

# Hub Managers

The Managers' Guide is a user manual for managing the web content and functionality of a HUB. It progresses step-by-step through various common tasks and familiarizes the manager with the administrative back-end interface. Managers will learn how to accomplish tasks such as:

- Install new modules/widgets/plugins/templates
- Manage (add/edit/delete) site members
- Manage site settings
- Handle support tickets
- And more ...

# Introduction

## Overview

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- Install new modules/widgets/plugins/templates
- Manage (add/edit/delete) site members
- Manage site settings
- Handle support tickets
- And more ...

We strongly recommend reviewing [Joomla!'s Documentation](#) for further help on topics that may not be covered here.

## How To Use The Guide

The guide is grouped by Subject, then Chapters within a subject, then Sections within Chapters.

# Administrator Area

## Logging In

The Administrator back-end of your Joomla! installation is where you do most of the work to set up, configure and maintain your website. As such it must be protected from access by casual visitors and so Joomla! will request a valid username and password before access to the Administrator is granted.

You access the Administrator back-end of your website by entering a special URL into the address bar of your web browser. If your website URL is `http://www.example.com` then you will enter the address `http://www.example.com/administrator`. You will be shown the Administrator login form which looks like this:

Enter your username and password into the relevant fields. If required, select your preferred language from the drop-down list. Then click the "Login" button. If you are logged in successfully you should see the Administrator control panel screen which looks similar to this:

### **Logging Out**

To log out of the Administrator back-end, locate the "Logout" link in the top-right corner of the Administrator screens and click on it. Logging out will return you to the Administrator login screen. If the "Logout" link is grayed out and nothing happens when you click on it, then you are probably in a screen where you have some resource locked for your exclusive use. Click the "Cancel" toolbar button first to release the resource, then click on the "Logout" link.

## FAQ

### Customizing Your New Hub

#### The Front Page

- [Edit the "welcome" area on the home page](#)
- [Change the rotating banner on the home page](#)
- [Change text or other components on the home page](#)

#### Registration

- [Change the information new users must supply when registering](#)
- [Change the text of the confirmation email](#)
- [Change the URL to redirect to after confirming email](#)

#### Login

- [Change the URL to redirect to after logging in](#)

#### Content

- [Edit "about" pages, terms of use, etc.](#)
- [Add a picture to an article/page](#)
- [Change the types of resources that users can contribute](#)
- [Change categories of events on the public calendar](#)
- [Change metadata exposed to search engines](#)

### How do I ...

#### Content

- [...change items in the menu bar along the top of the site?](#)
- [...add a new page to the site?](#)
- [...fix spelling errors on a resource that a user has uploaded?](#)
- [...help a user upload a huge resource file?](#)
- [...fix spelling errors on tags, or delete useless tags?](#)
- [...put up a poll question for the community?](#)

#### Maintenance

- [...put up a notice that the site is going down for maintenance?](#)

### Members

- [...find the login or email address for a registered user?](#)
- [...make another user a site administrator?](#)
- [...award points to a user that did something special to help?](#)

### Daily Maintenance

- [Keep an eye on the dashboard](#)
- [Approve pending resources](#)
- [Support tool contributions](#)
- [Handle support tickets](#)
- [Respond to reports of abuse](#)
- [Fulfill orders in the site store](#)

# Media Manager

## Overview

See Joomla!'s [documentation](#).

# Configuring

## Overview

One of the many advantages to Joomla! and HUBzero is the level of configuration that can be applied. Not only can you configure some global site settings, but individual components, modules, and plugins as well.

HUBzero also adds many other configuration options for extended registration information and more.



# Settings

## Overview

**Note:** Most, if not all, of these settings can be set once and then left alone. Most HUBzero installs will have these configurations set for optimal performance. It is not advisable to make changes to the "System" or "Server" settings.

The settings are saved in '/configuration.php'. To save your changes, either the FTP-layer must be activated or the 'configuration.php' file made writable.

## Toolbar

At the top right you will see the toolbar. The functions are:

### Save

Save the modifications you made to the Global Configuration. You will be redirected to the Control Panel

### Apply

Save it, but stay in the same screen. If you have been working on a screen for a long time and don't want to risk losing your work, pressing Apply saves your work and lets you continue working. If, for example, you lost your Internet connection, your work will be saved up this point.

### Close

Return to the previous screen without saving your work. If you press Close while adding a new item, this new item will not be created. If you were modifying an existing item, the modifications will not be saved.

### Help

Opens the Joomla! Help Screen.

## Site Setting Groups

### Site Settings

#### Site Offline

This setting shows when the site is offline. Only Administrators will be able to see the site when *Site Offline* is set to Yes. The default setting is **No**.

#### Offline Message

The message that will be displayed on the site when the site is offline.

#### Site Name

The name of the site.

#### Default WYSIWYG Editor

(WYSIWYG stands for What You See Is What You Get) The default editor to use when creating articles.

#### List Length

The length of lists in the Control Panel for all Users. By default, this is set to **20**.

#### Feed Length

The number of content items to be shown in the feed(s). By default, this is set to **10**.

### Metadata Settings

#### Global Site Meta Description

This is the description of the site which is indexed by search engine spiders.

#### Global Site Meta Keywords

These keywords describe the site and are the basis for improving the ability of search engine spiders ability to index the site.

#### Show Title Meta Tag

It shows the Meta information of each article. This Meta information is used by search engine spiders when indexing the site. Each article can have its own Meta Data information (set under the **Metadata Information** pane when creating or editing an article).

#### Show Author Meta Tag

It shows the Author Meta information for articles and is used by search engine spiders when indexing the site.

### SEO Settings

SEO stands for *Search Engine Optimization*.

#### Search Engine Friendly URLs

When set to Yes, URLs are rewritten to be more friendly for search engine spiders. For example, the URL: *www.example.com/index.php?option=com\_content&view=etc...*, would turn into: *www.example.com/alias*. Most of the items created in Joomla! have an Alias box where a search engine friendly URL can be inserted. The default setting is **No**.

#### Use Apache *mod\_rewrite*

When set to Yes, Joomla! will use the *mod\_rewrite* settings of Apache when creating search engine friendly URLs. Please note: it is advised that you do not modify any **.htaccess** file without an understanding of how it works. You must use the **.htaccess**

file provided with Joomla! in order to use this setting. To use this file, rename the **htaccess.txt** file (found in the root directory) to **.htaccess**. By default, this setting is set to **No**.

### Add suffix to URLs

When set to Yes, Joomla! will add **.html** to the end of the URLs. The default setting is **No**.

## System Setting Groups

### System Settings

#### Secret Word

This is generated when Joomla! is first installed and is not changeable. It is used internally by Joomla! for security purposes.

#### Path to Log folder

The path where the logs should be stored. The Joomla! installer should automatically fill in this folder.

#### Enable Web Services

This feature enables Joomla! to make RPC (Remote Procedure Calls) using HTTP as the transport medium and XML as the encoding language. This function should remain on to ensure that many third party extensions works. The default setting **Yes**.

#### Help Server

The place Joomla! looks for help information when you click the **Help** button (visible in many screens and options of the administration panel). By default, it uses Joomla!'s main help site.

### User Settings

#### Allow User Registration

This determines whether users can register on the site. The default setting is **Yes**.

#### New User Registration Type

If *Allow User Registration* is set to *Yes*, this setting tells Joomla! what level of access should be given to new users who register. The default setting is **Registered**.

#### New User Account Activation

This setting determines whether a new user will have to activate their account before they can use it. If set to **Yes**, users will be sent an email containing a link to a web address. The user must follow this link to activate his/her account. By default, this setting is set to **Yes**.

#### Front-end User Parameters

When set to *Show*, users will be able to select their language, article editor, and help site preferences from within their Details screen. The default setting is **Show**.

### Media Settings

#### Legal Extensions (File Types)

These are the file types users are allowed to upload. By default, when Joomla! is installed, basic image and document files are allowed.

#### Maximum Size (in bytes)

The maximum file size users are allowed to upload, in bytes. The default setting is **10000000** (or 10mb).

#### Path to Media Folder

The path where non-image media files are located, including videos and document files. The default is "<Joomla! home>/images". You can create a new folder to use with the Media Manager and enter the path to that folder here. **Warning:** *Do not delete or rename the existing "<Joomla! home>/images" folder on your server.* This folder and its subfolders "images/banners", "images/M\_images", "images/smiles", and "images/stories" are used by Joomla!. Deleting or renaming these folders may cause errors.

#### Path to Image Folder

The path where images are stored. The default is "<Joomla! home>/images/stories". You can create a new folder to use with the Media Manager and enter the path to that folder here. If you want to access this folder from the Media Manager, either use the default value or make the new folder a sub-folder of the Media Manager folder.

**Warning:** *Do not delete or rename the existing "images/stories" folder on your server.* This folder is used by Joomla! and deleting or renaming it will cause errors.

#### Restrict Uploads

This feature restricts uploads by user type. The default setting is **Yes**.

#### Check MIME Types

This uses MIME Magic or Fileinfo to verify files. The default setting is **Yes**. By checking the MIME information, you help ensure users don't upload malicious files to your site. If invalid MIME type errors are received then change the setting to *No*.

#### Legal Image Extensions (File Types)

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This allows you to limit the types of images that can be uploaded. It operates by checking the file image headers. By default, Joomla! only allows **bmp,gif,jpg,png**.

### Ignored Extensions

This sets which extensions are ignored for MIME type checking and restricts uploads. By default, no extensions are ignored.

### Legal MIME Types

This sets the list of legal MIME types for uploads. By default, Joomla! automatically includes some standard file types. It is recommended that you do not touch this setting unless you know what you are doing.

### Illegal MIME Types

This sets the list of illegal MIME types for uploads. By default, Joomla! automatically blocks HTML MIME types. It is recommended that you do not touch this setting unless you know what you are doing.

### Enable Flash Uploader

This setting enables the integrated Flash Uploader which is used for example at the Media Management. If enabled it is possible to upload several files at once. Default setting is **No**. *Tip: if enabled and the download does not work, disable the flash uploader (can happen due incompatible flash settings by Adobe)*

## Debug Settings

### Debug System

This will turn on the debugging system of Joomla!. When set to **Yes**, this tool will provide diagnostic information, language translations, and SQL errors. If any such issues or errors occur, they will be displayed at the bottom of each page, in both the front-end and back-end.

### Debug Language

This will turn on the debugging indicators (\*...\*) or (?...?) for the Joomla! Language files. Debug Language will work without the Debug System tool set to on. But it will not provide additional detailed references which would help in correcting any errors.

## Cache Settings

### Cache

This setting sets whether site caching is enabled or not. When enabled, it keeps a local copy of the content on the server to speed up accessing and lessen stress on the database. The default setting is **No**.

### Cache Time

This setting sets the maximum length of time (in minutes) for a cache file to be stored before it is refreshed. The default setting is **15** minutes.

### Cache Handler

This setting sets how the cache operates. There is only one caching mechanism which is file-based.

## Session Settings

### Session Lifetime

This setting sets how long a session should last and how long a user can remain signed in for (before logging them off for being inactive). The default setting is **15** minutes.

### Session Handler

This setting sets how the session should be handled once a user connects and logs into the site. The default setting is set to **Database**.

## Server Setting Groups

### Server Settings

#### Path to Temp-folder

The path where files are temporarily stored. This is filled in by default when Joomla! is installed.

#### GZIP Page Compression

Compressing pages typically increases your site's speed. The default setting is **No**.

#### Error Reporting

This sets the appropriate level of reporting. The default setting is **System Default**.

#### Force SSL

This setting forces the site access for selected areas under SSL (https). *Note:* you must have set already the server to use SSL. Options are:

None

SSL is not activated

Administrator Only

SSL is only valid for the backend.

### Entire Site

SSL is valid for the whole site (front- & backend).

## Locale Settings

### Time Zone

This tool sets the current date and time. The set time should be where the site's server is located. The default setting is **(UTC 00:00) Western Europe Time, London, Lisbon, Casablanca**.

## FTP Settings

FTP stands for File Transfer Protocol. Most of these settings are set during the initial Joomla! installation.

### Enable FTP

This setting tells Joomla! to use it's built-in FTP function instead of the normal upload process used by PHP.

### FTP Host

The host server's URL connecting the FTP.

### FTP Port

The port where the FTP is accessed. The default setting is **21**.

### FTP Username

The username that Joomla! will use when accessing the FTP server. Security recommendation: create another FTP user account to access a folder where files will be uploaded to.

### FTP Password

The password that Joomla! will use when accessing the FTP server. Security recommendation: create another FTP user account to access the folder where files will be uploaded to.

### FTP Root

The root directory where files should be uploaded to.

## Database Settings

These settings are set during the initial setup of Joomla! It is advised to leave these settings the way they are, unless you have a good understanding of how databases work.

### Database Type

The type of database to be used. The default setting is **mysql**, but this can be changed during the initial setup of Joomla!.

### Hostname

The hostname where the database is located. It is typically set to **localhost** for most servers. It is possible for the hostname to be located on a different server all together.

### Username

The username to access the database.

### Database

The name of the database.

### Database Prefix

The prefix used before the actual table's name. This allows you to have multiple Joomla! installations in the same database. The default setting is **jos\_**, but this can be changed during initial setup of Joomla!.

## Mail Settings

The mail settings are set during the initial setup of Joomla!. These settings can be changed whenever needed.

### Mailer

This setting sets which mailer to use to deliver emails from the site. The default setting is **PHP Mail Function**. This can be changed during the initial setup of Joomla!.

#### PHP Mail Function

This uses the mail function that is built into PHP.

#### Sendmail

This uses the Sendmail program, which is typically used when creating HTML email forms.

#### SMTP Server

This uses the site's SMTP server.

### Mail from

The email address used by Joomla! to send site email.

### From Name

The name Joomla! will use when sending site emails. By default, Joomla! uses the site name during the initial setup.

### Sendmail Path

The path where the Sendmail program is located. This is typically filled in by Joomla! during the initial setup. This path is only used if **Mailer** is set to **Sendmail**.

### SMTP Authentication

If the SMTP server requires authentication to send mail, set this to **Yes**. Otherwise leave it at **No**. This is only used if **Mailer** is set to **Sendmail**.

### SMTP Username

The username to use for access to the SMTP host. This is only used if **Mailer** is set to **Sendmail**.

### SMTP Password

The password to use for access to the SMTP host. This is only used if **Mailer** is set to **Sendmail**.

### SMTP Host

The SMTP address to use when sending mail. This is only used if **Mailer** is set to **Sendmail**.



# Registration

## Overview

HUBs allow for considerable customization of the registration form for new members. While one HUB may present fields for filling in phone, website, and organization, another may take a more minimal approach and require only a username, password, and email address. This is all configurable.

