

# JURL Shortener

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URL Shortener for Joomla! 1.5  
by WebDesignHero.com

## Abstract

JURL Shortener is a useful extension for the Joomla! 1.5 CMS. With JURL Shortener you can provide a URL redirection service to your site's users, similar to popular services such as [bit.ly](#) and [ow.ly](#). With this extension you are able to provide redirects to any URL, either on your website or on an external website. It is also very useful for sharing links with friends and visitors in a short format while maintaining long search engine friendly URLs on the core of your website. Combined with analytics software you can mask your tracking tags to increase the accuracy of your statistics. JURL Shortener can be a valuable marketing tool for your website because when you link to a third party website, people using your short link will see your URL first. JURL Shortener allows you to provide either a direct-redirect or to utilize a header (that you can customize) similar to those used on websites such as [Digg.com](#) and [About.com](#).

# Part I

## Introduction

### 1 Thank You

Thank you for purchasing JURL Shortener. This documentation has been provided to help you better understand the functionality of the software. We will walk you through the installation steps and the various configuration options. We will also cover management and tracking tasks which are possible with the software. Lastly, we will cover some of the advanced customization features that developers and designers can use to help JURL Shortener fit your sites graphical template and styles.

### 2 About This Extension

JURL Shortener is an extension for the Joomla! 1.5 CMS which provides the ability to provide short-style URLs which have become common in blogs and services such as [Twitter](#). This extension functions as a 'component' type extension and does not require any integration nor does it have any external dependencies beyond the Joomla! core and the ability to enable SEF-URLs on your server. The software maintains basic statistics, and it allows you to prune your URL database based on age and popularity if needed. The extension requires a good understanding of the Joomla! platform and you should be comfortable taking the steps necessary to enable SEF-URLs. The software has only been tested, and is only known to run successfully, on Linux/Apache servers, and significant changes may be necessary to achieve the same effect on other web-server platforms. If you are not comfortable or familiar with the instructions presented in this documentation, please consult your web host, web developer, a Joomla! professional or the [author](#). All attempts have been made to provide sufficient documentation to enable the software to perform as intended. Please note, this software is provided under the GNU GPL 2.0 License and there are no expressed warranties or guarantees about the suitability or functionality of this software for any purpose.

#### 2.1 System Requirements

JURL Shortener was developed for and tested using Joomla 1.5! on a LAMP development. There is no support for non-Linux/Apache environments, as those are non-standard installations and require different and untested settings for short URL creation. PHP 5.X and MySQL 5.X are required for proper functionality. It may be possible to modify the software for limited functionality on earlier versions of PHP & MySQL. In addition, in order to produce short URLs you must be able to configure and use `.htaccess` configurations on your server, please see Section 6.2. If you have any specific questions about compatibility with your environment please contact the author before purchasing. Due to the variety of web server environments, it is not possible to guarantee compatibility with all configurations, and it may be necessary to modify functionality for your specific environment. Please review the licensing information below before purchasing.

#### 2.2 What are Short URLs and why would I use them?

JURL is intended to provide short URLs that you can distribute to your site visitors, which they in turn can provide to others. Website addresses, formally known as uniform resource locators (URLs), are often long and ugly. For example, a URL may be something like [http://www.example.com/index.php?option=com\\_content&id=46](http://www.example.com/index.php?option=com_content&id=46) or something more human readable such as <http://www.example.com/some/specific/page.html>. However, such URLs are often inconvenient to share because of unintentional line breaks or character restrictions on services such as [Twitter](#). A short URL provides a shortcut to the actual, longer URL, and may be hosted at a completely different website. For example, a short URL might be something like <http://shor.ty/3X45D> or <http://shor.ty/go/3X45D> (`shor.ty` is an invalid, fictitious domain name) and would redirect the user to some final destination such as those presented above. This short URL takes up less space and is more convenient to share. You have probably seen short URLs before from services such as [bit.ly](#), [ow.ly](#), etc.

Short URLs have many practical purposes for web site owners. For example, let's say you find an interesting article at [CNN.com](http://www.cnn.com) and want to share it on [Twitter](https://twitter.com). Because there is a 140 character limit, you cannot fit the whole URL and your personal message. While you could use an existing service to shorten the URL, by creating a short URL hosted on your own site people will see your domain name and may share the short URL from your site with others. This provides you with free publicity and can help to establish your website as a source for quality information. In addition to providing a shortcut to a long URL, with JURL Shortener you can place a header from your website on top of the redirect much like articles on [Digg.com](http://www.digg.com) and [About.com](http://www.about.com). With this header, you can provide extra functionality, banners, or other content that fits your site's purpose and/or business model.

