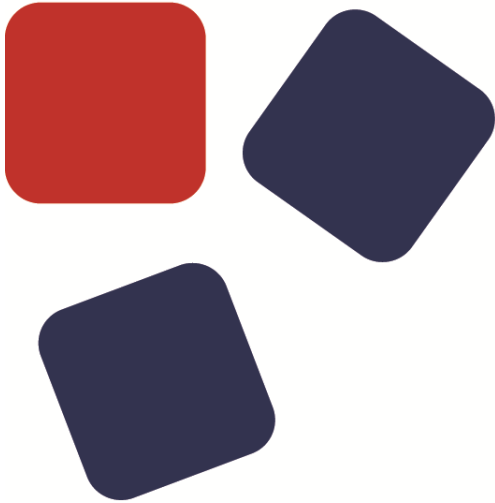




8.2 Mobile Platform Release Notes





RELEASE NOTES

WEBRATIO MOBILE PLATFORM 8.2

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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. Your mobile applications can work both offline, without the use of an internet connection; or online, synchronizing the information with an external system, which also can be developed with WebRatio Mobile Platform.

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

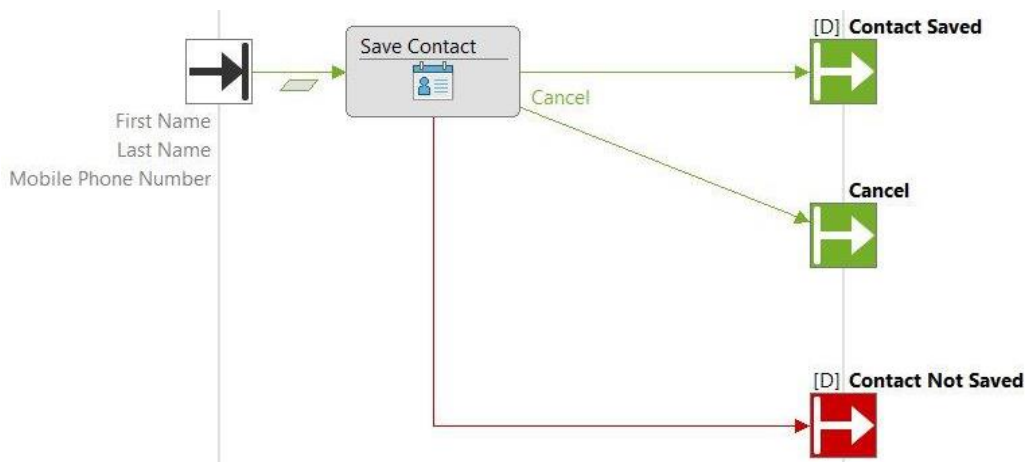
CONTACTS INTEGRATION



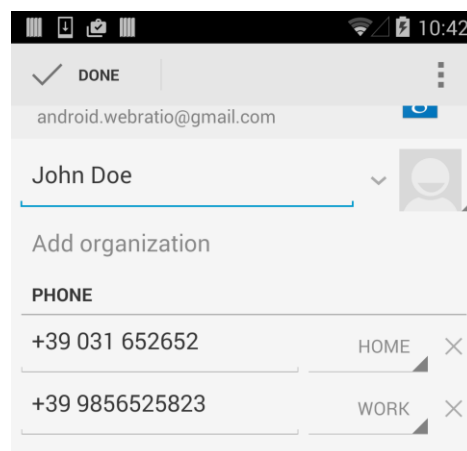
CONTACTS INTEGRATION

Save a contact in your address book

You can now add a feature to the mobile application that allows users to save contacts in the device address book. You just need to use the dedicated “Contacts” operation in your Mobile Project, select the “Save Contact” operating mode, and pass all the information to the operation needed in order to properly save the item in the address book. You can see a modeling example in the following image.