## Making Changes

1. First login to the administrative back-end.
2. Once logged in, find “Components” in the main menu bar located toward the top of the page. You should be presented with a drop-down menu containing a list of your installed components.
3. Choose “Register” from the available options.

4. You should now be presented with a table of available user fields and their status for a particular action. This controls what fields the user will see, must fill in (required) or can fill in (optional) depending upon which action or state they are currently in. That is, you can make the username field required for the registration page (“create” column) but may not wish for your users to be able to edit this after creation (“read only” for the “update” and “edit” columns).

### Create column

What the user sees on the registration page

### Proxy column

What columns an administrator sees or must fill in when creating an account by proxy (i.e., for someone else)

### Update column

What fields the user will see and/or must fill in if something has changed with what information is required at registration. An example of this would be if the “citizenship” field was, at one point, optional for registration but is now required. Setting this field to “Required” for the “Update” column will now require logged-in users to fill this information out.

### Edit column

What fields the user will see and can edit for their user profile

### Field Option Definitions:

Required = Must fill in

Optional = Can fill in

Hide = Not visible

Read only = Can view but cannot change

5. Once you feel ready to save your changes, scroll back to the top of the page and click "Save" (the icon that looks like a floppy disk) in the upper right portion of the page.

Changes take affect immediately.

## Customizing Confirmation Email

All component layouts can be customized through overrides. Except for files that are provided in the "Joomla!" distribution itself, this method for customization eliminate the need for designers and developers to "hack" core files that could change when the site is updated to a new version. Because they are contained within the template, they can be deployed to the Web site without having to worry about changes being accidentally overwritten when your System Administrator upgrades the site. Some emails sent by the system, such as registration confirmations, are component layouts for just this reason of customization.

### Quick Overview of Output Overrides

Layout overrides only work within the active template and are located under the `/html/` directory in the template. For example, the overrides for "corenil" are located under `/templates/corenil/html/`.

It is important to understand that if you create overrides in one template, they will not be available in other templates. For example, "rhuk\_milkyway" has no component layout overrides at all. When you use this template you are seeing the raw output from all components. When you use the "Beez" template, almost every piece of component output is being controlled by the layout overrides in the template. "corenil" is in between having overrides for some components and only some views of those components.

The layout overrides must be placed in particular way. Using "Beez" as an example you will see the following structure:

```
/templates
  /hubbasic
    /html
      /com_register (this directory matches the component directory n
```

```
ame )
    /emails          (this directory matches the view directory name
)
    confirm.php (this file matches the layout file name)
```

The structure for component overrides is quite simple:  
/html/com\_{ComponentName}/{ViewName}/{LayoutName}.php.

### Customizing The Confirmation Email

To override the component layout for the registration confirmation email, copy:

```
/components/com_register/views/emails/tmpl/confirm.php (the email sent
if the user resends a confirmation)
/components/com_register/views/emails/tmpl/create.php (the email sent
upon registration)
```

to:

```
/templates/{YourTemplate}/html/com_register/emails/confirm.php
/templates/{YourTemplate}/html/com_register/emails/create.php
```

If the destination directories do not exist, create them. And then edit the contents of the file(s) you just copied.

See [Template Overrides](#) for more information on customizing layouts and CSS.

### Confirmation Return URL

By default, members who have just completed the confirmation process will be directed to a "Thank you" page. It is possible, in HUBzero, to change the redirection URL to something else.

**Note:** This only applies to the initial page the user sees upon confirmation of their email. To customize the return URL members are redirected to upon login see [Hub Configuration](#).

1. First login to the administrative back-end.

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2. Once logged in, find “Components” in the main menu bar located toward the top of the page. You should be presented with a drop-down menu containing a list of your installed components.
3. Choose “Register” from the available options.
4. Once the page has loaded, select the “Parameters” button in the toolbar, found in the upper right-hand portion of the screen. Click it.

5. You should now be presented with a pop-up panel for various settings and configurations of your site.

Look for the option titled "Confirmation Return URL". This will most likely be the second item in the list.

6. Enter in the textbox the URL you wish members to be redirected to and then click "Save".



# Components

## Overview

Many components will have a set of parameters that can be configured. These parameters can determine what functionality is presented to the user, be a default set of user options (what profile fields are visible to site visitors by default, for instance), or settings needed for the component to function properly. Accessing and adjusting these parameters is quick and easy.

**Note:** Not all components will have configurable parameters. For those that do, the configurations apply **only** to that component and should not affect any other components, site settings, or module settings.

1. First login to the administrative back-end.
2. Once logged in, find "Components" in the main menu bar located toward the top of the page. You should be presented with a drop-down menu containing a list of your installed components.
3. Choose the component you wish configure from the available options. Here we've chosen the "Hub" component.



4. Once the page has loaded, select the “Parameters” button in the toolbar, found in the upper right-hand portion of the screen. Click it.

5. You should now be presented with a pop-up panel for various settings and configurations of your site.

6. Adjust the available parameters as needed and then click "Save". Changes take affect immediately.

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**Note:** Very often a component will not function properly until component parameters have been first inputted and saved. For instance, HUBzero tools will not work properly unless the middleware configuration has first been defined in the tools component entry.

# Modules

## Overview

Most modules will have a set of parameters that can be configured. These parameters can determine what functionality is presented to the user, be a default set of user options, or settings needed for the module to function properly (setting the URL to a feed for a feed reader module, for instance). Accessing and adjusting these parameters is quick and easy.

**Note:** Not all modules will have configurable parameters. For those that do, the configurations apply **only** to that module instance. You may have multiple instances of a module with different parameter configurations.

1. First login to the administrative back-end.
2. Once logged in, go to the "Module Manager." The Module Manager can be found by selecting "Extensions" > "Module Manager" from the drop-down menu on the back-end of your HUB installation.

3. Choose the module you wish to configure from the available list.
4. Once the page has loaded, find the "Parameters" grouping, found on the right-hand portion of the screen.
5. Adjust the available parameters as needed and then click "Save" (the icon that looks like a star) in the upper right portion of the page. Changes take affect immediately.



# Plugins

## Overview

Some plugins will have a set of parameters that can be configured. These parameters can determine what functionality is presented to the user, be a default set of user options, or settings needed for the plugin to function properly. Accessing and adjusting these parameters is quick and easy.

**Note:** Not all plugins will have configurable parameters. For those that do, the configurations apply **only** to that plugin and should not affect component configuration, module configuration, or site configuration.

1. First login to the administrative back-end.
2. Once logged in, go to the "Plugin Manager." The Plugin Manager can be found by selecting "Extensions" > "Plugin Manager" from the drop-down menu on the back-end of your HUB installation.

3. Choose the plugin you wish configure from the available list.

4. Once the page has loaded, find the "Parameters" grouping, found on the right-hand portion of the screen.

5. Adjust the available parameters as needed and then click "Save" (the icon that looks like a floppy disk) in the upper right portion of the page. Changes take affect immediately.





# Extensions

## Overview

Joomla! already is a rich featured content management system but if you're building a website with Joomla! and you need extra features which aren't available in Joomla! by default, you can easily extend it with extensions. There are five types of extensions for Joomla!: Components, Modules, Plugins, Templates, and Languages. Each of these extensions handle specific functionality.

## Components

The largest and most complex of the extension types, a component is in fact a separate application. You can think of a component as something that has its own functionality, its own database tables and its own presentation. So if you install a component, you add an application to your website. Examples of components are a forum, a blog, a community system, a photo gallery, etc. You could think of all of these as being a separate application. Everyone of these would make perfectly sense as a stand-alone system. A component will be shown in the main part of your website and only one component will be shown. A menu is then in fact nothing more then a switch between different components.

## Modules

Modules are extensions which present certain pieces of information on your site. It's a way of presenting information that is already present. This can add a new function to an application which was already part of your website. Think about latest article modules, login module, a menu, etc. Typically you'll have a number of modules on each web page. The difference between a module and a component is not always very clear for everybody. A module doesn't make sense as a standalone application, it will just present information or add a function to an existing application. Take a newsletter for instance. A newsletter is a module. You can have a website which is used as a newsletter only. That makes perfectly sense. Although a newsletter module probably will have a subscription page integrated, you might want to add a subscription module on a sidebar on every page of your website. You can put this subscribe module anywhere on your site.

Another commonly used module would be a search box you wish to be present throughout your site. This is a small piece of re-usable HTML that can be placed anywhere you like and in different locations on a template-by-template basis. This allows one site to have the module in the top left of their template, for instance, and another site to have it in the right side-bar.

## Plugins

Joomla! plugins serve a variety of purposes. As modules enhance the presentation of the final output of the Web site, plugins enhance the data and can also provide additional, installable functionality. Joomla! plugins enable you to execute code in response to certain events, either Joomla! core events or custom events that are triggered from your own code. This is a powerful way of extending the basic Joomla! functionality.

## Templates

A template is a series of files within the Joomla! CMS that control the presentation of the content. The template is not a website; it's also not considered a complete website design. The template is the basic foundation design for viewing your website. To produce the effect of a "complete" website, the template works hand-in-hand with the content stored in the database.

## Languages

Probably the most basic extensions are languages. Languages can be packaged in two ways, either as a core package or as an extension package. In essence, these files consist key/value pairs, these pairs provide the translation of static text strings which are assigned within the Joomla! source code. These language packs will affect both the front and administrator side. Note: these language packs also include an XML meta file which describes the language and font information to use for PDF content generation.

## Conclusion

If the difference between the three types of extensions is still not completely clear, then it is advisable to go to the admin pages of your Joomla! installation and check the components menu, the module manager and the plugin manager. Joomla! comes with a number of core components, modules and plugins. By checking what they're doing, the difference between the three types of building blocks should become clear. You can also check out the official Joomla! extensions page. Browse through the extension categories and you'll be amazed about the extension possibilities you have for your site.

# Installing

## Overview

See [Installing Extensions](#) in the Web Developer's Guide for details.

# Modules Manager

## Overview

The Module Manager is where you add and edit Joomla! Modules. In Joomla!, Modules are used to display content and/or media around the main content.

The Module Manager can be found by selecting "Extensions" > "Module Manager" from the drop-down menu on the back-end of your HUB installation.

## Module Facts:

1. All Joomla! websites require at least 1 Menu Module
2. All Other Module Types are Optional. (Examples: News, Banner, Latest News, Polls)
3. Every Menu is accompanied by a menu module. (Example mod\_mainmenu)
4. Multiple occurrences of similar module types.
5. Some Modules are linked to components. For example, each Menu Module is related to one Menu component. To define a Menu in Joomla!, you need to create the Menu and Menu Items using the Menus screens and then create the Module for the Menu using this screen. Other Modules, such as Custom HTML and Breadcrumbs, do not depend on any other content.

A HUBzero installation is accompanied with over 20 Joomla! default module types and additional, HUBzero-specific modules.

## Column Headers

Click on the column heading to sort the list by that column's value.

#

An indexing number automatically assigned by Joomla! for ease of reference.

Checkbox

Check this box to select one or more items. To select all items, check the box in the column heading. After one or more boxes are checked, click a toolbar button to take an action on the selected item or items. Many toolbar actions, such as Publish and Unpublish, can work with multiple items. Others, such as Edit, only work on one item at a time. If multiple items are checked and you press Edit, the first item will be opened for editing.

Module Name

The name of the Module. You can click on the name to open the Module for editing.

Enabled

A green tick or a red X showing whether the use of the component is enabled/disabled. Click the icon to toggle the item between enabled and disabled.

Order

The order to display modules within a Position. If the list is sorted by this column, you can change the display order of modules within a Position by selecting a Position in the "Select Position" filter and then clicking the arrows or by entering the sequential order and clicking 'Save Order'.

Access Level

Who has access to this item. Current options are:

- **Public:** Everyone has access
- **Registered:** Only registered users have access
- **Special:** Only users with author status or higher have access

You can change an item's Access Level by clicking on the icon in the column.

Position

The position on the page where this module is displayed. Positions are locations on the page where modules can be placed (for example, "left" or "right"). Positions are defined in the Template in use for the page. Positions can also be used to insert a Module inside an Article using the syntax "{loadposition xxx}", where "xxx" is a unique position for the module.

Pages

The Menu Items where this Module will be displayed. Options are "All" for all Menu

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Items, "None" for no Menu Items, and "Varies" for selected Menu Items. A Module will only display on Menu Items where it is selected.

### Type

The system name of the Module. Joomla! installs 20 standard Modules. Many Joomla! Extensions contribute additional Modules.

### ID

The ID number. This is a unique identification number for this item assigned automatically by Joomla!. It is used to identify the item internally, for example in internal links. You can not change this number.

### Display #

The number of items to display on one page. If there are more items than this number, you can use the page navigation buttons (Start, Prev, Next, End, and page numbers) to navigate between pages. Note that if you have a large number of items, it may be helpful to use the Filter options, located above the column headings, to limit which items display (*where applicable*).

## Toolbars

### Primary Toolbar

At the top right you will see the toolbar:

The functions are:

### Enable

To enable one or more items, select them using the Checkbox and press this button. You may also toggle between Enabled and Disabled by clicking on the icon in the "Enabled" column.

### Disable

To disable one or more items, select them using the Checkbox and press this button. You may also toggle between Enabled and Disabled by clicking on the icon in the "Enabled" column.

### Copy

To copy one or more Modules, select them using the Checkbox and press this button. A new Module will be created for each selected Module. The new Module will have the name "Copy of" plus the original Module name. Note that the new copies are initially disabled.

### Delete

To delete one or more items, select them and click this button. The selected items will be deleted. **Note:** *only empty items can be deleted.*

### Edit

Select one item and click on this button to open it in edit mode. If you have more than one item selected (where applicable), the first item will be opened. You can also open an item for editing by clicking on its Title or Name.

### New

To create a new instance of a Module, press this button. You will be taken to a screen that lists all of the available Modules. See [Module Manager - New/Edit](#) for information about adding Modules.

### Help

Opens this Help Screen.

## Site and Administrator Links

At the top left, above the Filter, you will see the following two links:

### Site

OOpens the Site tab. This is the default tab and allows you to manage the Modules for the front end of the web site.

### Administrator

OThis tab allows you to manage the Modules for the back end administration of the web site. If you do not need to change the Joomla! administrator menus, no modifications are required here.

## List Filters

### Filter by Partial Title

You can filter the list of items by typing part of the title or the ID number. Or, you can select a combination of Category and Published State.

### Filter

In the upper left corner just above the column headings is a Filter field and two buttons, as shown below:



If you have a large number of items on the list, you can use this filter to find the desired item(s) quickly. Enter either part of the title or an ID number and press 'Go' to display the matching items. You can enter in whole words or part of a word. For example, "ooml" will match all titles with the word "Joomla!" in them.

