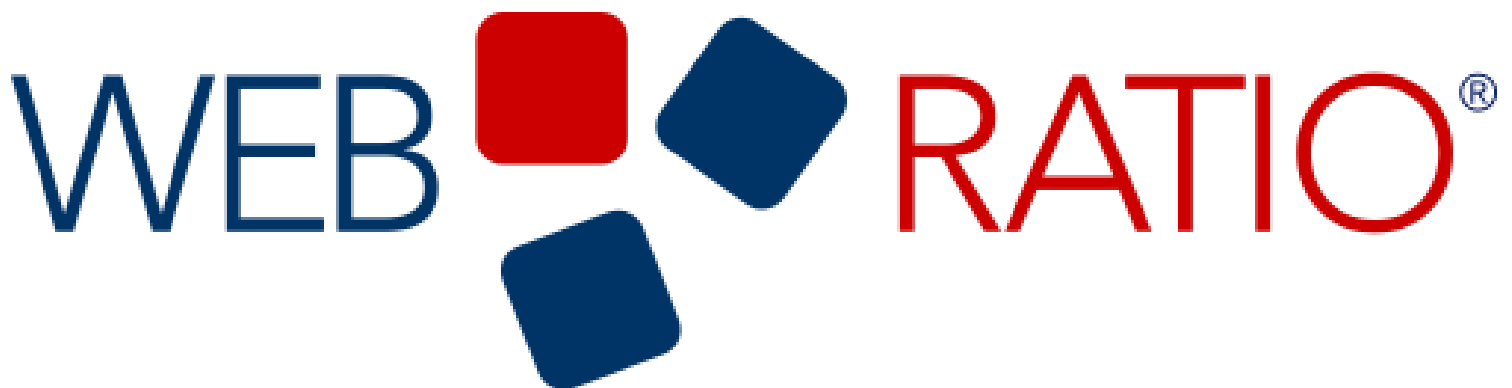
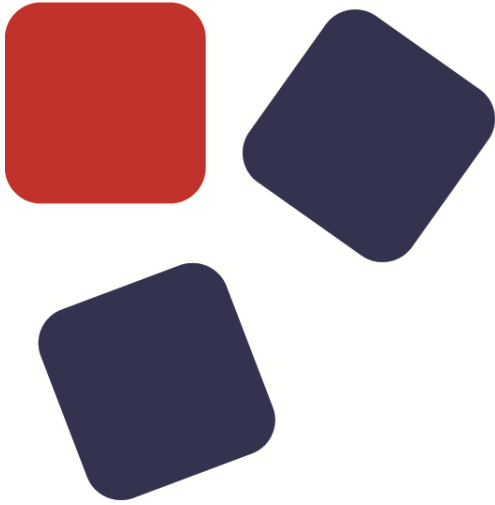




8.8 Mobile Platform Release Notes





RELEASE NOTES

WEBRATIO MOBILE PLATFORM 8.8

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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.

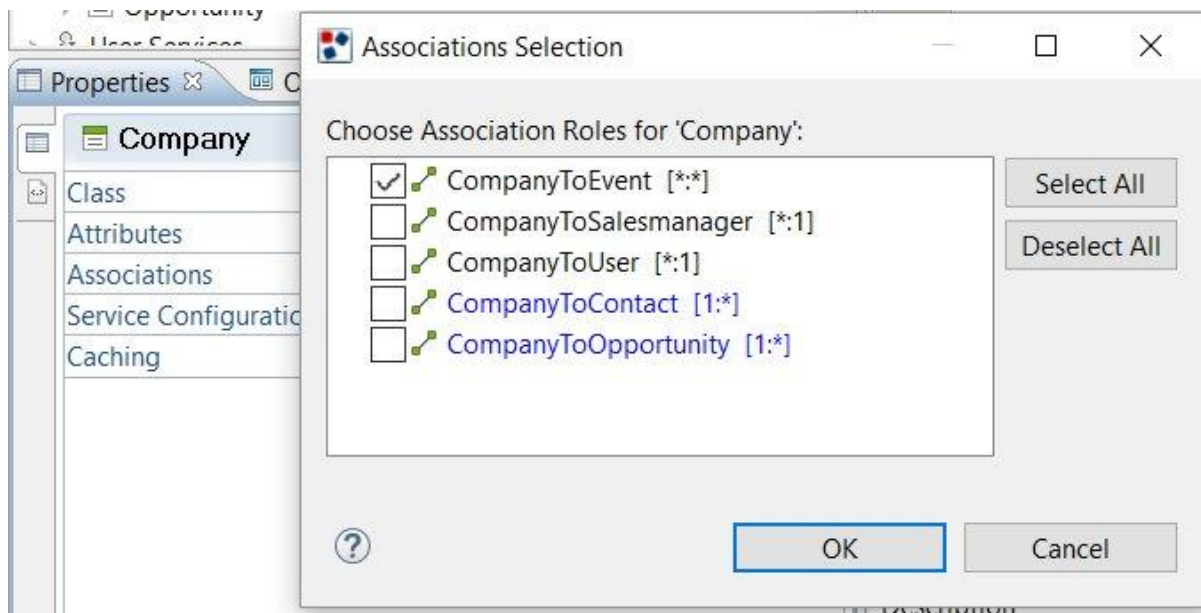
Let's review the main functionalities of this product release.

