

JREALTIME ANALYTICS DOCUMENTATION

Functionalities

JRealtime Analytics is a powerful and innovative component to manage stats on your site. It's the easiest solution to have all the technology offered by Google Analytics servers in your Joomla! system without the need of third-party integrations, all informations are stored on your server!

It offers analytics reports with advanced features for a report generation in PDF, XLS and CSV format that you can export and store in your archive. With JRealtime Analytics you will be able to track in realtime what's going on your site, simply monitoring graphs and analytics stats in your Joomla! backend area without the need of third-party services such as Google Analytics.

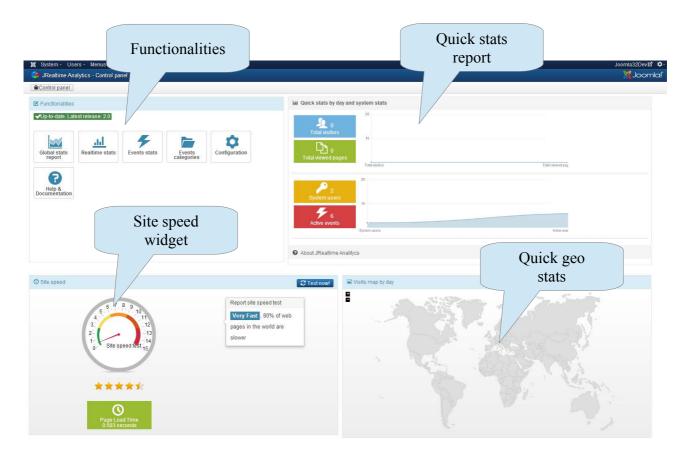
The new Universal Events Tracking SystemTM is an innovative solution to track every kind of event that happens on your site integrating with whatever Joomla extensions without need of additional plugins! Finally, an advanced configuration lets you choose banning and exclusions settings for every kind of user or IP address.

- Stats report for backend and frontend
- Advanced charts
- Mobile HeatmapTM tracking
- Google Analytics integration
- Visual geo map
- Navigation flow diagram for each visitor
- SEO optimization to track
- Integrated cronjob for scheduled reports by email
- Visits by page and user
- Referrals tracking
- Searches tracking
- Realtime stats
- Universal Events Tracking SystemTM to track document downloads, page views and more
- Goals system, you can set a goal to be reached on your site
- Geo map for report and realtime stats
- Site speed widget to test the server load time integrated with the Google PageSpeed API
- CSV, XLS, PDF report generation and export
- Exported reports compatible with OpenOffice, Microsoft Excel, Google Docs, etc
- Module for quick daily stats and realtime stats
- Exclusions system, by IP, pages, users groups and countries
- Database auto optimizations and cleaning

Control panel

The control panel gives you access to all the main features and have a quick view to the most common stats and tools.

From the control panel you can access the main features, check quick stats for a specific period the you defined and access the site speed test for a given URL using the available widget.



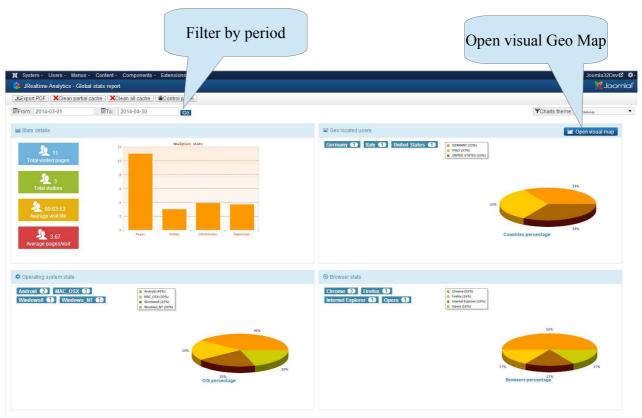
Global stats report

The global stats report offers a complete overview of what happened on your site in a specified time frame. You can choose the default time range in the component configuration and change it as you prefer using filters. The global stats report is accessible from the backend but can also be assigned to a frontend menu item.

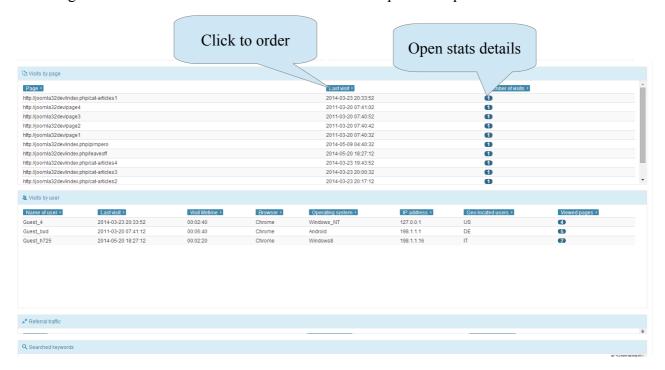
By default all types of stats are included inside the global stats report:

- Summary stats
- Geo location stats
- Operating system stats
- Browser stats

- Leave off and landing pages, to understand SEO visitors trend
- Detailed report for visits by page
- Detailed report for visits by user
- Referral traffic to understand sources to your site
- Searched keywords, you can monitor keywords that users search on your site. This work with both Joomla search systems, classic search and smart search.