### **Filter by Template, Position, Type and Published State**

In the upper right area, above the column headings, are following drop-down list boxes as shown below:

The selections may be combined. Only items matching both selections will display in the list.

Select Template.

Select the Template from the drop-down list box of available Templates. Only Templates that are enabled for this site will display.

Select Position.

Select a Position from the drop-down list box of available Positions.

Select Type.

Select the Module Type from the drop-down list box of available Module Types. Joomla! installs with 20 available Module Types. Additional ones may be available if you have installed any Joomla! Extensions.

Select State.

Use the drop-down list box to select the published state: Enabled or Disabled.

### **Create/Edit Modules**

When you create a new Module, you will select the Module Type. This will determine what type of content this Module can display. If you edit an existing Module, the Module Type will already be determined.

**Note:** You cannot change the Module Type of an existing Module.

All Modules have two sections that are the same: Details and Menu Assignment. The Parameters are different for each Module Type.

### Details

#### Module Type

This displays the system name of the module. No entry is allowed.

#### Title

The Title of the Module.

#### Show Title

Whether or not to show the Title of the Module.

#### Enabled

Whether or not the Module is enabled. If "No", the Module will not be shown on the page.

#### Position

The Position on the page to show the Module. There are two types of Positions you can use.

1. You can select a Position from the drop-down list box. The Positions in the list box are those provided by your Template. You can see the available Positions on the page by adding the letters "?tp=1" to the end of any front-end Joomla! URL. For example, if your home page is "www.mysite.com", you can type the URL "www.mysite.com?tp=1". The page will display with labeled rectangles

indicating each pre-defined Position for the current Template.

2. You can type in a Position that is different from the pre-defined positions (for example, "myposition1"). This type of Position can be used to insert a Module into an Article. If you enter the code "{loadposition xxx}" inside the text of an Article, where "xxx" matches the Position of a Module, and if the Module is assigned to the the Menu Selection where the Article is displayed (see [Menu Assignment](#) below), then the Module will be displayed at that point in the Article.

### Order

The Order that this Module will be displayed within the Position. If more than one Module is displayed at the same position, this will determine the order of display. The drop-down list box shows all Modules displaying at the current Position. Select the Module that you want the current Module to *follow*.

- You can also change the order of display in the Module Manager.
- The Module Order is only important when two or more Modules are displaying at the *same Position* and on the *same Menu Selections*.

Access Level. Who has access to this item. Current options are:

- **Public:** Everyone has access
- **Registered:** Only registered users have access
- **Special:** Only users with author status or higher have access

Enter the desired level using the drop-down list box.

### ID

The ID number. This is a unique identification number for this item assigned automatically by Joomla!. It is used to identify the item internally, for example in internal links. You can not change this number.

### Description

A description of what the Module does. No entry is allowed.

### Menu Assignment

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This is where you tell Joomla! which pages to show this Module on. This Module will show on the page when this Menu Item is selected. If the Menu Item allows the user to navigate to sub-pages, then this Module will also show on these sub-pages. For example, if the Menu item is a Blog Layout, the Module will also show when the user clicks on a "Read more..." link, an Article Link, or a Page Navigation link from that Blog Layout.

### Menus.

"All" means show the current Module on all Menu Items. "None" means don't show the Module on any Menu Items. "Select Menu Item(s) from the List" allows you to select which Menu Items to show the Module on.

### Menu Selection.

If "Select Menu Items(s) from the List" above is selected, select individual Menu Items that will display the Module.

- Use Ctrl+Click to select multiple Menu Items.
- Use Shift+Click to select a range of Menu Items.
- If you want to select most of the Menu Items, first click "All" above under Menus and then click "Select Menu Items(s) from the List". All of the Menu Items will be selected. Then use Ctrl+Click to deselect the Menu Items you don't want to include.

### Parameters

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This will vary between modules.

# Templates Manager

## Overview

The Template Manager is where you assign a default Template to your Joomla! web site. You can also edit and preview Templates here.

In Joomla!, the visual layout of both the Front-end and Back-end of your site is controlled by the Template. Templates are extensions that contain layout and style information that tells Joomla! exactly how to draw each page of your site.

When you first install Joomla!, one Back-end Template and two Front-end templates are included. Other Templates can be installed from third-party developers as Extensions.

If you want to use the same Template for all of the pages on your site, you just assign one Template as the Default Template. You can also assign different Templates to different pages.

Select "Extensions" ? "Template Manager" from the drop-down menu in the back-end of your Joomla! installation.

### Column Headers

#

An indexing number automatically assigned by Joomla! for ease of reference.

Template Name

The name given to each Template by the Template author. Click the Name to open the Template for editing. If you hover the mouse over the Template Name, a small preview for the Template displays in a pop-up window. The Template Name normally corresponds to the sub-directory name that contains the Template in the <path-to-Joomla!>/templates/ directory. For example, the files for the "rhuk\_milkyway" Template are in the directory "<path-to-Joomla!>/templates/rhuk\_milkyway".

Default

Indicator of Default Template.

Assigned

Shows whether this Template has been assigned to any specific menu items. To assign a template to menu items, open the Template for editing.

Version

The version number of the Extension.

Date

The date this extension was released.

Author

The author of this extension.

Display #

The number of items to display on one page. If there are more items than this number, you can use the page navigation buttons (Start, Prev, Next, End, and page numbers) to navigate between pages. Note that if you have a large number of items, it may be helpful to use the Filter options, located above the column headings, to limit which items display (*where applicable*).

### Toolbars

At the top right you will see the toolbar:

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### Default

Select the Template that you want to be the default Template. Then click this button. The default star symbol will show in the Default column, indicating that this is now the default Template.

### Edit

Select one item and click on this button to open it in edit mode. If you have more than one item selected (where applicable), the first item will be opened. You can also open an item for editing by clicking on its Title or Name. See the section below called [Template - Edit](#) for information on the edit screen.

### Help

Opens this Help Screen.



# Plugins Manager

## Overview

The Plugin Manager allows you to enable and disable Joomla! Plugins and to edit a Plugin's Details and Parameters.

The Plugin Manager can be accessed by selecting "Extensions" > "Plugin Manager" from the drop-down menu on the Back-end of your HUBzero installation.

## Column Headers

**#**  
An indexing number automatically assigned by Joomla! for ease of reference.

**Checkbox**  
Check this box to select one or more items. To select all items, check the box in the column heading. After one or more boxes are checked, click a toolbar button to take an action on the selected item or items. Many toolbar actions, such as Publish and Unpublish, can work with multiple items. Others, such as Edit, only work on one item at a time. If multiple items are checked and you press Edit, the first item will be opened for editing.

**Plugin Name**  
The Name of the Plugin. Click on the Name to open the Plugin for editing.

**Enabled**  
A green tick or a red X showing whether the use of the component is enabled/disabled. Click the icon to toggle the item between enabled and disabled.

**Order**  
The order to display items. If the list is sorted by this column, you can change the order by clicking the arrows or by entering the sequential order and clicking 'Save Order'. Note that the display order on a page is set in the Parameters - Advanced section for each [Menu Item](#). If that order is set to use something other than 'Order' (for example, 'Title - Alphabetical'), then the order value in this screen will be ignored. If the Menu Item Order parameter is set to use 'Order', then the items will display on the page based on the order in this screen.

**Access Level**  
Who has access to this item. Current options are:

- **Public**: Everyone has access
- **Registered**: Only registered users have access
- **Special**: Only users with author status or higher have access

You can change an item's Access Level by clicking on the icon in the column.

**Type.**  
The Type of the Plugin. Possible types are: authentication, content, editors, editors-xtd, search, system, user, and xmlrpc. These are also the names of the subfolders where the Plugin files are located. For example, Plugins with a Type of "authentication" are located in the folder "plugins/authentication".

**File.**  
The name of the Plugin files. Each Plugin has two files, a ".php" file and a ".xml" file. So, for example, the Authentication - Joomla! plugin has two files: "joomla.php" and "joomla.xml".

**ID**  
The ID number. This is a unique identification number for this item assigned automatically by Joomla!. It is used to identify the item internally, for example in internal links. You can not change this number.

**Display #**  
The number of items to display on one page. If there are more items than this number, you can use the page navigation buttons (Start, Prev, Next, End, and page numbers) to

navigate between pages. Note that if you have a large number of items, it may be helpful to use the Filter options, located above the column headings, to limit which items display (*where applicable*).

### Toolbars

At the top right you will see the toolbar:

#### Enable

To enable one or more items, select them using the Checkbox and press this button. You may also toggle between Enabled and Disabled by clicking on the icon in the "Enabled" column.

#### Disable

To disable one or more items, select them using the Checkbox and press this button. You may also toggle between Enabled and Disabled by clicking on the icon in the "Enabled" column.

#### Edit

Select one item and click on this button to open it in edit mode. If you have more than one item selected (where applicable), the first item will be opened. You can also open an item for editing by clicking on its Title or Name.

#### Help

Opens this Help Screen.

### List Filters

You can filter the list of items by typing in part of the Title or the ID number. Or you can select a combination of Category and Published State.

#### Filter

In the upper left corner just above the column headings is a Filter field and two buttons, as shown below:

If you have a large number of items on the list, you can use this filter to find the desired item(s) quickly. Enter either part of the title or an ID number and press 'Go' to display the matching items. You can enter in whole words or part of a word. For example, "ooml" will match all titles with the word "Joomla!" in them.

#### Filter by Type and State

In the upper right area, above the column headings, are 2 drop-down list boxes as shown below:

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The selections may be combined. Only items matching both selections will display in the list.

### Select Type

Select a Type from the drop-down list box to select only Plugins of this Type.

### Select State

Select a state (Enabled or Disabled) from the drop-down list box to select only Plugins with this state.

## Edit Plugins

You can edit details and parameters for Plugins. Some Plugins have several parameters, while others don't have any.

### Details

The Details section is the same for all Plugins, as follows:

#### Name

The Name of the Plugin.

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### Enabled

Whether or not this Plugin is enabled.

### Type

The Type of the Plugin. This value cannot be changed.

### Plugin File

The name of the Plugin file. Each Plugin has two files with this name. One has the file extension ".php" and the other has the file extension ".xml".

### Access Level

Who has access to this item. Current options are:

- **Public**: Everyone has access
- **Registered**: Only registered users have access
- **Special**: Only users with author status or higher have access

Enter the desired level using the drop-down list box.

### Order.

The order this item will display in the Manager screen. Use the drop-down list box to change the Order. You can select 'First' or 'Last' to make this the first or last item. Or you can select an item from the list. In this case, the current item will be listed just *after* the item you select. Note that the Order can also be changed in the Manager screen.

### Description.

The description of what this Plugin does. This cannot be changed.

### Parameters

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This will vary between plugins.

# Uninstalling

## Overview

See [Uninstalling Extensions](#) in the Web Developer's Guide for details.



# Authentication

## Why it matters?

By default, your hub comes configured to allow local account creation and authentication. In addition to this default option, HUBzero gives you the ability to extend the authentication process by adding support for third party services, like Facebook, Google, and LinkedIn. Using one or more of these providers, users are given a "single sign-on" experience, while easing the barriers to entry caused by the account creation process. Plus, as more social networking features are developed for the hubs - like posting new resources to your Facebook wall - users will already have that link setup between their hub and Facebook identities.

In brief, that's the principle behind offering multiple authentication options to users. Keep reading to find out how to set it up on your hub!

## Setup

Prior to starting this process, you will have to register an "app" for your hub on a given provider's website. A few examples include:

- <https://developers.facebook.com/apps>
- <https://developer.linkedin.com/> (go to "API Keys")
- <https://developers.google.com/> (go to the API console)

NOTE: the information above is accurate as of Aug 2012. It will undoubtedly change. Exact steps and terminology differs between providers.

Whichever provider you're interested in, you'll need to register a new app to obtain an app ID/key and secret (terminology may be slightly different between providers). Once you've completed the registration process and obtained the API key and secret, you can jump over to the hub.

NOTE: the OAuth protocol requires the specification of a redirect URI. Most of the providers mentioned above require you to specify the redirect domain (usually just your hub URL). The Google API requires you to specifically list any redirect URI's that will be used. These should be as follows:

(HUBzero 1.1 - see image below)

`https://yourhub.org/index.php?option=com_user&task=login&authenticator=google`

`https://yourhub.org/index.php?option=com_user&task=link&authenticator=google`

(HUBzero 1.2)

`https://yourhub.org/index.php?option=com_users&task=user.login&authenticator=google`

`https://yourhub.org/index.php?option=com_users&task=user.link&authenticator=google`

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Setup begins in the administrative interface for your hub. First, navigate to "Extensions -> Plugin Manager", and filter the results to the "authentication" type.

Next, select the plugin you desire to enable (we'll use Facebook in this example).

In the plugin edit screen, fill in the appropriate values for App ID and Consumer Secret as obtained above. Also be sure to enable the plugin.

That's about it! Now, when you go to your hub's login page, you'll see a new option for Facebook login.

### More details

#### **What happens if someone already has a local hub account, but wants to start using a new third party provider?**

Users that already have hub accounts can go to the accounts tab of their members page. From there, they can link their existing account with external providers. Additionally, if a user tries to log in with an external account that doesn't match one used on the hub before, we check to see if we can match them with an already existing hub account prior to talking them through the new account creation process.

### Purdue Hubs

In addition to the authentication options mentioned above, HUBzero has also developed an authentication plugin for the Purdue Central Authentication Service (CAS). If you're interested in taking advantage of this service, follow the instruction here:

[https://www.purdue.edu/apps/account/docs/CAS/CAS\\_information.jsp](https://www.purdue.edu/apps/account/docs/CAS/CAS_information.jsp) to register your hub with the Identity and Access Management Office at Purdue. Once this is done, simply turn the plugin on and you'll be all set.

Other institutions or universities may find the Purdue CAS plugin a good template for developing their own CAS authentication plugin. If you're developing a plugin that uses Oauth, consider using the Facebook plugin as a starting point.

# Articles

## Overview

Let's start with some definitions. In Joomla!, an Article is some written information that you want to display on your site. It normally contains some text and can contain pictures and other types of content. For many Joomla! sites, articles form the majority of the information presented in the website.

It is important to understand that, with Joomla!, the content of the site (for example, Articles) is totally separate from the formatting of the site — the way it looks on the page. So it is best to think of articles as pure content, independent of the way it might be presented. For example, the same Article might be shown with different fonts, colors, headings, and background, and might be shown in different locations on the page.

# Sections & Categories

## Overview

Sections and categories in Joomla! provide an optional method for organizing your articles. Here's how it works. A Section contains one or more categories, and each Category can have articles assigned to it. One Article can only be in one Category and Section.