DATA SERVICE PROJECT IMPROVEMENTS



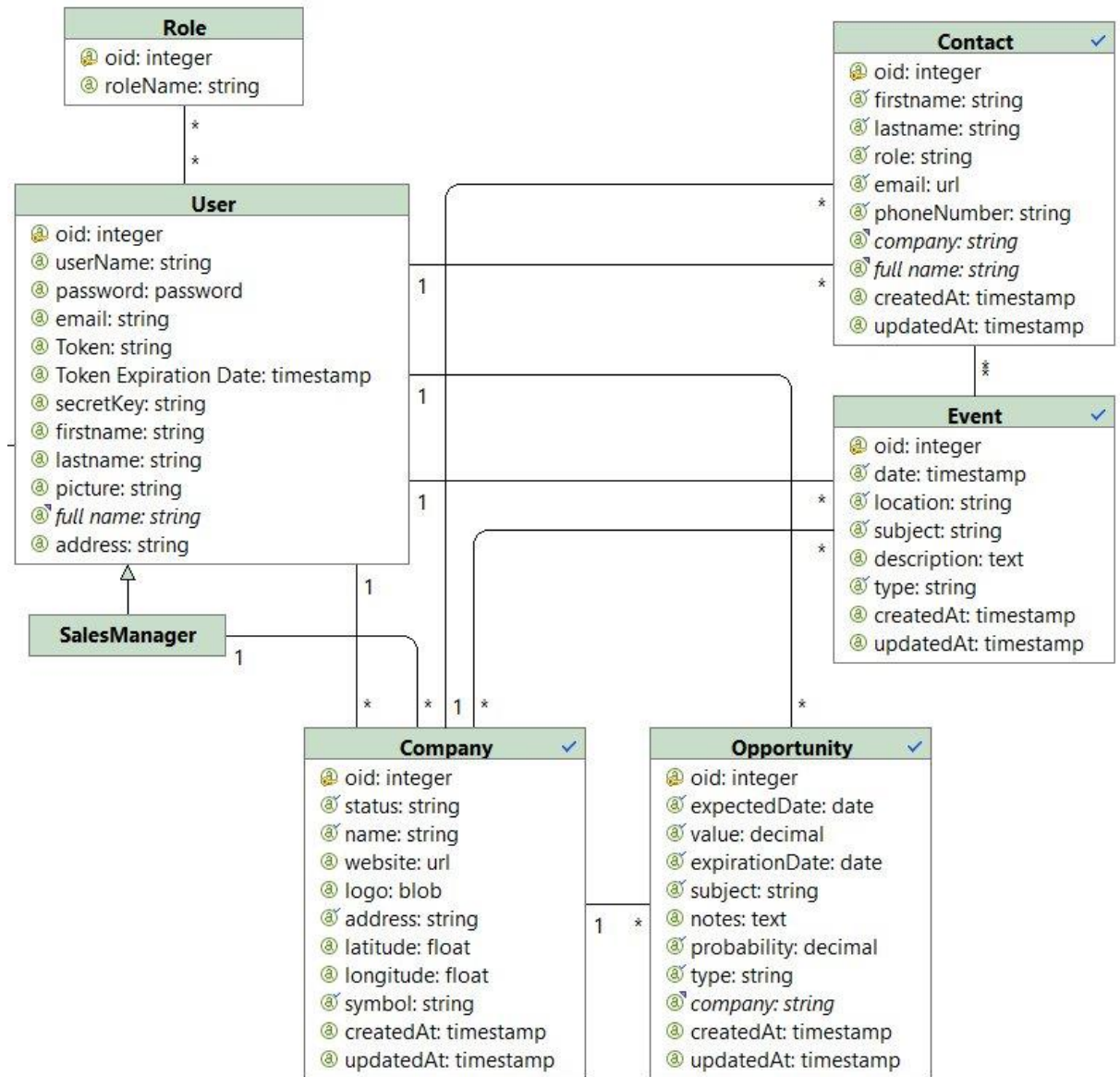
DATA SERVICE PROJECT IMPROVEMENTS

The user interface of the data service project has been improved so that now it is easier to select the association roles to publish when configuring a data service. The Association Selection Dialog now shows the association role cardinality next to the association's name, and it is also possible to know if an association has already been published using the reverse role. In this latter case, the association role is highlighted in blue. See the image below for an example.



DOMAIN MODELING IMPROVEMENTS

The associations connecting classes in the Domain Model have been restyled to improve model readability.





