

# Rialto Guide

***Macrotone***  
***Consulting Ltd.***

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# ***Macrotone Consulting Ltd.***

## **Rialto Guide:**

by Geoffrey S. Chapman

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### **Abstract**

This book covers the use of the Macrotone Rialto component which runs upon your Joomla!<sup>TM</sup>-powered web sites.

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# Preface

## Joomla Rialto Component

**Author:** G S Chapman  
**Date:** 20<sup>th</sup> June 2016  
**Version:** 1.3.0

### *DOCUMENT HISTORY*

Version	Date	Changed By:	Remarks
1.0.0	06/05/2015	G S Chapman	Initial release
1.1.0	01/08/2015	G S Chapman	Update for release 1.1.0. This version allows the attachment of videos to entries and also supports a Joomla Multilingual site.
1.2.0	09/12/2015	G S Chapman	Update for release 1.2.0. This version adds integration with Joomla tags and resolves a few problems with the earlier releases.
1.2.1	26/05/2016	G S Chapman	Update for release 1.2.1.
1.3.0	20/06/2016	G S Chapman	Update for release 1.3.0. This release introduced the ability for user category subscriptions to optionally receive notices of new and/or updated selected category entries.

### **PURPOSE OF DOCUMENT**

This documentation describes the release 1.3.0 version of the Joomla Rialto component by Macrotone Consulting Ltd.

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# Part I. User Guide

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# Chapter 1. Overview

This document describes the Macrotone Consulting Rialto component. It covers installation and usage of the component, along with suggested configuration options.

The Rialto is a historic market district of Venice, Italy, located close to the Grand Canal and to the 16th-century Rialto Bridge. It became the business centre of medieval and renaissance Venice. Since that time the word has come to have a few other meanings such as 'agora', 'forum', 'marketplace', 'shopping place' etc.

The Rialto Joomla component is a Classified Advertisements component. Wikipedia defines Classified advertising as a form of advertising which is particularly common in newspapers, online and other periodicals which may be sold or distributed free of charge. Advertisements in a newspaper are typically short, as they are charged for by the line, and one newspaper column wide. An advertisement as seen in a newspaper, magazine, or the like is generally dealing with offers of or requests for jobs, houses, apartments, used cars, and the like. The Joomla component permits a site to accept such advertisements from its registered members and acts as a conduit between purchaser and seller.

The completed Rialto component is available on the Macrotone Consulting Ltd Website:

<http://www.macrotoneconsulting.co.uk/index.php/Macrotone/joomla-extensions.html>

Where ever possible the development tries to lever the supplied features provided in the Joomla core. This enabled the same 'look and feel' as supplied by the standard Joomla components, ensuring user familiarity and making for easier implementation.

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# Chapter 2. Install and Uninstall

## Installing Rialto

Installation uses the standard Joomla install method.

### Important

Do NOT uninstall Macrotone Rialto before updating it! Uninstalling will remove all of your data, including all of your configuration information!

### Note

The language (translation) files are NOT installed automatically. You can download and install them from our language download page. Do note that you will have to install both the component and the language packages for the component to work.

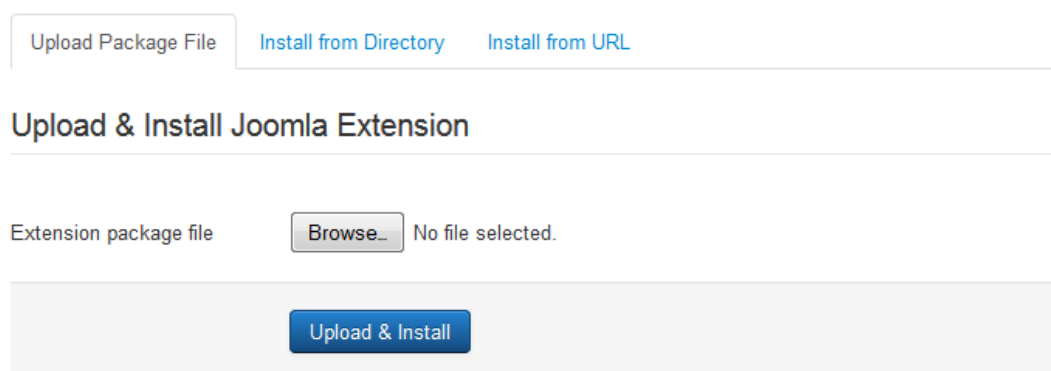
Macrotone Consulting Ltd only produces the English language files. All other languages are contributed freely by third parties. If you spot an error if the first instance please go to the translation project page to find the contact information of the translator. Abandoned languages will show the maintainer being our staff member "geoffc". In this case we will try to help you but our knowledge of foreign languages is very limited; if you would like to fix the language package you will need to create a Transifex account and to volunteer to take over the translation project for that language.

Download the Latest Version

Once you have downloaded the latest version, you are ready to install the component.

Step 1 of 3 - Install the Component: Login to your Joomla Administrative centre and in the Extensions menu, click on the Browse button and navigate to the file location where you downloaded the file. Click on the file and then click on the Install/Uninstall button.

**Figure 2.1. Initial Installation Screen.**



Upload Package File   Install from Directory   Install from URL

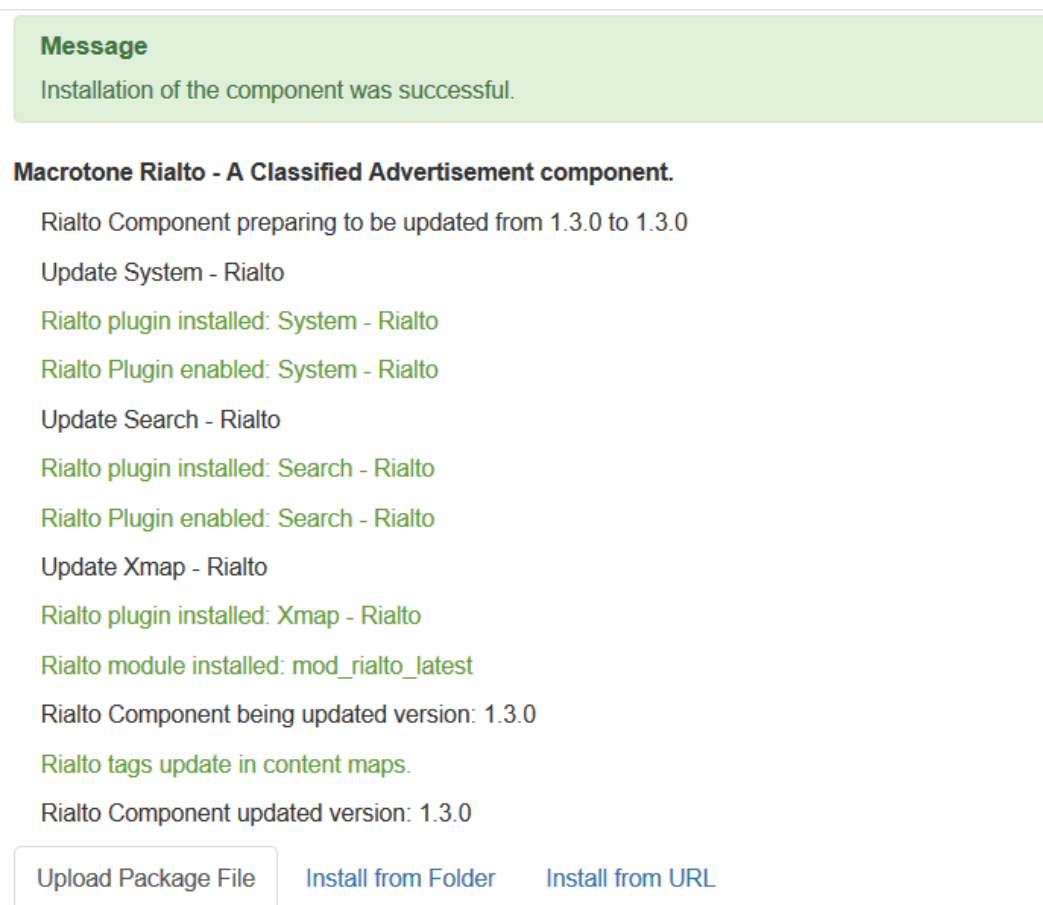
---

### Upload & Install Joomla Extension

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Extension package file    No file selected.

Step 2 of 3 - Once the Component is installed, the following screen will be displayed.

**Figure 2.2. After installation screen**

Step 3 of 3 - Configure the Component: Navigate to the Component: Rialto Control Page. Choose the Options icon in the top right hand side of the page, and set as required,. Settings are described in the documentation.

## Test record

This component version has been tested successfully on Joomla 3.5.1 with PHP Version 5.6.22 (and 7.0.7) and with MySQL database version 5.5.49 and above with the following browsers:

- IE10 / IE11
- Firefox
- Google Chrome

Earlier version of Joomla such as 3.4.8 may well work but have not been tested and hence are not supported.

## De-installation

Uninstalling the component will automatically remove all trace of the component, the modules plugins and the database objects.

### Important

Any menu items created after installation will NOT be removed automatically and require the site administrator to remove them.

---

# Chapter 3. Configuring and customisation.

The component options are specified over a number of different tabs as shown in this section. The first is the 'general' settings which specify the more common settings.

## General Settings

Figure 3.1. Component Settings - General.

The screenshot shows a configuration interface with a top navigation bar containing the following tabs: General Settings, Message Settings, Spam Security, RSS Settings, Global Field Settings, Image Settings, HTML Boxes, Logs, and Permissions. The 'General Settings' tab is currently selected. Below the tabs, the following settings are displayed:

- Duration: 30
- Entry expiration: Disabled
- Cleanup unpublished: No (selected), Yes
- Cleanup duration: 60
- Contact details public: No (selected), Yes
- Commercial entries: No (selected), Yes
- Backend mode: Disabled
- Meta Robots: index, follow
- # of entries in category list: (empty field)
- # of headline characters: (empty field)
- # of teaser text characters: (empty field)
- Show price column: No, Yes (selected)
- Show label column: No, Yes (selected)
- Show footer: No, Yes (selected)

When a (registered) user on the front end wishes to contact the entry vendor (or advertiser) a contact form is generated which they fill in and the message is submitted. The settings in the 'message' section control the various required elements to enable the email message to be sent. The site administrator will usually opt to fill in the 'message prefix' and 'message suffix' settings to control the 'look' of the message. Typically some 'HTML' strings are used.

## Message Settings

**Figure 3.2. Component Settings - Message Settings.**

General Settings Message Settings Spam Security RSS Settings Global Field Settings Image Settings HTML Boxes Logs Permissions

Settings for the vendor messages.