For example, you might have a Section called "Pets", and categories called "Dogs" and "Cats". Articles about dogs would be assigned to the "Dogs" Category, ones about cats the "Cats" Category. So an Article about dogs would be in the "Pets" Section and the "Dogs" Category. You could not have one Article that is in both the "Cats" and "Dogs" categories. To work around this, you could either (1) create a new Category called "Cats and Dogs" or (2) create a second Article to put in the second Category.

## Why Use Sections & Categories?

There are two main reasons you might want to organize your Articles in sections and categories.

### List and Blog Layouts

First, there are built-in Menu Item Types in Joomla! that take advantage of this organization. These are the Section Blog, Section List, Category Blog, and Category List. These Menu Item Types (also called "layouts") make it very easy to show articles that belong to sections or categories. As new articles are created and assigned to sections and categories, they will automatically be placed on these pages according to the parameters you set for each page.

For example, say you have a Section Blog layout for the "Pets" section, and say you have it set to order articles starting with the most recent one first. When you add a new Article to the "Pets" Section, it will automatically show on the "Pets" blog page as the first Article. You don't have to do anything other than add the Article and assign it to the "Pets" Section.

### Organizing Articles in Article Manager

If you will have a large number of articles on your site, a second reason to use sections and categories is to simply group the articles so you can find them. For example, in the Article Manager, you can filter articles based on Section or Category. So if you have 200 articles in your site, you can more easily find an Article if you know it's Section or Category.

## Sections and Categories vs. Menu Organization

It is important to understand that, just because Joomla! uses a 3-tier organization level for

articles (Section ? Category ? Article), this has nothing to do with the structure of the menus on your site. For example, your site could have one menu level or six menu levels.

### **Other Types of Categories**

There is also a potential for confusion about categories. Sections are only used for articles. However, categories are also used for other components, including Banners, Contacts, News Feeds, and Weblinks. These categories are completely different from Article categories and are set up in different screens in the back end of Joomla!. So when you see something about categories, it might refer to Article categories or it might refer to categories for these other components.

### **Creating a Section & Category Hierarchy**

Coming soon.

# Creating/Editing

## Creating an Article

1. First login to the administrative back-end.
2. Once logged in, find “Content” in the main menu bar located toward the top of the page. You should be presented with a drop-down menu containing items such as “Article Manager”, “Article Trash”, etc.
3. Choose “Article Manager” from the available options.

4. Then click the "New" toolbar button.

5. The New Article screen contains options for categorizing and naming the article, editing content and selecting parameters.

- Enter a title in the "Title" field. This is used when the article title is displayed.
- Enter an alias in the "Alias" field. The alias is used to refer to the title and is important for the URL of the page. If you do not enter anything Joomla! will generate it for you.
- Select a "Section" and "Category" using the drop down menus.
- Choose whether the article is published or not using the "Published" radio buttons.
- Choose whether the article will be displayed by the Frontpage component using the "Front Page" radio buttons.

6. You may also choose Parameters for the article. Click on each section to view the parameters and change the settings to suit your requirements.

7. Click the "Save" or "Apply" toolbar button to save your article.

- The "Save" toolbar button will save your changes and return you to the Article Manager screen.
- The "Apply" button will save your changes but leave you in the Article Edit screen.



### Editing an Article

1. First login to the administrative back-end.
2. Once logged in, find “Content” in the main menu bar located toward the top of the page. You should be presented with a drop-down menu containing items such as “Article Manager”, “Article Trash”, etc.
3. Choose “Article Manager” from the available options.
4. You should now be presented with a list of all the content articles on your site. There are a variety of methods to find the specific entry you wish to edit: you can filter by selecting section, category, author, or even state (published, unpublished, archive). The about page should be in the section “about” and category “about”. You may also search for “About” in the filter search box or scroll to the bottom of the page and navigate your way through the entire list. Once found, click the article title to edit it.

5. You may then edit the page title, content, etc.

6. Once you feel ready to save your changes, scroll back to the top of the page and click “Save” (the icon that looks like a floppy disk) in the upper right portion of the page.

### Adding an Image

Images are added to articles using the *Editor Buttons* below the content editor window in the Edit Article screen. Note: It is possible to insert images using the editor in Joomla! however this feature provides a simple way of inserting images stored in the *images/stories* directory of Joomla!

1. Open the Article for editing either by:
  - Click the **Content > Article Manager** menu item to go to the *Article Manager*, select the Article and click the *Edit* toolbar button.
  - Clicking the *Add New Article* button in the Control Panel.

- If logged in to the Front-end, you have appropriate permissions and are viewing the Article you wish to edit: Click the *Edit* toolbar button.
2. Choose where you would like your image placed in the flow of the text by moving the cursor and click the Image editor button at the bottom of the screen.
3. The Insert Image screen will open over the top of the Edit Article screen. Choose an image by clicking on it.
  - You may also move directory by clicking on the folder icons.
  - Use the drop down *Directory* field to quickly select a directory and click the *Up* button to go up a directory level.
4. Set the image properties as required:
  - **Image Description:** This becomes the **alt** attribute for the image, an important feature for accessibility and compliance with web standards.
  - **Image Title:** Used for the optional caption and also becomes the **title** attribute in HTML.
  - **Align:** Sets the image alignment. If left blank the align attribute is not set.
  - **Caption:** Enables the caption which displays the Image Title below the image.
5. Click the *Insert* button to insert the image. The Insert Image screen will close and the image will be displayed in the editor.
  - Click the *Cancel* button to leave the Insert Image screen.

### Uploading images using the Insert Image screen

You may also upload new images using the Upload section of the Insert Image screen.

1. Click the Browse button to open a file browser.
2. Select the image files you wish to upload. Click Open in the file browser to confirm the selection. Note: The file browser style and layout depends on the browser and operating system you are using.
  - To remove selected files before uploading click the red icon next to the listed files.
  - If you are uploading multiple files in batches you can clear the list of completed files by clicking the *Clear Completed* button.
3. The selected file(s) appear as a list at the bottom of the Insert Image screen. Click *Start Upload* to begin uploading files.
  - When the upload is complete a green tick will appear next to the file.
4. You may now select and insert the uploaded image as before.

# Metadata

## Overview

Metadata are data about data, for instance a description of a website. Metadata are important for search engines and are written in HTML. Exactly how important metadata are in the rating by search engines is debatable. However, metadata represent a good way to describe your website in short and precise words.

**Note:** Google does not use the keywords meta tag in web ranking. See [the following article](#) for details.

## Available Tags

If you check out the HTML source code of a Joomla! site, you will see the following meta tags in the top area:

```
<meta name="generator" content="Joomla! 1.5" />
<meta name="description" content="Joomla! - the dynamic portal engine
and content management system" />
<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
<meta name="robots" content="index, follow" />
<meta name="keywords" content="joomla, Joomla" />
```

Of these, the two attributes description and keywords can be set on an article-by-article basis.

### description

This description of site content is often displayed by search engines. You should pay special attention to this tag, since the user who has entered a search term often uses this information to make a decision of whether to visit a site or not. You can add further information about every individual page to the global description.

### keywords

Keywords are very important for a document. You should list the most important concepts of your website with them. Some search engines index keywords in particular. The individual words are separated by commas; several words can be entered between two commas with normal spaces in between. The keywords should be limited to a maximum of 1000 characters; more than that will not be read by the search engines. Note that the use of fewer keywords helps each individual word get a higher priority in the search engine. Deliberate carefully about which are the most often used keywords and which are likely to be searched for most. You can add more keywords to the global keywords for every individual page of your website.

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Each article may also specify, in its parameters, whether to include a title or author attribute.

### Show Title Meta Tag

This parameter will insert the following meta tag with the title of the article:

```
<meta name="title" content="Welcome to Joomla!" />
```

### Show Author Meta Tag

This parameter will insert the following meta tag with the author of the article:

```
<meta name="author" content="Administrator" />
```

# The Home Page

## Setting a Home Page

The home page is determined by a "default" menu item that has been marked as the default.

If you wish to change the current home page to a different article, you must add the desired article to the default menu and mark it as "default".

## Edit

First login to the administrative back-end.

Once logged in, find "Content" in the main menu bar located toward the top of the page. You should be presented with a drop-down menu containing items such as "Article Manager", "Article Trash", etc.

Choose "Article Manager" from the available options.

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You should now be presented with a list of all the content articles on your site. There are a variety of methods to find the specific entry you wish to edit: you can filter by selecting section, category, author, or even state (published, unpublished, archive). The home page should **not** be in a section or category (uncategorized). You may also search for the title of your home page in the filter search box or navigate your way through the entire list. Once found, click the article title to edit it.

The home page may look a little different than other pages you've edited, such as the "About" page. Some of the content you see on the front page doesn't appear to be in the page you're editing! This is because the home page embeds modules to output some of its content. This is done with {xhub} tags:

```
{xhub:module position="frontLeft"}
```

You may assign multiple modules to a position. The {xhub} tag will output **all** active (published) modules assigned to the position specified. The style attribute determines if the module(s) should be wrapped in a containing div or not and is optional.

**Note:** The animated banner and welcome message on the front page are also modules and managed through Joomla's "Module Manager" found under the "Extensions" menu item.

Once you feel ready to save your changes, scroll back to the top of the page and click "Save" (the icon that looks like a floppy disk) in the upper right portion of the page.

### Welcome

The "welcome" text, typically found to the right of the Flash banner on the home page is a module. To edit this module (or any module):

First login to the administrative back-end.

Once logged in, find "Extensions" in the main menu bar located toward the top of the page. You should be presented with a drop-down menu containing items such as "Module Manager", "Plugin Manager", etc.

Choose "Module Manager" from the available options.



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You should now be presented with a list of all the modules installed on your site. There are a variety of methods to find the specific module you wish to edit: you can filter by selecting position, type, or even state (enabled, disabled). The welcome module would be in position “welcome” and of type “mod\_custom”. You may also search for “welcome” in the filter search box or scroll to the bottom of the page and navigate your way through the entire list. Since modules are alphabetically sorted by their position by default, “welcome” will most likely be on the last page of results. Once found, click the module name to edit it.

Once in edit mode you will be presented with some options such as the title, position, etc. To edit the actual content of the module, scroll down until you see a large text area called “Custom Output”.

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Edit the HTML/text to be outputted.

Scroll back to the top of the page and click “Save” (the icon that looks like a floppy disk) in the upper right portion of the page.

Your changes should now be applied and immediately viewable on the front page.

### Deleting

#### Moving To The Trash

1. Login to the Joomla! Administrator Back-end.
2. Go to "Content" ? "Article Manger" on the toolbar menu.
3. Check the box next to the article you want to trash.
4. Then click "Trash" button. This will move the article to a trash bin so that it can be retrieved later if needed. It does not permanently delete the article.

### Permanently Deleting

1. If you want to make sure the Article is completely gone from the system (so no further roll back is available), go to "Content" ? "Article Trash" on the toolbar menu.
2. Check the box next to the article you want to delete.
3. Then click "Delete" button. This will permanently delete the article. Recovery is not possible after this action.

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**Note:** Articles in the Trash Manager are not the same as Archived Articles.

# Archiving

## Archiving an Article

Archiving is useful if you publish a lot of articles and which you still want to be published on the site, but have been displaced in priority by new ones.

1. Login to the Joomla! Administrator Back-end.
2. Go to "Content" ? "Article Manger" on the toolbar menu.

3. Check the box next to the article you want to archive.

4. Then click "Archive" button.

### Unarchiving an Article

1. Login to the Joomla! Administrator Back-end.
2. Go to "Content" ? "Article Manger" on the toolbar menu.
3. Check the box next to the article you want to unarchive.

4. Then click "Unarchive" button.





# Content Modifiers

## Loading Modules in Articles

Modules may be loaded in an article by including a specific {xhub:module} tag. This tag requires one attribute: position, which specifies the position that you wish to load. Any modules assigned to the specified position (set via the administrative Module Manager) declared in the position attribute will have their output placed in the article in the location of the {xhub:module} tag.

```
{xhub:module position="footer"}
```

**Note:** To use this feature, the xHUB Tags plugin for content must be installed and active.

## Including CSS or JavaScript

Sometimes we need to load a stylesheet or script for a specific article. HUBzero allows this through the use of the xHUB content plugin. CSS and JavaScript may be loaded in an article by including a specific {xhub:include} tag. This tag has a few attributes, each with multiple options:

type

Required. Determines what sort of file to be included. Accepts "script" or "stylesheet".

filename

Required. The name of the file to be included.

component

Optional. The name of the component the file is to be included from. If not specified, the file will be included from the template's directory.

```
<!-- A stylesheet called "home.css" from the current template's /css folder -->
```

```
{xhub:include type="stylesheet" filename="home.css" }
```

```
<!-- A script called "resources.js" from the com_resources component -->
```

```
{xhub:include type="script" filename="resources.js" component="com_resources" }
```

**Note:** To use this feature, the xHUB Tags plugin for content must be installed and active.

### Outputting Hub Configurations

Sometimes we need to output the value of a specific hub configuration setting. HUBzero allows this through the use of the xHUB content plugin. HUBzero based configurations (**not** Joomla!) may be loaded in an article by including a specific {xhub:getCfg} tag. This tag has one attribute: the name of whatever configuration variable you wish to output.

```
{xhub:getCfg hubShortName}
```

**Note:** To use this feature, the xHUB Tags plugin for content must be installed and active.

We also advise extreme caution when using this particular {xhub} tag.

See [Hub Configuration](#) for more information on what configurations are available and how to set them.

### Getting The Template Directory

Sometimes we need to include content (images, javascript, etc.) from the active template's directory. HUBzero allows this through the use of the xHUB content plugin. The name of the active template will be outputted in an article by including the templatedir xhub tag. This tag has no attributes.

```
  
<!-- outputs: -->  

```

**Note:** To use this feature, the xHUB Tags plugin for content must be installed and active.

## URLs

### Understanding URLs for Sections, Categories, and Articles

When SEF URLs are being used, it can become tricky at times to discover which article a URL path leads to. HUBs try to simplify some of this and make the association(s) of the path to sections, categories, and articles a little more obvious.

For the purposes of this explanation, we assume every section, category, and article has an alias. In its simplest form, a URL will map to a path of `http://yourhub.org/{SectionAlias}/{CategoryAlias}/{ArticleAlias}`. So, a URL of `http://yourhub.org/about/this/site` would map to a section with an alias of "about", a category with an alias of "this", and an article with an alias of "site".

The resulting URL will start to collapse, or shorten, when sections, categories, and articles have the same alias. For instance, if you have a section with alias "about", a category with an alias of "this", and an article with an alias of "this"—notice it is the same as the category—the resulting URL will be `http://yourhub.org/about/this`.