You may even choose to link to existing long URLs on your own website. In many cases this is easier and more effective than creating a new menu entry in the Joomla! backend. You can also create multiple short URLs and attach analytics tracking tags that are hidden within your short URL, this is useful for tracking the popularity and influence of link placements that can become difficult to track as the URL becomes more popular. For example, you may have a page you want to share such as <http://www.example.com/this/page>. If you can attach a tracking tag to the end such as `?campaignid=2` your original URL may become even longer such as <http://www.example.com/this/page?campaignid=2>. We can encode that long URL with the tracking tag to a short URL at the same site such as <http://www.example.com/go/45TG>. This has the advantage of greatly condensing your URL for sharing and preventing someone from stripping the tracking tag. You could then of course create additional short URLs for `?campaignid=3` and `?campaignid=4` and track the popularity of different influencers and posting locations more easily as they are shared and passed on to others.

## 2.3 GNU GPL 2.0 License

JURL Shortener is provided as commercial open source software under the terms of the GPL 2.0 License. This means you have the freedom to manipulate and redistribute the code and any changes you make to others as long as you release you comply with the terms of the license. You have the software extension in its source code form and are free to use it as you wish. At the same time, there are no guarantees or warranties, and thus the software is provided 'as-is'. You will find the most Joomla! software is distributed under the terms of the GPL license, as is the Joomla! CMS itself. With the myriad of platforms and individual configuration settings, we cannot guarantee 100% fit with your specific environment. You should thoroughly review this documentation and any demos before purchasing, as it is impossible to "return" the product in the traditional sense because you already have the full source code and we can not offer any refunds once purchased. If you have any questions before purchasing, please contact visit <http://www.WebDesignHero.com/ticket> to contact the author.

While the GPL 2.0 License is one of the most common software licenses used today in the open source world, if you are unfamiliar with the specific terms of the license you can read it in its entirety at: <http://www.gnu.org/licenses/gpl-2.0.html>.

## 3 Additional Resources

In addition to this documentation, you should also watch the online demo/instructional video for JURL Shortener. This video will walk through installation, configuration, and day to day use. It is an excellent supplement to this documentation and may help provide additional insight which may not be clear in written form. To view the video online you can visit the [Web Design Hero Store](http://www.WebDesignHero.com). The video has English subtitles, if you would like to translate the subtitles please [contact us](#).

## Part II

# Installation of JURL Shortener

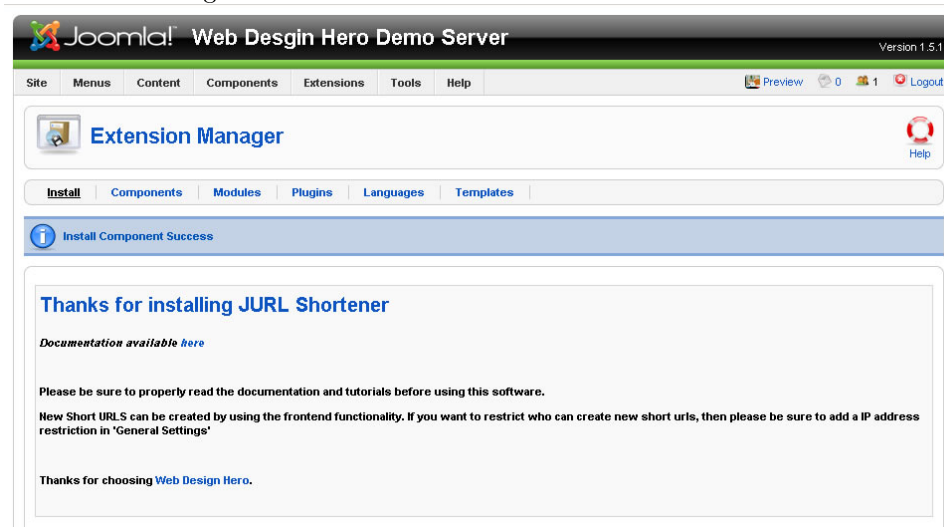
## 4 Downloading JURL Shortener

JURL Shortener is available for purchase at the [Web Design Hero Store](#). Only the official version obtained from Web Design Hero is supported. If you obtained your software from a third party source please contact them for further support information. We can not diagnose or support software modified or obtained from a third party. The documentation provided herein only applies to the official software obtained directly from Web Design Hero. The software is provided as a Joomla! installable file in \*.zip format. You can download the file to your local workstation or directly to your web server depending on your installation method of choice. It is highly advised that you make a backup of the original installable file in a safe place so you can easily find it later if necessary.