Inside stats for 'Visits by page' and 'Visits by user' you can open a detailed view for a single user or a single page. You can click on the numeric buttons inside the list and a lightbox will show up including details for the selected record and a button to export the report details.



Cleaning stats cache on database

JRealtime Analytics stores all stats informations on the Joomla database, so that you don't need any external resource to monitor your site.

Having site with a huge amount of visits by day, you may need to periodically clean database tables by collected stats. This can be done manually or automatically.

NOTICE: cleaning stats cache on database means that all collected data will be deleted permanently and won't be possible to recover them anymore. For this reason before cleaning the cache it's recommended to export a report for archiving purposes.

Click to open panel

If you choose to delete the cache mane you can use the buttons available in the global stats report screen.



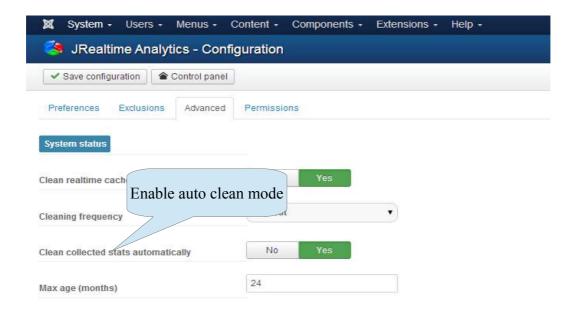
Buttons to delete cache let you delete all cache in a single operation, or only the stats data in selected period.

- Clean all cache Database table will be completely cleaned
- Clean partial cache Database table will be cleaned only by stats collected in the selected period interval. The period interval is set using the calendars input boxes.

If you prefer to leave the component to manage automatically the health of your database space, you can enable the parameter 'Clean collected stats automatically' in the component configuration.

By default it's disabled and set to a max age period of 24 months. This means that once activated the auto clean mode, all stats older than 24 months will be automatically deleted from database tables, with no need of manual operations. Of course the monthly max age can be set to a different value.

The auto clean mode for realtime stats is enabled by default and it's recommended to leave it active because realtime data refeshes continuosly. On high traffic sites you can change the cleaning frequency setting to a lower value, this can save server resources.



Customize global stats report

You can choose exactly what kind of stats are required to be included in the global stats report using an advanced configuration.

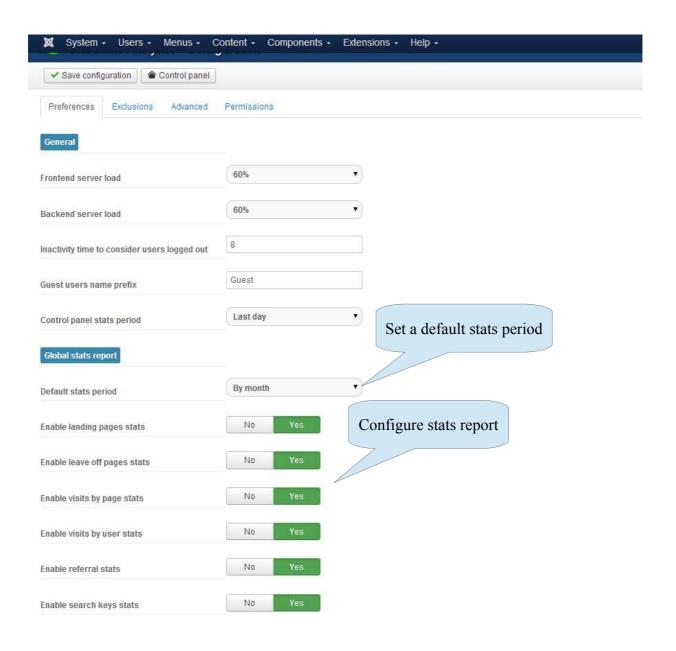
Every kind of sub-report can be excluded if not needed, this is particularly useful on high traffic sites that need a lot of time to generate a full report for collected data. If you experiment timeouts during stats report generation or if it requires too much time or server resources, you can disable single sub-reports that are not required.

Another way to save server resources is changing default stats period for the generated report. On high traffic sites (hundreds or thousands of visits by day) you can set the default period to a lower daily limit.

The default stats period can also be set for the control panel quick stats.