Sitename YOURWEBSITE

From noreply@YOURWEBSITE.com

Sender YOURWEBSITE.com

Link http://www.YOURWEBSITE.com

MSG Subject Prefix [YOURWEBSITE] Message Notifica

MSG Message Prefix

MSG Message Postfix http://www.YOURWEBSITE.com  
Thank you YOURWEBSITE

We ourselves have a preferred format for automatically sent messages from our website and thus we use the Message prefix and suffix fields to ensure that the outgoing message is visually pleasing. These fields serve as an alternative to a special email template, especially as the component only sends out email messages, and wraps these field settings around the message text supplied by the sender.

## Category Subscription Settings

**Figure 3.3. Component Settings - Category Subscriptions**

[General Settings](#)
[Message Settings](#)
[Category subscriptions](#)
[Spam Security](#)
[RSS Settings](#)
[Global F](#)

[Logs](#)
[Permissions](#)

These settings apply to the messages sent to users who subscribe to receive details of entries.

Subscription Options

None New Only Updates Only Both

Mail address

Use TO Use CC Use BCC

Multilingual subscriptions

No Yes

MSG Subject Prefix

MSG Message Prefix

```
<div style="background-color:
#e0e0e0; padding: 10px 20px;" />
<div style="background-color:
#f9f9f9; border-radius: 10px;
padding: 5px 10px;" />
```

MSG Message Postfix

```
</div>
</div>
```

These settings impact the ability for users to subscribe to selected Rialto categories to receive email notifications upon new and/or updated Rialto entries. This feature was introduced with release 1.3.0. The site administrator defines which if any subscription options are available upon the site. One feature that is of use for multilingual sites is to be able to control whether subscriptions are possible against languages other than that in which the site is currently being viewed by the user.

One security feature is to be able to control how the outgoing address list is used. When an email message is constructed, there are three possible fields that can be used for the outgoing message recipients. The 'To' field is often used to contain the email address, and the contents of this field are viable when the message is received. If the number of recipients for a message is large, or if there is a preference for the recipients listed to be contained within the 'CC' (Carbon Copy) list, this is also another option. One can send multiple messages, to different individuals, but this is an inefficient way to send multiple messages, not only in terms of the construction of the messages will be identical, but also in terms of how the messages are handled by the Email server. The component instead will create a single message with all recipients email addresses appended one after another. This does or may present a small difficulty for some sites where it is not desirable that all recipients of a message can see all the other recipient addresses. For that reason it is possible to hold the recipient list in the 'BCC' (Blind Carbon Copy) list which is not presented to the message recipient.

It is possible to configure the style of the outgoing message by the specification of CSS rules that are placed before and after the created outgoing message.

The release also introduced a couple of new text strings that can be specified on the site via the 'language overrides' for more precise language criteria. See below for more details.

## SPAM Settings

The SPAM security settings are not fully implemented in the this release as they are intended to be for checking of any submitted message by 'unregistered' users. This feature is not yet fully implemented and is thus not available in the current release. They are included ready for a future enhancement.

**Figure 3.4. Component Settings - Spam Security.**

The screenshot shows the 'Spam Security' tab selected in a settings menu. The menu includes: General Settings, Message Settings, Spam Security, RSS Settings, Global Field Settings, Image Settings, HTML Boxes, Logs, and Permissions. The main content area is titled 'Specify settings for anti-spam security' and contains the following fields:

- Spam link count: A text input field containing the value '3'.
- Spam words: A large text area for entering spam keywords.
- Captcha: A dropdown menu currently set to '- Use Default -'.
- Site address (URL): A text input field.
- Akismet API Key: A text input field.
- Banned Emails: A large text area for listing banned email addresses.
- Banned IP list: A large text area for listing banned IP addresses.

## RSS Settings

The RSS settings, as expected control the RSS feeds available.

**Figure 3.5. Component Settings - RSS Settings.**

The screenshot shows the 'RSS Settings' tab selected in the same settings menu. The main content area contains the following settings:

- Use RSS Feeds: A toggle switch with 'No' and 'Yes' buttons. The 'Yes' button is highlighted in green.
- Show RSS icon: A toggle switch with 'No' and 'Yes' buttons. The 'Yes' button is highlighted in green.
- RSS size: A text input field containing the value '20'.

## Global Field Settings

The global field settings are used to set the defaults for which 'additional' fields are possible for an entry (or advertisement). It does not specify that they are 'mandatory', just that they are available to be populated by the entry vendor.



**Figure 3.6. Component Settings - Global Field Settings.**

General Settings	Message Settings	Spam Security	RSS Settings	Global Field Settings	Image Settings	HTML Boxes	Logs	Permissions
Use firstname								
<input type="radio"/> No <input checked="" type="radio"/> Yes								
Use lastname								
<input type="radio"/> No <input checked="" type="radio"/> Yes								
Use company								
<input type="radio"/> No <input checked="" type="radio"/> Yes								
Use street								
<input type="radio"/> No <input checked="" type="radio"/> Yes								
Use zipcode								
<input type="radio"/> No <input checked="" type="radio"/> Yes								
Use city								
<input type="radio"/> No <input checked="" type="radio"/> Yes								
Use state								
<input type="radio"/> No <input checked="" type="radio"/> Yes								
Use country								
<input type="radio"/> No <input checked="" type="radio"/> Yes								
Use phone								
<input type="radio"/> No <input checked="" type="radio"/> Yes								
Use mobile								
<input type="radio"/> No <input checked="" type="radio"/> Yes								
Use email								
<input type="radio"/> No <input checked="" type="radio"/> Yes								
Use website								
<input type="radio"/> No <input checked="" type="radio"/> Yes								
Use condition								
<input type="radio"/> No <input checked="" type="radio"/> Yes								
Use price								
<input type="radio"/> No <input checked="" type="radio"/> Yes								

## Image Settings

The image setting control how many images are acceptable for each item, their sizes, how they are displayed, etc. Two additional images are created from each image submitted by the vendor. The original image is retained and a 'small' image used for the displays is created as is also a 'larger' image which is displayed when the visitor clicks upon the image in the entry.

**Figure 3.7. Component Settings - Image Settings.**

General Settings	Message Settings	Spam Security	RSS Settings	Global Field Settings	Image Settings	HTML Boxes	Logs	Permissions
Max image size								
<input type="text" value="209715200"/>								
Max big image X								
<input type="text" value="800"/>								
Max big image Y								
<input type="text" value="600"/>								
Max small image X								
<input type="text" value="128"/>								
Max small image Y								
<input type="text" value="96"/>								
# Images								
<input type="text" value="3"/>								
Images display mode								
<input type="text" value="Browser window"/>								
Include Mootools JS								
<input type="radio"/> No <input checked="" type="radio"/> Yes								
Include JQuery JS								
<input type="radio"/> No <input checked="" type="radio"/> Yes								
JQuery CDN Link:								
<input type="text" value="//ajax.googleapis.com/ajax/libs/jque"/>								
Include Slimbox JS								
<input type="radio"/> No <input checked="" type="radio"/> Yes								

## Video Settings

These settings control the display of videos, from either Vimeo or Utube, whether that are available at all and if so how many are possible. A maximum of 3 videos can be specified for each entry.

**Figure 3.8. Component Settings - Video.**

The screenshot shows the 'Video Settings' tab selected in a navigation bar. Below the navigation bar, there are three settings: '# Videos' with a dropdown menu set to '3', 'Allow Related Videos' with a toggle switch set to 'No', and 'Video display mode' with a dropdown menu set to 'Iframe'.

## HTML Box Settings

The HTML boxes are provided for the entry of any additional required site display options that may or may not be required. Typically these may be used to display advertising or other useful general information to the user.

**Figure 3.9. Component Settings - HTML Boxes.**

The screenshot shows the 'HTML Boxes' tab selected in a navigation bar. Below the navigation bar, there are four text input areas labeled 'Index top', 'Index bottom', 'Category top', and 'Category bottom'. Each area is represented by a large, empty rectangular box with a small 'x' icon in the bottom right corner, indicating a text editor or a placeholder for HTML code.

## Log Settings

The 'log' setting currently just specifies whether component logging is required. The most use of this is for tracking of any messages that may (or may not) be send to the vendors (or owners) or the entries. Otherwise the log is mainly using in debugging or providing informative messages about how the component is running.

**Figure 3.10. Component Settings - Logs.**

General Settings   Message Settings   Spam Security   RSS Settings   Global Field Settings   Image Settings   HTML Boxes   Logs   Permissions

Parameters to control the component logging configuration.

Enable Logging ☐ No ☐ Yes

## Component Permissions (ACL)

The standard permissions tab is only (currently) supported in a few places. As the component develops more and more use will be made of these permissions.

**Figure 3.11. Component Settings - Permissions.**

General Settings   Message Settings   Spam Security   RSS Settings   Global Field Settings   Image Settings   HTML Boxes   Logs   Permissions

Default permissions used for all content in this component.  
Manage the permission settings for the user groups below. See notes at the bottom.

Public	Action	Select New Setting <sup>1</sup>	Calculated Setting <sup>2</sup>
<a href="#">- Guest</a> <a href="#">- Manager</a> <a href="#">- Administrator</a> <a href="#">- Registered</a> <a href="#">- Author</a> <a href="#">- Editor</a> <a href="#">- Publisher</a> <a href="#">- Super Users</a>	Configure ACL & Options	Inherited	Not Allowed
	Access Administration Interface	Inherited	Not Allowed
	Create	Inherited	Not Allowed
	Delete	Inherited	Not Allowed
	Edit	Inherited	Not Allowed
	Edit State	Inherited	Not Allowed
	Edit Own	Inherited	Not Allowed
	Configure ACL & Options	Inherited	Not Allowed
	Access Administration Interface	Inherited	Not Allowed

<sup>1</sup> If you change the setting, it will apply to this and all child groups, components and content. Note that:  
*Inherited* means that the permissions from the parent group will be used.  
*Denied* means that no matter what the parent group's setting is, the group being edited can't take this action.  
*Allowed* means that the group being edited will be able to take this action (but if this is in conflict with the parent group it will have no impact; a conflict will be indicated by *Not Allowed (Locked)* under Calculated Settings).  
*Not Set* is used only for the Public group in global configuration. The Public group is the parent of all other groups. If a permission is not set, it is treated as deny but can be changed for child groups, components, categories and items.  
<sup>2</sup> If you select a new setting, click **Save** to refresh the calculated settings.

That completes the description of the various component options. The next section will detail the various plugin and module settings available.

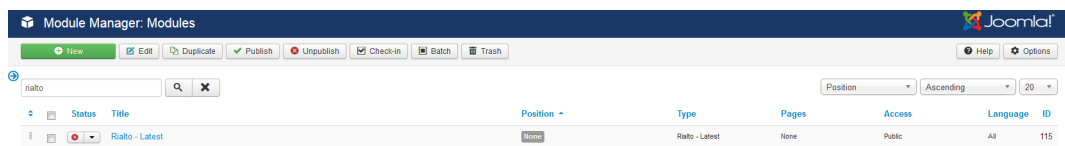
# Chapter 4. Modules and Plugins

When the component is installed there are several plugins and one module installed at the same time. Of these the System Plugin is the most important. These are described in more detail below.