If all three portions have the same alias, the `http://yourhub.org/about/this/site` shortens further. A section alias of "about", category alias of "about" and article alias of "about" will simply produce `http://yourhub.org/about`.

Quick Reference	Section	Category	Article	URL
	about	this	site	<code>http://yourhub.org/about/this/site</code>
	about	this	this	<code>http://yourhub.org/about/this</code>
	this	this	site	<code>http://yourhub.org/this/site</code>
	about	this	about	<code>http://yourhub.org/about/this/about</code>
	about	about	about	<code>http://yourhub.org/about</code>

### URL Redirects

If you find yourself wanting to redirect a certain URL to another page, then *Joomla!* has a solution for you. And fortunately, the solution is as simple as creating a menu.

1. Navigate to "Menus -> Menu Manager" on the Joomla! backend

2. At this point, you can either create a new Menu or use an existing one. If you prefer the former, click "New" in the upper right-hand corner, and give your new Menu a name such as "Redirects". Alternatively, you could use the "Default" menu. The only thing to remember is that you should use a menu that is not displayed on the site (e.g. the "Main Menu" and "About" menus or displayed on the standard hub)
3. Irrelevant of which option you chose, select the icon in the "Menu Item(s)" row to add a new Menu Item to your Menu to handle the redirect
4. Next, fill in the necessary fields
  - Add a "Title"
  - The "Alias" will be the address that a user would enter into the address bar of their browser
  - The "Link" will be the page where the actual content exists

**Example:** According to the image below, if a user types <http://myhub.org/example>, though that page does not exist, they will get the content found at <http://myhub.org/example/examplearticle1>

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5. Select "Save"
6. That's about it. Try typing the correct address into your browser to make sure that it works

# Menus

## Organizing Your Articles Using Menus

If you have a set of articles that you would like to group together, you can use *Joomla!* menus to organize those articles in an easy-to-navigate fashion.

An example of this can be found on the default hub under the "About" section (see also below).

1. To begin, find the URLs of the articles that you're interested in grouping together

**Note:** If you can't find, or don't know the URL, it comes from the article alias, the section and the category (see below and view these documentation pages: [Sections and Categories](#), [URLs](#)).

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2. With your article pages created, you'll need to make the menu structure
3. Navigate to "Menus -> Menu Manager" on the *Joomla!* backend and select "New"

4. Give your new menu a unique name and title, then click "Save"

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Now you will see your new menu in the list.

5. Click the icon indicated below to start adding menu items to your new menu

**Note:** It is important to realize, for clarity's sake, that there is a difference between "Menu" and "Menu Item". "Menu Item" represents an instance, or individual menu link, while "Menu" represents the entity as a whole.

6. Now click the "New" button to add new menu items to your menu



7. After clicking "New", scroll down and select "External Link"

8. Next, fill in the necessary information

- This is where you'll need to remember the URLs for the articles that you've created (you'll add the URL to the "Link" field)
- After creating this menu item, you'll be able to access this article page via the URL for the article, or the Alias of the menu item

**For example:** according the screenshot below, both <http://yourhub.org/example/examplearticle1> & <http://yourhub.org/article1> will work when trying to access this page via the browser (See [URL Redirects](#) for more details). For the navigational menus to display properly, though, you'll want to use the menu item alias when trying to access your article page (<http://yourhub.org/article1> in this example).

9. Click "Save" in the upper right-hand corner

If you switch over to the front-end and navigate to your article page (via the menu item URL), you should see a page similar to this one:

10. At this point, simply repeat the previous steps to create menu items for all of the articles that you want to use together

The final step in this process is to assign the menu items that you've created to display on the article pages.

11. To do this, navigate to "Extensions -> Module Manager" on the backend *Joomla!* interface

12. Next, select "New"

13. Scroll down and select "Menu" from the list (either click on the link, or select the radio button then scroll back up and click "Next")

14. Now fill in the correct information...make sure to:

- Give it a "Title"
- Be sure "Enabled" is set to "Yes"
- Give it the position "Left"
- Set it to display on the correct pages
  - Under menu assignment, "control click" the menu items that we made in the preceding steps. This is what tells *Joomla!* which pages to display our new menu on.
- Under "Module Parameters", "Menu Name" should be the title of the menu that we created earlier ("example" in this case)
- "Menu Style" should be "List"

15. When all of this has been done, click "Save"
16. Now if you navigate back to your article page on the front-end, you should find something similar to this:

# Members

## Overview

By default casual visitors are allowed to register themselves on your website to gain access to additional resources. For example, registered users might be allowed to submit resources or simulation tools. Your Joomla! website implements a user registration policy which can be adapted to suit your particular requirements so you decide what additional resources are made available. You can disable user registration altogether if you prefer.

Users register themselves on your website using the "Register" link typically found in the upper right-hand portion of every page (position may vary). Once registered, users will log in to your website by entering their username and password using the login form found at <http://yourhub.org/login>. There are also links on the form to manage users who forget their usernames or passwords.

See [Configuring Registration](#) to learn more about changing registration settings.

## User Manager vs Members Component

### User Manager

Joomla! comes with a User Manager accessed via the back-end from the "Site" drop-down of the main menu.

### Members Component

HUBzero extends the standard Joomla! user profile with options for more demographic information (race, sex, etc.) and various other key pieces of information needed for such things as simulation tools. All this information can be accessed under "Members" in the "Components" list found in the main menu of the back-end administration.

### When to use which

All user will have an entry in **both** the User Manager and the Members Component. Any information edited with one, such as changing a user's name via the User Manager, will also be automatically reflected in the other. Since the majority of fields in the User Manager are also represented in the Members Component plus considerably more fields, it is recommended that all user editing be done in the Members Component. The one exception concerns adjusting a user's access level (regular user vs. administrator, etc.). This is still done only with the User Manager.

# Creating by Proxy

## Proxy-creating users

To create an account for another user:

**Note:** This feature is available **only** to logged-in site administrators.

1. Log in on the hub's front-end interface.
2. Once logged in, navigate to **YOURHUB.org/register/proxycreate** (for hubs with older code, use: **YOURHUB.org/registration/proxycreate**). Most likely you will have to type this URL directly into your browser as it is generally not linked to anywhere in the hub content.
3. You will be presented with a form asking for information about the user you are creating (specifically, fields that were set to be visible under the Proxy column in the [“HUB Configuration: Registration”](#) settings). Fill in all required fields.

**Note:** Usernames cannot be changed, but passwords may be changed anytime after account creation.

4. Click **Proxy Create Account**.
5. When the account is created successfully, you will be shown the basic text of an email which you **MUST** then copy and paste and send to that person. This email will provide them the username and initial password you have set for them and links they could use to confirm their email and change their password. You may add any other information about contributed resources or the reason for their account you deem appropriate.

# Editing

## Overview

**Note:** Editing of users is done through the HUBzero Members Manager component, **not** the standard Joomla! User manager. Any changes made via the Members Manager will also be reflected in the Joomla! User tables. Making changes with the Joomla! User Manager can lead to data becoming out of sync.

1. First login to the administrative back-end.
2. Once logged in, find “Components” in the main menu bar located toward the top of the page. You should be presented with a drop-down menu containing a list of all installed components.
3. Choose “Members” from the available options.
4. You should now be presented with a list of all the members on your site. There are a variety of methods to find the specific person you wish to edit: you can search by such fields as name, email, and ID number. You may also scroll to the bottom of the page and navigate your way through the entire list. Once found, click the person's name to edit their information.



5. You may then edit their name, organization, employment status, etc.

6. Once you feel ready to save your changes, scroll back to the top of the page and click “Save” (the icon that looks like a floppy disk) in the upper right portion of the page.

### Adjusting Access Level

Joomla! offers various levels of access and privileges for users. All new accounts, by default, will be *Registered Users*, the access level with the least amount of privileges. Sometimes, you will need to grant a (trusted) user administrative access so they can manage content and portions of your hub. We strongly advise that administrative privileges be handed out rarely and with caution.

To adjust a user's access level:

1. First login to the administrative back-end.
2. Once logged in, go to the "User Manager." The User Manager can be found by selecting "Site" > "User Manager" from the drop-down menu on the back-end of your HUB installation.

3. Choose the user you wish to edit from the available list.

4. Once the page has loaded, find the "Group" option, found on the left-hand portion of the screen under the "User Details" grouping.

The available access levels are as follows:

- *Registered User*: Normal visitors who register at the site. Can view Menu Items that have Access Level of Registered. Cannot edit or submit articles.
- *Author*: Can submit new articles for approval in the front end only. A Publisher or higher must approve. Cannot edit existing articles.
- *Editor*: Can submit new articles or edit existing articles from the front end only. A Publisher or higher must approve.
- *Publisher*: Can submit, edit, or publish articles from the front end only.
- *Manager, Administrator and Super Administrator*: Can do all of the above plus can log into the back end with increasing rights.

5. Select the access level desired for the user and then click "Save" (the icon that looks like a floppy disk) in the upper right portion of the page. Changes take affect immediately.



# Deleting

## Overview

In order to delete a user from your database, log in to the administration panel and choose "Site" -> "User Manager" from the top menu. On the opening page, select the checkbox to the left of the user's name you would like to remove and press the "Delete" button in the upper-right corner.

# Looking Up

## Overview

There will be times you need to track down a user's information for whatever reason. This can be a time-consuming task when presented with paging through potentially thousands of accounts. Luckily, there are multiple ways you can search and narrow down results quickly.

## User Manager

Since information such as user ID, name, username, and email is kept consistent between the User Manager and Members Component, you can use either one to search for a specific account.

To search via the User Manager:

1. First login to the administrative back-end.
2. Once logged in, go to the "User Manager." The User Manager can be found by selecting "Site" > "User Manager" from the drop-down menu on the back-end of your HUB installation.

3. You will be presented with a list of all users registered on your site.

4. Above the list of users are a few options for filtering results.

On the left side is a search box. You can search for users by name, username, or email address.

On the right side are a few select boxes that allow you to filter the users based on their access level (editor, administrator, etc.)—here, it's called "Group"—or log status (logged in/out).

5. Choose your method for filtering and the list of users will be narrowed down to match those criteria. Once found, click the person's name to view/edit their information.

**Note:** If you need to find an account to access more information than name, username, and email, it is recommended to search via the Members component.

### Members Component

#### From the Administrative Back-end

Since information such as user ID, name, username, and email is kept consistent between the User Manager and Members Component, you can use either one to search for a specific account. The Members Component, however, will allow access to more details about a user's account. The extended demographic information provided by the Members Component, for example, cannot be accessed via the User Manager.

To search via the Members Component:

1. First login to the administrative back-end.
2. Once logged in, find "Components" in the main menu bar located toward the top of the page. You should be presented with a drop-down menu containing a list of all installed components.
3. Choose "Members" from the available options.



4. You should now be presented with a list of all the members on your site. There are a variety of methods to find the specific person you wish to edit: you can search by such fields as name, email, and ID number.

5. On the left side, above the list of members, is a search field for filtering the list. You can search by such fields as name, email, and ID number.

6. Choose your method for filtering and the list of users will be narrowed down to match those criteria. Once found, click the person's name to view/edit their information.



## Points

# Default Settings

## Private/Public Profiles

By default, new profiles are set to "private". This means that only super administrators and the member him/herself may see and access that profile's information. Private profiles do not display in search results.

## Public Profiles by Default

Member profiles may be set to public by default via the administrative Members component. To do so, log in to the administrative back-end and find "Members" in the "Components" list of the main menu. Once the Members manager page has loaded, locate the "Parameters" button in the toolbar (top right, opposite of the "Members" heading). Click this. You should be presented with a series of settings. Find "Default Privacy" and set to "Public". All new accounts will now default to public profiles.

**Note:** any accounts created before changing this setting will retain whatever configuration they had. For instance, private profiles will remain private unless manually changed by the user.

## Dashboard Layout

To change the default Dashboard layout, first...

1. Log on to the *Joomla!* back-end interface for your hub (<https://yourhub.org/administrator>)
2. Navigate to "Users -> Members" on the main menu bar at the top of the screen
3. Click "Plugins" in the sub-menu.
4. Find the Dashboard plugin and click the "manage" link.

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4. Add/remove/move the modules to create the default Dashboard layout for new users. Changes are automatically saved.

5. Finally, select "Save"

**Note:** any accounts created before changing this setting will retain whatever configuration they had.

# Daily Maintenance

## The Dashboard

Every HUB comes with an administrative dashboard that gives you a quick overview of some activity or items on the site that need attention.

1. First login to the administrative back-end.
2. Once logged in, you should be presented with a dashboard of categories and the activity within them, such as “Abuse Reports”, “Support Tickets”, etc. Items that require attention are highlighted in red and give direct links to their corresponding components so you may address the issue presented.

3. For instance, in the screenshot below, the dashboard says there are 19 unassigned support tickets. By clicking on the number “19”, you will be immediately taken to the support ticket manager. From there you may assign, update, comment on, or close tickets.



# Resources

## Approving Pending Resources

Depending on whether auto-approval for user-submitted resources on a hub is turned on/off, you may need to watch for newly submitted resources awaiting for administrator approval to be published on the hub. The administrative dashboard shows whether there are any resources pending approval.

In the screenshot above, the dashboard says there are 49 pending resources. By clicking on the link “49 pending resources”, you will be immediately taken to the resource manager. Resources that need your approval will be marked with a distinct icon as seen in the screenshot below.



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You can publish a pending resource just by clicking on the orange status icon, or you can first click on the resources title and select appropriate status from the detailed resource page, as shown on the screenshot below.

From the detailed resource page you can also decide when the resource should get published and unpublished by setting Start Publishing and Finish Publishing dates. As soon as a new resource is published, it will appear in site search as well as in What's New area of the site.

# Tools

## Contribtool

Contribtool is the process that manages the publishing process for tool resources on the hub. There are nine states of a tool within Contribtool:

Each state is associated with a set of tasks that either the tool developer or the hub administrator must perform. We will refer to tasks the tool developer must perform as "user tasks", and tasks the hub administrator must perform as "admin tasks".

## Preparation

To accomplish many of the admin tasks, the user acting as the admin must be a part of the "apps" group. To be added to the "apps" group:

1. Login to the hub's administrative back end and find the "Groups" component.

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2. Type "apps" into the search box.
3. Click on the number under the column "Total Members"

4. Type the admin's username into the Add input box, choose "Members" from the drop down menu, and push the "Add users" button.

## Registering a Project

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The first step in Contribtool is for the tool developer to register the tool by filling out the tool contribution form. This is a user task. Go to the web page <https://yourhub.org/contribute> (substituting "yourhub.org" with the name of your hub). Use the "Getting Started" button in the upper right side of the web page to start the contribution process. On the left side of the web page, a list of contribution types will be shown. Choose the TOOLS contribution type.