## 5 Installing JURL Shortener

JURL Shortener can be installed using the standard Joomla! backed administration and through the GUI. You should follow standard installation procedures, please see [the documentation on the Joomla! website](#) if you require further assistance. After you have successfully installed JURL Shortener you should see a confirmation message that looks similar to the screenshot in Figure 1.

Figure 1: JURL Shortener Installation Confirmation



## 6 Configuring JURL Shortener

### 6.1 Configuration Screen

After successfully installing JURL Shortener, you can now go the configuration and management screen. It will be located under the "Components" menu in the administrator interface as 'JURL Shortener'. On the configuration/management screen, there are four icons. Right now, we will look at "General Settings". By clicking on the "General Settings" button a modal or popup will launch and will display the configuration options for JURL Shortener. There are three options which we will now go into in greater detail.

The first and most crucial option is “Select a Menu for redirection”. This option sets the Joomla! menu item to use for your redirection. For example, if your site was <http://www.example.com> your redirection base may be something like <http://www.example.com/go/> followed by a shortcode (e.g., <http://www.example.com/go/W3E2T>). This is controlled through the Joomla menu system to prevent conflicts and reduce manual configuration outside of the Joomla! environment. You must have at least one menu item created for JURL Shortener to function, but you may place the menu item on any menu you want and the menu does not have to be displayed or may be “hidden”. We will cover creating the menu item in greater detail in a moment. You may opt to have more than one menu item for JURL Shortener. For example, you may create one menu with the URL alias ‘create-menu’ while using another menu for the actual short URLs with a different alias (which you would then select here) such as ‘go’. If the terms “menu item” and “alias” are new to you, you should consult the Joomla! Documentation (Help Docs:[Documentation for Creating Menus](#), [Adding a New Menu Item](#)). You can only have one active menu used for short URLs at any given time. Please note, that if you later change the menu or the menu alias you may break existing short URLs that are out on the web unless you create redirects or menu [aliases](#) to compensate for the change, such functionality is beyond the scope of this documentation.

Figure 2: Loading the JURL Shortener Management Interface

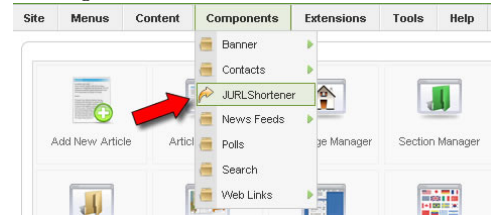


Figure 3: JURL Shortener Management Interface

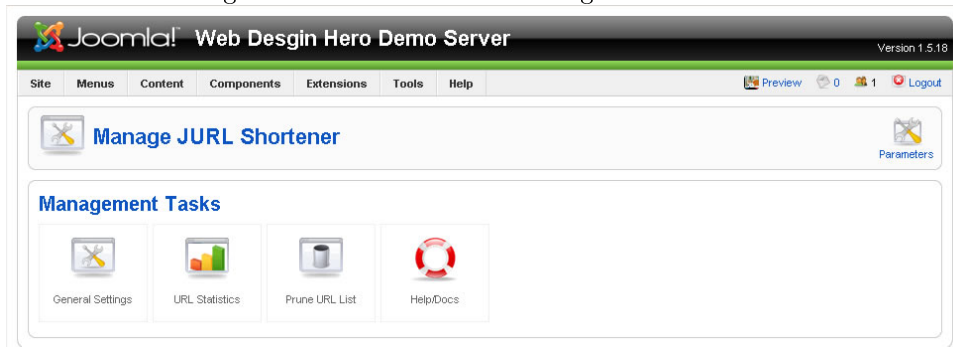
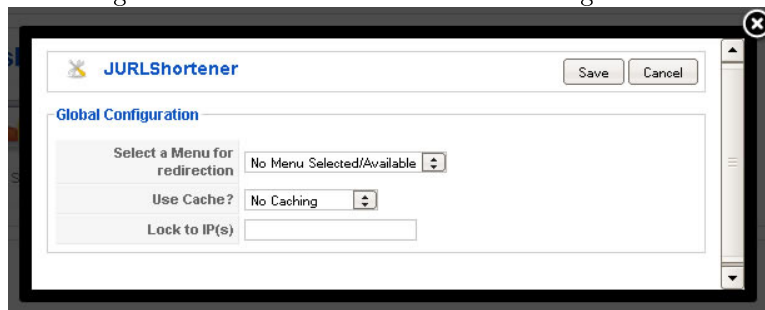


Figure 4: JURL Shortener 'General Settings' Screen



The second configuration setting is “Use Cache?”. In most cases, you will want to leave this setting set to “No Caching”. Caching will only provide a performance enhancement if you have a very large database and in most cases the extra overhead will actual decrease performance. You may need to perform your own testing, profiling, and analysis to see if enabling caching is the correct choice on your own environment.

