provides easy-to-use wrappers around the Java language Reflection and Introspection APIs.	BeanUtils
Apache Commons Codec 1.10 Apache Commons Codec (TM) software provides implementations of common encoders and decoders such as Base64, Hex, Phonetic and URLs.	Codec
Apache Commons Collections 3.2.1 Commons-Collections builds upon the JDK data structures classes by providing new interfaces, implementations and utilities that accelerate development of most significant Java applications.	Collections
Apache Commons DBCP 1.4 This Commons package provides Database Connection Pools facilities.	DBCP
Apache Commons Digester 1.8.1 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.	Digester
Apache Commons Exec 1.2 Allow to execute the external processes from Java.	Exec
Apache Commons HttpClient 4 HttpClient provides an efficient, up-to-date, and feature-rich package implementing the client side of the most recent HTTP standards and recommendations.	HttpClient
Apache Commons IO 2.4 Commons IO is a library of utilities to assist with developing IO functionality.	IO
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 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.	Logging
Apache Commons Net 3.3 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.	Net
Apache Commons Pool 1.6 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.	Pool
Apache Cordova 6.1.1 Apache Cordova is an open-source mobile development framework.	Cordova
Apache Derby 10.5.3.0 Apache Derby is an open source relational database implemented entirely in Java.	Derby
Apache FontBox 1.5.0 Apache FontBox library is an open source Java tool to obtain low level information from font files.	FontBox
Apache HttpComponents 4.3.6 Apache HttpComponents project is responsible for creating and maintaining a toolset of low level Java components focused on HTTP and associated protocols.	HttpComponents
Apache JempBox 1.5.0 JempBox is an open source Java library that implements Adobe's XMP(TM) specification.	JempBox
Apache POI 3.11 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).	POI

ASM 3.3.1 ASM is an all purpose Java bytecode manipulation and analysis framework.	ASM
AWS SDK for Java 1.9.33 The SDK helps take the complexity out of coding by providing Java APIs for many AWS services.	AWS SDK
Aho-Corasick Aho-Corasick algorithm is used for finding occurences of words in text and it is faster than other common algorithms.	Aho-Corasick
c3p0 0.9.5 c3p0 is an easy-to-use library for augmenting traditional JDBC drivers with JNDI-bindable DataSources, including DataSources that implement Connection and Statement Pooling.	c3p0
Dom4j 1.6.1 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.	Dom4j
Ehcache 2.10.0 Ehcache is an open source, standards-based cache that boosts performance, offloads your database, and simplifies scalability.	Ehcache
FontBox 1.5.0 FontBox is a Java library used to obtain low level information from font files. FontBox is a subproject of PDFBox.	PDFBox
Groovy 2.4.0 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.	Groovy
Guava 18.0 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.	Guava
H2 1.3.176 H2 is a Java SQL in-memory databases database, very fast, open source, with JDBC API.	H2
HK2 2.2.0 HK2 is an implementation of JSR-330 in a JavaSE environment.	HK2

Hibernate 4.2.17 Hibernate is an object relational database persistence API that is the "de facto" standard for persistence in Java.	Hibernate
iText 2.1.7 iText is an open source library that allows to create and manipulate PDF documents.	iText
Jackson 1.9.13 Jackson is a multi-purpose Java library for processing JSON data format.	Jackson
Jackson 2.4.5 Jackson is a multi-purpose Java library for processing JSON data format.	Jackson
Jakarta Oro 2.0.8 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.	Oro
Java Annotation API 1.2 This JSR will develop annotations for common semantic concepts in the J2SE and J2EE platforms that apply across a variety of individual technologies.	Annotation
Java Persistence 2.0 API 1.0.1 The Java Persistence API provides a POJO persistence model for object-relational mapping.	Persistence
Java Transaction API 1.1 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.	Transaction
Java Validation API 1.1.0 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.	Validation
JavaMail API 1.5.2 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	Mail

protocols.	
Javassist 3.18.2 Javassist (Java programming assistant) is a load-time reflective system for Java. It is a class library for editing bytecodes in Java.	Javaassist
JAX-RS 2.0 JAX-RS is a Java programming language API that provides support in creating web services according to the REST architectural pattern.	JAX-RS
JBoss Logging 3.1.4 JBoss Logging is a "logging bridge" providing integration with numerous logging frameworks.	Logging
Jaxen 1.1.6 Jaxen is an open source XPath library written in Java. It is adaptable to many different object models, including DOM, XOM, dom4j, and JDOM.	Jaxen
JCaptcha 1.0 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.	Captcha
JCommon 1.0.15 JCommon is a Java class library that contains miscellaneous classes for chart displaying.	JCommon
JempBox 1.5.0 The Apache JempBox library is an open source Java tool that implements Adobe's XMP(TM) specification. JempBox is a subproject of Apache PDFBox.	PDFBox
Jersey 2.6 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.	Jersey
Jericho HTML Parser 3.3 Jericho HTML Parser is a java library allowing analysis and manipulation of parts of an HTML document, including server-side tags, while reproducing verbatim any unrecognised or invalid HTML	Jericho
JFreeChart 1.0.12 JFreeChart is a Java chart library that makes it easy for developers to display professional quality charts in their	FreeChart