The tool registration form will be presented. The form asks for some basic information regarding the name of the tool, a short description of the tool, and who can access the source code repository. There are also fields available to add restrictions on who can run the tool once it has been published, and who can access the Trac project area. All of the information on this page can be changed at a later date, except for the tool name. Once the tool name has been registered, it cannot be changed, so pick a good one. When the registration form has been completed, push the "Register Tool" button at the bottom of the page, and the state of the tool will be changed to "Registered"

### Registered to Created

Once the tool has been registered by the tool developer, it is up to the administrator to create the project. Creating the project is an admin task. Start by going to the web page <https://yourhub.org/contribtool>. This page lists out all tool contributions on the hub. Tools that require administrator attention are highlighted. If a tool has been registered by a tool developer, but there are no tool contributions listed on the Contribtool web page, there may be a privileges related error. Make sure the administrator account being used is a member of the "apps" group. Instructions on how to do this are in the section labeled "Preparation".

The newly registered project should be highlighted on the Contribtool web page. Choose this project by clicking on the tool name, which is a link to its tool status page. The tool status page contains the tool information that the developer provided on the registration form and a set of Developer Tools on the left side of the web page. On the right side of the web page, the "What's next?" status is provided, which gives information regarding the steps that need to be completed before the tool can be published on the hub. Any tasks that have been checked off have been completed. Tasks that have an arrow next to them are tasks that can be completed now.

Special for the administrator, there is a section of "Administrator Controls" on the left side of the page, under the Developer Tools. To create the tool project, the admin must press the link labeled "Add Repo". This starts a process that creates a Subversion source code repository, Trac project wiki pages, and sets up access for the tool for the users listed on the development team. When the process has completed, the results are displayed for the administrator to see. A green box generally means nothing catastrophic has happened and the tool project has been successfully created. In the case something fails, a red box will be displayed listing the errors encountered. Running the process multiple times by repeated presses of the "Add Repo" link generally has no harmful effects, in that if the pieces of the project area already exist, they will not be overwritten, and if they do not exist, they will be created.

The last step to creating the tool project area is to flip the status of the project from Registered to Created and pressing the "Apply change" button at the bottom of the Administrator controls.

### **Created to Uploaded**

After the tool project has been created, the tool developer needs to upload their tool source code into the source code repository. This is a user task. Instruction listing out the commands involved with upload source code to the project's source code repository are easily accessible from the tool status page in Contribtool. Start by accessing the Contribtool web page <https://yourhub.org/contribtool>. Find the tool project on the Contribtool web page, and click on the tool project's name. This is a link which leads to the tool status page. While in the Created state, the "What's next?" section on the right side of the web page contains a link to the instructions. We will review the requirements for installing a tool in the HUB environment and the process of doing so.

There are four requirements for installing a tool in the HUB environment:

1. Source code
2. Graphical User Interface
3. Makefile
4. Invoke script

Source code includes all files related to running the application with the tool.xml and possibly a wrapper script as the exceptions. Source code is needed as a part of the installation process. No binaries from the source code of the application should be stored in source code repository. It is alright to store binary data files, like images, in the source code repository, but in most other cases, storing binaries from the application instead of the actual source code leads to future compatibility problems, even when the binaries claim to be platform independent.



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All tools need a graphical user interface. There are several toolkits available including Qt, GTK, wxWidgets, and Tcl/Tk. If your tool does not already have a graphical user interface, we suggest using Rappture (<http://rappture.org>). With Rappture, you can quickly develop a graphical user interface that can guide users through the process of running the tool and viewing results, all in one application. Rappture also include many hooks into the HUB infrastructure, which makes it a great choice for tool developers.

All tools need a Makefile. The Makefile holds the instructions for compiling and installing binary files. Even tools that do not have source code that needs to be compiled still need a Makefile.

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All tools need an invoke script. Invoke scripts hold details about how to launch to the tool in the HUB environment. Generally, invoke scripts are very simple, one line calls to the HUB invoke script with a few options.

While generating the source code and graphical user interface are outside of the scope of this tutorial, details will be given later regarding creation of a typical Makefile and invoke script.

There are eight steps related to uploading source code to the source code repository.

1. Checkout a copy of the tool's source code repository.
2. Add source code to the src directory of the tool's repository.
3. Add a Makefile in the src directory of the tool's repository.
4. Add tool.xml to the Rappture directory of the tool's repository.
5. Check the middleware/invoke script.
6. Test the code in the workspace.
7. Clean the directories before committing.
8. Commit the changes from the local copy of the repository.

All of these steps can be performed from within the workspace.

The first step of uploading source code to the source code repository is to checkout a copy of the tool's source code repository. This can be done by using the svn checkout command.

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```
svn checkout https://yourhub.org/tools/toolname/svn/trunk toolname
```

In the example, replace "yourhub.org" with the name of the hub hosting the tool's source code repository. Also, substitute the term "toolname" with the shortname of the tool. Executing this command will download a copy of the tool's source code repository from the repository server, hosted on "yourhub.org", and place the copy on the machine where the command was executed. If the command was executed inside of a workspace, the copy of the tool's repository server will be made inside of the workspace. This copy will be referred to as the local copy of the tool's source code repository. The local copy of the repository will be stored in a directory, with the name substituted for "toolname".

The second step of uploading source code to the source code repository is to add source code to the src directory of the tool's repository. This can be done with the svn add command. This step involves (1) changing directories into the local copy of the repository, here referred to as toolname, (2) copying source code files into the src directory, and (3) lastly using the svn add command to notify the local repository that files need to be added to the source code repository.

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Line	Example:
1	<code>cd toolname</code>
2	<code>cp /apps/rappture/examples/zoo/curve/curve.tcl src/curve.tcl</code>
3	<code>svn add src/curve.tcl</code>

All files will need to be added to the source code repository. They can be done one by one, as shown above, or by directory.

The third step of uploading source code to the source code repository is to add a Makefile to the src directory. The `svn add` command will be used to complete this task. If a Makefile does not exist, one can easily be created using a text editor. In the workspace, the `gedit` program is a convenient text editor. From within the `toolname` directory, issue the command:

```
gedit src/Makefile
```

If no Makefile exists, add the following text to the file.

```
Line      Example:
  1      all: curve.tcl
  2
  3      install: curve.tcl
  4          install --mode 0644 -D curve.tcl ../bin/
  5
  6      clean:
  7
  8      distclean: clean
  9          rm -f ../bin/curve.tcl
```

In this example, the source code is a single tcl script named `curve.tcl`. Since the source code does not need to be compiled in this case, the "all" target is empty. If there was source code to be compiled, line 2 would be tabbed in once and include a compile line like `"gcc -o curve curve.c"`. The install target, starting on line 3, is responsible for installing the executables and related scripts into the `../bin` directory. Executables should be placed in the bin directory. Line 4 is the action of the install target. It uses the shell program named "install" to move the files from the src directory to the bin directory, and appropriately set the permissions of the file. The clean target, on line 6, is responsible for removing files temporary files, usually left over from compilation. The distclean target, on like 8, calls the clean target from line 6, and then removes the tcl script that was placed in the bin directory by the install target. The distclean target is responsible for removing any files that were generated be install target. After running the distclean target, the local repository should be in the same state as when it was first checked out.

Once the Makefile has been created, save the file and exit the gedit program. Lastly run the `svn add` command on the file `src/Makefile` to add it to the local copy of the source code repository.

The fourth step of uploading source code to the source code repository is to add the `tool.xml` file to the Rappture directory. To add the `tool.xml` file to the local copy of the source code repository, first copy the file into the Rappture directory, then use the `svn add` command to notify the local copy of the repository that a file needs to be added.

## HUB MANAGERS

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Line	Example:
1	<code>cp /apps/rappture/examples/zoo/curve/tool.xml rappture/tool.xml</code>
2	<code>svn add rappture/tool.xml</code>

The fifth step of uploading source code to the source code repository is to check the `middleware/invoke` script. Inside of the `middleware` directory, there should exist a file named `invoke`. If the file does not exist, use `gedit` to create it, then add it to the repository using the `svn add` command, just as was done for the `Makefile` in step 3. The `invoke` script is responsible for setting up the tool environment and launching the tool when a user clicks the `Launch` button from the tool resource page. The default `invoke` script looks like this:

Line	Example:
1	<code>#!/bin/sh</code>
2	
3	<code>/apps/rappture/invoke_app "\$@" -t toolname</code>

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In the example above, the invoke script calls the HUB invoke script located at `/apps/rappture/invoke_app`. On older hub setups, `/apps/rappture/invoke_app` is a file that only supports launching rappture applications. On newer hub setups, `/apps/rappture/invoke_app` is a link to `/apps/invoke/current/invoke_app`, which is capable of launching all rappture applications and a majority of non-rappture applications.

The `invoke_app` script accepts a number of flagged options. Some of the more popular ones include:

```
-r Rappture version (current, dev)
-t tool name
-T tool root directory
-e environment variable to set
-p add a path to the PATH environment variable
-C command to launch the tool
-A additional arguments to add to the command for launching the tool
-c commands to start in the background before launching the tool, like filexfer
```

The example above takes advantage of the `-t` flag to tell `invoke_app` that the name of the tool is "toolname". The `invoke_app` script contains more details about the available flags and how to use them.

The last task of this step is to ensure the middleware invoke script has execute permissions. This is accomplished by using the shell's `chmod` command:

```
chmod 755 middleware/invoke
```

The sixth step of uploading source code to the source code repository is to test the tool in a workspace. If the tool runs properly in a workspace when started from an invoke script, it is very likely that it will run properly when installed in the hub environment. Testing the code in the workspace also exercises the Makefile and invoke script, ensuring they are also functioning properly. Here are the commands:

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Line	Example:
1	<code>cd src</code>
2	<code>make all install</code>
3	<code>cd ../</code>
4	<code>./middleware/invoke -T \$PWD</code>

In the above example, the code is compiled and installed by (1) changing directories into the `src` directory, and (2) issuing the command "make all install". The shell command "make" looks for a file named `Makefile`, and runs the targets specified as its arguments. In this case, it runs the `all` and `install` targets. Next (3) change directories back to the tool's root directory and run the `middleware/invoke` script, providing the option "`-T $PWD`". Recall from earlier, the `-T` option specifies the tool root directory. The `$PWD` environment variable holds the present working directory, which in this case also happens to be the tool's root directory. When the Rappture GUI appears, press the simulate button to make sure the tool runs correctly.

It is important that this step is successfully completed by the tool developer. This is the same sequence of events that the administrator will do when installing the tool in the HUB environment. Any failures encountered while running this step will most likely be encountered again when installing the tool in the HUB environment, so they should be resolved prior to changing the tool status to `Uploaded` in `Contribtool`.

The seventh step of uploading source code to the source code repository is to clean up the local copy of the repository before committing. This will again utilize the `Makefile` located in the `src` directory. Here are the commands:



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Line	Example:
1	<code>cd src</code>
2	<code>make distclean</code>
3	<code>cd ../</code>

Earlier the Makefile was setup with a `distclean` target to clean up all files generated from the installation of the tool's source file. In this example, the `distclean` target of Makefile is called to do the cleanup of the previous install. It is important to clean up the repository before committing to avoid placing unnecessary binary and other temporary files into the source code repository stored on the repository server.

The eighth and last step of uploading source code to the source code repository is to commit the changes from the local copy of the repository to the repository server. This is accomplished by using the command `svn commit`. The `svn commit` command accepts the `--message` flag along with a message. With every commit to the repository, a message should be included detailing what is being committed. This will help later when searching for specific versions of the tool in the source code repository. Commits can be made from any directory in the local copy of the repository, but will only include files and directories underneath the present working directory. For this reason it is usually convenient to commit from the local copy of the repository's root (top) directory. Here is an example commit command with a message:

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```
svn commit --message "initial upload of code"
```

After issuing the svn commit command, a prompt may appear requesting a username and password. Enter the username and password credentials for the HUB hosting the tool's source code repository.

Once the tool's source code has been uploaded to the repository server, the tool's Contribtool status can be changed to Uploaded. Go to the tool's status web page in Contribtool, it can be found through the Contribtool web page:

<https://yourhub.org/contribtool>.

To make sure the source code was successfully committed, use the Timeline link under the Developer Tools section on the left side of the web page. The Timeline link will open a web page with the tool's project area. Note that the tool's project area may have restricted access that requires the user to login. The timeline lists out the most recent changes to the source code repository. The most recent changes for uploaded code should be listed at the top. Make sure the uploaded code is listed in the Timeline.

Back on the tool's status web page in Contribtool, there should be a "We are waiting for You" section under the "What's next?" section on the right side. When ready to change the status of the tool from Created to Uploaded, click the link labeled "My code is committed, working and ready to be installed". Clicking the link will change the status.

### **Uploaded to Installed**

Once the tool has been uploaded by the tool developer, it can be installed in the HUB environment. This is an admin task. Navigate to the tool's status web page in Contribtool. Under the Administrator Controls section, on the left side of the web page, will be a link labeled Install. Clicking the Install link will start the installation background process which performs an svn checkout of the tool's source code repository into the /apps directory. The next step requires that the administrator login to the system, become the "apps" user, and compile the code. This can all be accomplished within a workspace.

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Inside of a workspace issue the following commands in an xterm:

Line	Example:
1	<code>sudo su - apps</code>
2	<code>cd /apps/toolname/dev/src</code>
3	<code>make all</code>
4	<code>make install</code>

Become the apps user by using the shell's sudo command. If there are errors while becoming the apps user, go back to the beginning of this tutorial and ensure the login account being used is a member of the "apps" group. Change directories to the tool's installed dev directory, /apps/toolname/dev. Inside of the src directory, run the "make all" and "make install" commands to compile and install the code.

When the source code has been compiled and installed, go back to the tool's status page in Contribtool, flip the status from Uploaded to Installed, and press the Apply change button. Pressing the Apply change button will update the tool status web page.

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On the updated page, a Launch tool link will be made available, on the right side of the page, in the "What's next?" section. Click the Launch tool link and verify that the tool properly launches and runs.

**Installed to Updated**

It is the tool developer's responsibility to test the operation of the tool and validate that it generates acceptable results. The tool developer may find an error or otherwise needs to update the code in the source code repository and have the tool reinstalled. Updating the tool is a user task. Any new changes to the tool should be committed to the source code repository. Next, the tool's status in Contribtool should be changed to the Updated state. Changing the status will notify the administrator that the tool is ready to be installed again.