The last configuration option is “Lock to IP(s)”. This option creates a whitelist of IP addresses which are allowed to access the short URL configuration settings. This is useful if you want to limit those who have the ability to create short URLs. You may want to provide public access and allow anyone to create short URLs from your website, in which case you should leave this setting blank. However, for security reasons and to

prevent spammers from abusing your service you may want to use IP locking so that only you and those you authorize can create short URLs. The URL block does not prevent people from using short URLs which are created, only the creation of new short URLs. It is highly recommended that you utilize IP locking. Major short URL direction services have dedicated developers and system architects and advanced filters to limit malicious use and abuse of their services. Such controls are best implemented at the web server or network level (e.g., via firewalls, intrusion detection/prevention systems, etc.) and thus are not a core part of JURL Shortener. As with any anytime you allow visitors to provide content, you must be diligent to protect your site and server, as well as the sites and servers of others on the Internet. In order to enable IP address locking, simply create a semi-colon separated list of IP addresses, such as `192.168.1.1;10.0.0.101;127.0.0.1`. If a user tries to visit the short URL creation page and his IP address is not on the list, he will receive a [403 Error Page](#).

## 6.2 Enabling Search Engine Friendly (SEF) URLs

By default, Joomla! 1.5 uses parametrized URLs, such as [http://www.example.com/index.php?option=com\\_content&id=1](http://www.example.com/index.php?option=com_content&id=1). Many site administrators prefer to have more aesthetic looking URLs that limit special characters, and also provide more keyword context for users and search engine spiders. A SEF URL, as opposed to the example above, may look more like <http://www.example.com/somesection/my-article-name-here>. Having SEF URLs enabled in your Joomla! installation is a requirement for proper functionality of JURL Shortener. In addition, you must be able to enable and properly configure your `.htaccess` settings. Also note, that if you are operating your Joomla! install in a sub-directory you must properly compensate and configure for this; it is highly recommended that you only use JURL Shortener in the base directory of your domain to produce the shortest possible URLs.

You can find documentation at the [official Joomla! site](#), but I will provide a quick overview. First, sign-in to the administration area of your Joomla! installation. At the top of the page there is a menu bar, select “Site” and then click on the “Global Configuration” sub-menu. On the first tab “Site” there are many options that you can configure for your website, but right now we are only interested in the “SEO Settings” on the right side of the page. There are three options in this area, and for correct functionality you should make the following selections: “Search Engine Friendly URLs” should be set to “Yes”; “Use Apache mod\_rewrite” should be set to “Yes”; and “Add suffix to URLs” should be set to “No”. You may be able to achieve some functionality with different settings, however, these are the only known settings which do not require detailed hacks. In general, you should never set “Add suffix to URLs” to “Yes” as this is known to cause odd behavior with some Joomla elements and third party extensions. In addition, you must rename the file `htaccess.txt` located in your site’s root to `.htaccess`. You can achieve this with most FTP software, remote shells, or mapped drives. If you are unfamiliar with how to make this change, please contact your web host, web master, or developer for the specific method to use for your environment. Non Linux/Apache environments are not currently supported, but you may be able to make JURL Shortener work on such systems with proper environment settings.

