COMPONENT ARCHITECT

Quick Start Guide

June 2014

Abstract

This document provides a Quick Start guide to installing and using the Component Architect Joomla! extension for the generation of your own bespoke Joomla! ™ components/extensions.

Table of Contents

Part I – Component Architect Quick Start Guide

Introduction

This document provides a Quick Start guide to using the Component Architect extension to generate a bespoke Joomla! ™ extension, fully ready to install and use in both the administrator area and your site's front end.

Full documentation of all the functionality of Component Architect is available in the Component Architect User Guide, which is downloadable from the Downloads and Documentation sections of the Component Architect website, and also via the Help files accessed in the Component Architect component itself.

The Steps in this document for the usage of Component Architect can also be viewed online in the Documentation section of the web site (http://www.componentarchitect.com/support/documentation.html)

Component Architect Installation

Installing Component Architect is no different than installing any other Joomla!™ extension on your site. You can read the complete instructions for installing Joomla!™ extensions on the official help page. Throughout this chapter we assume that you are familiar with these instructions and we will try not to duplicate them.

Just like with most Joomla! extensions there are three ways to install or manually update Component Architect on your site:

- Install from URL - It is the easiest and fastest one, if your server supports it. Most servers do support this method.
- Upload and install - That's the typical extension installation method for Joomla! extensions. It rarely fails.
- Manual installation - This is the hardest, but virtually fail-safe, installation method.

Please note that installing and updating Component Architect (and almost all Joomla! extensions) is actually the same thing. If you want to update Component Architect please remember that you **MUST NOT** uninstall it before installing the new version! When you uninstall Component Architect you will lose all your settings. This is definitely something you do not want to happen! Instead, simply install the new version on top of the old one. Joomla! will figure out that you are doing an update and will treat it as such, automatically.

Tip

If you find that after installing or updating Component Architect it is missing some features or doesn't work, please try installing the same version a second time, without uninstalling the component. The reason is that very few times the Joomla! extensions installer infrastructure gets confused and fails to copy some files or entire folders. By repeating the installation you force it to copy the missing files and folders, solving the problem.

Install from URL

The easiest way to install Component Architect Professional is using the Install from URL feature in Joomla!.

Important

This Joomla! feature requires that your server supports fopen() URL wrappers (`allow_url_fopen` is set to 1 in your server's `php.ini` file) or has the PHP cURL extension enabled. Moreover, if your server has a firewall, it as to allow TCP connections over ports 80 and 443 to `www.componentarchitect.com` and `liveupdate.componentarchitect.com` . If you don't see any updates or if they fail to download please ask your host to check that these conditions are met. If they are met but you still do not see the updates please file a bug report in the official Joomla! forum. In the meantime you can use the manual update methods discussed further below this page.

First, go to our site's download page. Make sure you are logged in. If not, log in. These instructions won't work if you are not logged in! Click on the **View releases in this category** button for Component Architect. Then on the Component Architect releases page click on the **View files** button of the version you want to install. Please note that the latest released version is always listed *first* on the page. On this download page for Component Architect you will find the **Download Now** button and you will see the **DirectLink** link. Right click on **DirectLink** link and select *Copy link address* or whatever your browser calls this.

Now go to your site's administrator page and click on **Extensions/Extension Manager**. If you have Joomla! 3.x click on the **Install from URL** tab. Clear the contents of the **Install URL** field and paste the URL you copied from our site's download page. Then click on the **Install** button. Joomla! will download and install the Component Architect update.

If Joomla! cannot download the package, please use one of the other methods described in this section of the documentation.

Upload and install.

You can download the latest installation packages from the download page for Component Architect, navigate to it as described above in 'Install from URL' and use the **Download Now** button, alternatively you can use the **Download Now** button from the Home page of the site – you do not have to log in to use the Home page download. Please note that on the download page the latest version is always on top.

All Component Architect installation packages contain the component and all of its associated extensions. Installing it will install all of these items automatically. It can also be used to upgrade Component Architect; just install it *without* uninstalling the previous release.

In any case, do not extract the ZIP files yet!

Log in to your site's administrator section. Click on **Extensions/Extension Manager** link on the top menu. If you are on Joomla! 3.x please click on the **Upload Package File** tab. Locate the **Browse** button next to the **Package File** (Joomla! 2.5, 3.0 and 3.1) or **Extension package file** (Joomla! 3.2 and later) field. Locate the installation ZIP file you had previously downloaded and select it. Back to the page, click on the **Upload & Install** button. After a short while, Joomla!™ show the results of the Component Architect install.