This kind of interval refers to a period calculated upon the current day basis and can be set as:

- Last day
- Last week
- · Last month

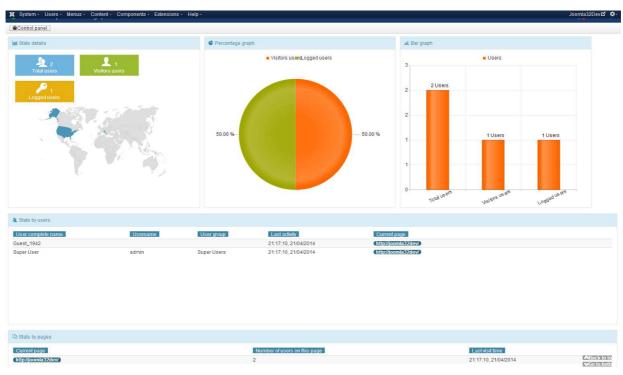


Realtime stats

Using the 'Realtime stats' you can monitor in realtime what happens on your website, having a complete view of users stats, geo map, pages that users are visiting, etc.

To run the realtime stats application you need only to click on the icon available in the admin control panel.

Every kind of textual and graphical stats will be refreshed in realtime based on what happens on your site.



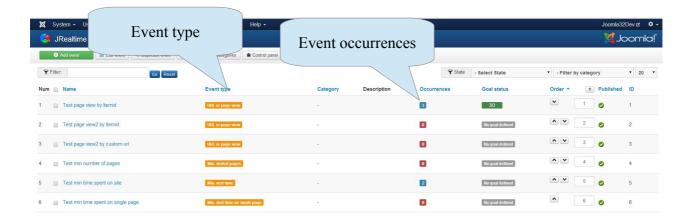
Universal Events Tracking System ™

The heart and the most powerful feature of JRealtime Analytics is the configurable events system that is capable to integrate with every Joomla! extensions and track every kind of events triggered on your website as a custom stat.

The most common scenario to use the events system are: downloads tracking, documents download using extensions such as Docman, Edocman, etc, page views, time spent on site etc.

There are 4 types of events available:

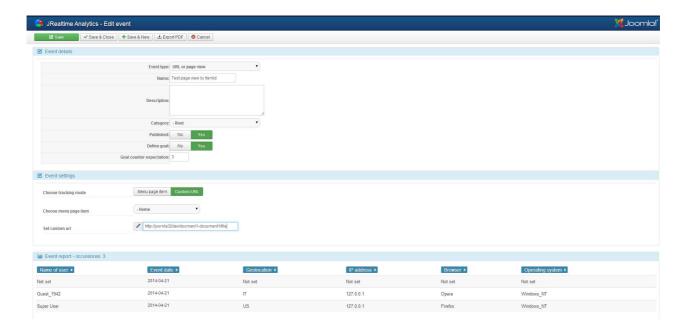
- URL or page view
- Min number of visited pages
- Min visiting time
- Min visiting time on a single specific page



Creating an event of type 'URL or page view', let you track virtually every kind of action on your site. You can choose to track a single specific menu item choosing it from the dropdown, or you can specify a custom URL for example to track download of a specific document.

In the example below, using the custom url: http://joomla32dev/docman/1-document1/file makes it possible that this kind of event will track every download click on that Docman document.

Every occurences of events and details like users, IP address, browser, etc are shown in the below report table that can be sorted and exported in various formats.



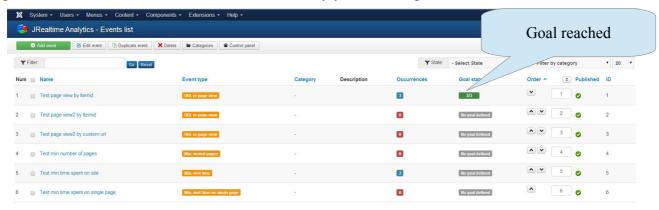
The type of event 'Min visited page', is triggered everytime a user reach the min number of pages visited on your site in a single session. This kind of event is very useful to understand trend of your site. It provides a single field where you can set the number of expected visited page needed to trigger event tracking.

The same concept can be applied using event types based on time. You can set a min time needed to be spent visiting your site or even a single specific page. Everytime the time in minutes/seconds you set is reached the new event will be tracked. This is a fundamental system to understand trend of your site and single pages for users. As an example, you can know exactly how many users spent more that 1 minute on single page... a SEO invaluable stat!

Goal system

For every single event record can be set an additional expectation, that allows you to track it with a goal expectation to be reached. The goal can be set activating the switcher button and specifying a counter value for the expectation.

For example, suppose that you have a document available for download and you want to be notified when 1000 downloads are reached. You can create a new event to track downloads on that document, and set a goal expectation to 1000. When the event will be triggered for 1000 times, a green icon will be shown in the events list to notify you that the goal has been reached.