FIXED IN 8.8.4

FIXED IN 8.8.4

- The swagger page for data service projects now properly reports the GET method for retrieving object lists.
- Fixed a problem related to the timestamp of a mobile app that returned a wrong conversion between the various time formats during the days of the shift of the local device time from Daylight Saving Time to Standard Time.

FIXED IN 8.8.3

- Improved the data service project usability. Now a dedicated button is available to reset the value of the Associations property for User Services.
- Fixed the runtime behavior of the mobile application that prevented directives using Ionic to work properly in some cases due to the screen cache mechanism.
- Fixed the runtime behavior of the Read Service that prevented the proper behavior of the service in some situations when the cache was enabled. In particular, the back-end does not use the cached response when the request contains query parameters with different values than the ones associated to the cached version.
- The swagger page for data service projects no longer preloads the "X-Props" field of GET methods. The execution of these methods is now easier because it's not necessary anymore to manually empty the field to obtain the objects list.
- The WADL of data service projects now properly reports derived attributes published for a specific class in the complex type representing the REST web service response.
- Mobile projects now reports an error when executing the Find Model Problem command and the project is missing a value for the Back-end Base URL property.
- Fixed the runtime behavior of the Update User service. Now the service correctly includes in the response the up-to-date user information with the latest changes made.
- The swagger page for data service projects now proposes the correct sample for the PUT /user method. In particular, all the published associations are properly included in the request sample.

RELEASE NOTES

- Fixed the PC Emulator so that now the "Missing Plugin Emulator Support" messages are not shown anymore when the mobile application is generated only with predefined components.
- The swagger page for data service projects now properly lists the 404 response message in the Response Messages section for all available methods.
- The message reported for the 200 Response Message of files/download method has been corrected.
- The swagger page for data service projects no longer requires the user token to be able to execute the users/register REST API.



FIXED IN 8.8.2

FIXED IN 8.8.2

- Fixed the Synchronize Domain Model wizard that caused the wrong user association mapping when it was published an association reached by an association connected to the User class.

FIXED IN 8.8.1

- Fixed the periodical synchronization of a class in a mobile app that caused the emptying of a form component present on a screen.
- Fixed the behavior of the update data service that prevented the service from working properly when validation rules are applied on the managed class. Now the object is properly validated after the saving of the updated data, and so the Bad Request message is sent back only if the updated object does not respect the validation rules.
- Fixed a problem of a Restful Request Response operation in a data service project that returned a response without some parameters.
- Fixed a problem related to a form having a blob field that caused the loss of data after the user captured an image with the camera.
- Fixed a problem of the "Generate and Run" button, which did not work when the "WebRatio Explorer" view was active.
- Fixed an error related to an SQL Server database during the synchronization process in a data service project that prevented correctly importing the classes.
- Fixed the generation process of a mobile project that failed if an event was added on an element without the navigation flow.
- Fixed a problem related to the Disconnect operation. Now the operation correctly disconnects two objects that have a many-to-many association, with each other.
- Fixed the Properties View of the Login and Update User Services in data services projects, that wrongly contained the "Assigned Role" property.
- Fixed the Find Model Problems option of mobile projects. Now the command properly reports error related to the invalid bindings of a flow.

FIXED IN 8.8.0

- Fixed a problem related to scrolling of a screen of a mobile application with a Map component that did not work properly when an event was activated.
- Improved the synchronization algorithm of the mobile application. Now synchronization performances are not affected by slowness caused by a huge amount of association data.
- Fixed a problem of the PC Emulator of a mobile project in the first generation that warned that some plugins were missing emulation support. Now these messages do not appear anymore.
- Fixed a problem related to a blob attribute in a mobile project. Now it is possible to reset the blob with the null value.
- Fixed an error of the Find Model Problems option for data service projects. Now the command does not report the error when an association is mapped over a view and the Database View flag is properly enabled.
- Fixed a problem with importing attributes of a class related to a data service project shared on the CVS. Now the attributes, after the import procedure, have the correct mapping on the database.
- Improved the "Split flow and insert" function available for operation components. Now the command creates a data flow only if there was a parameter binding on the original navigation.
- Fixed the text of the error reported by the Find Model Problem option when a referred mobile style project is missing in the workspace. Now the message properly indicates the name and the type of the missing project.
- Improved the runtime services, which are now used in the latest library version of Apache, the HTTPClient 4.
- Fixed the text of the error reported by the Find Model Problem option when a referred component project is missing in the workspace. Now the message properly indicates the name and the type of the missing project.
- Fixed a problem related to two or more components copied and pasted into a view container that caused them to lose their position and overlap.



THIRD PARTY LIBRARIES

THIRD PARTY LIBRARIES

Java libraries

Library	Link
ANTLR 2.7.7 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.	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	IO

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>	

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.

RELEASE NOTES

OLDER RELEASES

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

- [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

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) 1.6 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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