## Rialto Latest Module

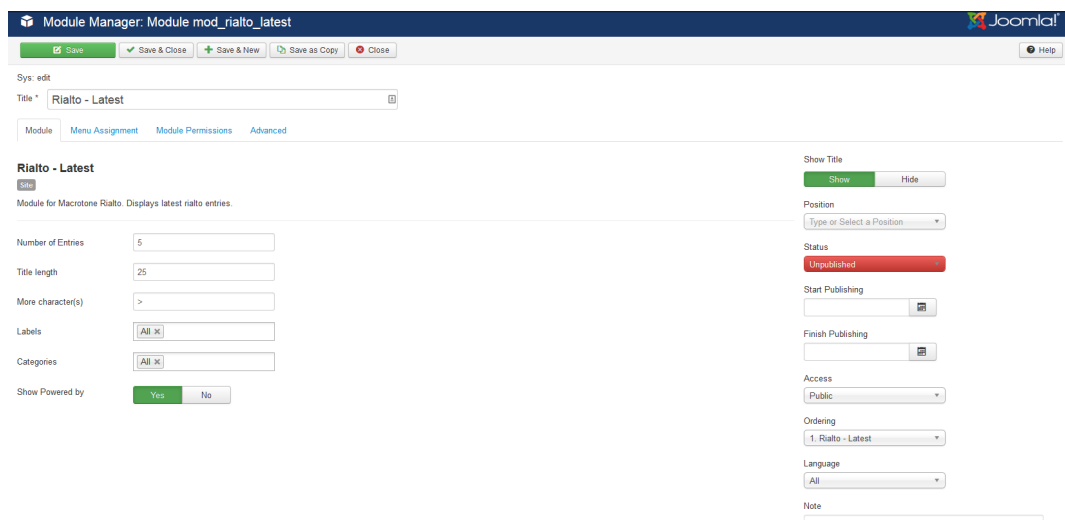
The latest entries module is installed with the component and will require configuration if it is required to display entries in a module displayed on the front end. Parameters control which entries are displayed and how many.

**Figure 4.1. Extension - Modules Rialto.**



The module itself has some settings to control which 'categories' are to be shown in the front end module as detailed below.

**Figure 4.2. Rialto Latest Module parameters.**

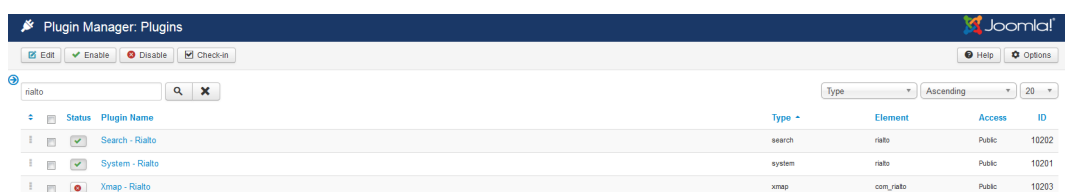


All that is required is to configure the module and then assign it to a specific position on the pages, and which pages it is to be displayed upon.

## Rialto Plugins

Displaying the Rialto extension plugins within Joomla will show the following display:

**Figure 4.3. Extension - Plugins Rialto.**

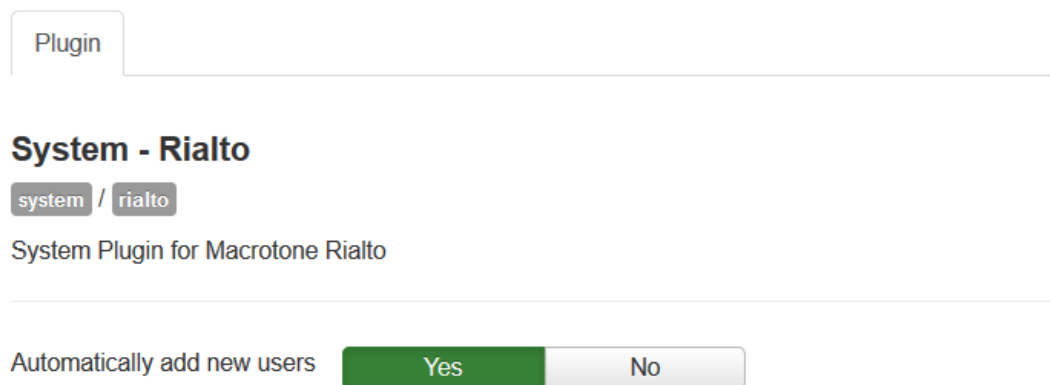


Each of the specific plugins performs a specific task as explained below.

## System Plugin

The system plugin provides the synchronisation between the Joomla users table and the Rialto users table. Changes such as new users registering on the site, or being deleted result in changes being made to the Rialto users table. Release 1.2.1 introduced a parameter for this plugin which controls whether new Joomla registered users are automatically added to the timesheet users table. The default is to automatically add users, thus matching the effect with earlier versions. See the Users view for more details. The plugin is automatically enabled upon installation.

**Figure 4.4. System Plugin Settings.**



## Search Plugin

This plugin provides the input required by the standard Joomla search facility. There are no parameters for this plugging. The plugin is automatically enabled upon installation.

### Important

This is not the 'Finder' search component for which a different plugin would be required. It is our understanding that Finder is not going to be supported in Joomla 4.x so we have not (as yet) written a finder plugin. It is believed that the use of Google custom search is to be the suggested replacement. Creation of a 'finder' (smart search) may be written IF there is sufficient support for such a plugin.

## XMAP Plugin

This plugin was written to provide the input required to generate a site map for display upon the site or to populate the fields required for the generation of an XML file for submission to Google, Microsoft Bing etc. The standard component that was used by most sites was a component known as XMAP. The developer of that specific component has ceased development and there is now a flurry of new components that perform the same task. We are not familiar with all of these alternatives but they all claim compatibility with XMAP so any plugin written to run under XMAP should (and in most cases) does run these alternatives. We ourselves use an Alledia component named OSMAP, but have tested under a component from Z-index named MapX.

**Figure 4.5. Rialto XMap Plugin Parameters - 1.**

The screenshot shows the 'Plugin Manager: Xmap - Rialto' window. At the top, there are buttons for 'Save', 'Save & Close', and 'Close'. Below this, there's a 'Sys: edit' section with a 'Plugin' tab and a link to 'XML Sitemap Settings'. The main area is titled 'Xmap - Rialto' and shows 'Xmap Plugin for Macrotone Rialto'. On the left, there are settings for 'Include entries' (set to 'Always') and 'Max links' (set to '0'). On the right, there's a 'Status' section with a 'Disabled' button, and a 'Access' section with a 'Public' dropdown. Below that, there's an 'Ordering' section with a dropdown set to '0. Xmap - Rialto'. At the bottom right, there's a 'Plugin Type' section with a dropdown set to 'xmap' and a 'Plugin File' section with a dropdown set to 'com\_rialto'.

The XML settings allow for fine tuning of the site map entries.

**Figure 4.6. Rialto XMap Plugin Parameters - 2.**

The screenshot shows the 'Plugin Manager: Xmap - Rialto' window. At the top, there are buttons for 'Save', 'Save & Close', and 'Close'. Below this, there's a 'Sys: edit' section with a 'Plugin' tab and a link to 'XML Sitemap Settings'. The main area is titled 'Xmap - Rialto' and shows 'Xmap Plugin for Macrotone Rialto'. On the left, there are settings for 'Include expired entries' (set to 'Never'), 'Category Priority' (set to 'Use Parent Menu Settings'), 'Category Change frequency' (set to 'Use Parent Menu Settings'), 'Entry Priority' (set to 'Use Parent Menu Settings'), and 'Entry Change frequency' (set to 'Use Parent Menu Settings').

There are a number of different parameters that control whether the entries are generated for the HTML, XML both, or none of the outputs.

## **Important**

Upon installation this specific plugin is NOT enabled. It is up to the site administrator to enable the plugin.

---

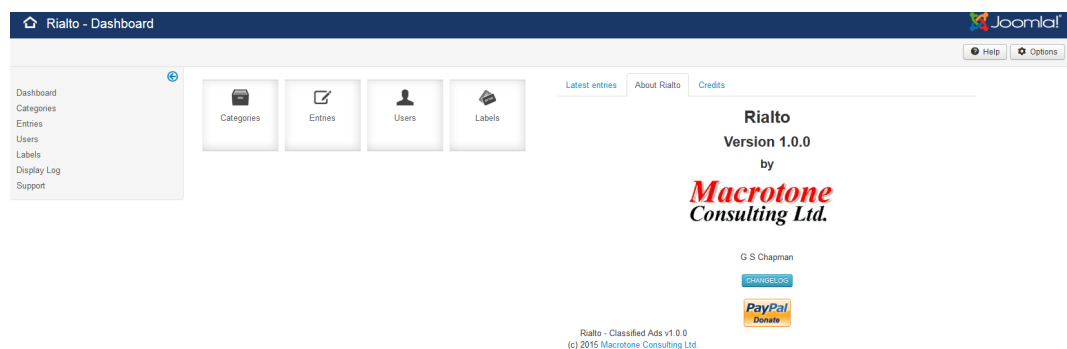
# Chapter 5. Back End Usage.

From the back end it is possible to create and otherwise control the various entries, although it is most commonly expected that the front end would be most frequently used. If installed upon a Joomla Multilingual site, depending upon the Joomla configuration, additional tabs and options may be displayed.

## Dashboard

The Dashboard is the starting point and provides easy access to the various individual components. It consists of a Details Panel, some icons for the most common access points and the usual links on the right hand side of the page.

**Figure 5.1. Rialto Dashboard.**



## Details Tab

The about tab on the Details panel shows the current release version, a change log button, which when clicked will display the changes made to this version, and a donations to enable the administrators to make a suitable donation to the component developer to encourage further development. There is (currently) no charge for the component but if found useful, you are encouraged to make a donation.



