

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:

- [How to get started with a new Hub](#)
- [Become familiar with daily maintenance](#)
- [Manage site members](#)
- [Handle support tickets](#)
- [And more...](#)

Introduction

Overview

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:

- Manage (add/edit/delete) site members
- Manage site settings
- Handle support tickets
- And more ...

Community development does not end with support tickets. Check out our tutorial about how to engage with your community.

Administrator Area

Logging In

The Administrator Interface (or **back-end**) of the HUB 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 will request a valid username and password before access to the Administrator Interface is granted.

Access the Administrator Interface of the HUB by entering a special URL into the address bar of your web browser. If the HUB is located at <https://www.example.com> then you will enter the address <https://www.example.com/administrator> will be shown the Administrator Interface login.

Enter your username and password into the relevant fields. Click the **Login** button. If you login successfully, you will see the Administrator control panel.

Logging Out

To log out of the Administrator Interface, locate the **Logout** link in the top-right corner of the Administrator Interface and click on it. Logging out will return you to the Administrator Interface 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 a page locked for your exclusive use. Please close out of the page by clicking **Save and Close** or **Close** to release the page, then click on the **Logout** link.

Spam

Overview

Things to look for:

- Unprofessional profile pictures
- Non-Hub related information in the Bio
- Unprofessional URLs/links to outside websites
- Inappropriate language
- Selling ads or promotional information
- Non-Hub related content
- Components on the Hub with links in the text box

Disable Accounts for Spam

1. Find the account that created the Spam, and then on the backend of the Hub navigate to **Users** and then click on **Members**. Click on the name to open up account details
 - a. **Note:** You can usually be sure that the account is a spammer if they have a Hub nonrelated website link in the URL and an unprofessional profile picture.
2. If the **Public Profile** box is checked, uncheck it. It is important to make the profile not available to the public incase they have Spam links in their account
3. Uncheck the **Confirmed** box if the user had confirmed their account. If it is not checked leave it unchecked
4. Change the **Contact me** drop-down to the **Receive email updates?** option
5. Change the spam account password by typing into the **New Password** field a long and random password that the spammer could not figure out
6. Check the box beside the user's name and then click **Block** to block the user from the Hub
7. Click **save and close**
8. After disabling the spammer's account, find the spam that the individual has put on the Hub and delete it
9. Make sure that they account has been deactivated prior to deleting the Spam. This way the spammers will not receive emails about their content being deleted

Antispam Plugins

To keep your Hub from being abused by spammers, enable these antispam plugins to give your site the fighting edge.

How It Works

For most content on the site, when a user presses **save** to submit a new entry—be it a blog post, forum comment, wish, etc.—a **before save** event is triggered. That event allows the system to validate and run any desired pre-processing or checks on the content before it is stored within the database. When any anti-spam plugins are enabled, the content is handed off to each plugin, in their defined order (see the **Plugins Manager**), where the plugin in turn has a chance to evaluate the content for likelihood of being spam. If a plugin flags the content as being spam, the process stops (i.e., the content is not passed along to the next plugin), an error is raised, and the content fails to be stored to the database.

Enabling

To enable these plugins, follow these steps:

1. Navigate to the backend of the Hub and locate the **Extensions** tab
2. Click on **Plug-in Manager** from the drop-down
3. Inside of the **Plug-in Manager**, locate a plugin through search and click on the title
4. Inside the plugin, change the status to **Enabled** and provide any API keys or change the settings then click **Save & Close**

Available Antispam Plugins:

- **Antispam-Akismet:** This plugin uses the remote Akismet service to scan posted content and determine if the content has a high probability of being spam. Akismet digests massive amounts of data from hundreds of sites a day to learn about how to protect sites from spammers. Learn more at: <http://akismet.com>.

Usage of this plugin requires API credentials provided by having an Akismet account.

- **Antispam-Baba Ji Spam Detector:** This plugin provides content spam section of the mass spammer Baba Ji.
- **Antispam-Bayesian Filter:** This is a spam detector that employs a basic Bayesian filter which looks for spam headers and character strings.

- **Antispam-Black List:** This is a spam detector that detects black-listed words; inside the plugin words can be added to a list to build the black list inventory.
- **Antispam-Link Rife:** This is a spam detector that detects link frequency in a body of text. This spam detector has three configuration options for determining if submitted content is likely spam:
 1. **Link Frequency** - Maximum number of links allowed in a text before it is considered spam.
 2. **Link to Text Ratio** - Ratio (In Percentage) of the number of links to the number of words in the string. If the percentage ratio is greater than the specified ratio, it is considered a **Link Overflow**.
 3. **Link validation** - Check found links against known blacklists.
- **Antispam-Mollom:** This plugin uses the remote Mollom service to scan posted content and protect a Hub from users who post abusive content like profanity and will learn as it grows. Learn more at: <https://www.mollom.com>.

Usage of this plugin requires API credentials provided by having a Mollom account.

- **Antispam-SpamAssassin:** This plugin scans posted content with SpamAssassin to determine if the content has a high probability of being spam. SpamAssassin is an Open Source antispam platform which allows administrators to filter and classify bulk spam. Learn more at: <http://spamassassin.apache.org>.

Testing Content

Sample content may be tested against enabled plugins to further examine which plugin may have flagged content as potential spam and why. The testing interface may be found by:

1. Navigate to the **/administrator** interface of the Hub and locate the **Components** tab
2. Click on **Support** from the drop-down
3. Inside of the **Support Manager**, locate the sub-menu item for **Abuse**
4. Inside of the **Support Manager > Abuse** panel, locate the sub-sub-menu item for **Spam Check**

A form with a single text box will be present. Paste content into the box and click the

Check button in the toolbar. The interface should update to display a list of all anti-spam plugins the content was passed through and the results of said plugins.

Not a spammer but a normal user what was flagged as one?

Sometimes when a user repeats actions on a Hub in a rapid function or tries to submit a flagged item multiple times, they end up in Spam jail. In order to reset the Spam jail count and free them, follow these steps:

1. Navigate to the **/administrator** interface of the Hub and locate the **Users** tab
2. Click on **Members** from the drop-down
3. Locate the user and click on their name
4. Locate the **Lifetime Spam Incidents** and click **Reset**
5. Click **Save & Close** and notify the user that they are out of Spam jail

If this user is a habitual offender and you are tired of bailing them out of Spam Jail or you would like to whitelist the Administrator user group, you can Whitelist a user group or a specific user by completing these steps:

1. Navigate to the **/administrator** interface of the Hub and locate the **Extensions** tab
2. Click on **Plug-in Manager** from the drop-down
3. Inside of the **Plug-in Manager**, locate the **Content - Antispam** plugin and click on the plugin's title
4. Click on the **Whitelist** section and change the access group or add the user's username to the list in order to Whitelist all users in that access group or that specific user
5. Click **Save & Close**

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="HUBzero - The open source platform for
scientific and educational collaboration" />
<meta name="description" content="Help and documentation for HUBzero,
the Platform for Scientific Collaboration" />
<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
<meta name="robots" content="index, follow" />
<meta name="keywords" content="cyberinfrastructure, middleware, resear
ch, education" />
```

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.

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 HUBzero" />
```

Show Author Meta Tag

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

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


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.

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.

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.

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.

Extensions

Overview

HUBzero is already a rich featured content management system but if you're building a website and you need extra features which aren't available by default, you can easily extend it with extensions. There are five types of extensions: 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

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. Plugins enable you to execute code in response to certain events, either core events or custom events that are triggered from your own code. This is a powerful way of extending the basic functionality.

Templates

A template is a series of files within the 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 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 installation and check the components menu, the module manager and the plugin manager. HUBzero comes with a number of core components, modules and plugins. By checking what they are doing, the difference between the three types of building blocks should become clear.

Modules Manager

Overview

The Module Manager is where you add and edit Modules. In HUBzero, 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 hubs 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, 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.

An installation is accompanied with over 20 default module types.

Column Headers

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

- **Number (#):** 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. You can change an item's Access Level by clicking on the icon in the column. Current options are:
 - **Special:** Only users with author status or higher have access
 - **Registered:** Only registered users have access
 - **Public:** Everyone has access
 - **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 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 Number:** 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

- **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 [Create/Edit Modules](#) for information about adding Modules.
 - **Help:** Opens this Help Screen.
-
- **Site and Administrator Links: At the top left, above the Filter.**
 - **Site:** Opens the Site tab. This is the default tab and allows you to manage the Modules for the front end of the web site.
 - **Administrator:** This 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 Template, Position, Type, and Published State

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, **ero** will match all titles with the word **Hubzero** 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.

- **Site**
- **Select Status**
- **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. HUBzero installs with 20 available Module types. Additional ones may be available if you have installed any Extensions.
- **Select State:** Use the drop-down list box to select the published state: Enabled or Disabled.
- **Select Access**
- **Select Language**

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.

- **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.
 - 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 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.
 - 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. Enter the desired level using the drop-down list box. Current options are:
 - **Public:** Everyone has access
 - **Registered:** Only registered users have access
 - **Special:** Only users with author status or higher have access
- **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

This is where you tell the CMS 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:** This will vary between modules.

Turning on Site Notices

Use this module to announce Hub wide events or scheduled upgrade dates.

1. Navigate to the **/administrator** interface
2. Hover over **Extensions** and from the drop-down select **Module Manager**
3. Click New and look for "mod_notices"
4. Click on the title of "mod_notices" to open up this new module
 1. Only complete steps 3 - 4 if you have not created this module previously
5. Fill in the needed information:
 1. Title: Add the title for this module, Example - "Upgrade Notices"
 2. Position: Set the position to "notices"
 3. Ordering: Set the ordering to "Site Notices"
 4. Status: Set the status to "Publish"
 5. Access: Set to the user access level this announcement pertains to
 6. Start Publishing: Select the date to start publishing this announcement
 7. Finish Publishing: Select the date to finish publishing this announcement
 8. Languages: Set languages to "All"
 9. Alert Level: Determine the alert level (Low, Medium, High)
 10. Message: Add the message you want to announce to your users
6. Scroll to the bottom of the form to check what pages you want this message appearing on through out the site
7. Click **Save & Close** once you are done

Templates Manager

Overview

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

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 the CMS exactly how to draw each page of your site.

When you first install a hub, one Back-end Template and one or more 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 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-app>/templates/ directory. For example, the files for the **kimera** Template are in the directory <path-to-app>/templates/kimera
- **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*).
- **Location**

Toolbars

- **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 **Changing Text and Color** for information on the edit screen.
- **Help:** Opens this Help Screen.
- **Duplicate**
- **Delete**

Changing Text and Color

(**Note:** You have to be logged into your hub in order to complete the following tasks)

1. Click the **Extensions** tab and then select the **Template Manager** button located in the drop-down
2. On the **Template Manager: Styles** page, check the box of the **kameleon (admin)** template and then click the **Edit** button
3. Change the Header to **Light** or **Dark** from the drop-down
4. Change the **Theme** or main color of the backend by either choosing a color from the drop-down or by selecting **Custom (color specified below)** and fill in a color code in the **Custom color box**
5. Save the changes by clicking **Save & Close** and a pop-up will appear saying **Style successfully saved**

Kimera: Adding a Background Image

1. [REDACTED]
 2. [REDACTED]
 3. [REDACTED]
 4. [REDACTED]
 5. [REDACTED]
 6. [REDACTED]
 7. [REDACTED]
 8. [REDACTED]
-

Plugins Manager

Overview

The Plugin Manager allows you to enable and disable 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.

- **Plug-in Name:** The name of the plug-in. The name explains where the plug-in is located and what the plug-in is for.
 - For example: **Dashboard-Collections** means that the plug-in is on the user's Dashboard with a module for Collections.
- **Status:** If the plug-in is viewable on the Hub or not.
 - Enabled: The plug-in is available on the frontend and on the backend of the Hub.
 - Disabled: The plug-in has been removed from the frontend of the Hub but is still accessible on the backend.
- **Ordering:** Where the plug-in is on the master list of plug-ins. This list can be seen when plug-ins are being enabled the ordering determines how the plug-in is displayed in the drop-down.
- **Type:** The location of the plug-in.
 - This is the first part of the plug-in's title.
- **Element:** What the plug-in is implementing.
 - This is the second part of the plug-in's title.
- **Access:** Who is able to view or use the plug-in.
 - Public: All visitors or users on the Hub are able to view and use the plug-in.
 - Registered: Only registered users are able to view and use the plug-in.
 - Special: Only users given special permissions can access and use the plug-in.
- **ID:** The identification number given to the plugin after it was created on the Hub. This allows for easier search results.