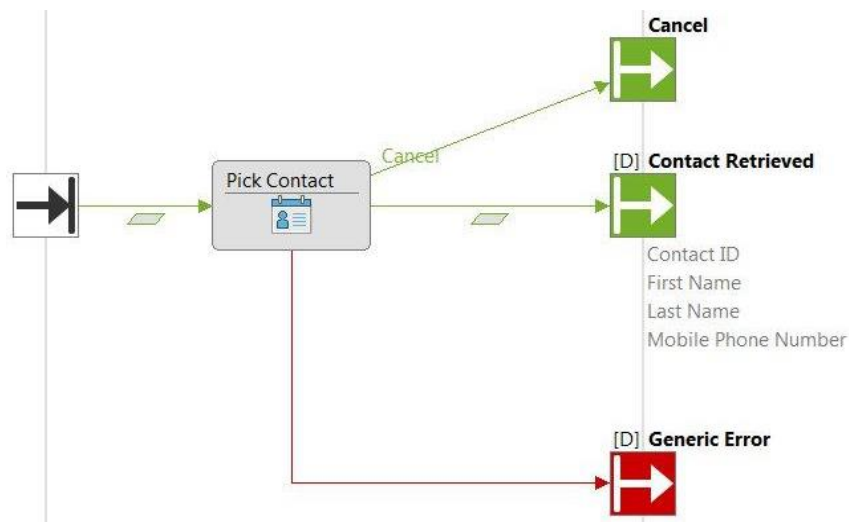
The behavior of the mobile application is to open up the device calendar to show the user the form for creating a new contact. The form is preloaded with the information you specified in the model, and the user can decide whether to save the contact or cancel the operation. In both cases the user then goes back to your mobile application.



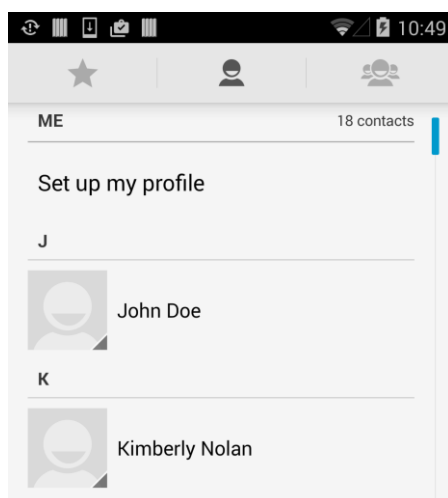
More documentation is available [here](#).

Retrieve a contact from your address book

You can now add a feature to the mobile application that allows the user to search contacts from the device address book and use the related contact information in the mobile application. You just need to use the dedicated “Contacts” operation in your Mobile Project, select the “Pick Contact” operating mode, and create the parameters you want to use for the contact. You can see a modeling example in the following image.



The behavior of the mobile application is to open up the address book to let the user search for a contact. The user can decide whether to cancel the operation or select a contact from the address book. In both cases the user then goes back to your mobile application. When the user selects a contact, the mobile application also receives all information related to the chosen contact.



Selected Contact	
First Name	John
Last Name	Doe
Mobile Phone	+39 031 365896

More documentation is available [here](#).