applications.	
Joda-Time 2.4 Joda-Time provides a quality replacement for the Java date and time classes.	Joda-Time
Json-smart 1.3 Json-smart is a performance focused, JSON processor lib.	Json-smart
JSP API 2.2.1 JSP provides a container independent implementation of JSP 2.1.	JSP
JSR-330 2.2.0.b25 JSR-330 standardizes annotations like @Inject and the Provider interfaces for Java platforms.	JRS-330
JSR 305 1.3.9 JSR 305 works to develop standard annotations (such as @NonNull) that can be applied to Java programs to assist tools that detect software defects.	JSR305
JSTL API 1.2.1 JSTL is a standard tag library for JSP pages.	JSRL
Log4j 1.2.17 Apache log4j is a logging library for Java.	Log4j
Logstash log4j extensions 1.6.0 Logstash is an open source data collection engine with real-time pipelining capabilities.	Logstash
Lucene 2.3.2 The Apache LuceneTM project develops open-source search software.	Lucene
Metrics 3.0.2 Metrics is a Java library which gives you unparalleled insight into what your code does in production.	Metrics
MIMEpull 1.5 Mimepull project provides a streaming API to access attachments parts in a MIME message.	MIMEPull
PDFBox 1.5.0 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.	PDFBox
Quartz 2.1.7 Quartz is a richly featured, open source job scheduling library that	Quartz

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 is a Java XSLT and XQuery Processor.	Saxon
Slf4j 1.7.10 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.	Slf4j
Spring Framework 4 • 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.	Spring
Standard Taglib 1.2.1 Apache Standard Taglib is an implementation of the JSP Standard Tag Library specification.	Taglib
Textmining Extractors 1.0 Java API to extract Microsoft Word documents.	Textmining
Vert.x 2.0.2 Vert.x lets your app scale with minimal hardware.	Vert.x
WSDL4j 1.6.3 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).	WSDL4j
XMLBeans 2.6.0 XMLBeans is a technology for accessing XML by binding it to Java types.	XMLBeans
XMLSchema 1.4.7 XMLSchema is a lightweight Java object model that can be used to	XMLSchema

manipulate and generate XML schema representations.	
ZXing 3.1.0 ZXing is an open-source, multi-format 1D/2D barcode image processing library implemented in Java, with ports to other languages.	ZXing

JavaScript libraries

Library	Link
Angular 1.5.5 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 and a set of practices to access and manipulate data from various online and offline sources.	JayData

jQuery Timepicker Addon 1.4.5 Timepicker extends jQuery UI Datepicker for entering times and timestamps.	Timepicker
JQuery 1.7.2 jQuery is a fast, small, and feature-rich JavaScript library with an easy-to-use API that works across a multitude of browsers.	JQuery
JQuery BBQ 1.2.1 BBQ is a jQuery plug-in that allows simple, yet powerful bookmarkable #hash history.	BBQ
JQuery Cookie 1.3.1 A simple, lightweight jQuery plugin for reading, writing and deleting cookies.	Cookie
JQuery DialogExtend 1.0 A simple, lightweight jQuery plugin for Maximizing and Minimizing Buttons for UI Dialog.	Dialog
JQuery UI 1.9.2 jQuery UI is a curated set of user interface interactions, effects, widgets, and themes built on top of the jQuery JavaScript Library.	UI
JsDump 1.0.0 This script library can dump any type of Javascript data (or most), thus, generating a string out of the received information.	JSDump
JsHashtable 2.1 JsHashtable is a standalone implementation of hash table in JavaScript.	JSHashtable
ParseURI 1.2.2 Split URLs in JavaScript.	ParseURI
Respond.js 1.4.0 Respond is a fast & lightweight polyfill for min/max-width CSS3 Media Queries (for IE 6-8, and more).	Respond
Underscore 1.3.3 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
Underscore String 2.2.0rc Underscore String is a String manipulation extensions for Underscore.	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 allows to split your codebase into multiple bundles, which can be loaded on demand.	Webpack

OLDER RELEASES

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

- WebRatio Mobile Platform 8.8 Release Notes
- WebRatio Mobile Platform 8.7 Release Notes
- 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

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) 1.8.
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 8 or higher *

* iOS 7 is no longer supported due to the update to Apache Cordova / PhoneGap 6

LIMITATIONS

WebRatio Generated Mobile Applications

Mobile Apps data synchronization performance has been verified and it can be guaranteed up to certain limits on modern devices.
The average time needed to complete the synchronization of fewer than 500 objects is about 5 seconds.
The average synchronization time increases to 30 seconds when the synchronized data goes up to 3000 objects.
WebRatio does not guarantee the synchronization performance when the synchronized data are above 3000 objects.

WEB RATIO®

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