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. You can change an item's Access Level by clicking on the icon in the column. Current options are:
 - **Public:** Everyone has access
 - **Registered:** Only registered users have access
 - **Special:** Only users with author status or higher have access
- **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 - Facebook plugin has two files: **facebook.php** and **facebook.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

- **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.
- **Check-in**
- **Options**

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:** 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:** 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.
- **Select Access**

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.
- **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. Enter the desired level using the drop-down list box. Current options are:
 - **Public:** Everyone has access
 - **Registered:** Only registered users have access
 - **Special:** Only users with author status or higher have access
- **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:** This will vary between plugins.

Reordering

1. Log in to the backend of the Hub and access the **Extensions** tab
2. Click on the **Plugin-in Manager** navigate to the **Plug-in Manager: Plug-ins** page
3. Locate the column labeled **Ordering** and then click on the title of the column
4. Arrows will appear on the left side of the numbering
5. To begin reordering click the arrows up or down to reorder the plug-ins
6. Save the changes by clicking the **Save** icon

Enabling a Plug-in

1. Log in to the backend of the Hub and access the **Extensions** tab and then click on **Plug-in Manager**
2. Locate the plug-in that needs enabling and select the box beside the plug-in's name
3. Click **Enable** to enable the plug-in
4. The plug-in will now be useable on the frontend of the Hub

Editing a Plug-in

1. Log in to the backend of the Hub and access the **Extensions** tab and then click on **Plug-in Manager**
2. Locate the plug-in that needs editing and select the box beside the plug-in's name
3. Click **Edit** to begin editing the plug-in
4. Click **Save & Close** to save the newly edited content

Disabling a Plug-in

1. Log in to the backend of the Hub and access the **Extensions** tab and then click on **Plug-in Manager**
2. Locate the plug-in that needs disabling and select the box beside the plug-in's name
3. Click **Disable** to disable the plug-in
4. The plug-in will now be removed from the frontend of the Hub, but still accessible from the backend

Extension Manager

Overview

A Hub administrator can manage extensions (i.e.: plugins, components, modules, templates, etc.), from the /administrator interface. Extensions are categorized into two sections - "Hubzero Core" and "Custom Extensions". Hubzero Core extensions are the core codeset of Hubzero and may be disabled or enabled but never completely removed. Hubzero Core extensions, however, can be overridden by a Custom Extension of the same name. See the Web Developer documentation section for instructions on how to create your own.

Enabling Hubzero Core Extensions

1. Navigate to **/administrator**.
2. Hover over **Extensions** and select **Extension Manager**.
3. Click **Hubzero Core** to view the list of extensions.
4. **Check the box** beside the extension that you would like to enable.
5. Click the **Enable** button in the upper right corner.

Disabling Hubzero Core Extensions

1. Navigate to **/administrator**.
2. Hover over **Extensions** and select **Extension Manager**.
3. Click **Hubzero Core** to view the list of extensions.
4. **Check the box** beside the extension that you would like to disable.
5. Click the **Disable** button in the upper right corner.

Adding Custom Extensions

1. Navigate to **/administrator**.
2. Hover over **Extensions** and select **Extension Manager**.
3. Click **Custom Extensions** to view the list of extensions if available.
4. Click the **New** button in the upper right corner.
5. Complete the form.
6. Click the **Save & Close** button in the upper right corner.

Editing Custom Extensions

1. Navigate to **/administrator**.
2. Hover over **Extensions** and select **Extension Manager**.
3. Click **Custom Extensions** to view the list of extensions.
4. **Check the box** beside the extension that you would like to disable.
5. Click the **Edit** button in the upper right corner.
6. Complete the form.
7. Click the **Save & Close** button in the upper right corner.

Enabling Custom Extensions

1. Navigate to **/administrator**.
2. Hover over **Extensions** and select **Extension Manager**.
3. Click **Custom Extensions** to view the list of extensions.
4. **Check the box** beside the extension that you would like to enable.
5. Click the **Enable** button in the upper right corner.

Disabling Custom Core Extensions

1. Navigate to **/administrator**.
2. Hover over **Extensions** and select **Extension Manager**.
3. Click **Custom Extensions** to view the list of extensions.
4. **Check the box** beside the extension that you would like to disable.
5. Click the **Disable** button in the upper right corner.

Additional Info:

Installing and Updating a Custom Extension

From the Custom Extension tab in the Extension manager, select a Custom Extension from the list and then click the "Update" button at the top right of the page.

HUB MANAGERS

Incoming commits will be displayed, if you wish to process, click the Merge button at the top right.

You should now see a see a confirmation page that the code has been succesfully updated.

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`

HUB MANAGERS

Setup begins in the administrative interface for your hub.

1. First, navigate to **Extensions -> Plugin Manager**, and filter the results to the **authentication** type

2. 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 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.

Components

What are components?

We have used the phrase, components, as a way to define all of the features that come with the Hub platform. We consider all of these elements of the larger whole of the platform. Each component focuses on a specific task that allows users to submit content. As an administrator, it is up to you to set up all of the Hub's components to fit the needs of the community.

Answers

What is the Answers component?

Answers, or Questions and Answers in the front end, is a place to exchange knowledge about things that are not found in the Knowledge Base. Ask a question that's relevant to your community or help other users by providing an answer to their questions.

Note: You must be logged in on the backend in order to perform the tasks below.

Deleting an Answer

1. In the backend, navigate to **Answers** under the **Components** tab
2. Go to the **Answers** tab and find the answer to be deleted
3. Click on the check box for the answer to select it
4. Click the **Delete** button symbolized by a trash can
 - The answer will be fully deleted

Submitting a Question

1. In the backend, navigate to **Answers** under the Components tab
2. While on the **Questions** tab, click the **New** button symbolized by a plus sign
3. Fill in the details of the question being submitted. Check the box for **Anonymous** to remove your name from the question. Select the **Notify of responses** box to get emailed about new responses to the question. Fill in the title and the description of the question. Add tags to the question using the tag box
4. Click **Save & Close** to save the new question to the hub

Projects

Enabling Plug-in to Projects

1. Login to the backend of the Hub and click on the **Extensions** tab
2. Click on the **Plug-in Manager** under the **Extensions** tab
3. Search **Projects- Databases** in the search field to locate the Data Store plug-in
4. After locating the correct plug-in, check the box beside the **Plug-in Name**
5. Click the **Enabled** button to allow the plug-in to be used on the frontend of the Hub

If the Menu Item for Databases does not display, the MySQL Configuration may not be correct for DataViewer.

Restricting Plug-in to Specific Projects

1. Login to the backend of the Hub and click on the **Extensions** tab
2. Click on the **Plug-in Manager** under the **Extensions** tab
3. Search **Projects- Databases** in the search field to locate the Data Store plug-in
4. After locating the correct plug-in, click on the title of the plug-in under the **Plug-in Name** column
5. Inside the plug-in details, type in the names of the Projects in the **Restricted to projects** field
6. Save the changes by click the **Save & Close** button

Uploading Large Files Using SFTP Clients

Create a Local Password

1. If you use a non-Hub related account, then you must first create a local password
2. Login to the HUB
3. On the **Dashboard**, click **Account** on the left menu
4. Under **Local Password**, type in the password in the **New Password** and **Confirm password** text boxes
5. Click **Save**

Setup SFTP Client

1. Download an SFTP client like Cyberduck or Filezilla

2. Add a new site by either clicking the **Plus sign icon (+)** or **File -> Site Manager -> New Site**
3. Provide the following information
 - a. Host: hubname.org
 - b. Protocol: Change to **SFTP**
 - c. User: Provide the same username used to login to the Hub
4. Click **Connect**
5. When prompted for password, provide the local password that was created above
6. Once connected, open up the **Data** file and then the **Projects** file and double click on the project that you would like to upload the files to
7. Drag and drop the files into this folder and then check inside of the site and confirm that these files are uploaded to the right project

Enable Grant Collection Information

If you are working on a Hub that will be creating projects based on grants, then you can enable a new step to be added in the Project creation to collect grant information. By collecting grant information for grant funded projects, project quotas can be increase based on the project budget and this information can help support annual reviews of the Hub. To enable this feature, follow these steps:

1. Navigate to the backend of the Hub
2. Hover over **Components** and from the drop-down click **Projects**
3. Click the **Options** button in the upper right corner of the screen
4. Inside of Options, click the **Setup** tab
5. Find the *Collect grant info at Setup* and change the drop-down to **Yes**
6. Click **Save & Close**

Project File Connectors

Project File Connectors

HUBzero allows for files to be shared either on a repository owned by the Hub or connect to other file management platforms. Project File Connectors allow for these third-party file management systems to enable files uploaded on the Hub yet stored in their system. Follow these instructions to set-up and provide Project File Connectors to your users:

1. Navigate to the third party file management system of your choosing, such as **Google Drive** or **Dropbox**
2. Set-up either a new project or application and fill in information about the Hub in order to obtain an **API key** and **API secret** upon saving
3. Make sure you set the callback address to your Hub and indicate the appropriate file system
 1. **Example:** When setting up a Google Drive API connector to redirect to YourHub, the following callback should be used
- <https://yourhub.org/developer/callback/googledriveAuthorize>
4. Once the **API key** and **API secret** have been created successfully, navigate back to the **/administrator** interface and **login**
5. Hover over **Extensions** and select from the dropdown **Plug-in Manager**
6. Search or locate the appropriate plugin connected to the file system
 1. **Example:** If the file system chosen is Google Drive, one would select the **Filesystem - Google Drive** plugin
7. Click on the title of the plugin and change the status to **Enabled**
8. Insert the **API Key** in the **Client ID** and the **API Secret** in the **Client Secret**
9. Fill in an further information as necessary then click **Save & Close**
10. While still at the **Plug-in Manager**, search for and click the **Projects - Files** plugin.
11. Scroll down until you see an option for **Default Action**, and set it to **Connections (view available connections)**.
12. Navigate to a **Project** you would like to setup a new file system
 1. **Note:** You must be a manager of the Project in order for you to set-up the File System
13. Click on **Files** and then click on **New Connection** and choose the file system from the dropdown
14. Choose to bypass the secondary step of connecting to the same API.....

Setting up an External Application (Dropbox, Google Drive, AWS S3)

For using external services via OAuth2 the Hub needs a client identifier and secret for use with that service. The methods of obtaining these values vary from service to service and are subject to change at the provider's discretion. Below are the instructions for setting up a developer application on some services (adapting the instructions with some searching should yield similar results for other services or services that have changed their process in the future).

[Creating an application on Dropbox]

1. Navigate to <https://www.dropbox.com/developers>
2. Sign in using the Dropbox credentials that you would like your Hub (the server itself) to authenticate against, this is usually an account owned by the group or organization.
3. On the left menu, click "My Apps".
4. On the top right, click "Create App".
5. Select the access level you would like to grant your Hub to your users Dropbox accounts.
6. Give the application a name (this name will be displayed to users when they authorize access to their Dropbox account).
7. Read and agree (or disagree) to Dropbox's terms.
8. Click "Enable additional users".
9. In the redirect URIs section, add the URI of "<https://<yourhub.org>/developer/callback/dropboxAuthorize>".
10. At this point you should save the "App key" and show and save your "App secret", you will need to input these on cdmHUB in a later step.
11. You can now click on the branding tab and brand the application to your Hub's needs (adding icons, links to the website, etc.). These are all used when a user is asked to enter their Dropbox credentials on behalf of your Hub.

Dropbox currently limits development accounts to 500 users per id/key, this can be raised by contacting Dropbox support and applying for a production key once that limit has been reached.