Mobile Heatmap ™

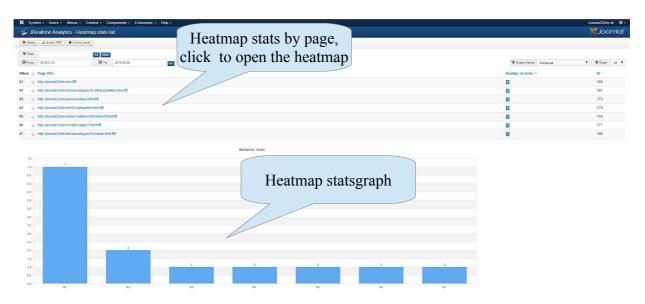
With JRealtime Analytics for the first time you can take advantage of the mobile heatmap tracking for every page of your site. This means that you can have an overview of the exact elements on pages where users clicks more often, tracking the exact number of clicks in a given period.

The Mobile Heatmap system of JRealtime Analytics allows you to get an overview of real elements that have been clicked on pages independently by the screen resolution, this means that heatmap stats are showed correctly even changing the screen resolution if you are using a responsive template and users visit your site using mobile devices such as smarphones or tablets.

You are no more limited to track the point coordinates in the page that has been clicked in a particular screen resolution, now real HTML elements receiving clicks are tracked and shown in the heatmap. See the most "active" click spots on your website, optimize the page to get better conversions and sales, monitor the total click density of pages and act accordingly to optimize your pages. The heatmap can show you what users are looking for, you can get great advantages knowing all these informations to optimize pages accordingly.

Why conversion tracking is this important? Click conversion tracking can tell you how many times user has clicked button you're watching as one which is important for you. Like "Add to cart" or "Buy Now". Optimize your content and watch increase, see popularity of elements and hot places, you can have the popularity of each element highlighed.

To access the heatmap stats you have to click on the icon in the main control panel, the stats list will be shown as in the picture below:

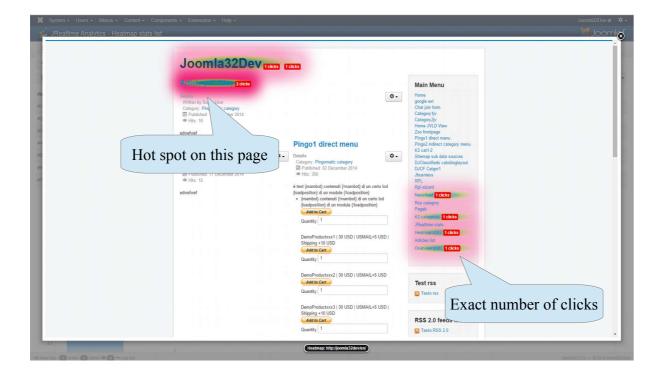


The list and the graphic chart will give you an overview of pages visited by users on your site with the corresponding tracked number of clicks, by default most clicked pages will be ordered at the top of the list.

To open and display the heatmap for each page just click on the link text or icon, a window will be opened to show the heatmap for that page.

The heatmap will show even the number of clicks received by single elements on the page, and colors will give you a quick overview about most focused contents by users.

Once clicked on the page of interest the heatmap will be opened and will show the most targeted elements by users using a colors variation as visible in the screenshot below:



Overview Stats

With the Overview Stats report you can have a quick look at how the trend of your website is going on during a period of time.

The Overview Stats displays in a graph the following informations:

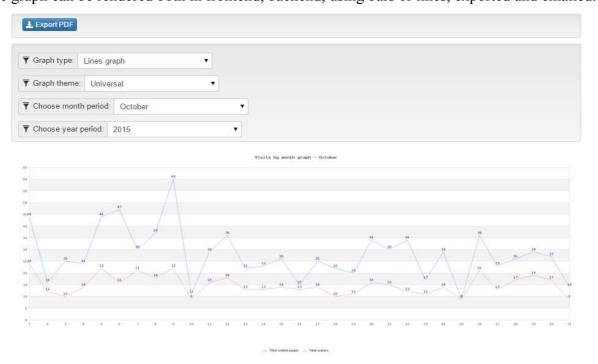
- Number of total visited pages
- Number of unique visitors in a single day

Stats can be grouped in 2 different ways:

- For each month of a full year
- For each day of a specific month



The graph can be rendered both in frontend, backend, using bars or lines, exported and emailed.



Google Analytics integration

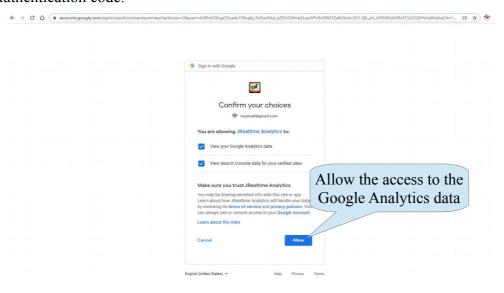
If you have a Google account to monitor stats of your site with Google Analytics you can easily activate it directly inside JRealtime Analytics thanks to the integration feature available.