## 6.3 Creating a Menu Item for JURL Shortener

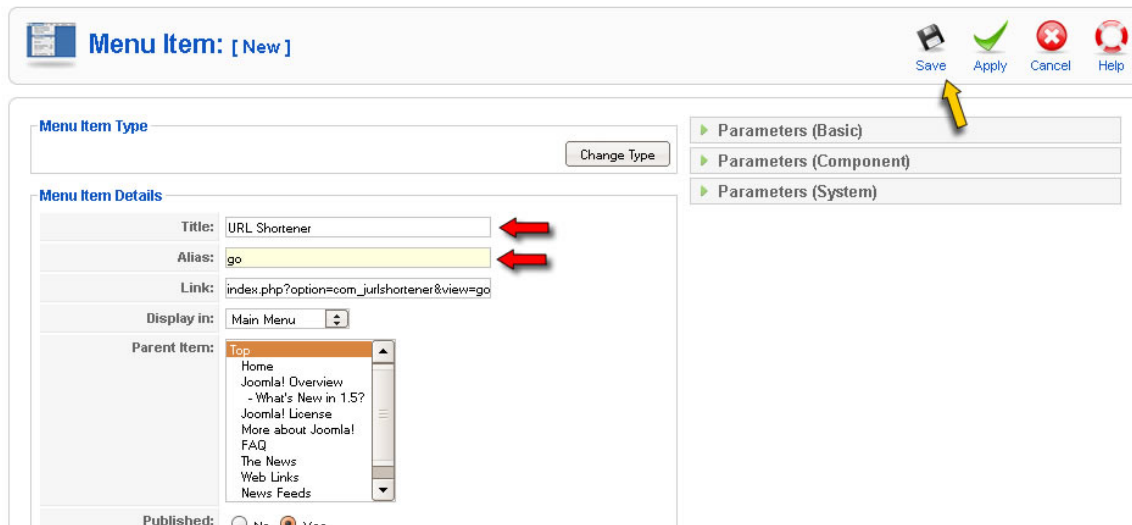
As we mentioned above, proper functionality of JURL Shortener requires the creation of at least one menu item for JURL Shortener. You may put the menu item on any menu of your choice. You do not necessarily need to publish the menu with the menu item for JURL Shortener to any menu module or elsewhere on your site; as long as the menu item is published you are good to go. For a basic primer on creating menu, you can [view documentation on the Joomla! website](#). We will now look at the specific settings needed to create our menu item for JURL Shortener.

In the menu manager, select the menu to which you would like to add a JURL Shortener menu item. On that page, click on the “New” button located in the toolbar on the top of the page. A new page will launch and will prompt you to “Select Menu Item Type”, here click on the link for “JURLShortener”. This will reload the page and provide you with two sub-options under “Go To URL Redirect”, which are “Redirect with Header” and “Direct Redirect”. For now, select “Direct Redirect”, we will go into more detail on the difference between these two options later. You will now be at the menu item configuration screen. We are only concerned with the settings in the “Menu Item Details” area. The first setting we want to address is

“Title” set this to the text you want to actually display on the menu, for example you may want something such as “Create Short URL” or “URL Shortener”. Next, we want to manually set the “Alias” option. This option is very important for JURL Shortener’s functionality. The alias should be something short such as “go” or maybe even a single character such as “g”. The alias will be prefixed before the Short URL id in the short URLs that you create. For example, if you set your alias to “go” and your domain name is “example.com” your short URLs will be something like <http://example.com/go/45tb>, if however you make your alias something like “long-alias-here” then your link will be much longer and will take the form of <http://example.com/long-alias-here/45tb>. Obviously, you should choose your alias wisely. If you decide to later change your alias, it will invalidate all existing links that have been shared, though the existing links will not be deleted. For example if you shorten the URL <http://www.WebDesignHero.com> and you currently have an alias of “long-alias” you may get a Short URL such as <http://example.com/long-alias/4re3w> when you change the alias to “s” the short URL will become <http://example.com/s/4re3w>; note that the shortcode of “4re3w” is the same. You may decide to create an alias or redirect rule on your server to maintain links that have already been shared and posted on the Internet, or you may decide to delete all old entries using the JURL management interface, we will go into specifics on purging URLs later in the documentation.

The remainder of the settings such as “parent item” and “On Click, Open in” may be set to your liking. Note that the menu item must be published. As a reminder, setting the access level for a Joomla menu item is not sufficient security option and is NOT a replacement for using URL locking which was discussed earlier in the documentation. The “Access Level” setting only affects whether the menu link is or is not displayed, and has no connection to the actual security features of the JURL Shortener extension. When you are done configuring the options the way that you want you can hit the “Save” button in the toolbar on the top of your page. This menu will now appear as an option in the “Select Menu” setting under the JURL General Configuration settings explained earlier.

Figure 5: Configuring a Menu Item for JURL Shortener



## 6.4 Selecting the Menu

Now that we have created a menu, we need to go back to the JURL “General Settings” and select the menu item we just created. The drop down list for “Select a menu for redirection” will now have the menu, and any other JURL menu items you created listed on it. Select the menu with the corresponding alias that you want for your short URLs as discussed above. Make sure to save your settings, by hitting the “Save” button. Now you are ready to use JURL Shortener.