[Creating an application on Dropbox]

1. Log in to your Google account and go to the APIs & services
2. Navigate to "Credentials" using the left-hand menu
3. On the "Credentials" page, click "Create credentials" and choose "OAuth client ID"
4. Create "New Credentials"
5. On the "Create client id" page, select "Web application". In the new fields that display, set the following parameters:
 1. Field: Description
 2. Name: The name of your web app
 3. Authorized JavaScript origins:
 1. <https://yourhub.org>
 4. Authorized redirect URIs:
 1. <https://yourhub.org/projects/auth>
 2. <https://yourhub.org/developer/callback/googledriveAuthorize>
 5. Web App Credentials: Configuration
6. Click "Create" to proceed
 1. Your "Client Id" and "Client Secret" will be displayed
7. Save your Client Id and Client Secret to enter into the Connection settings into

"Filesystems - Google Drive" plugin

1. Additional documentation can be found here:

1. <https://cloud.google.com/docs/authentication/api-keys>

Publications

Minting DOI's through DataCite (previously EZID)

DOI (digital object identifier) service is available on the HUBzero platform through integration with DataCite, an international member organization that provides persistent identifiers for data and other scholarly resources. For Purdue, this service is managed locally by the Purdue Libraries. To inquire, contact them at datacite@purdue.edu.

Curation Workflow

Turning on Curation:

1. From the backend, navigate to **Components -> Publications**
2. Click the **Options** button
3. Click the **Curation** tab
4. Select **ON** in the **Curation** field
5. In the **Name of Group of curators** field, type in the CN of the group you want to give curation rights to
6. Optionally, select 1 month in the **Grace period for changes** box if needing to give users the ability to change the publication after it has been published
 1. **Note:** mkAPI will not run until the one month grace period is set.
7. Click **Save & Close** to ensure the changes are submitted

Auto-Approve Publications

If you would like certain users to have their new Publications by pass the Curation steps, you can add them to a list where their Publications are auto-approved. To add users to this list, follow these steps:

1. Navigate to the backend of the HUB and click on **Publications** underneath the **Components** drop-down
2. Inside of **Publications**, click on the **Options** button
3. Click on the **Curation** tab and then insert the usernames of the users who's Publications are to be auto-approved
4. Click **Save & Close** to save the changes

Enabling Databases

To enable databases within Publications:

1. Log onto the administrative backend
2. Go to **Components**
3. Go to **Publications**
4. Go to **Master Types** submenu item
5. Select the checkbox next to the **Database** table row
6. Click the **Edit** Button
7. Find the **Content** block for the **Databases Type**
8. Click the **[Edit]** button next to **Block Elements**
9. Locate the **Type** drop-down, change **file** to **data**
10. Change the **Maximum count** to **1**
11. **Save** the Block Element

Creating a Publication License

1. Navigate to the backend of the Hub and click on **Components** and from the drop-down click on **Publications**
2. Open up the **Licenses** tab and then click the **New** button in the upper right hand corner

of the page

3. Start filling out the **License Information**:
 - a. **Title**: The title of the license
 - b. **Name**: The name of the license, full name if the license is an acronym
 - c. **URL**: The webpage that all the legal license information
 - d. **About**: The background information about this license
 - e. **Content**: The parameters of the license such as what content this license supports
 - f. **Icon**: Path to icon image that lives in the Media Manger on the HUB
4. Once you have filled out the **License Information**, begin filling out the **License Configuration**:
 - a. **Active**: If this license should be automatically published and available on the frontend for users to use after saving
 - b. **Customizable**: Should the license text be customizable for publication authors to edit
 - c. **Agreement required**: Forces publication authors to
5. Once you have finished filling out the information for the license, click **Save & Close**

Selecting a Default Publication License

1. Navigate to the backend of the Hub and click on **Components** and from the drop-down click on **Publications**
2. Open up the **Licenses** tab and locate the **Default** column
3. Locate the license that should become the new default and select the box beside the license title
4. Click the **Make Default** button (star icon) and the license will be made the new default

Publishing/Unpublishing a Publication License

1. Navigate to the backend of the Hub and click on **Components** and from the drop-down click on **Publications**
2. Open up the **Licenses** tab and locate the license you want to publish or unpublish
3. In the **Status** column you can click on the **check-mark** or **cancel sign** to change the status of the license
4. After clicking on the status icon the new status will be automatically saved

Reordering Publication Licenses

1. Navigate to the backend of the Hub and click on **Components** and from the drop-down click on **Publications**
2. Open up the **Licenses** tab and locate the **Order** column
3. Rearrange the licenses by clicking the arrows facing up and down
4. The final ordering you leave the licenses in will appear the same inside of **Publications** on the frontend of the Hub inside the **License** drop-down when creating a new publication

Creating Publication Categories

1. Navigate to the backend of the Hub and click on **Components** and from the drop-down click on **Publications**
2. Open up the **Categories** tab and then click the **New** button
3. Begin filling out the **Category Information**:
 - a. **Name**: The name of the new category
 - b. **Alias**: The shortname of the new category
 - c. **URL Alias**: The URL name for the category
 - d. **dc:type**: The Dublin Core Meta Data type
 - e. **About**: A short introduction describing what type of publication files and content are stored in this category
4. Determine what **plugins** you want to connect to the this new Publication Category
5. Fill out the **Item Configuration**:
 - a. **Status**: Determine if the category is active (publish) or inactive (unpublished)
 - b. **Contributable**: Determine if the category can be contributed to
6. Determine the **Custom Fields** by creating new fields or managing the preexisting files. The fields determine the layout of the Publication overview page:
 - a. **Reorder**: Drag and drop the different field rows to change the order
 - b. **Field name**: Change the name of the field title
 - c. **Input Type**: Determine the amount of text that can be inputted in this field from the drop-down
 - d. **Required**: Check the box to make the field required for the publication author to fill out before publishing the publication
7. Review the information and then click **Save & Close**

Publishing/Unpublishing a Publication Category

1. Navigate to the backend of the Hub and click on **Components** and from the drop-down click on **Publications**
2. Open up the **Categories** tab and locate the license you want to publish or unpublish

3. In the **Status** column you can click on the **check-mark** or **cancel sign** to change the status of the license
4. After clicking on the status icon the new status will be automatically saved

Handling Publication Options

1. Navigate to the backend of the Hub and click on **Components** and from the drop-down click on **Publications**
2. Open up the **Publications** tab and then click the **Options** button in the upper right hand corner of the page
3. Inside the Publication Options, the different areas of Publications can be managed and adjusted as needed:
4. **Defaults:**
 1. **Component ON/OFF:** Turning on or off Publications
 2. **User Contributions Outside of Projects:** Allow users to contribute to Publications outside of Projects
 3. **Email Notifications:** Allow component to send out emails
 4. **Default Category:** Newly created Publications will automatically be defaulted to this category if not selected by the publication author
 5. **Default Publication Thumbnail:** Path to default publication, used as a placeholder
 6. **Default Video Thumbnail:** Path to default video, used as a placeholder
 7. **Default Image Thumbnail:** Path to default image, used as a placeholder
 8. **Default Master Image:** Default image for Publication page cover, used as a placeholder
 9. **Publication Files:** Master path for restoring published data
 10. **URL to Documentation:** URL to page with Publication information
 11. **URL to Terms of Deposit:** URL of Terms of Deposit page on the HUB
5. **Curation:**
 1. **Name of Curators:**(Hub) group members authorized to perform pre-publication curation (all publication types) and manage curation assignment
 2. **Grace Period for Changes:**Allow authors to make changes to a published resource within the grace period after approval
 3. **Auto-approve:**Automatically approve new submissions
 4. **Auto-approved Users:**A comma-separated list of usernames to be auto-approved
3. **DOI Configuration:**
 1. **About DOI Link:** a link to an explanation of what Digital Object Identifiers (DOI) are [optional]
 2. **DOI Namespace Start:** First part of DOI namespace (what goes right after DOI: and before /, e.g. 10.5072)
 3. **DOI Namespace End:** Hub-specific DOI namespace end (usually 2-3 characters going after /, e.g. F2K)
 4. **DOI Service URL:** DOI service address
 5. **DOI Service User/Password:** DOI Service/Password
 6. **DOI Publisher:** Publisher name (may use full HUB name) for DOI service
 7. **DOI Resolve URL:** URL for resolving DOI's
 8. **DOI Verification URL:** URL for verifying DOI's
 9. **Issue master DOI for Publication?:** Master DOI links to /main page listing all previously

published versions

4. Sections:

1. **Contributors:** Show/Hide the list of authors on publication page
2. **Format Author Display:** Format list of authors on publication page
3. **Ranking:** Show/Hide the ranking
4. **Rating:** Show/Hide the rating
5. **Date:** Show/Hide the date on the publication page
6. **Linked Data:** Show/Hide a link to an OAI-ORE compliant linked data representation in the HTML source for each publications
7. **Citation:** Show example/instructions for citing this publications.
8. **Suggest License:** Allow users to suggest licenses
9. **Citation Format:** Choose format for citations
10. **Supported Tag:** A tag to display to indicate Org supported tools
11. **Supported Link:** A link display to describe Org supported tools
12. **Audience Link:** URL to a page describing audience levels.

5. AIP:

1. **Trusted Digital Repository:** Trusted Digital Repository
2. **AIP Path:** AIP path (for trusted digital repos)
3. **MkAIP Admin Group:** Group of administrators to get notification about archived dataset

Master Types: Editing Block Information

1. Navigate to the backend of the **HUB** and click on the tab **Components**
2. From the drop-down click on **Publications**
3. Inside of **Publications**, click on the tab **Master Types**
4. Click on the name of the Master Type that you want to edit block information in
5. Locate the **Block** you wish to edit
 1. A Block is a section of the Publication that holds information about the materials being published (i.e. description, abstract, etc.)
6. Find the **Block Elements** section and click the **Edit** in brackets
7. Change the block information as fit, for example below is a use case of a small issue that occurs in some Master Types with the abstract switching with the description:
 1. In this case the abstract and description mappings are incorrect. There is a section that tells the block which field the Publication versions table what to map from the content block. Here, one would switch the description alias and name from **abstract** to **description** and vice versa.
8. Click **Save & Close** to save these changes

Setting Up Group Association with a Publication

Groups can be associated with a Publication that was not published from a Project owned by any groups. Only one group can be given association rights. Usually a group is associated with

a Publication if the group contributed materials or resources that helped with the Publication's development or if the group helped fund this Publication. To set up the ability for users to associate groups with their Publications, follow these steps:

1. Navigate to the backend of the Hub
2. Hover over **Components** and click **Publications** from the drop-down
3. Inside of **Publications** click the **Master Types** tab
4. Click the title of the **Master Type** that you want this feature to be enabled on
5. Under the section called **Blocks and Configuration** locate the **Authors** block
6. Locate the *Show group ownership and allow to be assign group ownership* and change the drop-down to be **Yes**
7. Click **Save & Close** and this feature will be enabled on this **Master Type**
8. Enable this on each Master Type that you wish for this feature to be enabled

Can attaching a license to a Publication be made optional?

Yes, it can be set up in specific Master Types:

1. Navigate to the backend of the Hub
2. Hover over **Components** and select **Publications** from the drop-down
3. Select **Master Types** tab
4. Select the Master Type you would like to manage this setting
5. Inside the Master Type locate the **License** block and change "Input required" to **No**
6. Click **Save & Close**

Setting up minting DOIs as optional for a Publication

It can be set up in specific Master Types:

1. Navigate to the backend of the Hub
2. Hover over **Components** and select **Publications** from the drop-down
3. Select **Master Types** tab
4. Select the Master Type you would like to manage this setting
5. Inside the Master Type locate the **Curation Configuration** block and change "Require DOI" to **Offer choice to publish with DOI or post without DOI**
6. Click **Save & Close**

Batch Create

1. Navigate to **administrator** on the Hub
2. Hover over **Components** and select **Publications** from the drop-down
3. Select **Batch Create** tab
4. Select a project you would like to create publications in
5. Underneath **Data**, click **Choose File** and upload a .xml file with the publications.
6. Make sure the .xml file follows the schema provided by the link on your hub

7. Click **Process data** and review the record to add to the database as there may be errors.
8. After verifying the data is correct, click the **Create record(s)** button

DataCite

DataCite MDS API Application

The DataCite Metadata Store (MDS) API[1] is going to be used for Hub dataset Digital Identifier Object (DOI) and corresponding metadata creation and update.

1. Introduction

The DataCite Metadata Store (MDS) API is the default API for registering DataCite DOIs and associated metadata. Below shows the requirements for using the MDS API.