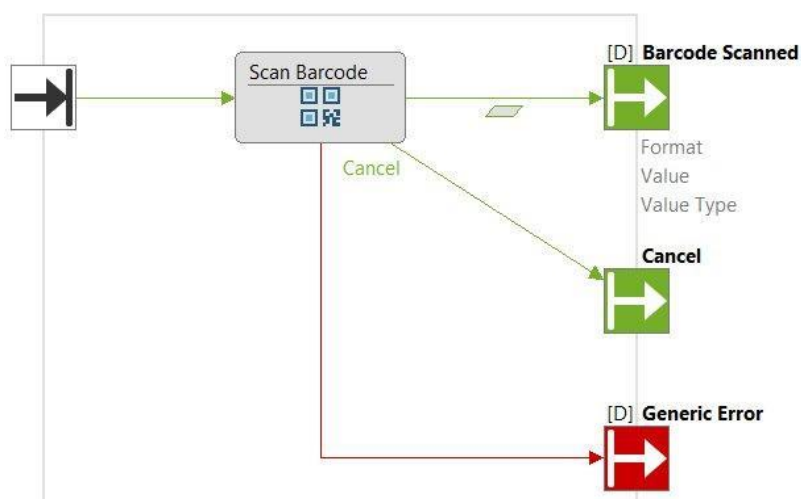


BAR CODE/QR CODE INTEGRATION

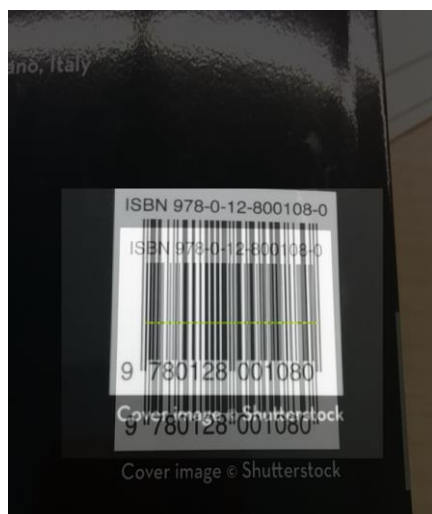
BAR CODE/QR CODE INTEGRATION

Bar code/QR Code Scanner

You can now add a feature to the mobile application that allows the user to scan a barcode and/or a QR Code and use the retrieved data in the application. You just need to use the dedicated “Barcode” operation in your Mobile Project and use the information provided by the “Barcode” operation to implement the desired feature. You can see a modeling example in the following image.



The behavior of the mobile application is to open up the device camera letting the user scan a barcode/QR Code. The user can decide whether to proceed with the scan or cancel the operation. In both cases the user then goes back to your mobile application.

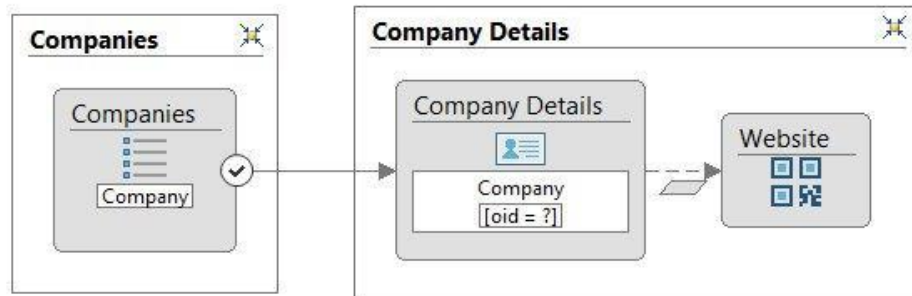


Barcode Informations	
Value	9780128001080
Value Type	text
Format	EAN_13

More documentation is available [here](#).

Barcode/QR Code Generator

You can now add a feature to the mobile application that allows the user to see a barcode/QR code in a screen of your mobile application. You just need to use the dedicated “Barcode” View Component in your Mobile Project and select the type of barcode or QR code you want to generate. You can see a modeling example in the following image.



Here is an example showing how the generated QR Code appears in the mobile application.



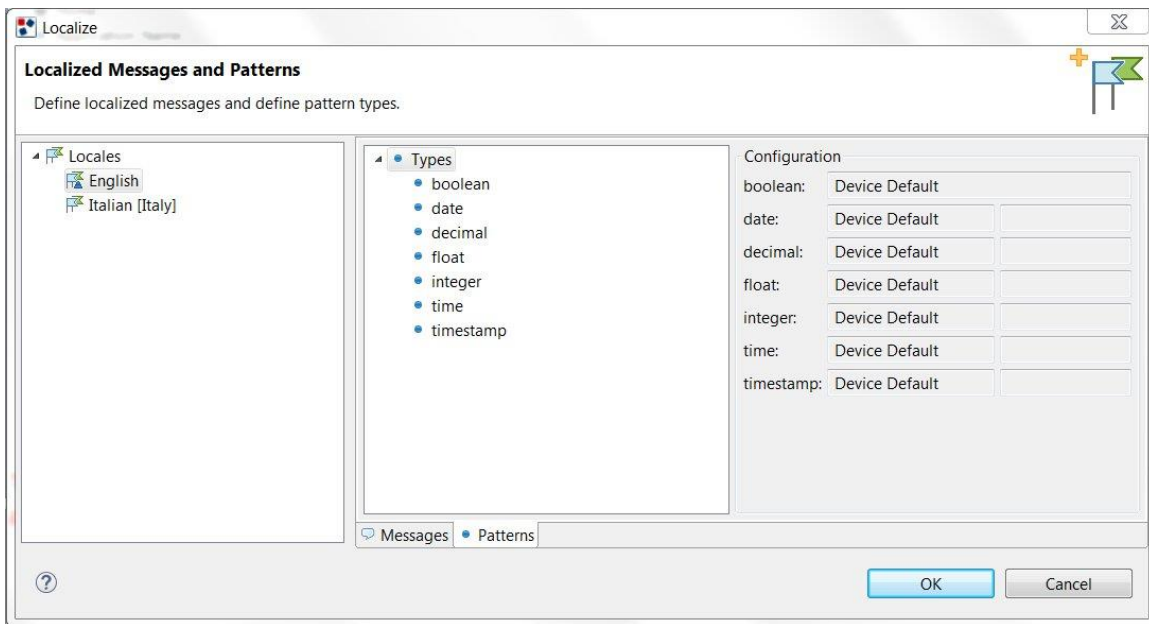
More documentation is available [here](#).