Login and display stats of your Google Analytics account directly inside JRealtime Analytics is an easy 3 steps process described below:

- 1. Click the button 'Get Google access code'
- 2. Paste the Google code into the text filed
- 3. Click the button 'Authenticate and login' to access Google Analytics and show stats



When you click on the button 'Get Google access code' you need to login to your Google account used to monitor Google Analytics stats for your site. Once prompted to allow the JRealtime Analytics app to access Google Analytics data, click on the 'Allow' button and you get your authentication code



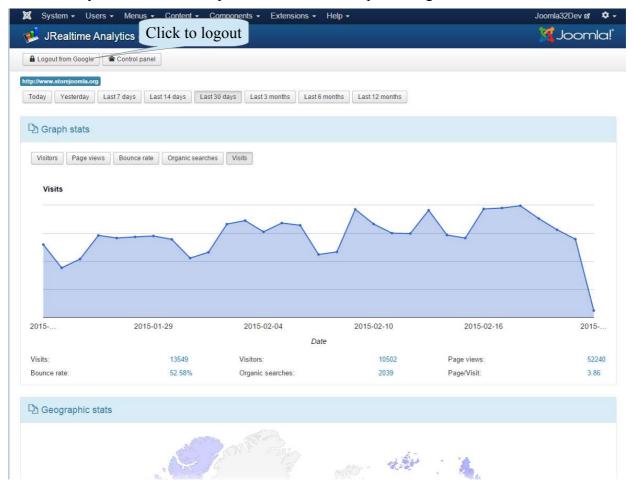


Once you got the authentication access code paste it and click on the button 'Authenticate and login' to start the application and show Google Analytics stats.



Once you are authenticated to Google you can display stats for your site and change periods and metrics as shown below.

To logout from Google and close the application you can click on the button 'Logout from Google' in every moment you need. If you don't logout, the authentication to Google will be valid even at a later time and you won't need to repeat the authentication process again.



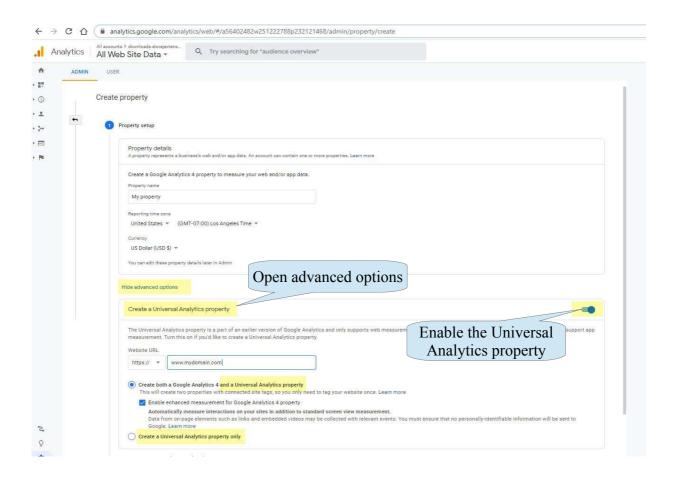
Registration of a Google Analytics Property for the API

If you are going to register a new property in your Google Analytics account, it's required that you register your property as a **'Universal Analytics Property'**, otherwise Google won't make your property available for the API usage.

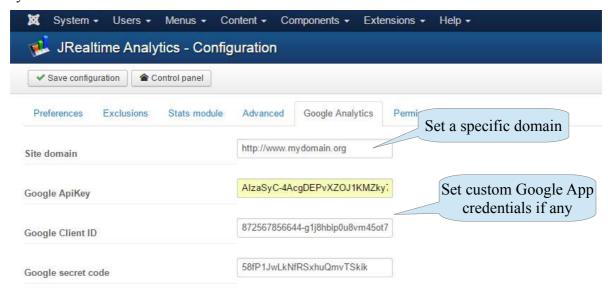
Google does not support the usage of the Google Analytics API for 'Google Analytics 4 property', 'Stream', 'IOS or Android apps' platforms.

When you register a new property in your Google Analytics account, you need to:

- 1. Click 'Show advanced options'
- 2. Enabled 'Create a Universal Analytics property'
- 3. Choose to 'Create Google Analytics 4 and a Universal Analytics property' or 'Create a Universal Analytics property only'

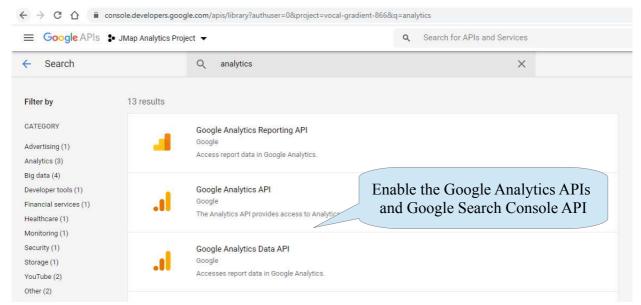


If you are using a single Google account to monitor multiple sites with Google Analytics, you can specify a particular domain for stats. In this case use the component configuration tab 'Google Analytics'.