- (1) The API requires authentication. If your hub or university is member of DataCite and has DataCite credentials then you can configure DataCite to mint DOIs for your hub's publications and tools. DataCite also has a [testing guide](#) to help with troubleshooting.
- (2) DataCite assigns the DOI prefix.
- (3) DOI request needs to transfer through HTTPS.
- (4) HTTP basic authentication is performed in the DataCite Metadata Store API usage.

2. DOI register

The DOI registration takes two steps, first is to register DOI metadata, and second is to register the DOI name and dataset URL.

2.1 Registering DOI metadata

The DOI metadata for dataset includes title, author, dates, description, and so on. All the metadata that a hub collects for a dataset shows in table 1. Metadata element Identifier

Creators/creator/creatorName
nameIdentifier

titles/title

Explanation

Identifier type is doi, and the value of identifier is the doi.

Author(s) of the dataset
nameIdentifierScheme is ORCID? and value is the ORCID.

Name of the dataset.

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publisher	Holder of the dataset
publicationYear	The year when the dataset is published
Contributors/contributor/contributorName	Project leader's name
dates	There are two metadata elements, one is when dataType is Valid, the value is the date when the dataset is submitted on the hub; Another is when the datatype is Accepted, the value is the date when the dataset is approved for publish on the hub.
language	It is set to en by default
resourceType	resourceTypeGeneral is set to the resourceType designated by the hub. The value is the resourceTypeTitle.
RelatedIdentifiers/relatedIdentifier	relatedIdentifierType is DOI, relationType is IsNewVersionOf, and the value is the relatedDoi, which is DOI of the resource that reference this dataset.
version	Publication version
rights	The license that user selects in the dataset submission workflow on the hub
Descriptions/description	DescriptionType is Abstract, and the value is the abstract of the dataset

The metadata elements in table 1 are saved in xml format as showing below.

```
<resource xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://datacite.org/schema/kernel-4"
xsi:schemaLocation="http://datacite.org/schema/kernel-4
http://schema.datacite.org/meta/kernel-4.1/metadata.xsd">
```

```
<identifier identifierType="DOI">doi</identifier>
```

```
<creators>
```

```
<creator>
```

```
<creatorName>name 1</creatorName>
```

```
</creator>
```

```
<creator>
```

```
<creatorName>name 2</creatorName>
```

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</creator>

<creator>

<creatorName>name 3</creatorName>

</creator>

<creator>

<creatorName>name 4</creatorName>

<nameIdentifier nameIdentifierScheme="ORCID">orcid goes here</nameIdentifier>

</creator>

</creators>

<titles>

<title>title</title>

</titles>

<publisher>YOUR HUB's NAME</publisher>

<publicationYear>year</publicationYear>

<contributors>

<contributor contributorType="ProjectLeader">

<contributorName>name</contributorName>

</contributor>

</contributors>

<dates>

<date dateType="Valid">date</date>

<date dateType="Accepted">date</date>

</dates>

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```
<language>en</language>

<resourceType resourceTypeGeneral="Dataset">Datasets</resourceType>

<version>1.0</version>

<rights>Attribution 3.0 Unported</rights>

<descriptions>

<description descriptionType="Abstract">

Description goes here

</description>

</descriptions>

</resource>
```

All the metadata elements conform to the DataCite metadata schema [2] standards.

The MDS API can generate random DOI name when prefix is included in the metadata registration. The identifier in the metadata xml can be left empty in this case.

The curl package can be used to submit the metadata to MDS service, see example below. Note that the **[PREFIX]** would need to be replaced with your hub's DataCite prefix.

```
curl -H "Content-Type:application/xml;charset=UTF-8" -X PUT -i --user username:password -d
@[PREFIX].xml https://mds.test.datacite.org/metadata/10.5072
```

The response to the call above is OK (**[PREFIX]**/XXXX-XXXX). We need take the DOI out from there and use for further process.

The identifier value in the metadata xml on DataCite will be replaced by the DOI name that is created in this step.

The DOI is set to Draft state [3] after the metadata are registered.

1.2.2 Registering the URL

The second step is to register the DOI name and the URL that refers to the dataset. Below is an example of the curl command. Note that DOI name and URL to the dataset is included.

```
curl -H "Content-Type:text/plain;charset=UTF-8" -X PUT --user username:password -d
'$doi=[PREFIX]/0000-03VCnurl=http://example.org/publications/1'
https://mds.test.datacite.org/doi/10.5072/0000-03VC
```

The DOI transits from Draft state to Findable state after the DOI name and URL is registered.

Below table includes the endpoint and other useful information that need to use in the DOI registration in production. The endpoint, prefix, username and password need to be configured on the admin interface for any development and production environments.

	Value
DOI prefix	[PREFIX]
MDS production endpoint	https://mds.datacite.org

2. Update DOI Metadata Records

Update the DOI metadata is the same as storing a new version of the DOI metadata. According to the MDS API document, we need to issue a post of the metadata xml to DataCite. Below is an example on what the curl command should look like for such operation.