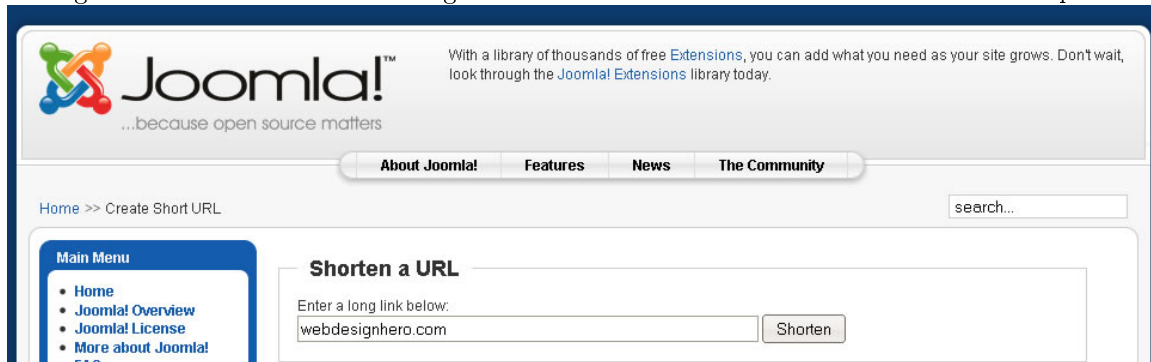
## Part III

# Using JURL Shortener

## 7 Creating new Short URLs

The creation of Short URLs takes place in the frontend. Anyone can use the frontend to create short URLs on your website, unless you implement IP locking as described earlier. On the frontend, you can click on the menu item you created to get to the JURL Shortener short URL creation screen. If the menu you placed the menu item on is not visible, you should be able to navigate to it by typing your base path followed by the alias you assigned to the menu, for example if you created a JURL Shortener menu item with the alias 'go' and your website is <http://www.example.com/> you can get to the URL creation screen manually by navigating to <http://www.example.com/go>. Once you are on the creation page, all you have to do is enter a URL to an existing page on the Internet or even your own site. You are free to attach any tracking tags or other "GET" parameters. Once you type in the URL, simply click the "Shorten" button and your short URL will be created.

Figure 6: Short URL Creation Page on Default Joomla! Installation with Default Template



After you click shorten, JURL Shortener will process your request and return to you the new short link under a blank input form. The "New Link Created Successfully" box will show the new short link, as well as the original link. The new short URL listed after "Your Link" can be used immediately and will redirect to the original page listed below. For security and convenience reasons, JURL shortener will make some assumptions on your behalf. First, JURL Shortener requires that there be a valid schema and will assume `http://` if you do not specify another valid scheme. JURL will also assume that if no ending (top level domain) is provided that `.com` should be used. For example if someone tries to shorten `mysite`, JURL will interpret this as <http://mysite.com>. In addition, JURL performs some rudimentary filtering to reduce security threats and [cross site scripting](#) attempts; however, you should always monitor the security of your system and check for updates on this and all third party extensions. Because JURL Shortener is open source you can choose to edit the code and remove any of these precautions if you feel they are not necessary in your environment, but such actions should be done with discretion and at your own risk.

## 8 Direct Redirect vs Redirect with Header

Earlier, we mentioned that when you create a menu item you have the choice of selecting "Direct Redirect" or "Redirect with Header". In most cases, the direct redirect will work for most implementations. With the direct redirect option, when the visitor visits the short URL created by JURL Shortener they will immediately be redirected to the original web page, and the location bar will display the original page's URL as well. Technically, a [301 redirect](#) is performed, meaning that a visitor first visits your website, which then informs their browser to go the original URL. A redirect with a header is slightly different. If you select this option, instead of redirecting the visitor directly to the page you are able to put a custom header on top of every

Figure 7: View After a New Page Has Been Created

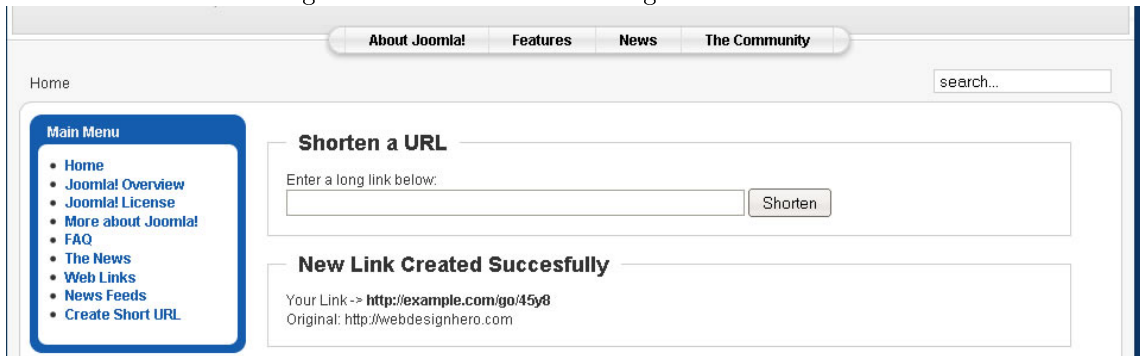
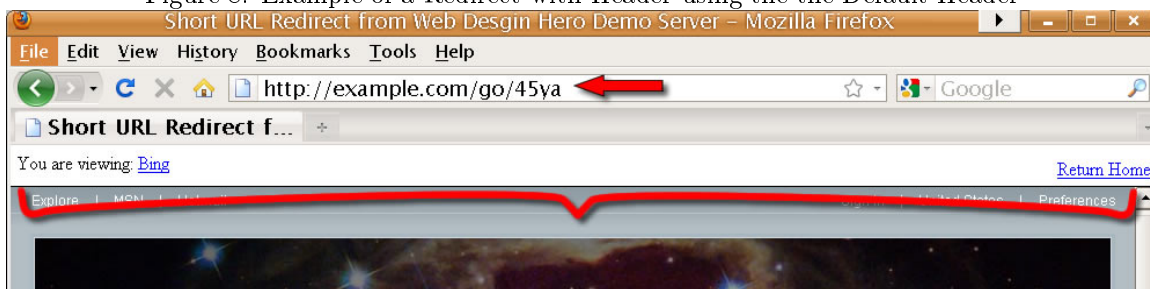