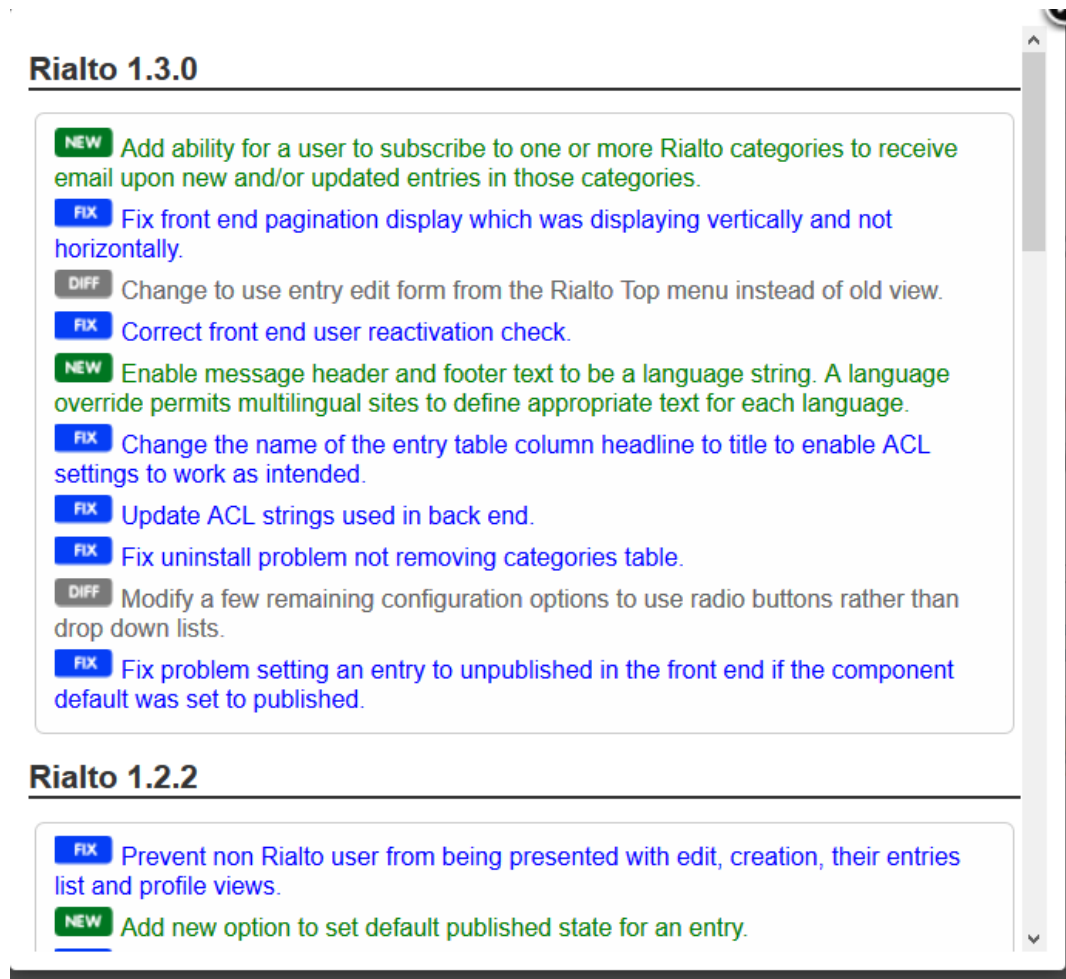
**Figure 5.2. Rialto Dashboard Details Panel.**



Clicking upon the 'Paypal' button creates a window where it is possible to make a donation to the author to assist in support and future enhancements.

## Change Log Display

Figure 5.3. Rialto Dashboard Changelog.



The change log is displayed in a 'popup' window when the button is pressed. This window displays the list of all the changes that have been made to this specific version of the component.

## Credits

The 'credits' tab displays the various contributors and assets from third parties that have helped in the development of the component. The contents of this tab are populated from the developers web site so the information should always be up to date.

The other purpose of the display is to thank all the people who have contributed their time and efforts in assisting in creating language translations for the component. Their time is given freely and their work is available for download upon our site for installing upon the your own web site. The list is loaded from our web site and hence is 'up to date' with the latest available translations.

**Figure 5.4. Rialto Dashboard - Credits Tab**

<a href="#">Latest entries</a>	<a href="#">About Rialto</a>	<b>Credits</b>
--------------------------------	------------------------------	----------------

Credits		
Language	Code	Name
French (France)	fr_FR	
Danish (Denmark)	da_DK	<a href="#">Ole Fisker</a>
German (Germany)	de_DE	
Persian (Farsi)	fa_IR	
Italian (Italy)	it_IT	
Norwegian Bokmål (Norway)	nb_NO	<a href="#">Markus Færø-Lunde</a>
Polish (Poland)	pl_PL	<a href="#">Łukasz Dylewski</a>
Portuguese (Brazilian)	pt_BR	<a href="#">Carlos Rodrigues de Souza</a>
Portuguese (Portugal)	pt_PT	
Russia (Russian)	ru_RU	
Swedish (Finland)	sv_FI	<a href="#">Rikard Ejfarsson</a>
Swedish (Sweden)	sv_SE	<a href="#">Rikard Ejfarsson</a>

Our apologies to anyone we may have unintentionally omitted from the above list.

The component is based upon a former component (Joomla 2.5) by Achim Fischer of [CodingFish](#).

The Akismet integration is based on the library provided using the PHP5 library by [Aching Brain](#)

## Latest Entries Tab

The latest entries tab displays the most recent entries opened on the site. It is a convenient view upon component activity. Release 1.1.0 introduced the additional 'language' field which is displayed in the latest entries display.

**Figure 5.5. Rialto Dashboard. - Latest Entries Tab**

Latest entries		
Date	Headline	Published
02.05.2015 12:59	<a href="#">Item 1 example</a>	
Rialto - Classified Ads v1.0.0 (c) 2015 <a href="#">Macrotone Consulting Ltd.</a>		

## Categories

The main categories are shown in the following diagram. When installed there are two (actually three, but the Root category is not shown or changeable) categories created when the component is installed, the 'Uncategorised' and the 'Demo Category'. It is expected that a site will change the name of the Demo Category to something more appropriate for the site. The 'Uncategorised' category can be renamed if desired, but is useful as a 'catch all'.

**Figure 5.6. Rialto Categories.**

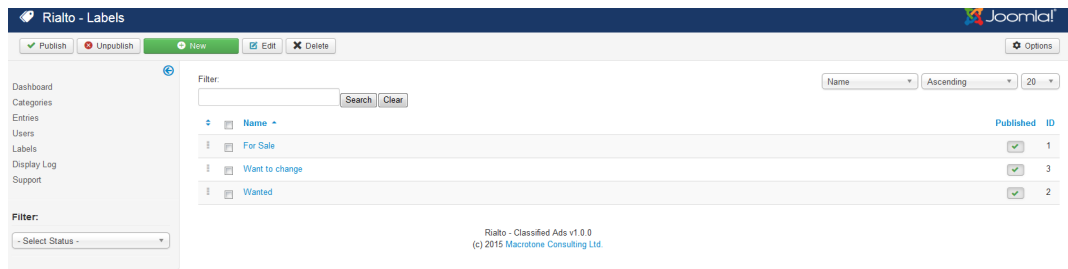
Category	Alias	Published	ID
Uncategorised	uncategorised		2
Demo Category	demo-category		3

Sub-categories can be created up to a depth of ten (10) levels. This should be sufficient for the majority of entries. Sn entry is always assigned to a specific category (or sub-category).

Release 1.2.0 allows one to add Joomla tags to a category, which is then displayed on the front end when the individual category is displayed. These are not mandatory, and it is possible to have some categories with icons and some without.

## Labels

An entry (or advertisement) usually has a specific label, such as 'For Sale, 'Wanted' etc. Additional labels may be created as required, and even the existing ones changed by the site if desired.

**Figure 5.7. Rialto Labels.**

It is possible to associate an image with each label, and which would be displayed as an alternative to the label text with the entry, which is the default if no image is specified.

### Note

One website that you may find useful is: <http://www.text2image.com> which can be used to generate an image containing any desired text with coloured background, foreground etc. This is possibly easier than chasing through the CSS file looking for the appropriate settings to modify. The chosen of image size is obviously very much a matter of choice but a size of 80px by 30px utilising a font size of 10pt, and typeface of Ariel is a good place to start experimenting. Three images, one for each of the supplied default labels are already supplied when the component is installed.

In the initial release there is also a description field for each label, that currently serves only as a facility for an administrator to specify some notes upon the intended use of the label.

## Entries

The entries are the main items for the site and each item contains the details of the specific advertisement.

**Figure 5.8. Rialto Entries.**

Name	Location	Status	Type	Version	Date	Author	Folder	ID
Rialto	Administrator	✓	Component	1.0.0	May 2015	Macrotone Consulting Ltd	N/A	10195
Rialto - Latest	Site	✓	Module	1.0.0	May 2015	Macrotone Consulting Ltd	N/A	10199
Search - Rialto	Site	✓	Plugin	1.0.0	May 2015	Macrotone Consulting Ltd	search	10197
System - Rialto	Site	✓	Plugin	1.0.0	May 2015	Macrotone Consulting Ltd	system	10196
Xmap - Rialto	Site	✗	Plugin	1.0.0	May 2015	Macrotone Consulting Ltd	xmap	10198

An entry is the advertisement. An entry may contain up to ten (10) different images, and the number available is specified in the component options. An entry also contains the details of the item being advertised, and the information to be displayed about the item vendor which is to be shown on the web page.

Release 1.2.0 introduced the ability to all Joomla tags to individual entries which are then displayed in the front end when the entry is viewed. Multiple tags may be applied to an entry. The tags which are part of the 'standard' Joomla tag component may be styled using CSS to match any desired site standard.

### Note

The expired flag may be automatically set (in the front end) when the configured display time for an entry is exceeded. An expired entry is automatically 'unpublished' and hence would

no longer be visible in the front end of the site. The flag can be reset in the back end. To prevent the entry from immediately 'expiring' again, the dates associated with the entry are also updated to the date the entry was changed.