```
$ curl -H "Content-Type: application/xml;charset=UTF-8" -X POST -i --user username:password
-d @[PREFIX]/JQX3-61AT.xml https://mds.test.datacite.org/metadata
```

Reference list

1. <https://support.datacite.org/docs/mds-api-guide>
2. <http://schema.datacite.org/>
3. <https://support.datacite.org/docs/doi-states>
4. <https://support.datacite.org/docs/testing-guide>

1. Navigate to **/administrator** and login to the backend of the Hub
2. Click on **Components** and then select **Publications**
3. Click on **Options** and then click on **DOI Configuration**
 1. Note: You will only be able to access the Options button if you are a super user.
4. Locate *Enable DataCite or EZID DOI Service* and select from the drop-down the appropriate option
 1. Note: When the "DataCite" is selected, the DataCite DOI service is activated and only DataCite related options on the configuration form are going to show up. When "EZID" is selected, EZID DOI service is activated and only EZID related options on the configuration form are going to show up. When "None" is selected, all options related to DOI service will be hidden. When users publish a dataset in this case, a message saying that "No DOI service is selected and please contact site administrator" is popping up.
5. Click **Save & Close**

Resources

Creating a Resource

1. Log in to the backend of the Hub, hover over the *Components* tab and click **Resources**
2. Click **New** to create a new Resource
3. In *Details* insert the following details about the Resource
 - a. **Title**: This is the name of the Resource that users will see.
 - b. **Type**: The type is the classification of the Resource.
 - c. **Alias**: The title of the Resource that is used in the URL.
 - d. **Location**: The place where the Resource can be found.
 - e. **Time**: This is the creation date of the Resource.
 - f. **Canonical**: A separate URL can be added to the Resource to connect a separate URL or link to the Resource.
 - g. **Intro Text**: This is the basic information of the Resource or the abstract of the Resource.
 - h. **Main Text**: This is the main section of the Resource information.
4. In *Contributors* insert the authors of the Resource by inputting their User ID, name, or username and click **Add**
 - a. **Removing an Author**: Click the trashcan beside the user's name or **Delete** icon to remove the user as an author on the Resource.
 - b. **Changing the Affiliation**: Click in the **Affiliation** text box and type in a new affiliation or title that labels how this user is affiliated with the project, for example Researcher.
5. In *Publishing* insert the following details about the state of publishing for the Resource
 - a. **Standalone**: Check the box to make the Resource easier to find or uncheck the box to disable that access.
 - b. **Status**: This is the state of the Resource and it's availability to the Hub.
 - i. **Draft (user created)**: The Resource is in the process of being created by a user.
 - ii. **Draft (internal)**: The Resource is in the process of being created by an administrator on the back-end of the Hub.
 - iii. **Pending**: The Resource is waiting for approval by an administrator of the Hub.
 - iv. **Unpublished**: The Resource is not available to the front of the Hub.
 - v. **Published**: The Resource is available to the front of the Hub.
 - vi. **Deleted**: The Resource has been deleted from the front of the Hub.
 - c. **Group**: Select a group on the Hub to add the resource to the group.
 - d. **Access Level**: This determines what users can access the Resource.

- i. **Public:** The Resource is available to all users of the Hub and visitors of the Hub.
 - ii. **Registered:** Only registered users of the Hub can access the Resource.
 - iii. **Special:** Only administrators can view the Resource.
 - iv. **Protected:** The Resource's abstract can be viewed, but only group members can access the files. A group must own the Resource
 - v. **Private:** The Resource is only visible to group members. A group must own the Resource.
- e. **Change Creator:** The drop-down can be used to change the creator to another user of the Hub or administrator.
 - f. **Start Publishing:** The date that the Resource was published on the Hub.
 - g. **Finish Publishing:** The date that the Resource was unpublished from the Hub.
 - h. **Hits:** This is a number totaling all of the times a user has read to used a resource.
6. In **Files** upload the files for the Resource
 - a. **Uploading a File:** Add a file to the Resource by selecting a file and uploading it to the Resource by clicking **Upload**.
 - b. **Changing the File's State:** Select the file and use the drop-down to change the visibility of the file by clicking **Apply**. For example, this allows images added to a Resource the ability to open as an image instead of a download.
 - c. **Create a Directory:** This can create a file to add to the Resource by adding the title of the directory in the text box.
 7. In **Tags** type in words that affiliate the Resource with labels or titles. These tags can connect the Resource with other parts of the Hub or words that can make searches on the Hub easier to locate this Resource
 8. In **Parameters** select the restrictions that can be set on this Resource to limit what is visible, so parts of the Resource that are not filled out can be hidden from users
 - a. **License:** To connect this Resource with a license, type the license in the provided text box.
 9. Review the Resource, then click **Save & Close**

Editing a Resource

1. Log in to the backend of the Hub, hover over the **Components** tab and click on **Resources**
2. Locate the Resource, and check the box of the resource to select it
3. Click **Edit** to edit the content of the Resource
4. Once the content has been edited, click **Save & Close**

Deleting a Resource

1. Log in to the backend of the Hub, hover over the **Components** tab and click **Resources**
2. Locate the Resource that is to be deleted
3. Select the Resource's check box, and then click **Delete**
4. The Resource will be automatically deleted and removed from the Hub permanently

Creating Resource Types

The default list of types may not work for all Resources, thus any Hub administrator can create a Resource Type. This can be done from the administrative backend of the site by following these steps:

1. Log in to the backend of the Hub
2. Navigate to the **Components** tab and then click on **Resources**
3. Once the *Resources Manager* page has loaded, select **Types** from the sub-menu found under the *Resources Manager* title
4. You should now be presented with a list of all the *Main Types* (selected by default). There are multiple categories of types
 1. 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.
5. Click the title of a type to edit it or click **New** from the toolbar on the top right of the page
6. Fill in the title and alias of the new type
7. Select the category of the new Resource Type from the drop-down
 1. Generally it is a best practice to select the **Main Types** option from the drop-down if you want to give users easy access to the new Resource Type.
8. Decide if this resource type can be contributable from the frontend by checking/unchecking the **Contributable** checkbox
9. Add a description in the *Description* text box to describe the new Resource Type
10. Decide what custom fields you wish to have filled in by the user for that resource type
 1. **Field Name:** The name of the field where data about the resource is entered.
 2. **Input type:** Options are single-line text boxes, multi-line text areas, checkboxes, select list (pull down), radio options, pre-defined options (language list, etc.).
 3. **Required:** A field may be required or not. By checking the *Required* box, this field must be filled out by the user in order for them to submit the Resource
11. The *Custom Fields* can be reordered by selecting the multiple lines under *Reorder* and dragging up or down depending on the preferred placement of the fields
12. Add a new custom field by clicking the **Add new row** button under the current fields

13. Click **Save** in the toolbar on the top right of the page
14. New resource types should now be available as a resource option and changes to types should take affect immediately

Creating a Series Resource

A series is a resource type that allows multiple resources to be placed under a **parent** resource. This is especially useful for resources that are related and can be viewed together. Administrators can create these resources on the backend of the Hub.

Create the Parent resource:

1. Log in to the backend of the Hub and under the **Components** tab select **Resources**
2. In the *Resource Manager*, create a new resource by clicking the **New** icon
3. Fill in the new resource details such as the title, location, and text
4. In the type drop down, select **Series** as the new resource type
5. Select the contributors by entering the user's name or user ID and then add them to the list of contributors
6. Fill in the publishing information by selecting the status as **Published**, the group the resource will belong to, access level, creator of the resource, and the publishing dates
7. Click **Save & Close** to save the new resource series

Add the Child resources:

1. In the *Resource Manager*, find the new resource series and click on the **+** under the column *Children*
2. Create a new resource to add under the parent resource or add in previously created resources by clicking **Add existing** and typing in the resource ID, then click **Next**
 2. *Note:* Only add one child resource at a time.
3. After one child has been created, you can continue adding children by clicking **Add Child** under the *Resource Manager: Child Resource*. Repeat the process until you have completed the series
4. View the new Resource series on the frontend of the Hub
 - a. On the Resource, click **Series** and you will be able to view all of the resources under the parent resource.

Search

Installation & First Time Configuration

1. A system administrator must **install the hubzero-solr** RedHat or Debian Package using a package manager such as yum or aptitude
 1. On RedHat: `sudo yum install hubzero-solr`
 2. On Debian: `sudo apt-get install hubzero-solr`
2. To start the service: **sudo service hubzero-solr start OR sudo /etc/init.d/hubzero-solr start**
3. A Hub administrator may configure the Hubzero CMS to use Solr instead of basic search by going to Components > Search > Options > Engine > Apache Solr
4. A Hub administrator must further configure the service by clicking the “Solr” tab in the Search Options. The default parameters will work out-of-the-box for Open Source Hubs. HUBzero Managed Hubs will use the following port-numbering.
 - Development: 2090
 - Stage: 2091
 - Scan/QA: 2093
 - Production: 2093
 - Note: The default configuration should be acceptable. Running Solr on another host, changing the core, the path, or the log path are at the Hub Administrator's own risk.
5. Click **Save & Close**
6. Return to the **Search** and you should see a status page like the one below:
7. If this is the first time the Hub has used Solr as its search engine, the index will need to be filled with current data
 1. This is a lengthy operation during the first run
 2. Unless there is massive data corruption, this will only need to be performed once
 3. To check the progress of the indexing process, you may click on the **Index Queue** tab in the **Administrative Search** interface
8. Once the full index has been built, searching can be completed from the enabled search interfaces

If there were any issues with configuration, please submit a support ticket and the HUBzero team will assist you further.

Maintaining the Index

There should be very little effort needed to maintain the index. Solr maintains the index and the HUBzero CMS will instruct Solr to add, remove, or update records inside of its index.

Solr saves its index on the filesystem of the server which allows the retention of data if the server needs to reboot or the Solr process crashes. This prevents having to rebuild the index from scratch in such events.

IMPORTANT NOTE: Due to the large amount of processing power needed to convert database content into a searchable document and the need to communicate with a system outside of the CMS, changes to the index WILL NOT be reflected immediately. The queue will be worked on a first-in-first-out basis. This means that the oldest item in the work queue will be processed first. The amount of time it takes to perform indexing operations depends on the amount of data contained on the hub. If there is a large amount of content, the time to perform a full index will be greater. Once the full index is built, indexing operations should be noticeably quicker

Plugins

Search plugins allow developers to add support for different component data in the hub. In order to appear in the search index, the plugin must be enabled. This can be accomplished by going to the Administrative backend > Plug-in Manager > [Filter by Type: Search] > and ensuring that the types are enabled. For example Solr will index wiki pages when the “Search Wiki” plugin is enabled.

The plugin provides some necessary information for indexing and other search-related operation. By default, the categories in the search interface correspond with these plugins.

System Search Plugins

In order to keep the search index “fresh”, a couple of new system Events have been made that capture when items using the Relational Class / ORM are created, edited, or deleted. Once the system event fires, it calls an event in the Search - Index plugin which handles placing the newly-updated data into the processing queue. A migration has been written to ensure that the System - Content plugin and the Search - Solr plugin have been enabled. If you notice that the index is not being refreshed with new content, check that both of these plugins are enabled.

Blacklist

The blacklist allows Hub administrators to “strike” things from the search index. This may be necessary to override If Solr indexes something, it will be reindexed unless it is on the blacklist.

To remove an item from the seach index, go to the Administrative Backend > Component > Search > Search Index and Click on the name of the type of record you would like to remove. Let's say, for example, you needed to remove a Resource.

1. Click **Resource**
2. You will then see all resources indexed by Solr
3. You may use the search box to locate the record
4. Once you locate the record, click **Add to Blacklist**
5. Once the button is pressed, the request to remove the record will be placed into the queue
6. Once the worker processes the record, it will no longer be searchable by anyone

Administration

Restarting Solr

If Solr needs to be restarted, a system administrator can issues the following commands:

1. `sudo service hubzero-solr restart`
2. `sudo /etc/init.d/hubzero-solr restart`

Solr Index CRON Updater

In order to keep the Solr index up-to-date, the CMS will periodically call a routine to process the queue. Although CRON is not the best tool for the job, it will dutifully process the queue every minute if configured. There are plans to develop a background process which will make this process more efficient.

To configure the CRON Task, follow these steps:

1. Navigate to **/administrator**
2. Hover over **Components** and click **Cron** from the drop-down
3. Click **Add a New Task** and set the "Event:" to **Process Queue**
4. The **New Cron Task** should be configured to run every minute

Breadth

The question is “What can I search for?”. The answer is “anything you have access to contained within the list in Search Categories. To see all content within these categories perform a simple query using the wildcard character “*” as shown below.

A better of what is currently inside Solr’s index can be viewed on the administrative backend by going to Components >> Search >> Search Index Tab. The number of index items is located next to each type. Clicking on the name of the hub type will perform a search on that type, displaying all items that are within the index of that type.

For instance, clicking “Resources” shows the following screen:

One can perform additional searching using the “Filter” bar on top of the results listing.

Boosting

Search boosting allows hub administrators to move categories of matching results higher or lower in Solr search results.

Note: your hub must have Solr installed and enabled as boosting only affects Solr search results.

To create a boost follow the steps below:

1. Access your hub's administrator portal
2. Click on Search under the Components drop-down menu
3. Click on the Boosts tab under the component title bar

4. Click on the plus in the upper right hand corner

5. Select a category from the Type drop-down

6. Enter a number for the boost strength
 1. Positive value moves matching results higher
 2. Negative value moves matching results lower
7. Save the boost

1.

1.

1.

Storefront

Overview

There are six main sections that must be completed in order to add a product to the storefront: products, product options, product skus, collections, option groups, and options.

All actions listed here take place in the administrator interface of the hub, similar to <https://hubname.org/administrator>. Proper administrator privileges and logging in are required.

Storefront component can be found by:

1. Log into the administrator interface (/administrator)
2. From the Main Menu point the mouse to **Components -> Storefront**

Some terms that will be helpful:

Control buttons: Always at the top right of a page, but under the logout button. Typical actions include: **Save**, **Save and Close**, **Cancel**, **New**, **Edit**, etc.

Alias: Refers to the short name of a name or title that appears in the URL. Does not usually include numbers or symbols. For example, a collection entitled **Antivirus & Security Software** has an alias of **securitysoftware**

SKU: Stock keeping unit. Specifies a specific product after options have been selected. For example, the product is **ArcGIS**, and there may be many SKUs available: ArcGIS Trial Windows 10, ArcGIS Pro Windows 10, ArcGIS Pro Mac OS 10.4+, ArcGIS Pro Linus, etc.

Creating a Collection

1. From the Storefront administrator interface , click on the **Collections** tab
2. From the control buttons at the top right of the page, click on the **plus icon button (+)** to add a new collection

3. Enter a collection Title and alias and select it to be **Published**

4. From the control buttons click on the star icon to **Save and Close**

Creating a Option Group

1. Click on the **Option Groups** tab
2. Click on the control button with the **plus icon** to create a new Option

3. Enter a Title and select it to be **Published**
4. From the control buttons click on the star icon to **Save and Close**

Creating Options

1. Creating Options
 - Click on the round plus icon in the **Option (Published column)** to create a new
 - Enter a Title and select it to be **Published**
 - Repeat as needed for additional options.

Note: Clicking the number in the options column will display the list of all created options that option group. New option may also be added from that page by clicking on the plus icon control button.

Creating a Product

1. Click on the **Products** tab
2. Click on the control button with the **plus icon button** to create a new product
3. Complete the required fields and any additional fields. Be sure to select the correct options on the right column of the page

option

- From the control buttons click on the star icon to **Save and Close**

4. From the control buttons, click the check icon to **Save** and for the additional options to appear

5. Click on the **Edit type-related options** for the EULA , etc

6. Enter the desired text and if the EULA is required. When complete, click on the **Save and Close** star from the control buttons to return to the Product page

7. Click on the **Save and Close** star again to save and close the product

Creating a SKU

Click on the **Products** tab and then **Click** on the number under the **SKUS** (published) column.

Click the plus icon (+) to create a new **SKU**

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Enter a Title and Price.

Select the individual option created earlier for this specific SKU

Enter an override EULA or any additional product options

In the right column, select the desired options and select the SKU to be **Published**

Specify the download file. **See the section on uploading software files below. Be sure not to include any spaces in, before, after the filename

From the control buttons click on the star icon to **Save and Close**

Note: Clicking the number in the options column will display the list of all created options that option group. New options may also be added from that page by clicking on the plus icon control button.

Uploading Software Files

SFTP access only. Please submit a support ticket to be granted access.

Restricting Products by I2A2 Characteristics

**Currently only for use with the Purdue Authentication plugin.

Setup:

1. Create appropriate access groups under the Members section for a one-to-one relationship with an I2A2 characteristic.
2. Enable the "User - Purdue User Access" plugin.
3. Configure the plugin by pairing an I2A2 characteristic with an access group.
4. Save and close the plugin.

Configuring a product.

1. Edit a product from the Storefront
2. Select the access groups that you wish to have access to this product that are listed on the right side of the page. Selecting multiple checkbox combine the access groups via OR. Selecting an access group of "Students" and "Campus (W. Lafayette)" will allow access to all students with Purdue credentials and everyone on the W. Lafayette campus with Purdue credentials.

Direct SKU Linking

A direct link to a product SKU is available. This link may be shared to allow someone quick access to a specific item's description page. The direct SKU link can be found when editing a SKU in the info box on the top right of the page with a label of "Direct URL:".