### **Installed to Approved**

When the tool developer feels the tool is working properly, the approval process can be started. Tool approval is a user task. To approve a tool, the tool information page must be created. The tool information page is the web page listing the authors of the tool, credits, publications, and screen shots. To create the tool information page. Click the "Create this page" link in the "What's next?" section on the tool status page in Contribtool.

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During the process of creating the tool information page, the necessary information will be collected and formatted. At the end of the process a preview page will be provided. The tool developer will need to confirm the layout and information on the preview tool page.

The tool developer will also need to choose a license under which the project will be published. Be sure to replace the template text in the license with the appropriate information.

Finally, approve the tool by pushing the button labeled "Approve this tool". The status on the tool's status page in Contribtool will automatically be updated.

### **Approved to Published**

To publish a tool in the Approved state, the administrator must click the Publish link in the Administrator Controls on the tool's status page in Contribtool. This is an admin task. Clicking the Publish link updates the database, exposing the tool information page on the HUB. From the tool information page, the tool can be launched using the Launch tool link. The Publish link will



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run the publishing process and return the results to the administrator. Similar to the Installed state, successful completion will result in a green box with results. Failure will result in a red box with errors. After the results have been presented, flip the status from Approved to Published. and press the Apply change button.

**Published to Updated**

When the tool developer is ready to start testing a new release of the tool, they will commit all changes to the source code repository, and change the status on the tool's status page in Contribtool, from Published to Updated. Changing the status from Published to Updated does not unpublish or otherwise change the state of the already published tool. Changing the status will notify the administrator that the tool needs to be reinstalled. From here, the Install-Approve-Publish cycle continues.

### **Published to Retire**

The tool developer has the option of retiring a tool. Generally, published tools are not retired, and live in perpetuity. Changing the status from Published to Retired places the tool in a state where nobody can run it from the tool information page. The tool information page will still exist, as a placeholder for the previously published resource.

## Support Tickets

## Abuse Reports

## Store Orders

# Site Notices

## Overview

1. First login to the administrative back-end.
2. Once logged in, find “Extensions” in the main menu bar located toward the top of the page. You should be presented with a drop-down menu containing items such as “Module Manager”, “Plugin Manager”, etc.
3. Choose “Module Manager” from the available options.
4. You should now be presented with a list of all the modules installed on your site. There are a variety of methods to find the specific module you wish to edit: you can filter by selecting position, type, or even state (enabled, disabled). The site notice module would be in position “notices” and of type “mod\_notices”. You may also search for “notices” in the filter search box or scroll to the bottom of the page and navigate your way through the entire list. Once found, click the module name to edit it.

5. Once in edit mode you will be presented with some options such as the title, position, etc. Typically, you will not need to edit anything found in the “Details” section. The items that will most often be changed are under “Parameters”. Here you can set the following:

**Start Publishing**

This determines when you wish the site notice to *start’ showing on the site*.

**Finish Publishing**

This determines when you wish the site notice to *stop* showing on the site.

**Alert Level**

3 levels available: low, medium, and high. This determines the appearance of the site notice (such as eye-catching red for “high”).

**Module ID**

A CSS ID to be applied to the module. Typically, you will not need to change this.

**Message**

The notice you wish to display.

**Important!** The “Position” must be set to “Notices”, otherwise the banner will not show up, or it will not show up where you intended it to.

6. Once your parameters are set, move down to the “Menu Assignment” portion. This section determines what pages of your site you wish the notice to appear on. This will typically be set to “All”.

**Important!** If the menu assignment is set to “none”, your notice will NOT appear on any page of the site, even if it is published and the timeframe is within the publishing window set in the “Parameters” section.

7. Return to the top of the page and click “Save” (the icon that looks like a floppy disk) in the upper right portion of the page.



# Scheduled Tasks

## Overview

A cron component is available for managing and running scheduled tasks for your hub.

The Cron Job Manager can be found by selecting "Components" > "Cron" from the drop-down menu on the back-end of your HUB installation.

## What is cron?

Cron is the name of program that enables unix users to execute commands or scripts (groups of commands) automatically at a specified time/date. It is normally used for sys admin commands.

A hub has a specific cron job that calls to the CMS. From there the code executes a list of jobs that can be created, published/unpublished, modified, and deleted via the administrator interface.

## Create/Edit Jobs

When you create a new job, you will select the event to trigger. Each event calls to a specific plugin and performs its own set of tasks.

All jobs have two sections that are the same: Details and Recurrence. The Parameters are different for each event.

## Details

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### Event

This displays the system name of the module. No entry is allowed.

### Title

The Title of the Module.

### State

Whether or not the job is enabled. If "No", the job will not be run.

### Recurrence

This is how often a job should be run. Several common values are provided--such as "run once a day, midnight"--with the option to specify your own by selecting "custom" front he drop-down list.

## Recurrence

## Parameters

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This will vary between events.

## Components

## Answers

## Blog

## Citations

## Collections



## Cron

### Events

### Categories

#### Creating a category

Click “New” (green circle with a plus sign) in the upper right portion of the page.

You will be presented with a form to enter your new category. Only the field labeled “Title” is required.

When done, click “Save” (the icon that looks like a floppy disk) in the upper right portion of the page.

### **Editing a category**

To edit a category, click the title in the category listing or check the box next to the title and click the “Edit” button in the upper right of the page.

All other steps are identical to category creation above.

### **Deleting categories**

To delete one or more event categories, check the box next to the category you wish to delete

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and hit the “Delete” button in the toolbar located at the top right of the page.

## Groups

# Polls

## Adding a Poll

To add a new poll to you HUB, all you have to do is...

1. Log on to the *Joomla!* administrator interface (<https://yourhub.org/administrator>)
2. Navigate to "Components -> XPolls" on the main menu bar
3. Click the "New" button in the top right corner of your screen to add a new poll

4. Fill in the details of your poll in the fields provided

5. Select "Save"

**Note:** Users can only vote on the most recent open poll, but they can view results for all of the published polls.

# Projects

## Component Configuration

The Projects component has a number of configuration parameters that let you customize projects on your hub. Go to **/administrator ? Components ? Projects ? Options** to edit settings. Your options are explained below.

- **Component ON/OFF** Main switch of projects on your hub. When turned off, /projects will redirect to hub's home page.
- **Collect grant info at setup?** Include/hide a section with questions about grant information, e.g. [NSF] grant id, title, PI and award amount, at project setup. Some hubs collect this information to provide larger disk space quotas for sponsored projects.
- **Setup - 'Agree to Terms' screen** Enable/disable 'Agree to Terms' step at project setup. *Warning: this setting should be set only once at initial hub setup. Once enabled, do NOT disable. Disabling the agreement step will render all projects currently in setup as inactive. On the other hand, enabling the agreement after it was disabled will force project creators to return to setup stage and accept the Terms. It is generally recommended to have the agreement step enabled.*
- **Allow project settings editing?** Enable/disable a screen to edit project settings after project setup.
- **Ask about sensitive data?** Include/hide a question about sensitive data (HIPAA/FERPA/Export Control) at project setup. There is an optional approval process for projects containing sensitive data.
- **Must approve sensitive data projects?** Require approval for sensitive data projects. If approval is required, a project with sensitive data will not be immediately available to project team. An approval has to come from user(s) in admin group specified in "Sensitive data reviewers group" parameter. [Learn more](#) about managing sensitive data projects.
- **URL to Privacy Terms** Shown at project setup, when user needs to agree to Privacy Terms.
- **URL to HIPAA information** The Health Insurance Portability and Accountability Act of 1996 (HIPAA) rules create a framework to protect the privacy and security of patient's and health plan member's health information. When including a question about sensitive data, provide a URL to explain HIPAA rules.
- **URL to FERPA information** FERPA is the Family Educational Rights and Privacy Act and is a federal law that was enacted in 1974. FERPA protects the privacy of student education records. All educational institutions that receive federal funding must comply with FERPA. When including a question about sensitive data, provide a URL to explain FERPA rules.
- **Restrict project creation to group** Alias of a group whose members can create projects. When set, all other users will not be able to create new projects on the hub.
- **Admin group** Alias of an administrative group that gets notified when a new project is created or over quota
- **Sensitive data reviewers group** Alias of an administrative group that can access a



special project listing to review info on HIPAA/FERPA/export control.

- **Sponsored projects reviewers group** Alias of an administrative group that can access a special project listing to review and edit sponsored project information and bump up quota.
- **Minimum characters in name** Min number of characters a project alias name can contain.
- **Maximum characters in name** Max number of characters a project alias name can contain.
- **Reserved project names** Comma-separated list of words and character combinations that cannot be used as project alias names. These are usually reserved for component task names used in features in development.
- **Files Git repo path** Master path for storing project files Git repos. Default path: /srv/projects. The system administrator needs to ensure the path exists and is writable by www-data before any project is created.
- **Files repo path is...** relative to web root/ absolute. Default value: absolute.
- **Git path** Path to Git. Default: /usr/bin/git
- **Default quota (GB)** Default disk quota for project files repos, in gigabytes. Note: admins can overwrite the default value and set specific project quota when editing a project in the back-end. When default value is overwritten for a specific project, any changes to default value have no effect in this particular project and must be adjusted manually when required.
- **Premium quota (GB)** Premium disk quota for project files repos, in gigabytes. Premium quotas are usually assigned for approved grant-sponsored projects.
- **Quota warning at (%)** Issue disk quota warning when disk space is used at a certain percentage amount of the given quota. Default value: 90.
- **Publication quota (GB)** Default disk quota for published files, in gigabytes.
- **Premium publication quota (GB)** Premium disk quota for published files, in gigabytes.
- **Image path** File path to project images (thumbnails). Default: /site/projects
- **Default picture** Path to default placeholder picture for project thumbnail. Default path: /components/com\_projects/assets/img/project.png
- **Log activity** Enable/disable detailed activity logging. The stored logs track page views and activity by type within projects and can help analyze usage patterns.
- **Messaging** Enable/disable hub messaging. Messages are sent to invited project members, to project managers about project status changes or to publication authors about publication status changes. Turning off messaging may be useful in test hub environments. On live hubs it is highly recommended to keep messaging enabled.
- **Default privacy** Default privacy for newly created projects: private or public.
- **Browse paging limit** Number of projects per page on Projects Browse page.
- **Side module item limit** Limit of items (files, notes etc.) in side modules of each project page.
- **Project group prefix** Prefix for project group name (system group provisioned for each project to handle permissions). Default: *pr-*. *Warning! Never change the value once configured at initial hub setup.*
- **URL to documentation** URL to a page with the projects user guide. By default links to /projects/features page briefly describing project features.
- **Auto-install** Check database setup on every visit and automatically add missing

database entries. When turned off, system administrators will need to manually install database updates when new features are added.

### Project Files Configuration

Project Files configuration is found under **/administrator ? Extensions ? Plug-in Manager ? plg\_projects\_files**. Below is a list of Project Files plugin parameters explained:

- **Max Upload Size (Bytes)** Maximum upload size for project files. The value should not be greater than the file upload limit in your hub's php configuration.
- **Max Download Size (Bytes)** Maximum download size for project files. This setting is only used in case of batch downloads, to guard against archival packages getting too large for the server to handle. Individual file downloads are not checked against this parameter.
- **Reserved Directory Names** Comma-separated list of names that are not allowed for top-level directories within project files repos. Used to reserve directory names for features in development.
- **Google Connection Enabled** Enable GDrive connection. Will not work without Google Client ID, Secret and API key entered.
- **Connected Projects** Comma-separated list of aliases of projects that can connect to GDrive. Empty field means ALL projects can connect.
- **Google Client ID** Client ID for web applications from Google API Console. See [instructions](#) for setting up GDrive Connection for projects.
- **Google Client Secret** Client Secret for web applications from Google API Console. See [instructions](#) for setting up GDrive Connection for projects.
- **Google API Key** API key from Google API Console. See [instructions](#) for setting up GDrive Connection for projects.
- **Auto Sync** Frequency of automatic sync with Google, when GDrive connection is enabled for projects.
- **Enable LaTeX Compile** Enable compile feature for .TEX files
- **Path to LaTeX** Path to pdflatex. Default: /usr/bin/
- **Path to Ghostscript** Path to Ghostscript (used to produce images out of PDF for browsers that cannot embed PDFs. Default: /usr/bin/

### Enabling GDrive Connection for Project Files

To enable GDrive connection for hub projects you would need a Google account for your hub with API access enabled. Because your Google email address and profile picture will be displayed to users as they connect via projects, it is best to create a new Google account representing your hub, rather than using your personal account.

## HUB MANAGERS

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To sign up for a Google account, follow a *Sign Up* link on [Google Accounts](#)

Once you have a Google account, login to [Google API Console](#) and click the button to **Create a**

### ***Project.***

Next you will be asked to selected services for your new API project. Turn on Drive API and

Drive SDK services, accepting service terms.

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On Branding Information screen enter ***Project Files to Google Drive Connector*** under Product name. For the Product logo we recommend that you use HUBzero image at <http://hubzero.org/site/media/images/sync.png>. Enter your hub URL for Home Page URL and go

to next screen.

On Client ID Settings screen choose *Web application* as Application type, enter your hub host

name and click on ***Create client ID***

Once your Client ID for web applications is created, click to Edit settings and change Authorized

Now you have all you need to enable GDrive Connection for projects in your hub. Login to your hub's administrator back-end, go to *Plug-In Manager* and open *Project Files* plugin settings. Choose *Yes* for *Google Connection Enabled* parameter and fill in Google *Client ID*, *Client Secret* and *API Key* under plugin Basic Options.

If you want to offer GDrive connection for selected projects only, enter the aliases of those projects under *Connected projects*. Another optional setting is *Auto Sync*, which allows you to

set desired auto sync frequency.

Now selected or all projects should have GDrive connection enabled. Individual creators of those projects will now be able to see the *Connect* button in Project Files and establish the connection. GDrive Connection User Guide available at </documentation/1.2.0/users/projects.projectfiles>.

## Managing Sensitive Data Projects

*Sensitive data can include personal, financial, and legal information, as well as information protected by state or federal laws and by university policy. Federally-protected restricted data include all individually identifiable health information (HIPAA-protected information), student records and grades (FERPA-protected information).*

As a hub manager, you need to have a plan for managing projects containing sensitive data. "**Ask about sensitive data?**" parameter in Projects [component configuration](#) offers three options:

1. **No** - do not ask about sensitive data. The question about data will then be omitted during project setup. Project creator will not be warned about storing sensitive data and can proceed with project setup. Use this option on hubs where data sensitivity is not an issue or your hub is otherwise protected. You may want to include a clause about sensitive data in your site usage terms.
2. **YES, with one general question** - project creator will need to agree not to store any

3. **YES, with HIPAA/FERPA etc. options** - details on sensitive data will be presented. Only certain types of sensitive data are allowed, upon expert approval. The picture

**"Must approve sensitive data projects?"** parameter in Projects [component configuration](#) controls what happens when the user checks sensitive data box(es) on screen above and proceeds with project setup. If administrator approval is required, the project will fall into suspended status immediately project setup is complete:

Administrator(s) in **"Sensitive data reviewers"** group (assigned in component parameters) will get notified by email of a new project requiring approval. The link to the page to manage and approve sensitive data projects will be included in the email. This protected page can be found at `/projects/browse/?reviewer=sensitive`. Reviewers see a list of projects requiring approval and take action by clicking on Approve button:

The approval screen provides an area to communicate with project creator with or without project approval.