LOCALIZATION



LOCALIZATION

Applications generated with WebRatio Mobile now support localization. This means that you can create mobile applications showing text in the language of the user device, if that language is in the list of the locales you manage in the project. You can easily add other locales to the mobile application through the dedicated dialog. For each locale you can set labels and data patterns. Data patterns, by default, are handled using the device settings, but you are free to change this behavior and set your own pattern.



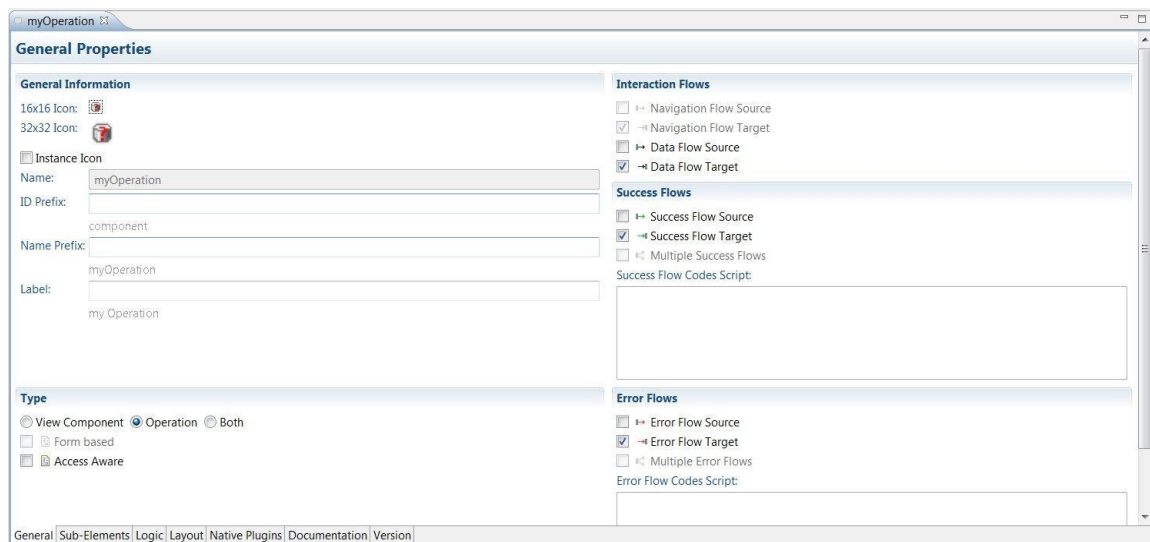
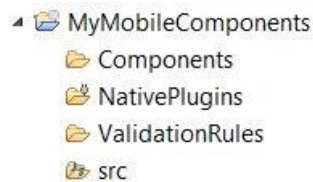
More documentation is available [here](#).