Setting up your Google Application

You may need to setup your own Google App to retrieve data from Google Search Console/Webmasters Tools and Analytics. If you don't setup your own Google app, the default app credentials included into the component will be used. If you want to create your own app credentials, although not required, follow the process reported below.



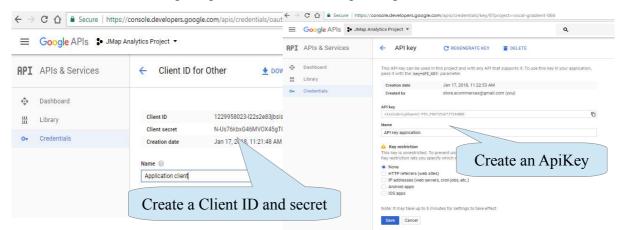
To create a new Google Application you need to navigate to https://console.developers.google.com, add a new project and enable the 'Google Search Console API' and 'Google Analytics xxx APIs'. Notice that there are 3 APIs for Google Analytics, based on the integration chosen you may need to enable them all. After that you have to open the section 'Credentials' in the left menu and click on 'Create credentials' \rightarrow 'Oauth Client ID' choosing the type 'Web Application'.

In the field named 'Authorized redirect URIs' enter the URI: https://storejextensions.org/oauthauthentication.html

The Client ID and secret code will be generated by Google, you can do the same for the ApiKey clicking on the button 'Create credentials' \rightarrow 'API key' and choosing 'Server key' if requested.

The first time that you add a new application you will be requested to compile the 'Consent screen' and fill in several informations and details about your app usage such as the name, the logo, etc

The consent screen will be prompted to users when requesting an access.

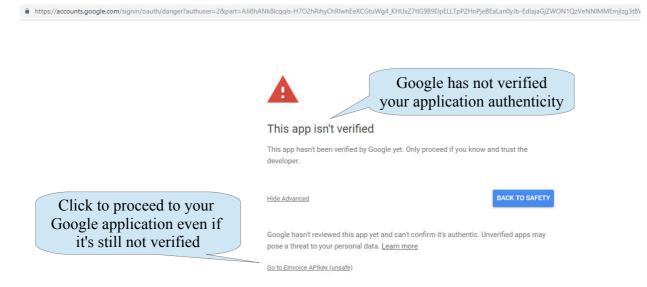


When you have setup your Google app with client ID, client secret and ApiKey you can copy and paste them in the JRealtime Analytics configuration section for Google Analytics.

NOTICE: creating your own Google App is not mandatory to use the Google Analytics integration, indeed if you don't provide your specific credentials in JRealtime Analytics configuration the default access codes will be used that are already setup to work without any additional operation.

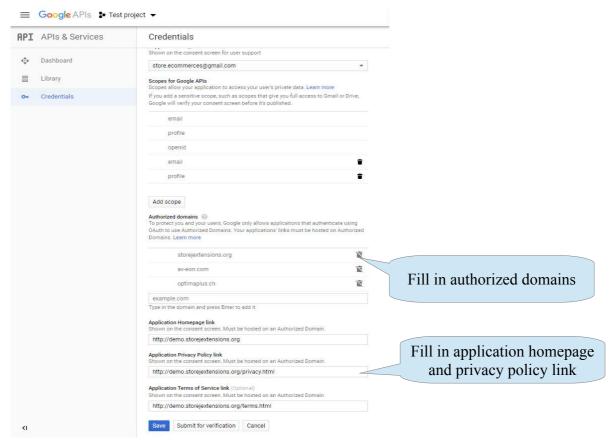
<u>IMPORTANT:</u> Google has recently introduced a new system to increase security and privacy of user data, as a result when you create your own application you may need to request a verification to Google in order to use it without any warning.

When you use credentials of your newly created application, the consent screen may report a warning message saying 'This app isn't verified' so that an explicit grant must be given by the user clicking on 'Go to appname...(unsafe)'



This consent screen appears because Google requires to verify your application before granting access to your Google Analytics data via the API integration. If you are logging in with the same account used to create the application, this screen may not be shown at all, but if you are using a different account you may be prompted with this warning about the authenticity until the app has been verified by Google.

To remove this warning consent screen for everyone using your Google Application, you have to submit a 'Request for verification' to the Google team using the button at the bottom of the Oauth consent screen. Once the process is completed and your app has been verified by the Google team, the consent screen will no longer include any warning.