As soon as a project is approved, team members get notified and can start using their project.

## Managing Sponsored Projects

Hubs that offer Projects as a data management solution for faculty may want to collect awarded grant information to allocate the appropriate amount of data storage space to sponsored projects. To turn on grant information questions, go to Projects [component configuration](#) and enable **"Collect grant info at setup?"** setting.

When grant information is filled out, dedicated reviewers (members of admin **"Sponsored projects reviewers"** group assigned in [component configuration](#)) will get notified by email with a link to manage and approve projects for larger disk space. The protected page can be found at `/projects/browse/?reviewer=sponsored`. Reviewers see a list of projects requiring approval and take action by clicking on **Manage** button:

The approval screen provides an area to communicate with project creator, approve or reject disk space increase.

Approved projects automatically get their project disk space quota upgraded to the **Premium Quota** specified in [component configuration](#)

Project managers can add/edit grant information at any time after a project has been created and optionally re-submit this information for administrator approval. The grant information would show up under *Edit Settings*:

## Enabling Publishing

*Projects integrate a publishing engine to get project materials delivered to the world in the form of web publications. Each publication receives a Digital Object Identifier so that others can cite it. Public can write reviews and add ideas to the Wish List for each publication.*

## Publication versus Resources

Hub **Publications** look and function much like hub **Resources**. In fact, **Publications** are meant to replace **Resources** in the foreseeable future, once all resource types are supported in the new publishing process. As of today, users can publish documents and databases (if DataStore Lite is enabled). Next in line for publication are project notes, tools and external links. If your new hub is not planning on publishing tools other than *Workspace Tool*, you can enable **Publications** on your hub and turn off **Resources**. On the other hand, if you are using **Resources** extensively or plan to immediately publish tools, it is best NOT to enable

**Publications** for the time being to avoid any possible confusion.

### Steps to enable Publishing

1. Ensure that **Auto-install** option is set to **ON** in [component configuration](#).
2. Go to **/administrator ? Extensions ? Plug-in Manager** and enable Project Publications plugin (**pls\_projects\_publications**)
3. Go to *yourhub/projects* and refresh the page once. At this point the auto-install script should have done the work of checking hub database structure and adding anything missing.
4. Next go to **/administrator ? Components ? Publications ? Options** and make sure **Component ON/OFF** parameter is set to **ON**. *Note: if you do not see **Publications** in the component menu, you can access it by going to [/administrator/index.php?option=com\\_publications](#).*
5. Configure publishing as needed, following the detailed explanation of [Publications Component Configuration](#).



# Publications

## Component Configuration

Publications component configuration controls the display of publications pages, as well as the publication submission flow. To edit settings, go to **/administrator ? Components ? Publications ? Options**. Your options are explained below.

- **Component ON/OFF** Enable/disable Publications on your hub. When turned off, /publications will redirect to /resources.
- **Auto-approve** Automatically approve new submissions.
- **Auto-approved Users** A comma-separated list of login names of users whose publication submissions get auto-approved.
- **Email authors** Email contributors when administrator make changes to status of a publication.
- **Default category** Optionally set the browsing category of newly created publications to the specified value if exists. Default: *dataset*
- **Default picture** Default placeholder thumbnail image for all publications. Default: */components/com\_publications/assets/img/resource\_thumb.gif*
- **Default tool picture** Default placeholder thumbnail image for tool publications. Default: */components/com\_publications/assets/img/tool\_thumb.gif*
- **Default video file thumbnail** Default placeholder thumbnail image for video-type files in publication gallery. Default: */components/com\_publications/assets/img/video\_thumb.gif*
- **Default image file thumbnail** Default placeholder thumbnail image for image-type files in publication gallery. */components/com\_publications/assets/img/gallery\_thumb.gif*
- **Publication file path** Master path for storing published data. Default: */site/publications*

## Digital Object Identifiers.

*All required fields must be filled for the DOI service to work. If Service or Shoulder are left blank, publications will be released without a DOI. If other required fields are left blank, there will be a failed attempt to create a DOI resulting in error for end-user.*

- **About DOI link** A link to an explanation of what Digital Object Identifiers (DOI) are. [\[optional\]](#)
- **DOI shoulder** Shoulder for issuing DOIs (what goes after doi:) **[required]**
- **DOI handle prefix** Prefix for DOI handles if required.
- **DOI service** DOI service URL **[required]**
- **DOI Service User/Password** DOI Service User/Password **[required]**
- **DOI XML Schema** URL of XML validation schema **[required]**
- **DOI publisher** Publisher name (may use full Hub name) for DOI service. Defaults to Hub name.
- **DOI resolve url** URL for resolving DOIs. Default: *http://dx.doi.org/*
- **DOI verify url** URL for verifying DOIs

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- **Supported Tag** A tag to indicate organization-supported publications.
  - **Supported Link** A link to describe organization-supported publications.

### Show/hide publication information

Next series of parameters lets you show/hide the following data/sections on the publications page and/or during draft editing:

- **Contributors**
- **Ranking**
- **Rating**
- **Date**
- **Citations**
- **Tags**
- **Metadata**
- **Release Notes**
- **Access**
- **License**
- **Gallery**
- **Audience**

- 
- **Suggest license** Allow users to suggest licenses. License suggestions get sent to administrators via support tickets. Administrator can then add a requested license via Publications back-end interface.
  - **URL to Terms of Deposit** URL to a page with information on Terms of Deposit. This field is required. No value results in an invalid link at pre-publication review screen.

# Resources

## Types

Users may contribute many types or categories of resources. All HUBs come with a default set of types. They are:

- Animations
- Courses
- Downloads
- Learning Modules
- Notes
- Online Presentations
- Publications
- Series
- Teaching Materials
- Tools
- Workshops

Some types can be contributed by any user via the front-end **“contribute”** component. Some types, such as Learning Modules or Series cannot presently be contributed via the front-end due to their complex nature (more on this below).

## Creating New Types

The default list of types may not completely suit your needs and you may wish to add your own, new types. This can be done from the administrative back-end of the site by following these steps:

1. Login to the administrative back-end.
2. Once logged in, find **“Components”** in the main menu bar located toward the top of the page. You should be presented with a drop-down menu containing a list of all the installed components on your HUB.
3. Select **“Resources”** from the list.

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Once the "Resources Manager" page has loaded, select "Types" from the sub-menu found under the "Resources Manager" title.

You should now be presented with a list of all the "Main Types" (selected by default). There are multiple categories of types. If not already selected, select "Main Types" from the "categories" option found directly above the list or navigate the listing until you see those designated as "Main Types". These are the primary types of resources users will be able to contribute, browse, etc.

Click the title of a type to edit it or click "New Type" (green circle with a plus sign in the middle) from the toolbar on the top right of the page.

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Fill in the title field (what you want this type to be called) and select "Main Type" from the category list. You may then optionally fill in a description (longer explanation) of this type.

Decide if this resource type can be contributed from the front-end "contribute" component by checking/unchecking the "contributable" checkbox. Due to the complex structure of some resources, the front-end "contribute" component cannot handle the creation of some resource types. This checkbox ensures that such a resource type does not accidentally show up as a type the user can self contribute.

Next, you may decide what custom fields you wish to have filled in by the user for that resource type. Options are single-line text boxes, multi-line text areas, checkboxes, select list (pull down), radio options, pre-defined options (language list, etc.). A field may be required or not.

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Click "Save" (icon looks like a floppy disk) in the toolbar on the top right of the page.

New resource types should now be available as a resource option and changes to types should take affect immediately.

# Support

## Overview

- [Tickets](#)
- [Messages](#)
- [Resolutions](#)
- [Abuse Reports](#)
- [Tag/Group](#)
- [Stats](#)
- [ACL](#)

## Tickets

Tickets

## Messages

To aid in responding to support ticket submissions, you may create custom message templates for frequently used responses. Example responses include a "Ticket resolved" message sent upon closing a ticket or a "Request for more information" message.

Messages may also includes placeholders where information that changes can be specified. For instance your message template may include references to the specific ticket ID number or site name. A "Ticket resolved" template could look like this:

Thank you for using the {sitename}, and for reporting this problem. We believe that your issue (ticket #{ticket#} in our system) has been resolved. If you continue to have problems please let us know. You may reopen a closed issue at any time by following the link at the end of this message and adding a comment to the ticket.

Thank you for helping us to improve {sitename}!  
--the {sitename} team

Here we have two placeholders: {ticket#} and {sitename}. The placeholders are replaced with their current value at the time of composition. When chosen from the select box under "Comments" of the response form, the comments text box will be filled with the following:

Thank you for using the YourHUB, and for reporting this problem. We believe that your issue (ticket #123 in our system) has been resolved. If you continue to have problems please let us know. You may reopen a closed issue at any time by following the link at

the end of this message and adding a comment to the ticket.

Thank you for helping us to improve YourHUB!  
--the YourHUB team

## Resolutions

Resolutions

## Abuse Reports

Abuse Reports

## Tag/Group

Tag/Group

## Stats

The stats page gives a basic overview of support ticket activity starting at the beginning of a chosen year, defaulting to the current year if none specified.

The following data is shown:

- Tickets opened for the given year
- Tickets closed for the given year
- Tickets opened for the current month of the year
- Tickets closed for the current month of the year
- Tickets opened for the current week of the year
- Tickets closed for the current week of the year
- Open tickets
- Unassigned tickets
- Average ticket lifetime
- A list of administrators and the number of tickets closed
  - closed for the given year
  - closed for the current month of the year
  - closed for the current week of the year
- A line chart displaying Tickets Submitted (red) vs. Closed (green) on a monthly basis

Stats shown may also be filtered by group.



## ACL

The ACL (Access Control Layer) works in conjunction with a user login system to allow or deny a user access to support tickets and various information or features of a ticket.

Permissions may be set for individuals or entire groups of users. All members of a group will inherit any permissions set for the group. If a user is a member of multiple groups with ACL settings, the highest permissions will take affect. Take, for example, the following group settings:

Table 1: ACL

Object	Model	Tickets			Comments		Private Comments		
		Read	Update	Delete	Create	Read	Create	Read	
dev (111)	group	yes	yes	yes	yes	yes	yes	yes	yes
support (222)	group	yes	no	no	yes	yes	yes	no	no

If user "john" is a member of both groups, his permissions will result as follows:

Table 2: Resulting permissions

Object	Model	Tickets			Comments		Private Comments		
		Read	Update	Delete	Create	Read	Create	Read	
john (333)	user		yes	yes	yes	yes	yes	yes	

Individual ACL settings take precedence over any other settings. Once again, take the following two groups and their permissions settings. User "john" is a member of both groups. We then add specific permissions settings for "john":

Table 3: ACL

Object	Model	Tickets			Comments		Private Comments		
		Read	Update	Delete	Create	Read	Create	Read	
dev (111)	group	yes	yes	yes	yes	yes	yes	yes	yes
support (222)	group	yes	no	no	yes	yes	yes	no	no
john (333)	user	no	no	no	no	no	no	no	no

The ACL in table 3 will result in the following permissions for user "john":

Table 4: Resulting permissions

Object	Model	Tickets			Comments		Private Comments		
		Read	Update	Delete	Create	Read	Create	Read	
john (333)	user		no	no	no	no	no	no	no

**Note:** A user will always have read access to tickets they submitted or are assigned to. This will

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even override any specific ACL settings.

# Tags

## Overview

Tags are like keywords or category labels. Tags help you categorize and find content, events, and members which have something in common or similar interests. Tags can be added to groups, profiles, resources, wiki pages, and events.

To manager tags:

1. First login to the administrative back-end.
2. Once logged in, find “Components” in the main menu bar located toward the top of the page. You should be presented with a drop-down menu containing a list of your installed components.
3. Choose “Tags” from the available options.

## Creating a Tag

1. Click “New” (green circle with a plus sign) in the upper right portion of the page.
2. You will be presented with a form to enter your new tag. Only the field labeled “Tag” is required.

**Admin**

This is a flag that designates if a tag is an administrative tag. Admin tags are only seen by administrators and are typically used for tagging content with information that may not be relevant or desired to be known by front-end users.

**Tag**

The tag you wish to create.

**Alias**

An alternate version of the tag such as a pluralized spelling of the tag or common abbreviation. For example, the tag “New York” may have an alias of “ny”.

**Description**

A description or definition of the tag.

3. Once you feel ready to save your changes, scroll back to the top of the page and click “Save” (the icon that looks like a floppy disk) in the upper right portion of the page.

### **Editing a Tag**

To edit a tag, click the raw tag, tag, or alias found in the tag listing.

All other steps are identical to tag creation.

### Merging Tags

Should a situation arise where two or more tags should really be one tag, you can merge tags. To merge tags, check the box next to the tags you wish to merge and hit the “merge” button in the toolbar located at the top right of the page.

You will then be presented with a list of the tags you want to merge (and how many items are using each tag) and the options to either:

- Merge the tags under another existing tag (ex: everything tagged with “h2o” and “hydro” can be merged to just “hydro”) or
- Merge the tags into a new tag (ex: everything tagged with “h2o” and “hydro” can be merged to “water”)

Click “Save” (the icon that looks like a floppy disk) in the upper right portion of the page to perform the final merge. **Note:** This cannot be undone!

### Deleting Tags

To delete one or more tags, check the box next to the tag(s) you wish to delete and hit the “delete” button in the toolbar located at the top right of the page.

# Tools

## Changing the Developer URL

When accessing a tool's development page, there is a link available under the "What's next?" section on the right-hand side of the page (see the sample image below). This link should direct the user to the [yourhub.org/tools](https://yourhub.org/tools) page corresponding to that particular hub. But if that is not the case, the link can be changed quickly from the backend administrator interface; simply follow the instructions below.

Begin by...

1. Logging into the *Joomla!* administrative interface corresponding to your site
2. Then, navigate to "Components -> Tools" from the main menu bar on the top of the screen
3. Next, select parameters from the top-right corner of the page



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5. Locate the "Developer URL" field and ensure that it reads <https://yourhub.org/tools>

6. Select "Save" from the top-right corner

## Wiki

## Wishlist