Warning

Component Architect is a big extension (over 4Mb). Some servers do not allow you to upload files that big. If this is the case you can try the Manual installation or ask your host to follow our installation troubleshooting instructions under "You get an error about the package not being uploaded to the server".

If you have WAMPServer (or any other prepackaged local server), please note that its default configuration does not allow files over 2Mb to be uploaded. To work around that you will need to modify your php.ini and restart the server. On WAMPserver left-click on the WAMP icon (the green W), click on **PHP**, php.ini. Find the line beginning with `upload_max_filesize`. Change it so that it reads:

```
upload_max_filesize = 6M
```

Save this file. Now, left-click on the WAMP icon, click on **Apache**, **Service**, Restart Service and you can now install the component. Editing the `php.ini` file should also work on all other servers, local and live alike.

If the installation did not work, please try the manual installation described below.

Manual installation

Sometimes Joomla!™ is unable to properly extract ZIP archives due to technical limitations on your server. In this case, you can follow a manual installation procedure.

You can download the latest installation packages from our site's download page for Component Architect, as described above in 'Upload and Install'. Please note that the latest version is always on top. Click on the version you want to download and install.

All Component Architect installation packages contain the component and all of its associated extensions. Installing it will install all of these items automatically. It can also be used to upgrade Component Architect; just install it *without* uninstalling the previous release.

Before doing anything else, you have to extract the installation ZIP file in a subdirectory named `componentarchitect` on your local PC. Then, upload the entire subdirectory inside your site's temporary directory. At this point, there should be a subdirectory named `componentarchitect` inside your site's temporary directory which contains all of the ZIP package's files.

If you are unsure where your site's temporary directory is located, you can look it up by going to the Global Configuration, click on the **Server** tab and take a look at the **Path to Temp-folder** setting. The default setting is the `tmp` directory under your site's root. Rarely, especially on automated installations using Fantastico, this might have been assigned the system-wide `/tmp` directory. In this case, please consult your host for instructions on how to upload files inside this directory, or about changing your Joomla!™ temporary directory back to the default location and making it writable.

Assuming that you are past this uploading step, click on **Extensions/Extension Manager** link on the top menu. If you are on Joomla! 3.x please click on the **Install from Directory** tab. Locate the **Install Directory** edit box. It is already filled in with the absolute path to your temporary directory, for example `/var/www/joomla/tmp`. Please append `/componentarchitect` to it. In our example, it should look something like `/var/www/joomla/tmp/componentarchitect`. Then, click on the **Install** button.

If you still can't install Component Architect and you are receiving messages regarding unwritable directories, inability to move files or other similar file system related error messages, please contact us via the online Forum. Whilst we will make every effort to assist you; we may be unable to help you. Usually installation of Joomla! ™ extension errors come from your site set up and can best be resolved by asking your host for assistance or by asking other users in the official Joomla!™ forums.

Quick Start Steps for Using Component Architect

Follow these steps to create your first bespoke component with Component Architect.

Step 1 – Component Architect Installed

Congratulations you have now installed Component Architect!

Step 2 – Go to Component Architect Dashboard

First go to the Component Architect Dashboard

Step 3 – Use the Component Wizard

The Dashboard explains more about the features of Component Architect

Step 4 – Enter the Names of your Component and Tables

The Component Wizard let's you quickly create your first Component definition.

Step 5 – Create your new Component and Tables

The Component Wizard allows you to have as many Tables as you want and import fields from existing database tables.

Once finished adding tables then click on Create to have the Component Wizard auto create your Component, Tables, Fieldsets and Fields.

The drop down allows you to select any table in the current Joomla! database to import fields from.

Step 6 – View the Created Components/Extensions

The Component/Extensions Manager allows you to see all your defined Components

Use the Component Wizard to create as many Components as you wish.

Click on the 'My Events' Component to edit it.

A count and link to the Tables in this Component

A count and link to the Fieldsets in this Component

A count and link to the Fields (predefined and custom) in this Component

A standard Joomla! administration manager view showing lists of items

Step 7 – Edit the Basic Details of the Component/Extension

The Component/Extension Edit view allows you to enter more details for your Component

Component Architect Manager: Edit Component/Extension

Enter a description for your Component

These fields can have default settings entered in the Component Architect Options via the Options button on the Dashboard or List Views.

Step 8 – Edit the Joomla! Parts of the Component/Extension

Select which Parts of a Joomla! site will be generated in your Component. If set to 'Do Not Generate' then no Table will be able to change this.