CUSTOM COMPONENTS

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

Mobile Custom Components

You can add additional features to your mobile applications that integrate with the device through the development of a mobile custom component. What you need to have in order to create your component is a mobile components project to be used as container, and a Phone Gap plugin to implement the desired device integration. Then you need to configure a couple of properties to set how the components can be used inside the Mobile Project, and write a few lines of JavaScript code to define the component runtime behavior.





```
1 /**
2  * Service for myOperation operations.
3  */
4 export default wrm.defineService(wrm.core.AbstractOperationService, {
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  executeOperation: function(context) {
14    // TODO prepare a wrm.nav.Outout object containing the outputs the code for
15    // selecting a Success/Error Flow and the outputs to send along it
16    // - return the object or a promise thereof
17
18    var output = new wrm.nav.Output("success"); // or "error"
19    // var input = context.getInput();
20    // output["bar"] = input["foo"]; // see Input.template and Output.template
21    return output;
22  },
23
24 });
```

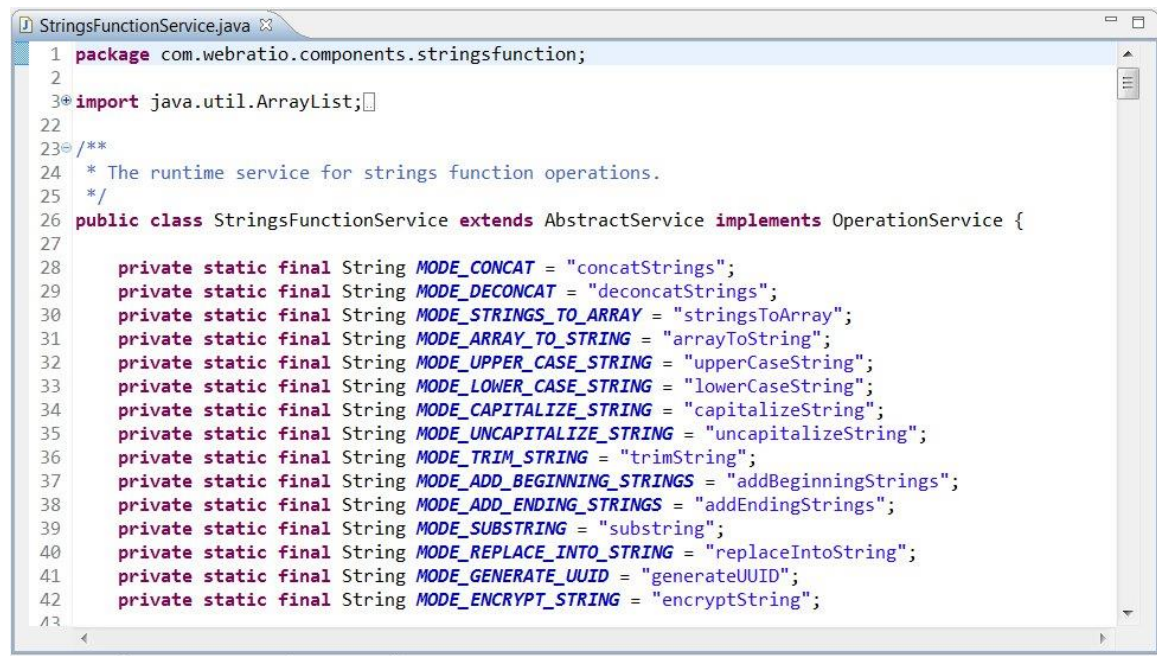
More documentation is available [here](#).

Data Service Custom Components

You can add additional features to your back-end applications that integrate third-party software. What you need to have in order to create your component is a Components Project to be used as container. Then you need to configure a couple of properties to set how the components can be used inside the Data Service Project, and write a few lines of Java code to define the component runtime behavior.

MyComponentsProject

- src
- JRE System Library [jdk1.7.0_75]
- Plug-in Dependencies
 - Components
- META-INF
 - ValidationRules
- build.properties
- plugin.xml



```

1 package com.webratio.components.stringsfunction;
2
3 import java.util.ArrayList;
4
5 /**
6  * The runtime service for strings function operations.
7  */
8 public class StringsFunctionService extends AbstractService implements OperationService {
9
10     private static final String MODE_CONCAT = "concatStrings";
11     private static final String MODE_DECONCAT = "deconcatStrings";
12     private static final String MODE_STRINGS_TO_ARRAY = "stringsToArray";
13     private static final String MODE_ARRAY_TO_STRING = "arrayToString";
14     private static final String MODE_UPPER_CASE_STRING = "upperCaseString";
15     private static final String MODE_LOWER_CASE_STRING = "lowerCaseString";
16     private static final String MODE_CAPITALIZE_STRING = "capitalizeString";
17     private static final String MODE_UNCAPITALIZE_STRING = "uncapitalizeString";
18     private static final String MODE_TRIM_STRING = "trimString";
19     private static final String MODE_ADD_BEGINNING_STRINGS = "addBeginningStrings";
20     private static final String MODE_ADD_ENDING_STRINGS = "addEndingStrings";
21     private static final String MODE_SUBSTRING = "substring";
22     private static final String MODE_REPLACE_INTO_STRING = "replaceIntoString";
23     private static final String MODE_GENERATE_UUID = "generateUUID";
24     private static final String MODE_ENCRYPT_STRING = "encryptString";
25 }