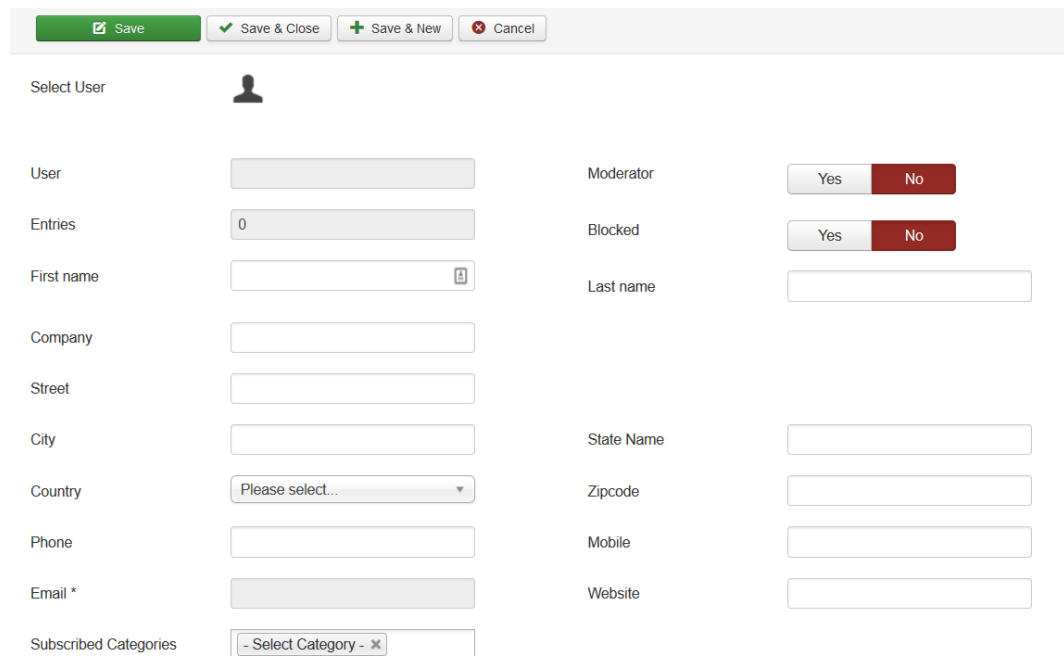
## Users

The users table contains the default values for each Rialto user. Settings such as the first (Christian) name and surname, address details etc. Some of these such as the user's email address are obtained from the Joomla users table, others are specific to Rialto.

Prior to release 1.2.1 all Joomla registered users automatically had an entry in the Rialto users table, so were able to create Rialto entries. This changed in release 1.2.1 so that Joomla users were required to be added to the Rialto users table to be able to open Rialto entries. This change involved modifying the Rialto system plugin which now provides a parameter to determine whether users should be automatically added to the Rialto users table. The default is to automatically add them which this matches the behaviour prior to release 1.2.1 being available. There is now a 'new' button on the back end Rialto users view to enable the creation of a 'New' Rialto user, which will show the user view with an icon to enable the administrator to select a Joomla user from the Joomla user table to add to Rialto. This user must be a registered Joomla user. The component does not understand un-registered users..

When initially presented the important fields are imply. It is necessary to select the 'user icon' to be presented with a modal window listing all current Joomla users who are not currently able to create Rialto entries. The presented list is restricted to the top 500 users, for performance reasons. This limit is currently hard coded but be made an option if demand warrants it. The arbitrary number of 500 was chosen as being a reasonable value and for no other reason.

**Figure 5.9. Rialto New User.**



The selection of a Joomla user is from a modal window (displayed below), which will list all Joomla users who are not yet Rialto users. Clicking upon the link in the table will add the user and return the administrator to the user view where the additional fields can be manually populated.

**Figure 5.10. User Select Modal.**

#	Name	User	Email	ID
1	dummy2t	dummy2	dummy2@macrotone.co.uk	422

Results 1 - 1 of 1

Rialto - Classified Ads v1.3.0  
(c) 2015-2016 Macrotone Consulting Ltd.

The user information also includes the details of the fields that are displayed in the front end when an entry is seen. Items such as the first name, last name, email address etc are all contained within the users table. In the front end the Rialto user profile provided the user with the ability to add, or modify these fields to suit their own specific preferences. i.e They may prefer that their first name is a 'nickname' rather than a full 'Christian' name.

Removing a Rialto user from the Rialto users table will not remove them from the Joomla users table.

## Important

If a user is removed from the Joomla users table directly, the Rialto user and their associated entries will be automatically removed from Rialto.

The users view also permits the setting of Rialto moderators.

# Support

The support section provides a location for useful contact points for the site administrators on the component.

**Figure 5.11. Rialto Support.**

If you need support, please try the following locations in this suggested order to get your question answered quickest.:

1. <a href="#">Documentation</a>	The Rialto documentation upon our web site.
2. <a href="#">Frequently Asked Questions</a>	First check if your question is already answered in the frequently asked questions
3. <a href="#">Search the forum</a>	Search the forum in category 'Rialto Joomla!'
4. <a href="#">Post in a forum</a>	Post Forum Information 'Rialto Joomla!'
5. <a href="#">Raise an issue/problem report.</a>	Raise a problem report on the company web site.
6. <a href="#">Contact Details</a>	As a last resort! Contact us using the contact form on our site

Get update notifications when there is an update available:

☐ [Register and sign up for email update notifications](#)

☒ [Subscribe to RSS feed update notifications](#)

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The 'Support' tab provides details of how additional information and/or assistance may be obtained on the product. As can be seen Macrotone provide a Frequently Asked Question (FAQ) on the company website, and additionally provide a Forum where users may raise questions.

There is also the ability on the company web site to raise an Issue (or problem).

Finally there is the ability to send an email which will be answered as and when circumstances permit. Preference is usually given to forum entries.



# Chapter 6. Front End Usage.


## Note

Any display in the front end is very dependant upon the specific site template in use and any 'tweaks' that may have been performed by the site administrators to the CSS to achieve a 'site standard'. For that reason any images shown in this section are for illustrative purposes only, the display upon your own site may differ, in some cases considerably.


Any entries (advertisements) shown in this document are purely for demonstration purposes only and serve to show what is possible.


The image below shows the front end image display using the Photostat site template, immediately after the component is installed with no entries having been created. This is assuming it is not a multilingual site. From the front end perspective most of the multilingual features of Rialto will be transparent. The most obvious change would be that the category display would include an additional column indicating the language in which an entry is specified. This would usually contain a value of the currently selected site language, the translated equivalent of 'All' where an entry has been specified as being visible for 'All' defined site languages., or 'Undefined' where a language has not been provided. This latter is not expected to be present on the site since upon updating the component all existing entries would have been updated and any new or updated entries would have been modified to provide a valid value for the language of the entry.


**Figure 6.1. Front End Categories Display.**



Categories  
[Index](#)

	Category	Entries	Last Entry
	<a href="#">Uncategorised</a> Uncategorised	0	-
	<a href="#">Demo Category</a> Demo Category	0	-

 [RSS Rialto all entries](#)

 Rialto

You are here: [Home](#) ▶ [Rialto](#)


The above display is shown when a 'guest' user is viewing the categories. If logged in a registered user will see a few more links in the display, one to enable creation of new enters, one to display the users 'own' raised entries and to display their own detail profile settings.

Category icons may or may not be displayed depending upon whether they have been specified for the particular category. For example in the above display there is no defined icon for the 'Uncategorised' category but there is for the 'Demo category'.


Selecting one of the specific 'categories;' will display the items which are associated with the selected category.

Within each category one can view more details about each item as illustrated below. The following is what is shown to an unregistered user (or visitor). Clicking upon the image will display a 'larger' view of the associated image.


**Figure 6.2. Entry Display (1).**



[Index](#)

 **Demo Category**  
Demo Category

[Rialto](#) » [Demo Category](#) » [Item 1 example](#)

Item 1 example		Saturday, 02 May 2015 by fredb
<p><a href="#">fredb</a>   <a href="#">For Sale</a></p> <p>Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt. Neque porro quisquam est, qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit, sed quia non numquam eius modi tempora incidunt ut labore et dolore magnam aliquam quaerat voluptatem. Ut enim ad minima veniam, quis nostrum exercitationem ullam corporis suscipit laboriosam, nisi ut aliquid ex ea commodi consequatur? Quis autem vel eum iure reprehenderit qui in ea voluptate velit esse quam nihil molestiae consequatur, vel illum qui dolorem eum fugiat quo voluptas nulla pariatur?</p> <p>Condition: Good</p>		
Please login to see the contact details		

[Rialto](#) » [Demo Category](#) » [Item 1 example](#)


If the site is configured for multiple images to be displayed (maximum en images) they will also be displayed if defined within the entry. Similarly if videos are configured to be added to entries (maximum of 3 videos) they will also be shown immediately below the images. If no videos or images are present for an entry the descriptive text of the entry will expand to fill the total width of the display.

Clicking upon the image (or video), if present will display a larger version of the image (or video) in full screen.

If a user is logged in then the details (as specified in the component options) and as populated by the vendor will also be shown. In the example below only two fields have been populated, the name and the vendors email address. Any optional fields not populated by the vendor will not be shown.

**Figure 6.3. Entry Display (2).**

[Index](#)
[New Entry](#)
[My Entries](#)
[Profile](#)



## Demo Category

Demo Category

[Rialto](#) » [Demo Category](#) » Item 1 example


### Item 1 example

fredb

For Sale

Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt. Neque porro quisquam est, qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit, sed quia non numquam eius modi tempora incidunt ut labore et dolore magnam aliquam quaerat voluptatem. Ut enim ad minima veniam, quis nostrum exercitationem ullam corporis suscipit laboriosam, nisi ut aliquid ex ea commodi consequatur? Quis autem vel eum iure reprehenderit qui in ea voluptate velit esse quam nihil molestiae consequatur, vel illum qui dolorem eum fugiat quo voluptas nulla pariatur?

Condition: Good



### Contact data

Fredb  
 Email: [fredb@macrotone.co.uk](mailto:fredb@macrotone.co.uk)

[Edit](#)
[Delete](#)
State: **Active**

[Rialto](#) » [Demo Category](#) » Item 1 example

You will have noticed the 'Contact Vendor' button. When pressed a small form is shown that has to be filled in, and when the 'send' button is pressed will cause an email message, with the supplied details to be send to the vendor.

**Figure 6.4. Entry Display (3).**

The screenshot shows a web form titled 'Contact data' and 'Contact The Advert Owner'. Under 'Contact data', it displays the name 'Fredb' and email 'fredb@macrotone.co.uk' with a 'Contact Vendor' button. The 'Contact The Advert Owner' section contains four input fields: 'Name \*', 'Email \*', 'Phone', and 'Message \*', each with a placeholder text. Below these fields are 'Send' and 'Hide' buttons. At the bottom, there are links for 'Edit' and 'Delete', and a status indicator 'State: Active'.

The email mail address of the vendor will only be displayed if it is a configured option.

The logged in user is also presented with a few additional 'menu' items, namely 'My Entries', 'New Entry' and 'My Profile'. Clicking on these will present the user with the expected views.

The Edit and Delete options shown at the bottom of the previous image will only work IF the entry being viewed is 'owned' by the logged in user. A logged in user cannot edit or delete entries for which they are not the 'owner'.

## Important

When creating an entry on the front end it is not possible (currently) to create associations between entries in different languages. This is a design decision based upon current functionality provided in other Joomla component. Associations have to be created in the back end of the site.

A new entry can be created on the front end by the logged in user using the 'New Entry' link shown in the Entry Display(2) above. Only registered and logged in users can currently create entries. Release 1.2.0 changed the front end entry edit to use JForms, and it is possible to also add a new menu item to access the Entry form. Again the user has to be logged in to be able to 'see' the form, otherwise the 'guest user' is redirected to the main Rialto index display.