Component Architect Manager: Edit Component/Extension

Select the options to control which parts of Joomla! (admin, site, plugins and modules) are to be generated for this Component/Extension.
The value at the Component/Extension level will override that at the Object/Table level.
So if not set for the Component/Extension that part will not be generated irrespective of what is set for the Object/Table.

Step 9 – Edit the Joomla! Fields/Features of the Component/Extension

Select which standard Joomla! Fields/Features will most commonly be generated for your Tables. These are global/default settings and can be over-ridden at Table level.

Step 10 – Save the Component/Extension

All Component Architect edits allow you to Save the records in multiple ways

Use one of the Save buttons to save your Component.

You can select whichever values you require. If there is a conflict then an error message will be displayed when you Save the Component.

Step 11 – Component/Extension Editing Completed

Now let's go and edit the Tables you created via the Component Wizard

Click on either of these links to go to view the created Tables - the one in the list on the left will give you an un-filtered view.

Step 12 – View the List of Created Objects/Tables

The Object/Table Manager view gives you access to all the Tables you created

Select a Table and then click Edit to edit it.

Step 13 – Edit the Basic Details of an Object/Table

Edit the details of your Table

You can still import fields from database tables if you wish

Enter a description

From the singular Table name entered in the Component Wizard, plural, short and code names are auto generated. But you can change them if you wish.

Step 14 – Edit the Joomla! Parts of the Object/Table
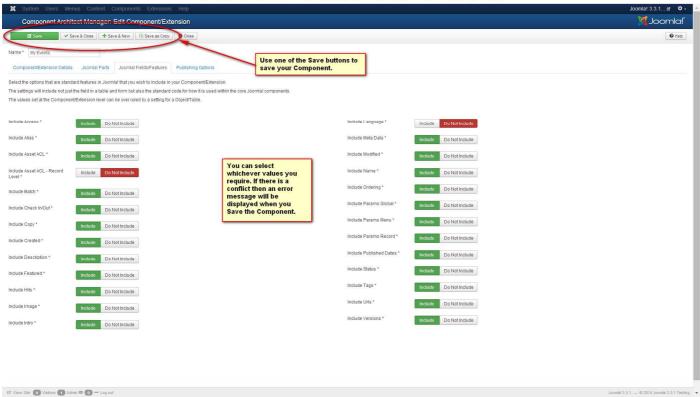
Set which Parts of a Joomla! component will be generated for this Table

Step 15 – Edit the Joomla! Fields/Features of the Object/Table

Set which standard Joomla! Fields/Features will be generated for this Table

Again use one of the Save buttons to Save your Table. This will automatically add or delete 'pre-defined' Fieldsets and Fields to match the Joomla! Parts and Field/Feature selections you have made.

Set the values you want for this Table. You can see what value is set at the Global (i.e. Component) level and with Fields/Features you can over-ride these as you wish.

Step 16 – Object/Table Editing Completed

Now let's go and look at the Fieldsets for the Event table

Click on the Fieldsets count to go to a filtered list of fieldsets

Step 17 – View List of Auto Created Fieldsets

Like all list views you can filter and sort the Fieldsets listed. But let's create a new one.

Step 18 – Edit Basic Details of a Fieldset

You can create as many Fieldsets as you want in your Table

Step 19 – Modal Dialog to Select a Link

Modal dailog boxes allow filtering and searching of records to select the one you want

Click on the Object/Table name to select it. This will close the modal dialog as well and set the values in the Fieldset details (both Object/Table and it's associated Component/Extension

Step 20 – Save the Fieldset

Now we can save our new Fieldset

Note: Both values set automatically

Step 21 – Fieldset Editing Completed

Time to look at all the Fields we have in our Tables

Click on Fields to go to the un-filtered Fields list view.

Step 22 – View List of Auto Created Fields

You already have a large number of fields that have been pre-defined based on the Generate and Field/Feature values set for Tables

Filter the Fields by selecting from the drop downs

Step 23 – Add New Field

You can add new Fields to both Pre-defined and non Pre-defined Fieldsets. Let's add one to the new non Pre-defined Fieldset we created earlier

Click on New to create a new Field

Step 24 – Set Basic Details of New Field

Enter the details for the new Field. As with the Fieldset you can use the Select modal dialogs to set values

Enter a name (required) and a description (optional)

A code name is auto genereated when you enter the Field name

The Fieldset we created has been selected and the other value auto populated

You can select what type of Field you want. Most standard Joomla! field types are available plus some extra ones such as Modal and JSON/Registry to hold mulitple other fields.