```

More documentation is available [here](#).



WEBRATIO ADD-ONS

Extend WebRatio Mobile by downloading additional components from the WebRatio Add-ons (store.webratio.com). In addition to sample projects and style projects, custom components are also available. You can find components that can be used in Data Service and/or Mobile Projects; just do a search and then install the desired component with a single click.

The screenshot shows the WebRatio Add-ons store interface. At the top, there's a search bar with the text "Enter keywords:" and a "Search" button. To the right, it says "Welcome Fulvio Ciapessoni" with links for "Edit Account" and "Logout". Below the search bar, there are tabs for "Recently Updated", "Most Popular", "Most Voted", and "Installed". The main content area displays the "Send SMS" component, version 1.0, with compatibility 8.2.0 up. It includes a description: "The Send SMS operation sends messages to mobile phones. This component uses the cordova-sms-plugin-master (0.1.2 version) PhoneGap plugin to interact with the device." There are also sections for "General Information", "WebRatio Community" (with votes, reviews, and downloads), and "Installation". A "More" button is visible next to the description. On the left, there's a "Filters" sidebar with categories like "Types" (Component, Mobile Component, Mobile Project, Mobile Style Project, Template, Validation Rule) and "Tags" (alerts, bpmn, cloud, details, forms, graph, grid, json, login openid). At the bottom, there are tabs for "Search", "Publish", "Tool Versions", and "Roles".

MOVING FROM VERSION 8.1

This section aims to help you to migrate your project from version 8.1 to version 8.2. You must read this section if you have a custom mobile style project in your workspace. You should change your custom attribute template, if any, by following these guidelines:

- Add the following code fragment to manage the rendition of boolean attributes. This is necessary due to the Localization feature.

```
[% if (type == "boolean") { %]
{{ [%= item %].[%= name %] ? 'boolean.yes' : 'boolean.no'
| wrLocalize }}
[%}%]
```

- Change the code fragment that manages the rendition of date, time and timestamp attributes adapting the Angular filter to the new syntax. Below, see the old syntax and the new one.

OLD CODE

```
[% if (type == "date") { %]
{{ [%= item %].[%= name %].asDate() | date : 'longDate' }}
[% } else if (type == "time") { %]
{{ [%= item %].[%= name %].asDate() | date : 'shortTime' }}
[% } else if (type == "timestamp") { %]
{{ [%= item %].[%= name %].asDate() | date : 'medium' }}
```

NEW CODE

```
[% if (type == "date") { %]
{{ [%= item %].[%= name %] | date : 'wr-date' }}
[% } else if (type == "time") { %]
{{ [%= item %].[%= name %] | date : 'wr-time' }}
[% } else if (type == "timestamp") { %]
{{ [%= item %].[%= name %] | date : 'wr-timestamp' }}
```

- Change the code fragment that manages the rendition of numerical attributes adapting the Angular filter to the new syntax. Below see the old syntax and the new one.

OLD CODE

```
[% if (type == "integer") { %]
{{ [%= item %].[%= name %] | number:0 }}
[% } else if (type == "decimal" || type == "float") { %]
{{ [%= item %].[%= name %] | wrFormat:'number' }}
```


MOVING FROM VERSION 8.1



NEW CODE

```
[% if (type == "integer") { %]
{{ [%= item %].[%= name %] | number : 'wr-integer' }}
[% } else if (type == "float") { %]
{{ [%= item %].[%= name %] | number : 'wr-float' }}
[% } else if (type == "decimal") { %]
{{ [%= item %].[%= name %] | number : 'wr-decimal' }}
```

FIXED IN 8.2.3

- Solved a problem related to an attribute of a Class named "length" that caused the failure of data synchronization on the mobile application
- Fixed the runtime behavior for the checkable list. Now the list shows correctly the checked items and submits the checked object list.