A new entry created from the Rialto menu bar, shown in Entry Display (2) above, steps through a number of steps (not shown) and is not in Release 1.2.0 and earlier using JForms. This is an early design criteria as it permits decisions to be made upon what subsequent information is required based upon the earlier selected entry criteria. This may well change in later releases, where greater use of JForms is expected.

The user can also view all of their 'entries' by clicking on the 'My Entries' link shown in Entry Display (2) screen shown above.

A user may also delete their own displayed entry by clicking on the 'Delete' text shown below the displayed entry, seen when they are logged in. They will be prompted to ensure that they really do want to delete the entry. If they conform the displayed dialogue box question then the entry will be removed from the system. The entry is NOT placed in the trash folder and is immediately removed and no recovery is possible.

The other link on the Entry Display (2) screen is the 'Profile' which permits the user to set up their specific criteria used by default for any entries they may create. They can always over write them for any specific entry, but it saves them entering the same information for new entries when they create entries regularly.

### **Note**

Depending upon the specific category to which they are adding their new entries will determine whether which (or all) fields are displayed for a category entry.

## **Front End Edit**

When originally released there were a set of 'step by step' screens displayed that permitted the user to fill in the fields as they create the entry. This mechanism still exists (as code) but has been replaced by the use of standard Joomla forms. These display screens were also used when an entry was edited, but Rialto 1.2.0 and later versions changed to use a tabbed form based entry mechanism. The form mechanism is also used if the administrator creates a menu item to create a Rialto entry. This method makes better use of the display screen and is more 'modern' in its usage.

Release 1.3.0 removed the 'step by step' Rialto entry creation completely, although the code still exists, and replaced it with a standard Joomla JForms implementation. The code will be removed completely in a later update.

Note that the 'published state' of the entry is not modifiable by the creating user unless they have been granted the appropriate Joomla ACL permission to 'edit.state'.

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# Chapter 7. Creating a language translation.

## Transifex

One method that we have recently decided to make use of is the 'Transifex' project. To be truly multi-lingual most freely available Joomla component (including modules and plugins) relies on local communities to create language packs. We realise that is can be a very dirty job, that is very time consuming. Transifex provides a mechanism to make language translations faster but with less work. Making use of this mechanism we hope to be able to provide users with a wider variety of available languages ready to download.

Looking at the number of existing components already making use of Transifex, we are joining an already varied and wide ranging community.

Transifex comes with the options of a client or a web interface and also has an extensive help system.

One site that might provide useful to translators starting to get to grips with Transifex and its usage is provided here. Not being multilingual ourselves we cannot really make any valid comments upon how useful they specifically are, but they certainly appear to be informative and complete.

Basically the language files are placed upon the Transifex server by ourselves within a 'project' i.e 'Rialto'. The translators have an account (free upon request) on Transifex and request access to a language, which if granted allows access to the specific language files. The translators can edit the language strings for their specific language directly online, or via the use of a 'Transifex client' (freely downloadable) download the files, perform the translation locally and then upload them back to the Transifex server.

On our end we are kept informed of the state of translations automatically and via the use of a Joomla component named CTransifex (Compojoom) which can automatically generate the required installable zip files and make them available for users to download.

This avoids the need to create multiple zip files manually making the distribution task much simpler and relieving the translators from the tedious task of maintaining zip files, and at the same time providing an easier translation tool.

There are more details upon our website <http://macrotoneconsulting.co.uk/index.php/Macrotone/language-guide-extensions.html> and also upon the Transifex web site <https://www.transifex.com/>.

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# Chapter 8. Version Changes

The following is a list of the principle changes that have occurred during each release.

## Release Versions

### Rialto 1.3.0

- + Add ability for a user to subscribe to one or more Rialto categories to receive email upon new entries in those categories.
- # Fix front end pagination display which was displaying vertically and not horizontally.
- ~ Change to use entry edit form from the Rialto Top menu instead of old view.
- # Correct front end user reactivation check.
- + Enable message header and footer text to be a language string. A language override permits multi-lingual sites to define appropriate text for each language.
- # Change the name of the entry table column headline to title to enable ACL settings to work as intended.
- # Update ACL strings used in back end.
- # Fix uninstall problem not removing categories table.

### Rialto 1.2.2

- # Prevent non Rialto user from being presented with edit, creation, their entries list and profile views.
- + Add new option to set default published state for an entry.
- # Editing user field in back end is not saved and gives a message about email field being required.
- # Adding new user was failing due to need to specify an existing id field.
- ~ Modify forms to use new selectcountry form field in front and back end.
- # Number of ads for a new user incorrectly set on back end save.

### Rialto 1.2.1

- ~ Move ucm content removal to table classes.
- ~ Update copyright year to 2016
- # Fix HTML boxes stripping out codes.
- # Modify some strings structures. Thanks to Lukasz Dylewski.
- ~ Change default character set to utf8mb4 and collation to utf8mb4\_unicode\_ci to match Joomla 3.5
- Remove meta table.
- # Correct error introduced by Joomla 3.5.1 JMail change (addReplyTo).
- ~ Rework mail send to use exception handling.

- ~ Add option to control whether new users are automatically added to the Rialto users table.
- ~ Change admin user view to permit selection of Joomla users able to use Rialto.
- ~ Change a few hard coded strings to language string variables.
- # Correct setting of user id in front end entryform.
- # Temporarily disable entry permissions tab in back end until rework of the table is performed.
- # Correct determination of change state ACL permission in front end entryform.
- # Correct obtaining of id in front end mailing routine.
- ~ Only display front end contact mail form if we are not the entry owner.
- # Correct breadcrumb link shown on front end index when redirected.
- # Correct redirection when cancelling out of a front end edit using the form.

## Rialto 1.2.0

- + Add missing expired string description.
- + Add support for Joomla Tags.
- # Modify breadcrumb display in front end to include parent categories.
- Remove Akeeba restore points from xml file.
- ~ Modify front end entry creation and edit displays to use JForm.
- ~ Get version number from manifest rather than meta table.
- # Increase permissions check using more ACL settings.
- # Fix categories rebuild in back end.
- # Fix front end search plugin invalid field text error.
- + New option to control placement of breadcrumbs in front end.

## Rialto 1.1.0A

- # Correct display of published flag in modal displays so that they line up, rather than being displaced.
- + Add update site details.
- # Correct SQL install script which was preventing a fresh install. Zip created and released as 1.1.0A.

## Rialto 1.1.0

- + New option to control placement of breadcrumbs in front end displays.
- + Add option to load videos with entry. Utube and Vimeo supported. Also adds code to check that the specified video exists, both upon saving or updating but also upon entry display.
- # Correct category image display in front end entry view.
- ~ Change front end redirects to return to the entry view rather than the index page on update, save and reactive success.



- ~ Modify front end category list to add a dash for each sub level before the category name.
- + New option to modify category front end drop down list to indicate the specific level where the category is situation.
- + New language fields added to support full multilingual ability.
- # Correct problem preventing deletion of categories.
- ~ Modify front end entry display to make better use of display if no images or videos provided for the entry.

## **Rialto 1.0.0**

- + Initial Release

---

# Chapter 9. Database Design

In this section we specifically concentrate upon the underlying database objects.

## Designing the Database Objects

Once the database requirements are defined, the next step is to turn these into a database design and an outline that describes how the user interface accepts and presents data. Given the requirements described above the three main tables can be created:

- **Categories** tracks all current Rialto categories
- **Users** contains information about who can be create Rialto entries
- **Labels** contain the various types of advertisement types.
- **Entries** contain the individual advertisements (items)

Further detail notes upon the main tables is provided later in this document.

System generated primary keys will be used for all tables so that all the data can be edited without executing a cascade update.

## Database Objects - Procedures, Views, Triggers

Our experience tends to indicate that very few (if any) Joomla components make use of the underlying database to its full advantage, preferring instead to implement features at the application layer. This is in our opinion missing a very important 'trick', since the database is 'closest' to the data itself.

### Database Triggers

The component does not implement any database triggers in the initial release.

The following description is taken from Wikipedia:

A database trigger is procedural code that is automatically executed in response to certain events on a particular table or view in a database. The trigger is mostly used for maintaining the integrity of the information on the database. For example, when a new record (representing a new worker) is added to the employees table, new records should also be created in the tables of the taxes, vacations and salaries.

Triggers are commonly used to:

- audit changes (e.g. keep a log of the users and roles involved in changes)
- enhance changes (e.g. ensure that every change to a record is time-stamped by the server's clock)
- enforce business rules (e.g. require that every invoice have at least one line item)
- execute business rules (e.g. notify a manager every time an employee's bank account number changes)
- replicate data (e.g. store a record of every change, to be shipped to another database later)
- enhance performance (e.g. update the account balance after every detail transaction, for faster queries)

The examples above are called Data Manipulation Language (DML) triggers because the triggers are defined as part of the Data Manipulation Language and are executed at the time the data is manipulated.

Some systems also support non-data triggers, which fire in response to Data Definition Language (DDL) events such as creating tables, or runtime or and events such as logon, commit and rollback. Such DDL triggers can be used for database auditing purposes.

The following are major features of database triggers and their effects:

- triggers do not accept parameters or arguments (but may store affected-data in temporary tables)
- triggers cannot perform commit or rollback operations because they are part of the triggering SQL statement (only through autonomous transactions)

## MySQL

MySQL 5.0.2 introduced support for triggers. MySQL supports these trigger types:

- Insert Trigger
- Update Trigger
- Delete Trigger

### Note

MySQL allows only one trigger of each type on each table (i.e. one before insert, one after insert, one before update, one after update, one before delete and one after delete).

### Note

MySQL does NOT fire triggers outside of a statement (i.e. API's, foreign key cascades)

Whether a specific database user can create these triggers will depend upon the permissions granted to the database user. The database user that has to have the correct permission in the Joomla environment is the user that is used to perform all database connects as defined in the Joomla installation itself.

### Note

Different databases implement database features such as database triggers in different way, and often with slightly different syntax. For that reason the current version only supports MySQL databases, the most commonly used database for Joomla systems.

## Database Routines (Procedures)

A stored procedure is a subroutine available to applications that access a relational database system. A stored procedure is actually stored in the database data dictionary.

Typical use for stored procedures include data validation (integrated into the database) or access control mechanisms. Furthermore, stored procedures can consolidate and centralise logic that was originally implemented in applications. Extensive or complex processing that requires execution of several SQL statements is moved into stored procedures, and all applications call the procedures. One can use nested stored procedures by executing one stored procedure from within another. This is more efficient than handling the actions at the application layer, since the database is 'closer' to the actual data being manipulated.

Stored procedures are similar to database functions. The major difference is that functions can be used like any other expression within SQL statements, whereas stored procedures must be invoked using the CALL statement.