For more informations about the verification process refer to the official Google documentation:

https://support.google.com/cloud/answer/7454865 https://support.google.com/cloud/answer/9110914

Google Search Console integration

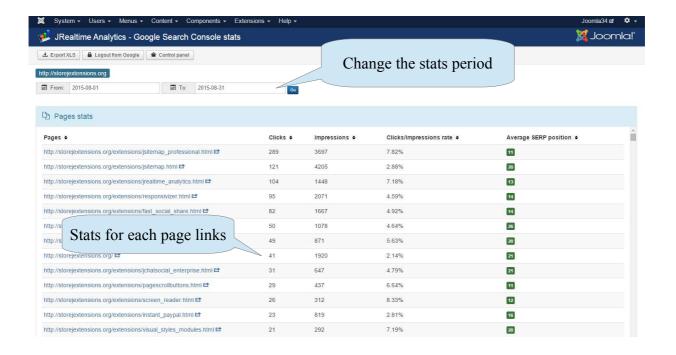
There are several aspects that you can monitor with JRealtime Analytics through the integration with the Google Search console.

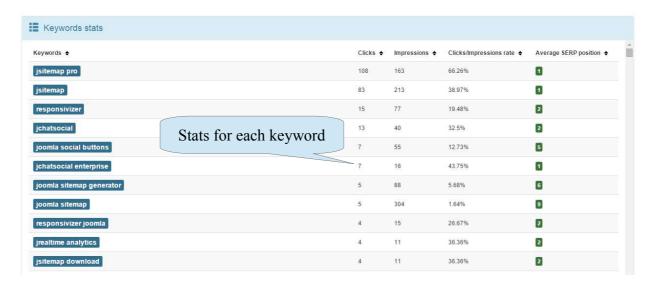
For each page you can keep track of:

- Number of clicks
- Impressions
- Clicks/Impressions rate
- Average SERP ranking position

Moreover you can have a quick overview of the **keywords** used on Google to search and find your website by users. For each keyword you can keep track of:

- Number of clicks
- Impressions
- Clicks/Impressions rate
- Average SERP ranking position





Configuration

Using the component configuration you can rule exclusions for collected stats using an advanced system. This can be precious if you or some of your collaborators access often the website and you want to avoid that all these visits will be considered and tracked as valid.

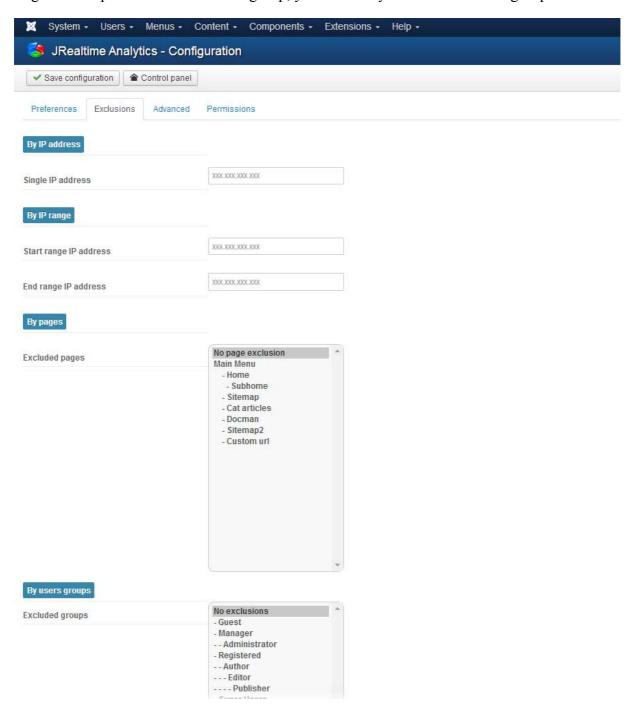
To set this behavior of JRealtime Analytics and make it able to discard specific stats, you can choose between 4 different types of exclusions:

- By single IP address
- By a specific range of IP addresses
- By visited pages
- By specific users groups

Let's suppose that you access your site using a specific IP address. In this case it will be enough set the single IP address to exclude from stats. If you own a large company with multiple IPs, you can set a starting-ending range of addresses, and all visits coming from devices in that range will be ignored. This can also be useful to block bots, spammers, etc that could compromise your stats with junk data.

Moreover you can exclude completely every single pages accessible on your site to be tracked. If for example you have pages that don't need to be tracked you can easily exclude them using the provided dropdown.

Finally you can also exclude particular usergroups from stats. Having a large number of users that belong for example to an administrator group, you can easily exclude the whole group of users.



Advanced features

Track direct documents download or external links

Tracking the download of documents that point directly to files onto the file system or external links that point to other sites, is almost difficult if not impossible to do, because the document is served directly by a certain server and the Joomla! execution is completely bypassed.

This is not a problem using components such as Docman to manage downloads, but having links that reference directly files stored in some folders of your server needs a more advanced and manual configuration.