Figure 8: Example of a Redirect with Header using the the Default Header



page to which they are redirected. This technique is commonly used on websites such as [Digg.com](http://Digg.com) and [About.com](http://About.com), as well as many others. In addition, visitors are technically still on your website and browsing the original URL in an `iframe`. This means the URL shown in the location bar will not change. In your header you can place banners or site specific tools that you may use, such as a commenting or statistics feature. By default, the header is extremely bare and basic and should be customized either directly or with a layout override (recommended) to fit your site design. To add any functionality you should be comfortable coding and designing this yourself or contacting the [author](#) or another Joomla! developer for a quote on customization or programming the features you want.

## Part IV

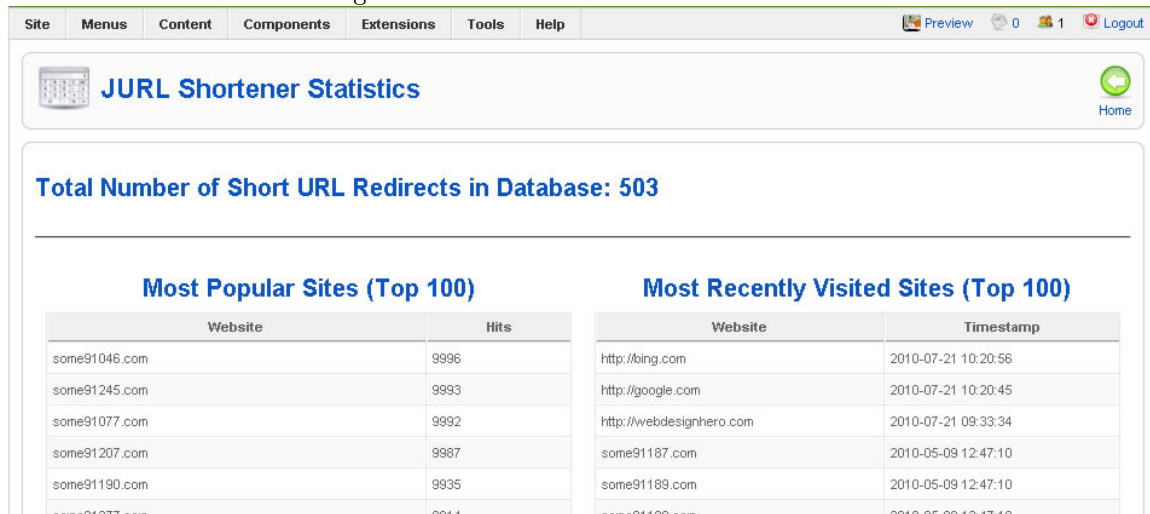
# Managing JURL Shortener

## 9 URL Statistics

JURL Shortener provides some basic statistics to help you keep track of the number of URLs in the database as well as the popularity of short URLs that have been created. To get to the JURL Shortener Statistics screen, log into the administrator section and select JURL Shortener from the Components menu. The second icon on the main screen is for the statistics screen, click this icon and the statistics will load. At the top of the page, you will see the total number of short URL entries in the database. This information may be useful to decide whether or not you need to prune URLs; the exact number of URLs at which to prune the database is dependent upon your storage availability and performance requirements. Obviously, the more short URLs in the database the greater seek time will be needed for each redirect request and the more storage will be needed. However, many techniques have been made to optimize the speed of JURL Shortener and a minimum of information is stored in the database. Under most environments, you can easily have hundreds of thousands link with acceptable performance. Tuning your system for performance is beyond the scope of this documentation.