The component in the initial release does not make use of any database procedures.



## Categories Table

Each entry belongs to a specific category.

**Table 9.1. Categories table description**

Column Name	Type	Size	Not Null?	Constraints	Description
id	Integer	n/a	Yes	Primary key	A unique numeric identification for each category (or sub-category). Populated by an auto-sequence.
parent_id	Number	n/a	No	None	Key to parent category.
title	Varchar	255	Yes	Unique key	A unique alphanumeric name for the category.
alias	Varchar	255	Yes	None	Category Alias.
description	Varchar	255	No	None	Description of the category.
image	Varchar	255	No	None	Name of the category image if required.
lft	Integer	11	Yes	None	Nested table left.
rgt	Integer	11	Yes	None	Nested table right.
level	Integer	10	Yes	None	Nested table level.
access	TinyInt	3	Yes	None	Required for nested table.
path	Varchar	255	Yes	None	Required for nested table.
ordering	Int	11	No	None	the column used for ordering records. Not used.
state	TinyInt	1	No	None	State of the specific record. i.e. Published, archived, trashed etc.
language	Character	7	No	None	Language code.
asset_id	Integer	255	No	None	Asset identifier as used in Joomla assets table.
created	Timestamp	-	No	None	The date and time the record was created. Default NULL.
modified	Timestamp	-	No	None	If populated the date and time the record was last modified.
show_image	TinyInt	1	Yes	None	Whether to display the category image. Default 0 (No).
use_firstname	TinyInt	1	Yes	None	Whether to display the users Christian (first) name. Valid values are: 0 = No, 1 = Yes, 2 = User Global setting. Default is Use Global.
use_lastname	TinyInt	1	Yes	None	Whether to display the users surname. Valid values are: 0 = No, 1 = Yes, 2 = User Global setting. Default is Use Global.
use_company	TinyInt	1	Yes	None	Whether to display the entry cvendor's company name. Valid values are: 0 = No, 1 = Yes, 2 = User Global setting. Default is Use Global.
use_street	TinyInt	1	Yes	None	Whether to display the entry vendor's street address. Valid values are: 0 = No, 1 = Yes, 2 = User Global setting. Default is Use Global.

Column Name	Type	Size	Not Null?	Constraints	Description
use_zip	TinyInt	1	Yes	None	Whether to display the entry vendor's zip (post) code. Valid values are: 0 = No, 1 = Yes, 2 = User Global setting. Default is Use Global.
use_city	TinyInt	1	Yes	None	Whether to display the entry vendor's city. Valid values are: 0 = No, 1 = Yes, 2 = User Global setting. Default is Use Global.
use_state	TinyInt	1	Yes	None	Whether to display the entry vendor's state. Valid values are: 0 = No, 1 = Yes, 2 = User Global setting. Default is Use Global.
use_country	TinyInt	1	Yes	None	Whether to display the entry vendor's country. Valid values are: 0 = No, 1 = Yes, 2 = User Global setting. Default is Use Global.
use_phone	TinyInt	1	Yes	None	Whether to display the entry vendor's land line phone number. Valid values are: 0 = No, 1 = Yes, 2 = User Global setting. Default is Use Global.
use_mobile	TinyInt	1	Yes	None	Whether to display entry vendor's mobile phone number. Valid values are: 0 = No, 1 = Yes, 2 = User Global setting. Default is Use Global.
use_email	TinyInt	1	Yes	None	Whether to display the entry vendors email address. Valid values are: 0 = No, 1 = Yes, 2 = User Global setting. Default is Use Global.
use_web	TinyInt	1	Yes	None	Whether to display the entry web address (URL). Valid values are: 0 = No, 1 = Yes, 2 = User Global setting. Default is Use Global.
use_condition	TinyInt	1	Yes	None	Whether to display the entry condition. Valid values are: 0 = No, 1 = Yes, 2 = User Global setting. Default is Use Global.
use_price	TinyInt	1	Yes	None	Whether to display the entry price. Valid values are: 0 = No, 1 = Yes, 2 = User Global setting. Default is Use Global.

## Note

1) It is possible to define sub-categories as well. Each sub-category is linked through the parent\_id field. In some of the Joomla displays the full category name is displayed for every sub-category. i.e. For a category with three levels of sub-category the category name is displayed as:

Category Name Level 1 - Level 2 - Level 3

Where 'Level 1', 'Level 2' and 'Level 3' are the defined category name values for the sub categories. This means that the displayed 'combined category name may become quite long, and for that reason it is suggested that the 'category name' is kept to a minimum length sufficient to uniquely identify it.

2) There is a 'Root' category that is never displayed, but acts as the base of the category tree.

## Users Table

The users table is used to provide information for their entries, rather than specifying them every time. A user may also be defined as a Rialto moderator, and may be blocked from creating Rialto entries. The basic entry is populated / created when a user first registers in Joomla.

**Table 9.2. Users table description**

Column Name	Type	Size	Not Null?	Constraints	Description
id	Integer	11	Yes	Primary key	The system generated unique identifier for the user. From the Joomla users table.
username	Varchar	150	Yes	-	A unique name that identifies each user.
status	TinyInt	1	Yes	None	User status.
ads	Integer	11	Yes	None	The number of adds attributed to the user.
moderator	TinyInt	1	Yes	None	Indicates whether the user is a Rialto moderator.
blocked	TinyInt	1	No	None	Whether the user is blocked from using Rialto.
firstname	Varchar	255	No	None	User's first (Christian) name.
lastname	Varchar	255	No	None	User's last name.
company	Varchar	255	No	None	User's company if applicable.
street	Varchar	255	No	None	User street address.
zipcode	Varchar	50	No	None	User's zip code (Or postcode) address.
city	Varchar	255	No	None	User's city address.
statename	Varchar	255	No	None	User's state address (or county) if applicable.
country	Varchar	255	No	None	User's country address.
phone	Varchar	255	No	None	User phone number for contacts if required.
mobile	Varchar	255	No	None	An alternative mobile phone number for the user.
email	Varchar	255	No	None	An email address for the user.
website	Varchar	255	No	None	A website address (URL) for the user,if applicable.

Note:

The minimum amount of information is required about the user, sufficient only to be able to provide sufficient information in the Rialto entries to enable their items to be advertised.

The basic user information is automatically inserted into the table when a new user is registered upon the Joomla site. This is achieved via a Joomla plug-in, installed when the component is installed. The plug-in also handles the deletion of users when they are removed from the Joomla users table.

Removal of a user will also automatically remove any associated Rialto entries.

## Entries Table

This is the main table containing the different items (entries) that are being advertised.

**Table 9.3. Entries table description**

Column Name	Type	Size	Not Null?	Constraints	Description
id	Number	n/a	Yes	primary key	A unique numeric ID that identifies a record. Populated by an auto sequence.
category_id	Int	10	No	-	The integer value of the category of the entry. Reference to the categories table for the entry.
label_id	Int	10	No	-	The integer value of the label of the entry. Reference to the labels table for the entry.
user_id	Int	10	No	-	The integer value of the owner of the entry. Reference to the users table for the entry.
firstname	Varchar	255	No	None	The first name (Christian name) of the vendor.
lastname	Varchar	255	No	None	The last name (surname) of the vendor.
company	Varchar	255	No	None	The company of the vendor, if applicable.
street	Varchar	255	No	None	The street address of the vendor.
zip	Varchar	50	No	None	The zip code (or postcode) for the vendor.
city	Varchar	255	No	None	The city where the entry item (or vendor) is located.
statename	Varchar	255	No	None	The name of the state where the entry item is located.
country	Varchar	255	No	None	The country where the entry item is located.
phone	Varchar	255	No	None	A land line phone number for contacting the vendor of the entry.
mobile	Varchar	255	No	None	A mobile phone number for contacting the vendor of the entry item.
email	Varchar	255	No	None	An email address of the vendor of the entry.
web	Varchar	255	No	None	A web address (URL) associated with the entry.
title	Varchar	255	No	None	A 'catchy' headline for the entry. Formally named 'headline' in releases prior to 1.3.0.
alias	Varchar	255	No	None	Entry Alias used to mask primary key of the entry from random selection.
description	Text	-	No	None	A detailed description of the entry.
condition	Varchar	255	Yes	None	Descriptive text describing the condition of the entry.
price	Varchar	255	Yes	None	The price of the item. Specified as text to allow for other possible 'cos' or 'exchange' mechanisms.
date_created	Timestamp	-	Yes	None	The date the entry was created. Default Current timestamp.
date_lastmodified	Timestamp	-	Yes	None	The date the entry was last modified.
flag_commercial	TinyInt	1	Yes	None	Indicates whether the entry is a commercial entry.



Column Name	Type	Size	Not Null?	Constraints	Description
flag_featured	TinyInt	1	Yes	None	Indicates whether the entry is a featured entry.
flag_top	TinyInt	1	Yes	None	Indicates whether the entry should be displayed at the top of the entry list.
state	TinyInt	1	No	None	State of the specific record. i.e. Published, archived, trashed etc. in front end.
language	Character	7	No	None	Language code.
asset_id	Integer	255	No	None	Asset identifier as used in Joomla assets table.
expired	Tinyint	1	No	None	Specifies whether the entry is expired.
image1	Varchar	255	Yes	None	The name of the first image associated with the entry.
image2	Varchar	255	Yes	None	The name of the second image associated with the entry.
image3	Varchar	255	Yes	None	The name of the third image associated with the entry.
image4	Varchar	255	Yes	None	The name of the fourth image associated with the entry.
image5	Varchar	255	Yes	None	The name of the fifth image associated with the entry.
image6	Varchar	255	Yes	None	The name of the sixth image associated with the entry.
image7	Varchar	255	Yes	None	The name of the seventh image associated with the entry.
image8	Varchar	255	Yes	None	The name of the eighth first image associated with the entry.
image9	Varchar	255	Yes	None	The name of the ninth image associated with the entry.
image10	Varchar	255	Yes	None	The name of the tenth image associated with the entry.
video1	Varchar	255	Yes	None	The name of the first video associated with the entry.
vtype1	TinyInt	1	Yes	None	Video source type.
video2	Varchar	255	Yes	None	The name of the second video associated with the entry.
vtype2	TinyInt	1	Yes	None	Video source type.
video2	Varchar	255	Yes	None	The name of the second video associated with the entry.
vtype3	TinyInt	1	Yes	None	Video source type.

## Labels Table

The structure of the labels table is as shown below. This table is used to store the various label types which can be applied to Rialto entries.