Entering list of serial keys for a product SKU

A single serial or multiple serial numbers (or License keys) can be added to be tracked as inventory for a product SKU.

1. Edit a SKU
2. At the bottom right of the page find the "Serial numbers" section.
3. Select single or multiple.
4. Save the page.
5. A "Manage Multiple Serial numbers" button will appear. You may enter serials number via that interface or via CSV upload.

Notes:

The ability to enable to disable inventory tracking for the SKU is not available as tracking is automatically and will deactivate serials numbers as they are distributed.

**A inventory notification threshold should also be set to be notified that an inventory of available serial numbers are low.

Tracking Inventory of SKUs

Tracking or a count down of product SKUs is available.

1. Edit a SKU
2. On the right select the "Track Inventory:" to YES. (if Serial Management is on, this option will not be displayed)
3. Enter a value in "Inventory:" field.
4. Enter a value in the "Inventory notification threshold:" field.

**To receive email notifications when an email address must be entered in the Cart component option field of "Send notifications to".

Restricting a list of usernames for a product SKU

A product SKU may be restricted by a specific list of username.

1. Edit a SKU.
2. Find the "Restrictions" section at the bottom right of the page.
3. Select "Restrict by users:" to YES.
4. Save the page.
5. A "Manage restrictions" button now appears.
6. Enter usernames via the Manage restrictions interface or via a CSV.

Notes. Usernames must exist on the on hub before they can be added to the SKU restriction list. A product access group must also be selected for the SKU's parent product to be able to display in the collection list.

Download / Downloading limiting

The downloading of a SKU can be limited.

When editing a SKU, the "Total Downloads Limit:" will not allow user to download this SKU if the number entered here has been exceed. "Total Downloads" refers to all downloads by all users for the SKU.

When editing a SKU, the "Downloads Limit per Single User:" will not allow a user to download the SKU more than the number entered here.

Support

Tickets

Users can create tickets when they experience a problem on the Hub that is not answered in Questions and Answers or Knowledge Base. Tickets are ways to report bugs or issues that they experienced with the Hub. Administrators are then able to access the Support component to help solve these issues.

Answering Tickets

1. Navigate to <https://yourhub.org/support> and login to the hub
2. Access the **Support and Ticket Tracking System**
3. Select the tickets that are under the open tab on the side of the page
4. Select the ticket that has been unanswered
5. In the Comment Form, add tags to connect the ticket to search engines in the ticket system
6. In the assignee dropdown select your name
 - Note: You can only be an assignee if you have gained ACL access on the back-end of the Hub.
7. Select the severity of the ticket. Critical and major are high priority tickets. Normal tickets are common yet important tickets. Minor and Trivial tickets are low priority
8. Select the status of the ticket from the drop down. Open tickets are unanswered tickets; **Awaiting User Action** holds the ticket until they answer or respond. Closed tickets are listed by the reason they are closed: Answered, Duplicate, Fixed, Invalid, Spam, Transferred, Won't fix, and Works for me
9. Answer or leave a canned response for the user that submitted the ticket. Canned responses allow the assignee to respond using generic responses premade to fit various situation such as: first response, second response, and closing ticket
10. In the bottom box CC any users or other assignees to the ticket to include in the conversation on the ticket, then submit your response

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 include 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 give a report of how the ticket was solved once it is closed. For example if a ticket was answered the resolution would be **Answered** or if the ticket was never answered because the ticket owner did not respond with new information then the ticket could be closed with the resolution **Closed (No Answer)**. This system helps inform the support team or administrators that search through closed tickets the necessary information on why the ticket was closed.

- **Open:** unanswered ticket
- **Awaiting user action:** waiting for user to respond
- **Closed:** ticket has been answered or fixed
- **Answered:** answered question of the user
- **Duplicate:** the issue has already been reported
- **Fixed:** the bug that was reported has been fixed
- **Invalid:** this status is used for testing purposes and spam
- **Transferred:** the issue was an enhancement request and moved to the wish list
- **Won't fix:** no solution to the issue
- **Works for me:** the bug reported is not reoccurring for assignee of the ticket

Tags

The tags allow tickets to be searched and tracked easily. Tags can also serve to inform the support team about the problem without reading through the whole context of the ticket.

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 is specified. Stats shown may also be filtered by group.

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

Access Control Layer (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 permission set for the group. If a user is a member of multiple groups with ACL settings, the highest permissions will take affect.

Individual ACL settings take precedence over any other settings.

ACL Options

1. Navigate to **<https://yourhub.org/administrator>** and log into the backend of the Hub
2. Click on the **Components** tab and then select the **Support** button from the drop-down
3. Inside of **Support**, click on **Options** to view details in the ticket submission process
4. There are three tabs that all define the parameters of tickets and available options for the Hub ticket system
 - a. **Defaults:** displays the front page options when submitting and answering tickets
 - b. **Files:** controls the parameters of how documents and tickets are uploaded
 - c. **Antispam:** controls the words that can be used when submitting tickets to keep spam out of the ticketing system
5. Click **Save** or **Save & Close** to allow the changes that were made in these tabs to be saved on the Hub

Giving ACL Permission

1. Navigate to **<https://yourhub.org/administrator>** and log into the backend of the Hub
2. Click on the **Components** tab and then select the **Support** button from the drop-down
3. Inside of **Support**, click on the **ACL** tab
4. Under all of the available users that have permission for **ACL access**, there is a text box to input alias or ID name
5. Input the name of the new ACL access, then select the sections that the user can have control in
6. Click **Add** to confirm the new ACL access for the user
 - **Note:** Super Administrators automatically receive ACL access and support permissions.

Enabling Email Notification for Abuse Reports

1. Navigate to **<https://yourhub.org/administrator>**, and login as an administrative user on the backend of the Hub
2. Click the **Components** tab and then select the **Support** button located in the drop-down
3. On the **Support: Tickets** page, select the **Options** button in the top-right corner of the page
4. Select the **Abuse Reports** tab
5. Enable notifications to be sent when a report is created by selecting **Yes** from the drop-down
6. Add the email address that the notification should be sent to by inserting it into the **Notify when abuse report created** box
7. Click the **Save & Close** button to save the changes and you will be navigated back to the **Support: Tickets** page

Enabling Privacy/Minimal Information Mode in Support Emails

Ticket content can be protected in emails by enabling privacy/minimal information mode to avoid sending potentially sensitive data. This Support feature complies with FISMA and HIPAA standards on restricting sensitive data.

In order to turn on this feature, follow these steps:

1. Navigate to the backend of the Hub and locate the **Components** tab
2. Click on the **Components** tab and from the drop-down click on **Support**
3. Inside of **Support**, locate the **Options** button
4. Locate Email Content and select from the drop-down the configuration of your choosing
 1. **Terse**: Emails will only contain a notification that the ticket has been updated and removes all sensitive information about the ticket.
 2. **Detailed**: Emails will contain a notification that the ticket has been updated and details about what was updated in the ticket
5. Click **Save & Close** to save the new changes

Tags

Managing Tags

Tags are the Hub's way to highlighting and attaching key words to various content on the Hub. Based off of hashtags, Tags allow users to connect various projects, groups, publications, together by attaching the same tag to each piece of content. When creating or editing an area on the Hub, you will be presented with a field to submit a tag.

You can simply add a tag by typing in the field a word and then click **Enter**. If you wish to remove the tag, hover over the tag and an **X** will appear to the right of the word. Select the **X** and the tag will be removed.

How to Tag Tickets

Tags are essential in tracking tickets in the Support section of the Hub. Track various component requests, broken sections and questions all by adding Tags to a ticket. For example, when testing out a newly added feature or development item, you can tag your support tickets with three tags conveying the information of where, what, and why. The following points define each tag and have a list of examples under each point:

- Where: The first tag should convey where the ticket is coming from.
 - Hub: Hub name
 - Development Environments: QA, dev, production
- What: The second tag should convey what release the ticket involves.
 - Releases: The release number
- Why: The third tag should convey why the ticket is being submitted.
 - Components: projects, collections, groups, super groups
 - Areas: backend, frontend, plugins, menus
 - Reasons: security, scripts, hubupdate

Creating a Tag

1. Log into **/administrator** interface of the Hub
2. Hover over the **Components** tab and from the drop-down select **Tags**
3. Click on the **New** button
4. Check the box if the Tag will be viewable for administrators only or if the new Tag will viewable by all users

5. In the Tag text box write the Tag. Tags cannot have capitalized letters, non-alphanumeric characters, spaces, or punctuation
6. In the Tag description box, write a detailed description of what the Tag represents
7. In the **Alias** box, write in a comma separated list the different Tags that the new Tag will represent
8. Click **Save & Close** to save the new Tag

Deleting a Tag

1. Log into the **/administrator** of the Hub
2. Hover over the **Components** tab and from the drop-down and select **Tags**
3. Under the **Tag** tab, locate the tag that is to be deleted
4. Select the tag by checking the tag's box
5. Once the tag has been selected, click **Delete**
6. The tag will be permanently removed from the Hub

Usage

Overview

Hub usage statistics can be found on the **/usage** page. On this page the amount of user visits, which calculates unique IP address visits identified by residence and organization as a graphic along with downloads, also identified by IP address residence and organization. Tool simulation users and jobs can be collected along with the total wall time, interaction time and CPU time. Usage is collected each month and is a great resource to show community growth.

Usage Breakdown

Usage is a feature that gathers statistics about user registration, tool run, files downloaded and more.

The Usage breakdown can be divided up by these statistics:

- Users - Visits: Amount of visits to the Hub and page hits by public visitors
- Users - Downloads: Files downloaded by the user from Publications, Resources, Project Files, etc.
- Users - Residence: Location defined by a user's profile
- Users - Organization: Organization defined by a user's profile
- Simulation - Users: Total tool users running jobs on the Hub
- Simulation - Simulation Jobs: Total tool jobs run on the Hub
- Simulation - Total CPU Time: Total CPU time used
- Simulation - Total Wall Time: Total wall time
- Simulation - Total Interaction Time: Total time a tool jobs were interacted with
- Simulation - Users with > 10 minutes of CPU Time: Users running more than 10 minutes of CPU time
- Simulation - Avg. Number of Simulation Jobs/User: Average number of simulation jobs per user
- Simulation - Avg. Time between First and Last Simulation: Average time between simulations
- Simulation - Repeat Users with > 10 Simulation Jobs: Users running more than 10 jobs
- Simulation - Repeat Users with > 3 months: Users running jobs for more than 3 months

Usage Maps

The Usage Map provides an outlook on who is currently active and online through out the world. This world view will add a location flag at the GPS location of that user. This location is defined

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by the address and location the user gives in their profile. By clicking on the location flag, one can view the user's profile and location details.

Wiki

Editing a Wiki Page

1. Log into the **/administrator** interface
2. Hover over the **Components** tab and from the drop-down select **Wiki**
3. Locate the wiki page that is to be edited
4. Click on the title of the wiki to open it up
5. Edit the wiki form then click **Save & Close** to save the changes

Deleting a Wiki Page

1. Log into the **/administrator** interface
2. Hover over the **Components** tab and from the drop-down select **Wiki**
3. Locate the wiki page that is to be deleted
4. Check the box beside the wiki title
5. Click **Delete** to deleted the wiki page

Wishlist

Terminology of Wishes

- Active- open wishes where people can vote on the wish
- Accepted- the wish has been accepted and will be activated
- Rejected- the wish will be denied for now
- Granted- the wish is already available or will be in the next update
- Like- voting up the wish
- Dislike- voting down the wish

Creating a Wish

1. Navigate to **/administrator**
2. Hover over **Components** and from the drop-down select **Wishlist**
3. Click the **New** button
4. Fill out the wish form
5. Click **Save & Close**

Editing a Wish

1. Navigate to **/administrator**
2. Hover over **Components** and from the drop-down select **Wishlist**
3. Search for the wish and then click on the wish's title
4. Click the **Edit** button
5. Edit the wish form
6. Click **Save & Close**

Deleting a Wish

1. Navigate to **/administrator**
2. Hover over **Components** and from the drop-down select **Wishlist**
3. Search and then click on the title of the wish
4. Click the **Delete** button and the wish will be deleted

Publishing a Wish

1. Navigate to **/administrator**
2. Hover over **Components** and from the drop-down select **Wishlist**
3. Search and then check the box by the wish's title
4. Click the **Publish** button and the wish will be published

Unpublishing a Wish

1. Navigate to **/administrator**
2. Hover over **Components** and from the drop-down select **Wishlist**
3. Search and then check the box by the wish's title
4. Click the **Unpublish** button and the wish will be published

Newsletters

Overview

Newsletters is a component where Hub Administrators and Managers can create and send newsletters to your Hub's community, either sharing big news or the latest published resource. Newsletters offers Administrators and Managers the option to create a template for the newsletter copy, the opportunity to create a mailing list to send the newsletter to individuals outside of the Hub, and the ability to schedule a newsletter to be sent out at a later date.

Displaying Newsletters on the Hub

1. Log in to the backend of the Hub and navigate to the **Components** tab and then click **Newsletters**
2. Locate the newsletter that is to be published to the Hub, and then select the newsletter
3. Click **Edit** to open up the newsletter and inside the *Newsletter Details* go to **Show Newsletter on HUB**
4. Choose from the drop-down **Show** to publish the newsletter to show on the frontend of the Hub
5. Click **Save & Close** to save the new changes

Creating a Newsletter Template

1. Log in to the backend of the Hub and access the **Components** tab and then click on **Newsletters**
2. Select the **Templates** tab and then click **New** to start a new template
3. Type in the name of the new template
4. Insert the primary title color, primary text color, secondary title color, secondary text color
 - a. The colors are in HTML format. To find more colors and the related HTML codes, go here: <http://html-color-codes.info>.
 - b. Note: If you don't fill in HTML colors, black and gray default colors will be used.
5. Fill in the design by using HTML formatting to the template
 - a. Use the suggestions on the side of the page to add content to the template.
6. Click **Save & Close** to save the new template design

Editing a Newsletter Template

1. Log in to the backend of the Hub and access the **Components** tab and then click on **Newsletters**
2. Select the **Templates Tab** and then check the box to select the template that needs editing
3. Click **Edit** to begin editing the material
4. Click **Save & Close** to save the newly edited content

Deleting a Newsletter Template

1. Log in to the backend of the Hub and access the **Components** tab and then click on **Newsletters**
2. Check the box to select the template that is going to be deleted
3. Click **Delete** to permanently delete the template
4. The template will then be removed from the Hub

Creating a Newsletter

1. Log in to the backend of the Hub and access the **Components** tab and then click **Newsletters**
2. Click on **New** to create a new Newsletter to send out to your users about new updates or news that is happening for the Hub
3. Under *Newsletter Details* fill in the title of the Newsletter or **Name** and the alias, what appears in the URL, of the Newsletter
4. Fill in the issue number of the Newsletter
5. From the drop-down decide what email format the Newsletter will be sent in
 - a. HTML: The Newsletter will be formatted with HTML coding. HTML emails will also auto build a plain text version to send along with the HTML version. This is primarily for avoiding being marked a spammer.
 - b. Plain Text: The Newsletter will be formatted with plain text and no coding.
6. Select the template of the Newsletter
7. Select from the drop-down if the Newsletter is to show on the Hub right away
 - a. You may want to hide private email newsletters or plain text email newsletters from showing on the Hub.
8. Select from the drop-down if the Newsletter is to track the emails
 - a. Learn more about email tracking here: <http://kb.mailchimp.com/article/about-open-tracking>
9. Click **Save** to save the new changes and to add to the Newsletter the content
10. Add the **Newsletter Mailing Details**
11. Insert the main content of the Newsletter in the **Newsletter Primary Stories**
 - a. Title: Title of the article

- b. Order: Order of the Issue
 - c. Story: Content of the Newsletter
12. Insert the **Newsletter Secondary Stories** for content in the sidebar of the Newsletter.
Fill in the same sections of content as the primary stories
13. Click **Save & Close** to save all of the content and to finish the new completed Newsletter

Editing a Newsletter

1. Log in to the backend of the Hub and access the **Components** tab and then click **Newsletters**
2. On Newsletter main page, select the box beside the Newsletter that is going to be edited
3. Click **Edit** to begin editing the Newsletter
4. Click **Save & Close** to save the newly edited content

Deleting a Newsletter

1. Log in to the backend of the Hub and access the **Components** tab and then click **Newsletters**
2. On the Newsletter main page, select the box beside the Newsletter that is going to be deleted
3. Click **Delete** to permanently delete the Newsletter from the Hub

Copying a Newsletter

1. Log in to the backend of the Hub and access the **Components** tab and then click **Newsletters**
2. On the Newsletter main page, select the box beside the Newsletter that is going to be copied
3. Click **Copy** to copy the Newsletter selected
4. The Newsletter and all its stories or content will be copied

Default Mailing List

There is a default mailing list of every user who has agreed to receive emails from the Hub. This mailing list is updated with new users who have modified their settings or who have been blocked every time a new mailing is created. To send a newsletter to the default mailing list, follow these steps:

1. Navigate to the **/administrator** interface
2. Hover over **Components** and from the drop-down select **Newsletter**
3. Click the checkbox next to the newsletter you wish to send
4. Click the **Send** button in the toolbar
5. Select the **Default** mailing list and determine the time when you want the newsletter to be sent
6. Click the **Send** button in the toolbar and your newsletter will be sent to the users who opted in at the time you selected

Creating a Mailing List

1. Log in to the backend of the Hub
2. Navigate to the **Components** tab and click on **Newsletters**
3. Under the Newsletters, click the **Lists** tab
4. Click the **New** button to start a creating a new mailing list
5. Fill in the name of the mailing list, and then choose if the mailing list is going to be private or public
 - a. **Private**: Must be invited to join list.
 - b. **Public**: All Hub visitors can view the mailing list and can choose to join the mailing list.
6. Fill in the description describing the purpose of this mailing list and indicate what types of mailings this list will receive