In addition to presenting the total number of URLs in the database, JURL Shortener will show you the most popular links. In the left-side table, you can see the 100 most popular links as sorted by the number of visits. The right-side table shows the most recently visits links. These statistics are update every time a link is visited. Every short URL entry stores the total number of visits as well as the timestamp for the last visit via that short URL. This information can be useful to help monitor which links are being shared and the usage of JURL Shortener. It is highly recommended that you still employ web analytics software for more detailed tracking for your website.

Figure 9: JURL Shortener Statistics Screen



## 10 Purging URLs from the Database

Based on visible performance or information obtained from JURL Shortener’s statistics screen you may want to purge URLs from the database to decrease the number of entries in the database. JURL Shortener provides an easy to use interface to remove old and unpopular links from the database. It is up to you to decide when, and if, you should remove any URLs from the database. Unless you have visible performance issues or are running out of storage space, there is little incentive to remove any entries from the database. Once you remove entries from the database you will effectively create dead links for all existing short URLs which will be removed. Generally though, you will only be deleting old links which have had little usage.

To prune your database, login to the administrator interface of your Joomla! installation. Go to the Component’s menu and click on JURL Shortener. The third button the the screen will be “Prune URL List”, click this button and you will load the “Purge Shortened URL records from database” screen. You set your purging criteria based on the number of visits and the date of last visit. Every time a short URL is used to redirect to a page, its last visit timestamp is set and hits visit count is incremented. Based on your own needs and criteria you should decide what settings to use. Ideally, you want to try to remove the least popular links. For example, if you created a short URL and it was only used 3 time and has not been used in 6 months it less likely to be used compared to a short URL which was used yesterday and has a hit count of 500. You will specify two conditions to select URLs to be deleted: the number of days since the last visit and the number of hits received. The larger the number of day and the smaller the number of visits, the less URLs will be deleted.

To prevent accidentally deleting all records unintentionally there is no command to directly delete all URLs; however, this can be accomplished either through your database management interface or by setting the number of days to zero (‘0’) and the number of visits to a the number of hits for the most popular short URL, which can be obtained using the statistics screen discussed in the previous section.

Please also note, unless you back up your database before the purge action is conducted, you cannot recover that short URL entries that you purge. Purging is a permanent action meant to free up storage

space and to reduce seek time. If you are not running short on space and have adequate performance you normally should NOT purge records from the database.

Figure 10: JURL Shortener URL Purging Screen

The screenshot shows a Joomla! administrator interface for purging shortened URL records. The page title is "Purge Shortened URL records from database". Below the title, there is a section titled "URL Purging Settings". The text in this section reads: "Please select the purge settings below and then click submit. Remember, once links are removed from the database users can no longer use the short URL you have provided. It is recommended only to purge entries from the database if you are running out of space or if you have a performance issue. You may also want to consider enabling caching and expanding the size of your database instead of purging records." Below this text is a warning: "Take caution: This operation CANNOT be reversed!". There are two input fields: "Purge records that have not been visited in this many days:" with the value "1000", and "Purge records that have less than this many total visits:" with the value "1". At the bottom of the form is a button labeled "Purge Old and Unvisited Links".

## Part V

# Advanced Topics

## 11 Layout Overrides

JURL Shortener is written to be MVC compliant. This means that there is a strong separation between data storage/retrieval, manipulation, and presentation. While you can edit the view templates directly, it is highly recommended that you use layout overrides instead to increase portability and to avoid possible conflicts with future updates. If you are unfamiliar with layout overrides, please first read the [documentation at the Joomla! website](#). In order to facilitate the editing and manipulation process, JURL Shortener does make use of sub\_layouts. This means you may need to edit more than one file for a particular view, but have greater control over re-usability and global changes. The process is still very simple, simply ensure you copy the correct files to the correct locations with the template's folder and edit to match the style you want. There are two views on the frontend for JURL Shortener and you can edit them or override them as you please.

## 12 Building Language Translations

JURL Shortener makes use of standard Joomla! language files to ease in the translation of JURL Shortener from English to a native language. Please note that only the frontend has been set up to make use of translations, and that the text in the backend is static. The language file can be found in the installation zip file or in the en-gb folder once installed, as `en-GB.com_jurlshortener.ini`. For more information on creating language translation files, please see the [documentation at the Joomla! website](#) (all language related docs on the Joomla! website can be found [here](#)). If you create a translation and would like to share it with others, please feel free to [contact the author](#).