**Table 9.4. Labels table description**

Column Name	Type	Size	Not Null?	Constraints	Description
id	Integer	n/a	Yes	Primary key	A unique numeric identification for each labels record. Populated by an auto-sequence.
name	Varchar	255	No	None	Name of the label.
ordering	Number	n/a	No	None	Order in which label records are displayed.
state	Number	4	No	None	State of the specific record. i.e. Published, archived, trashed etc.
language	Character	7	No	None	Language code.
description	Varchar	255	No	None	Description of the label.
image	Varchar	255	No	None	Name of the label image if required. This is usually stored in the /images/rialto directory.

## Rialto Log Table

The Rialto Log table is used by the logging routines to store information, of different priorities that are used to provide additional information upon the operation of the component. It is built on top of the standard Joomla JLog libraries.

**Table 9.5. Log table description**

Column Name	Type	Size	Not Null?	Constraints	Description
id	Number	n/a	Yes	primary key	A unique numeric ID that identifies a record. Populated by an auto sequence.
priority	Number	11	Yes	n/a	The priority of the message. i.e. Alert, Info, Notice, Warning etc.
message	Varchar	512	No	n/a	The text message to store.
date	Date		No	n/a	The date the message was generated.
category	Varchar	255	No	n/a	The message category. Default 'com_rialto'

There is a compound index upon the category, date and priority columns in that order.

## Rialto Cat\_Users Table

Introduced in release 1.3.0 the Rialto Cat\_Users tables is used to hold the links that define the categories that a user is subscribed to. The table is used to simplify the selection of users to which email messages should be sent.

**Table 9.6. Cat\_Users table description**

Column Name	Type	Size	Not Null?	Constraints	Description
id	Number	n/a	Yes	primary key	A unique numeric ID that identifies a record. Populated by an auto sequence.
cat_id	Number	11	Yes	n/a	The foreign key to the Railto categories table.
user_id	Integer	11	No	n/a	The foreign key to the Rialto users table.

There is a compound index upon the cat\_id and user\_id.

## Meta Data Table

The Meta table is/was used by the component itself to record version numbers of its component parts. i.e. Modules, plugins etc. Although still present in release 1.2.0 the component retrieves the version number from the Joomla manifest instead of this table.

**Table 9.7. Meta data component table description**

Column Name	Type	Size	Not Null?	Constraints	Description
id	Int	11	Yes	Primary key	The system generated unique identifier for the record. Populated by an auto-sequence.
version	Varchar	100	Yes	None	Version number of the installed component.
type	Varchar	20	Yes	None	Type of extension.

### Important

The meta table was removed from the distribution in release 1.2.0. These details are retained for reference purposes only.

## Implementing Database Objects

This first step in building an application was to create the database objects. The tables have been defined above but there are a few other database objects we require.

### Additional Database Objects Needed

To populate the primary key values of the tables needed for this application, an auto incrementing sequence is used in the MySQL implementation.

### About Building Database Objects

There are several tools for creating objects in MySQL. You can:

- Use phpAdmin to create tables, views, indexes, procedures, functions, triggers etc.
- Use a product such as Toad, which provides the same abilities as phpAdmin with a cleaner interface. This is downloadable from the Quest website.
- Create a script in a standard text editor and then upload the script and use the MySQL command interface, Toad, or phpAdmin to execute it.

### Default Base Data

There are a few provided records inserted into the tables upon installation.

The categories table has a Root entry created with an id value of 1, which acts as the base category from which all other categories derive. This particular 'Root' project is 'hidden' from viewing or changing within the component.

The labels table is populated with a few sample label types which are commonly required.

---

# Chapter 10. CSS Styling

This section describes some of the possible configuration that can be performed to change the 'look and feel' of the front end of the site. It is not the purpose of this document to describe all of the possible CSS configuration options that can be used, but instead to describe a few of the more commonly used options.

## Note

It is beyond the scope of this document to go into the details of CSS styling as there are a number of resources available on the web providing details.

It is possible to change the CSS styling used on your site by using a media override. When installed the CSS stylesheets for the Rialto Component are installed in the 'media/com\_rialto' directory. The site administrator can create a site override by creating a directory named media/com\_rialto under the site template directory. One then copies the folders and files that it is desired to override in this location. Then almost like magic, Rialto will now load which ever files are under the template instead of that contained in the media directory under the site's root directory.

The name of the CSS style sheet file used in the front end of your site is named 'rialto.css'.

The use of 'html' boxes defined in the component configuration options also permits some customisation of how the entries are presented on the front end of the site.

## Back End styling

The styling sheet for the back end is named 'administrator.css'. It contains all of the colour coding, and table style specific to the administrator forms. Where a class is not specified within this file, the details of the style are obtained from the site administration template (default Isis).

## Message styling

The component has some options that can control how the generated messages can be configured. There are options to define specific CSS rules for a message header and a message footer, so for example one can define some 'div' rules in the header and close the div in the footer. One can also include some text strings in either parameter however this is not ideal if it is a multilingual site where different 'text' is required for the different languages. Release 1.3.0 introduced some specific language strings for this situation.

Different options are possible for both 'contact messages' and also subscription messages.

---

# Chapter 11. Helper Classes

## General Helper

The general Rialto helper is used to present display list options, and also is called for the generation of all of the notification messages.

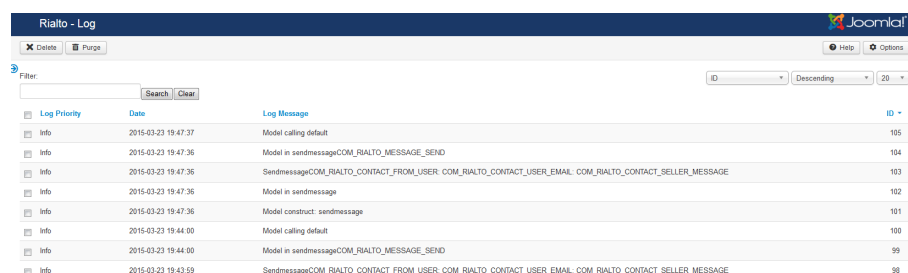
## Logging Helper

There is a logging mechanism so that messages may be logged to a database table. A database table was chosen as the location since it is easier to monitor from within the application.

The logging mechanism is built upon the Joomla Jlog libraries and implements all the current logging priorities.

The implementation implements colour coding of the messages depending upon their priority. The figure below shows an example of the type of messages displayed, but obviously the specific messages will depend upon the steps being performed.

**Figure 11.1. Log Entry Display**



Rialto - Log			
<input type="button" value="Delete"/> <input type="button" value="Purge"/>		<input type="button" value="Help"/> <input type="button" value="Options"/>	
Filter: <input type="text"/> <input type="button" value="Search"/> <input type="button" value="Clear"/>		ID <input type="text"/> Descending <input type="text"/> 20	
<input type="checkbox"/> Log Priority	Date	Log Message	ID
<input type="checkbox"/> Info	2015-03-23 19:47:37	Model calling default	105
<input type="checkbox"/> Info	2015-03-23 19:47:36	Model in sendmessageCOM_RIALTO_MESSAGE_SEND	104
<input type="checkbox"/> Info	2015-03-23 19:47:36	SendmessageCOM_RIALTO_CONTACT_FROM_USER: COM_RIALTO_CONTACT_USER_EMAIL: COM_RIALTO_CONTACT_SELLER_MESSAGE	103
<input type="checkbox"/> Info	2015-03-23 19:47:36	Model in sendmessage	102
<input type="checkbox"/> Info	2015-03-23 19:47:36	Model construct: sendmessage	101
<input type="checkbox"/> Info	2015-03-23 19:44:00	Model calling default	100
<input type="checkbox"/> Info	2015-03-23 19:44:00	Model in sendmessageCOM_RIALTO_MESSAGE_SEND	99
<input type="checkbox"/> Info	2015-03-23 19:43:59	SendmessageCOM_RIALTO_CONTACT_FROM_USER: COM_RIALTO_CONTACT_USER_EMAIL: COM_RIALTO_CONTACT_SELLER_MESSAGE	98

The logging is controlled by a component option. Entries logged will be dependant upon the version of the code installed.

In addition to being able to store simple text strings, there is also a routine to store an array using JSON encoding.

---

# Chapter 12. Component Design

In this section we specifically concentrate upon some of the design aspects of the component.

## User category subscriptions.

This was one of the more recent additions to the component and makes use of the 'cat\_users' table to provide the linkage between categories and those users who subscribe to the categories.

The use of the table permits an easy control of any defined subscriptions a user may make.

- When a user subscribes or changes their subscriptions, any existing subscribed categories to which they no longer wish to be subscribed are removed before any new entries to the 'cat\_users' table.
- When a category is removed, all entries in the 'cat\_users' table are removed for that category.
- When a user is removed from the component then any of their subscription entries in the 'cat\_users' table are also removed.

There are options that control whether category subscriptions are permitted, and also whether they are required for 'new' entries, just 'updated' entries or both.

When an entry is created (or updated) upon the front end, after the entry is saved the subscriptions are checked. First whether subscriptions are enabled is checked, followed by the type of subscriptions to be used. If these tests are passed, then an email message is constructed for all of the subscribed users of that category. A single message is constructed and the names of the recipients are either all placed upon the email 'To' list, or the email 'CC' list or the email 'Bcc' list. The choice of which of these options is used is determined by the component settings. Once constructed a single message is sent to all recipients.

See below for how multilingual specific message strings may be used in the message headers and trailers.

There is a component option to define whether any multi-lingual defined categories are to be presented in the category selection list presented to the user. Associated categories are not considered relevant in the subscription criteria and are solely used to control the generated subscribed categories updates to the users.

## Multi-lingual options

Release 1.3.0 introduced the ability to permit users to subscribe to the various Rialto categories and to receive email messages when a new and/or updated Rialto entry is created and/or changed. This change resulting in a review of the use of multilingual content in generated messages.

The component has the ability to define some CSS rules and text to be defined in the component options for the generated email messages. One drawback from the point of view of a multilingual site is that one could only specify hard coded text in a single language, which was not necessarily suitable for multilingual sites.

Such sites make use of language strings to define specific language specific text for forms etc. In release 1.3.0 of Rialto there are four additional language strings that may be used. Two of these are used for the messages generated by a user contacting the vendor, and the other two are used for the subscription messages. The first of the strings included is added just after any defined header CSS rules and the second after the CSS postfix strings.

By default these strings are empty in the release and the multilingual site should use a Language override to define the settings for their site(s).

The strings are as follows:

- COM\_RIALTO\_MESSAGE\_CONTACT\_HDR\_TXT
- COM\_RIALTO\_MESSAGE\_CONTACT\_FTR\_TXT
- COM\_RIALTO\_MESSAGE\_SUBS\_HDR\_TXT
- COM\_RIALTO\_MESSAGE\_SUBS\_FTR\_TXT

Use of these strings permits the site administrator to be creative in how the generated email messages appear to the recipients.

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## **Part II. Appendices**

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# Appendix A. GNU General Public License version 3

Version 3, 29 June 2007

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