Select the value for the Field that you require

Step 25 – Set Field Specific Attributes of New Field

Set Field specific attributes that are common across all field types

You can enter some Regex code to perform basic validation or as this is a Custom validation type then functions in the generated code will be created for you to enter specific validaiotn checks.

If you have defined already a JSON/Registry field then you can select it here which would mean this field will be contained in that JSON/Registry field

Step 26 – Set Field Type Attributes of New Field

On this tab you will see different fields dependent on the Field Type you selected

A List field type was selected so we need to enter some values to display for selection

Click on Add/Remove to add new values or remove them

Step 27 – Set MySQL Settings and Save New Field

Field types have default values for the MySQL fields that will be created. You can change these if you wish.

Click on one of the Save buttons to save your new Field.

Note: a default value must always be enclosed in single quotes. So if you want an empty fields enter ''. If this field is completely empty then NULL will be assumed.

Step 28 – Field Editing Completed

Enough editing for now let's just get on and Generate the your first Component!

You can get to Generate Component from the main menu, the Component Architect Dashboard and the Component/Extension Manager view.

Step 29 – Specify Component Generation Parameters

Just a few selections and a click of the Generate button and your Component Generation will begin.

Step 30 – Component Generation Progress

You can see the progress of the Component Generation. If you have a lot of Tables and Fields this may take some time.
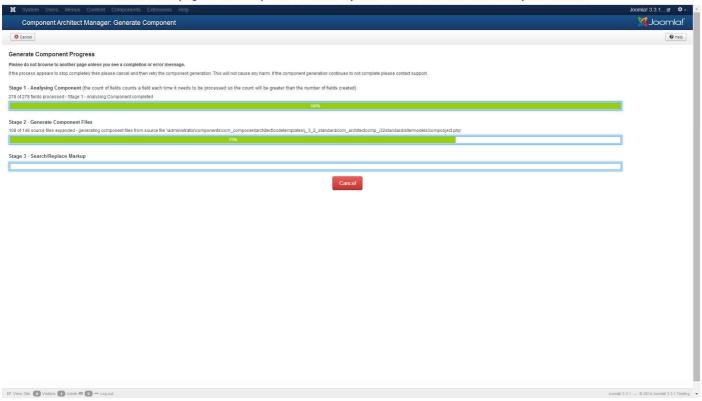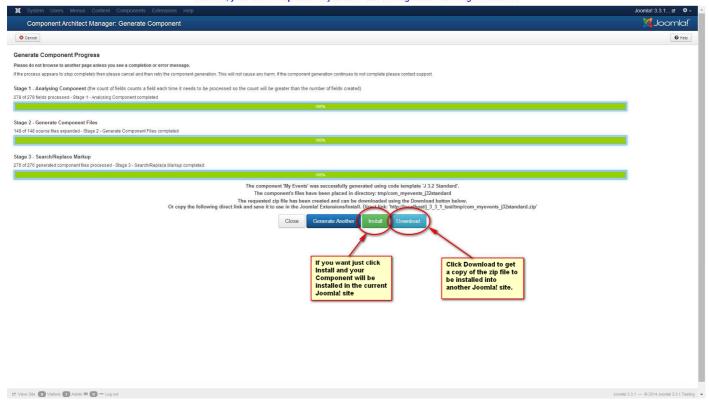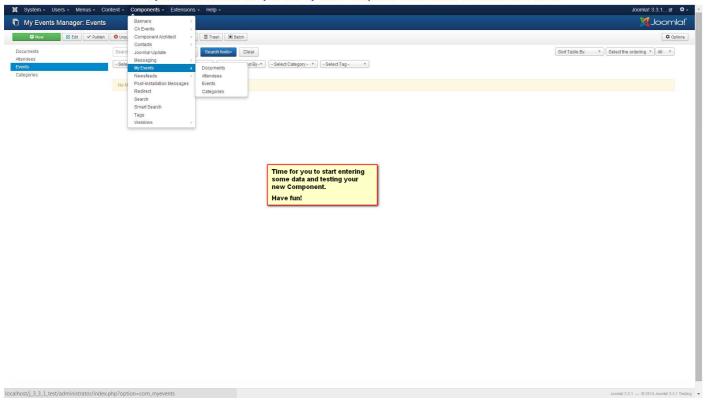
Step 31 – Component Generation Completed

Step 32 – Start Using your New Component

Part II – Appendices

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