FIXED IN 8.2.2

FIXED IN 8.2.2

- Improved the runtime behavior in mobile app when attempting to empty a field having a validation rule. Now the validation is not executed anymore when the field is empty through an execution of modeled operation.
- Fixed the behavior for default locale defined in the WebRatio editor. Now the default locale is the one defined in the WebRatio Preferences.
- The "Code" property of Navigation Flows in the Properties View is now enabled when the flow outcomes from a component having codes.
- In Mobile Style Projects, when editing a layout template, it's now available the documentation of all the usable groovy methods.
- Fixed the runtime behavior of the synchronization algorithm in a mobile application. When a synchronized class also has a 1-* associations, the algorithm now correctly saves the information whatever is the synchronization order of classes.
- The emulator on PC now correctly emulates the login operation in case of "offline" mode set.
- The emulator on PC now correctly emulates all network operations considering the "offline" and "online" modes.

FIXED IN 8.2.1

- Fixed the runtime behavior for the Form Component in a Mobile Project. After submitting the form values entered by the user the values are now properly preserved when returned in the same screen.
- Improved the behavior with the mobile application when the first synchronization to the back-end fails. Now if the synchronization fails after the very first login, the mobile application asks the user to login again in order to start the synchronization process from scratch.
- Solved a problem with the push notification registration mechanism. Now the mobile application is able to correctly register the device when the user is already logged in, enabling the application to correctly receive notifications.
- Disabled Style Projects are now shown as closed projects in the WebRatio Explorer View.
- Fixed the behavior for the "Collection" Validation Rule in Mobile Projects. Now it's possible to set the "Attribute" property and select an attribute for the class specified in the "Data Binding" property.
- Solved a problem of the mobile application having push notifications. Now the mobile application receives all notifications, as long as the network is available.



FIXED IN 8.2.0

FIXED IN 8.2.0

- Fixed the runtime behavior for the Calendar View Component in Mobile Projects that has an outgoing Data Flow. Now, when the Calendar View Component receives an input value it is no longer rendered as empty at runtime.
- Linux and Mac installation files related to Tomcat (bin*.sh) and WebRatio are now delivered with execution permissions already set.
- Solved a problem in the Bar template used in Mobile Project that, in some cases, caused the screen title to be hidden by another element of the toolbar.
- Solved a problem that prevented the user from updating WebRatio from the notification message box.
- A limitation has been introduced in DataService projects. A Class having a composite key cannot be published as data service.
- Improved the runtime behavior for a BLOB file. The mobile application now infers the BLOB type from its name when the back-end does not provide the BLOB type explicitly.
- A dialog is now shown in the browser emulation when the mobile application requires a missing PhoneGap plugin.
- Custom templates that use the "wr-blob" directive may need to request additional resources that are no longer included by default. If the template allows the user to take a photo or to select an existing one, add `<wr:RequireResource ref="blob-camera-plugin"/>`. If the template allows the user to open external files with other app in the device, add `<wr:RequireResource ref="blob-opener-plugin"/>`.
- Improved the usage of the Message View Component in a Mobile Project. It's now possible to use placeholders to compose a dynamic message.
- Improved the Restful Request Response operation in a Mobile Project. Now the component supports basic HTTP Authentication: in its Properties View you can check the "HTTP Authentication" property and set the username and password.
- Improved the definition of the Conditional Expression of components. It is now possible to specify an "Expression" combining conditions using different logic operators (and, or).
- In a Mobile Project it is now possible to select, as Display Attribute of a View Component, one attribute belonging to another Class. The only constraint is

RELEASE NOTES

that the attribute must belong to a class connected to the current one with a one-to-many association. Changed the code for the "getFieldName" in the default attribute templates from `getFieldName(attr)` to `getFieldName(attr["attribute"])`. Custom templates also need to be updated.



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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