Let's suppose you have a Joomla! article with a link to a PDF document stored at the server root:

```
<a href="http://mysite.com/document.pdf">Download PDF</a>
```

Once a user clicks on this link, the Apache server will deliver directly to that user the PDF document, and Joomla! will not be executed nor notified of this click event.

To track the download of this document you can proceed with the following steps:

- Add a custom code to the link
- Add a hidden iframe
- Create a JRealtime event record of type 'URL or page view' choosing 'Custom URL' with the same URL specified

The first operation is adding a custom 'onclick' code to the link you need to track:

```
onclick="document.getElementById('trackdownload').src='http://mysite.com/index.php?
option=com_jrealtimeanalytics&track=1'"
```

The parameter track with value 1 is a custom identifier for this download and can be changed if you have multiple documents to track incrementing the value. Basically all that is needed is that every documents have a unique identifier for a URL.

After that, you need to embed a hidden IFRAME inside the page in which download links to track are located:

```
<iframe id="trackdownload" style="display:none" src=""></iframe>
```

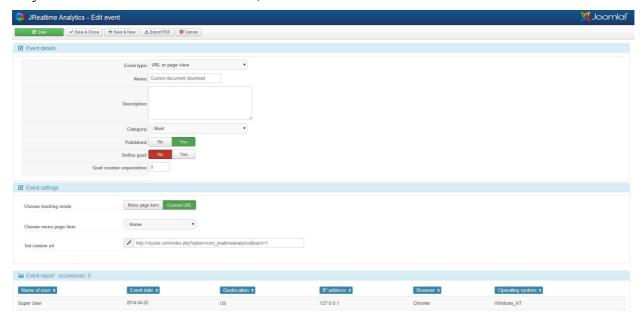
As a final results the HTML code for the link will be as follow:

```
<a href="http://mysite.com/document.pdf"
onclick="document.getElementById('trackdownload').src='http://mysite.com/index.php?
option=com_jrealtimeanalytics&track=1'">Download PDF</a>
<iframe id="trackdownload" style="display:none" src=""></iframe>
```

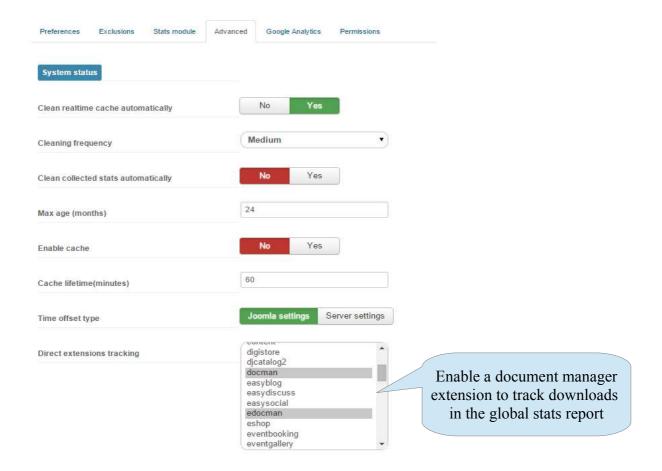
The last step is to create a new JRealtime event record to track the download of this document, you can choose the type 'URL or page view' and set the type to 'Custom URL'.

Set the custom URL value with the same value used for the src of the IFRAME in the 'onclick' code: http://mysite.com/index.php?option=com_jrealtimeanalytics&track=1

Everytime that a user clicks on that link, the event counter will be incremented.



NOTICE: if you need to track documents download/click using extensions such as Docman, EDocman, etc you can do this without using the above technique and eventually even without the need to create a event record for each single document. If you want that the global stats report will track every document download/click when using third party extensions to manage documents, just enable the parameter as shown below choosing the extension used to manage documents.



Quick stats module

You can choose to use the bundled JRealtime Analytics module to show, in a custom template position, a quick stats report both for daily stats and realtime stats.

Joomla32Dev Sitemap filter2 menu **Irealtime** stats ⊕ Main Menu Stats on: 2014-07-13 You are here: Home Total visited pages: 2 Total visitors: Average time: 00:01:34 Page per user: Realtime stats Users on page: 2 1 Visitors: 1 Logged users: Total users:

Using the Joomla! modules manager, you will find the module named 'JRealtime Analytics Module' that has no positions and pages assigned and that is not published. If you want to use it to render the quick stats report, you can publish and manage it as you are usual to do for any other Joomla! module, so assigning pages, a template position, an access level, etc.

After that the quick stats module is enabled correctly based on your preferences, you can manage the type of stats to render through the component configuration.

In the following picture you see available settings for the stats module.

The 'Stats module status' indicates the current status of the stats module, when the label is green it means that the stats module is enabled and assigned to a valid template position. Clicking on the label, you will be redirected directly to the Joomla! modules manager to edit settings.