7. Click **Save & Close** to save the basic details of the mailing list

Adding Emails to a Newsletter Mailing List

1. Log in to the backend of the Hub
2. Navigate to the **Components** tab and click on **Newsletters**
3. Under the Newsletters, click the **Lists** tab
4. Select the mailing list that you would like to add emails to, then click the **Manage** button (person icon) in the top right
5. Inside the list, click **Add Emails** to add emails to the mailing list
6. Determine if the user will be prompt into confirming the email or not having to confirm the email
7. If all the emails are stored in an Excel file, upload the file and all the emails inside will be

- added to the list, or select the group from the Hub to add their emails to the mailing list
8. If any extra emails need to be added to the mailing list, manually enter them into the *Enter Emails Here* text box. Leave a comma after each email
 9. Save the content by clicking **Submit**

Mailing Statistics Overview

1. Log in to the backend of the Hub and navigate to the **Components** tab and then click **Newsletter**
2. Select the **Mailings** tab in the Newsletter component
3. Select the newsletter the previously submitted mailings and then click **Stats** to access the statistical report collected from the mailing
4. Inside the mailing statistics, you can view the follow details:
 - a. **Open Rate:** The percentage and total of viewers out of how many emails sent out.
 - b. **Bounce Rate:** The percentage of emails that bounced back, thus the user did not receive the email.
 - c. **Forwards:** The number of times viewers forwarded the Newsletter.
 - d. **Prints:** The number of times viewers printed off the Newsletter.
 - e. **Top Locations:** The top countries with the most Newsletter viewers.
 - f. **World Map:** A total count for each country highlighted on a global map of Newsletter viewers. Hover over each country to view the number of who opened the Newsletter.
 - g. **Click throughs:** The number of times views clicked a link in the Newsletter.

Publishing a Newsletter

1. Log in to the backend of the Hub and access the **Components** tab and then click **Newsletters**
2. Under the **Newsletters** tab, select the box beside the Newsletter that is going to be published
3. Click **Publish** to publish the Newsletter
4. The Newsletter will appear on the frontend for all users to see

Un-publishing a Newsletter

HUB MANAGERS

1. Log in to the backend of the Hub and access the **Components** tab and then click **Newsletters**
2. Under the **Newsletters** tab, select the box beside the Newsletter that is going to be unpublished
3. Click **Unpublish** to unpublish the newsletter
4. The Newsletter will then be unpublished from the Hub

Knowledge Base

What is the knowledge base?

The knowledge base houses helpful articles and frequently asked questions. Hub managers can add their own hub specific articles to help their community understand how to use the features.

Creating Knowledge Base Articles

1. Navigate to the **Knowledge Base** under the Component tab
2. Select the tab **Articles**
3. Select **New** to create a new article
4. Select the category or sub category where the article will be located
5. Fill in the title, URL alias, the body containing the article, and tags to connect the article for easy search
6. Under **State**, select if the article is to be published to the Hub and the access level from the dropdown
7. Select the parameters on what sections of the article that the users can view
8. Select the **Save & Close** to save the new article

GeoSearch

How to Activate GeoSearch

GeoSearch is a component that allows users to view other members, organizations, events, and even job postings on one map. Users can scroll over each pin and click a link to view the pin in more detail.

1. Log into the administrator side of the Hub
2. Go to **Extensions** and click **Plugin Manager** from the drop-down
3. In the Plugin Manager search for **CRON - GeoSearch**
4. Open the plugin and then enable the plugin
5. Click **Save & Close** to save this change
6. In the Plugin Manager search for **Geocode – Google Maps**
7. Enable this plugin before moving on to the next step
8. Navigate back to the main page of the administrative side of the Hub
9. Go to **Components** and select **CRON** from the drop-down
10. Inside of the component CRON, click the **Add** button in the upper right hand corner of the screen
11. Select the **Event** of the new CRON job to be **Cron-Geosearch: Get Location Data From Sources** from the drop-down and then add the name of the new CRON job to match the name of the event
12. Select the **Frequency** of the job to be **Once a day, midnight**
 - a. This is suggested to prevent overrunning Google Maps API request limit.
13. To save this new job, click **Save & Close**
14. Enable the new CRON job and then manually **Run** the job
15. Navigate to the **GeoSearch** main page and refresh the page

Billboards

Overview

Billboards is a component that allows you to create a carousel effect on your home page. Slides can be designed with an image in the background and a short piece of text that goes over the image. Many use this feature to promote [Super Groups](#) or popular [Tools](#).

Uploading an Image

1. To upload an image, open the **Billboard** you would like to edit
2. Click **Upload Image**, located underneath the **Background Image** field
3. Click the **Browse** button located on the bottom of the **Media Manager** pop-up, and locate and select the picture you would like to upload
4. Click **Start Upload**. You should then see your picture appear as an option
5. Copy the file name and paste it into the **Background Image** field

Blogs

Backend Blog Manager Overview

- **Published** - this icon means that the blog post can be viewed on the frontend of the hub.
- **Unpublished** - this icon means that the blog post cannot be viewed on the frontend of the hub.
- **New** - this button allows you to create a new blog post.
- **Edit** - this button allows you to make changes to a blog post.
- **Delete** - this button allows you to delete a blog post.

Creating a Blog Post

1. In the backend, navigate to **Blog** under the **Components** tab
2. On the **Blog Manager**, click the **New (+)** button in the top right to create a new blog post
3. In the details of the blog post, select the scope. The scope is the location of the blog either on the site, member, or group. If you're creating a group blog, select the group that the blog should belong to from the drop-down
4. Fill in at least the title and content for the blog post
5. In the publishing options of the blog post, select the state of publishing from the drop-down, the dates of when the blog is available, and if you would like to allow comments on the post, check the box for **Allow comments**
6. Click **Save & Close**

Editing a Blog Post

1. In the backend, navigate to **Blog** under the **Components** tab
2. Find the blog post you would like to edit and click on its title to open the post
3. Edit the content of the post
4. Click **Save & Close** to save the newly edited content

Deleting a Blog Post

1. In the backend, navigate to **Blog** under the **Components** tab
2. Find the blog post you would like to delete and click on the check box for that blog post
3. Click on the **Delete** button symbolized by a trashcan and the blog post will be deleted

Publishing a Blog Post

1. In the backend, navigate to **Blog** under the **Components** tab
2. On the **Blog Manager**, select the location of the blog post from the following tabs: site, members, or groups
3. Find the unpublished blog post you would like to publish and click on the checkbox next to it to select it
4. Click **Publish** and the selected blog post will be visible to users

Unpublishing a Blog Post

1. In the backend, navigate to **Blog** under the Components tab
2. On the **Blog Manager**, select the location of the blog post from the following tabs:
 - site
 - members
 - groups
3. Find the published blog post you would like to unpublish and click on the checkbox next to it to select it
4. Click **Unpublish** and the selected blog post will be no longer be viewable on the front-end

Cart

Overview

All actions listed here take place in the administrator interface of the hub, similar to <https://hubname.org/administrator>. Proper administrator privileges and logging in are required.

Cart component can be found by:

1. Log into the administrator interface (**/administrator**)
2. From the Main Menu point the mouse to **Components -> Cart**

Receiving notifications

In the Cart component options, enter a email address or a comma separated list of emails to the "Send notifications to " configuration option to receive email notifications.

Software Downloads - All Downloads

Product, Downloaded by, User Info, EULA, Downloaded date, IP, and Status can be viewed. A CSV can also be downloaded.

A SKU's status may be manually updated to "inactive" if another "active" download of that SKU needs to be made available. This only apply when limitations are configured for downloads. For example, if a user is only allow to download a SKU once, but report that there was an issue with the download an administrator may make the previous download as inactive to allow for another download of that SKU.

History is retained for each record in this report. If a user changes status, the new status will not be updated in previous download records.

Software Downloads - SKU

Product and Downloaded count can be viewed. A CSV can also be downloaded.

Orders - All orders

Order ID, Order total, Items ordered, Order placed date, and Purchased by, can be viewed. A CSV can also be downloaded.

Orders Items ordered

SKU ID, Product Description, QTY, Price, Order ID, Order placed date, and Purchased by may be viewed. A CSV may also be downloaded.

Citations

Deleting a Citation

1. In the backend, navigate to **Citations** under the Components tab
2. Find the citation to be deleted, and click on the check box for that citation
3. Click on the **Delete** icon on the top of the page and the selected citation will be deleted

Collections

Module for Collecting

The hub comes with a module, **mod_collect**, for collecting a number of content types on the hub: resources, wiki pages, forum threads, courses, publications, and content articles. This module can be enabled via the administrative Module Manager. Once the module is enabled, a **Collect** button will appear on the single **view** pages for the various types of content. Users can then collect resources, wiki pages, etc. The collected material will be saved as a post with a link back to the original content.

Collectible content types:

To enable the module:

- Wiki pages
- Forum threads
- Courses
- Resources
- Publications
 1. Navigate to **<https://yourhub.org/administrator/>** and login as an administrative user
 2. In the backend, under the **Extensions** tab, select **Module Manager**
 3. Find the module, and then select the module by clicking the small check box
 4. Once the module has been selected, click **Enable** to enable the module
 5. The module will now be active on the hub and users will be able to collect content for collections

Editing Collection Items

Note: You have to be logged into your hub in order to complete the following tasks

1. Navigate to **<https://yourhub.org/administrator/>**
2. Locate the **Components** tab and then select the **Collections** button located in the drop-down
3. On the Collection page, click the **Items** tab
4. Locate the item and then check the box beside the title of the item
5. Click the **Edit** button to edit the item
6. Make the changes to the item and then click **Save & Close** to save the changes and you will be navigated back to the Collection: Items page

Courses

Creating a Course

1. On the **/administrator** interface, navigate to **Courses** under the Components tab
2. At the top of the Courses panel, click the **+** sign to add a new course
3. Fill in the details of the course. (See below for field/option descriptions.)
4. Click on the drop-down section under **Publishing**, and determine if you want your course to be a **Draft** or **Published**
5. Click on **Save** to save the work that you have completed. You can only further edit your course, such as add an image or managers, after you have saved the initial details
6. Under the Managers area, add course administrators (Instructors, Managers, etc.)
7. Under the Image area, add a course image by dragging an image file into the upload box
8. Click **Save & Close** to save all the details of the course and to go back to the Courses main page, where your course will now be listed

Field/Option Descriptions

- **Course Alias:** Your course alias. This will be part of the URL.
- **Course Title:** The official name of your course. This name will be what users see when browsing the hub.
- **Interests (tags):** Helps categorize your course in search results. These tags can help your course be discovered more effectually.
- **Blurb:** A short description of the course.
- **Description:** A longer description of the course. Here you can personalize what the goal or concept is in further detail to your students.
- **Unpublished:** The course is taken off the front end of the hub.
- **Published:** The course can be found in the front end. Anyone can find the course through searches.
- **Draft:** The course is being drafted. The course is accessible only to course administrators. This allows instructors and managers to build a course before it is available to students.
- **Deleted:** The course is deleted permanently. Once a course is deleted nothing can be retrieved from the course after this action.

Creating Course Overview Pages (tabs)

1. In the backend, navigate to **Courses** under the Components tab
2. Find your course in the list. Under the **Pages** column, click on the **+** sign to add a new

page

Note: If there are already existing pages, you will see a number in place of the + sign.

3. Enter the title, URL, and content into the page details. In the published parameters choose **Yes** to make the page active on the **Course Overview**

Note: Note: A new page must be saved before files can be uploaded.

4. Click **Save & Close** and your new page will appear in the course pages list in the backend. On the frontend, your new page will show as another tab in the Course Overview

Opening up Enrollment into a Course

1. In the backend, navigate to **Courses** under the Components tab
2. Locate the course and click the number of offerings for that course in the **Offerings** column
3. Locate the offering and click the number of sections for that offering in the **Sections** column
4. Click the section's title
5. Under the **Details** tab, locate **Enrollment** and select a response from the drop-down
 - a. **Open (anyone can join):** Any user on the Hub can join this section of the course.
 - b. **Restricted (coupon code is required):** Only users with a coupon code can gain access to this section of the course.
 - c. **Closed (no new enrollment):** This section of the course is closed and cannot be accessed by new students.

Editing Parameters in an Offering

1. In the backend, navigate to **Courses** under the Components tab
2. Locate the course and click the number of offerings for that course in the **Offerings** column
3. Locate the offering and click the title
4. Locate the **Parameters** section and select the parameters for **Progress Calculation**
 - **Inherit from course defaults-** means that all of the parameters preset on the hub will be the same for this offering.
5. Click **Save & Close** to save the parameters for that offering

Editing Parameters in a Section

1. In the backend, navigate to **Courses** under the Components tab
2. Locate the course and click the number of offerings for that course in the **Offerings** column
3. Locate the offering and click the number of sections for that offering in the **Sections** column
4. Click the section's title
5. Under the **Details** tab, locate the **Parameters** section and select the parameters for **Progress Calculation**
 - **Inherit from course defaults**- means that all of the parameters preset on the hub will be the same for this section.
6. Click **Save & Close** to save the parameters for that section

Editing Discussion Parameters

1. In the backend, navigate to **Courses** under the Components tab
2. Find the course and then click the number in the **Offerings** column
3. Locate the offering and click the number of sections for that offering in the **Sections** column
4. Click the title of the section that you would like to change the discussions settings in
5. Under the **Details** tab, locate the **Discussions Parameters** area. In the drop-down, choose **All sections** to show discussion threads across all sections in this offering, or choose **This section only** to show discussion threads only by this specific section
6. Click **Save & Close** to save the changes to the parameters

Deleting Assets

Note: You must be logged into your hub in order to complete the following tasks.

1. Click the **Components** tab and then select the **Courses** button located in the drop-down
2. On the Courses page, locate the course
3. After locating the course, under the **Offerings** column, select the number of offerings
4. On the Courses: Offerings page, locate the offering

5. Locate the **Units** column and select the number of units
6. Locate the Unit, then under the **Asset Groups** column select the number of under the column
7. Inside **Asset Groups**, check the box of the offering
8. Click the **Delete** button to permanently remove the content and asset from the course
9. A pop-up will appear asking **Are you sure you want to remove these items?**
10. Proceed to click **OK**, and the items will be removed from the course

Creating Certificates

Note: You must be logged into your hub in order to complete the following tasks.

1. Click the **Components** tab and then select the **Courses** button located in the drop-down
2. On the Courses page, locate the course
3. After locating the course, under the **Cert.** or certificate column click on the **No Certificate Set** button
4. On the **Courses: Certificate: Create page**, upload a PDF certificate file by choosing the

file from your files and then clicking **Upload**

5. Once the file is uploaded, a preview will appear
 - a. The preview is where you can place, drag, and resize various placeholders for elements such as the user's name, course name, etc. to be dynamically filled in when a certificate is claimed.
6. Click the **Save & Close** button in order to navigate back to the Courses page

Deleting Certificates

Note: You must be logged into your hub in order to complete the following tasks

1. Click the **Components** tab and then select the **Courses** button located in the drop-down
2. On the Courses page, locate the course
3. After locating the course, under the **Cert.** or certificate column click on the **Certificate Set** button (checkmark icon ?)
4. On the **Courses: Certificate: Create** page, click the **Delete** button
5. Click the **Save & Close** button in order to navigate back to the **Courses** page
6. A pop-up will appear stating **Entry successfully removed** and you will be navigated back to the Courses page

Changing Deployment Time

Note: You must be logged into your hub in order to complete the following tasks.

1. Click the **Components** tab and then select the **Courses** button located in the drop-down
2. On the **Courses** page, locate the course
3. After locating the course, under the **Offerings** column, select the number of offerings
4. On the **Courses: Offerings** page, locate the offering
5. Locate the **Sections** column and select the number under the column
6. Check the box of the section, and then click the **Edit** button
7. In the **Courses: Sections: Edit** page, select the **Dates/Times** tab
8. Locate the course asset and set a date and time for the content of the asset, which is usually in the third tier inside the asset group
 - a. Example: Exam> Exam 1> Exam1
9. Set the date and time by clicking the **From** and **To** boxes to access the time pop-up
10. Save the changes by clicking **Save & Close** and a pop-up will appear saying **Entry successfully saved**

Display Number of Users Enrolled in a Course

Note: You must be logged into your hub in order to complete the following tasks.

1. Click the **Components** tab and then select the **Courses** button located in the drop-down
2. On the **Courses** page, select the **Options** button in the top-right corner of the page
3. Under the **Defaults** tab, locate the **Show Enrollment Numbers** option at the bottom of the pop-up
4. Select between **Yes** to show enrollment numbers or **No** to not show enrollment numbers from the drop-down
5. Click the **Save & Close** button to save the new setting and exit out of the pop-up

Course Presentations: HUB Presenter

Hub Presenter is a presentation formatting section available to upload large video files inside of Courses. An administrator with privileges to workspace is the only one who can upload these presentation files.

1. Navigate to the HUB and go to **hubname.org/resources**
2. Create a new Resource and make the category **Online Presentations**
3. Fill out the information needed for the Resource and then navigate to the backend of the HUB to make sure that the Resource is **Published**
4. Then, navigate to the HUB **Workspace** and **ssh** into your HUB account
5. Upload the videos & slides of the presentation
 1. Note: Slides must be uploaded in order by appearance as individual images (.jpg) in a zipped folder called Slides, the video must be uploaded as a .webm,

.mp4, and a .ogv

1. Example: media.webm/media.mp4/media.ogv

6. Create a folder called **/slides** and then navigate to /hubname/app/site/resources/XX-XX-XXXX/slides and upload all image slides as a .zip file

1. Note: "XX-XX-XXXX" is the date of when the resource was created

7. Listed below is an example of the presentation layout:

```
{
  "presentation": {
    "title": "Career Development",
    "type": "Video",
    "media": [
      {
        "source": "media.mp4",
        "type": "mp4"
      },
      {
        "source": "media.webm",
        "type": "webm"
      },
      {
        "source": "media.ogv",
        "type": "ogv"
      }
    ],
    "slides": [
      {
        "title": "Career Development",
        "type": "Image",
        "media": "slides/001.01.jpg",
        "time": "0",
        "slide": "1"
      },
      {
        "title": "Career Development",
        "type": "Image",
        "media": "slides/001.01.jpg",
        "thumb": "slides/001.01.jpg",
        "time": "8.5752419085752418",
        "slide": "1"
      },
      {
        "title": "Your Career Choices after Graduate School and The Most-Neglected Item in
your Career Development",
        "type": "Image",
        "media": "slides/002.01.jpg",
```

```
    "thumb": "slides/002.02.jpg",
    "time": "50.417083750417085",
    "slide": "2"
  },
  {
    "title": "Your Career Choices after Graduate School and The Most-Neglected Item in
your Career Development",
    "type": "Image",
    "media": "slides/002.02.jpg",
    "time": "64.7313980647314",
    "slide": "2"
  },
  {
    "title": "Questions? I Might have replies....",
    "type": "Image",
    "media": "slides/046.01.jpg",
    "thumb": "slides/046.01.jpg",
    "time": "4506.6733400066732",
    "slide": "46"
  }
]
}
```

?

Setting a Course in Preview Mode

You can set a course offering to give users a preview from the administrator interface.

1. Navigate to /administrator for your hub and login
2. Click on "Courses" under "Components"
3. Locate the course where you want to enable preview mode, and click on the number of offerings
4. Then click on "Sections" for that offering
5. Click on the title of the offering
6. Under "Parameters" change "Preview mode" to "Yes, offer a full preview" or "Yes, offer a preview of the first unit."
7. Click "Save & Close"

Cron

Cron Jobs

A complete list of available Cron jobs that can be set up that work with other components and sections of a Hub.

Cron- Activity: Cron events for activity feed. Sends email digests at designated intervals to users containing their recent activity on the Hub.

Cron – Cache Handler: Cron events for Hub cache. Removes old system CSS files and trashes expired cache data at designated intervals.

Cron – Courses: Cron events for courses. Runs a specific job(s) at a set interval linked to the Courses component. Syncs passport badge statuses and can email instructors with a digested update at designated intervals.

Cron – Forum: Cron events for forums. Runs a specific job(s) at a set interval linked to the Forum component. Sends group forum email digests at designated intervals.

Cron – Groups: Cron events for groups. Runs a specific job(s) at a set interval linked to the Hub groups. Can remove group asset folders that were abandoned and send group announcements at intervals.

Cron – Members: Cron events for members. Runs a specific job(s) at a set interval linked to the Hub members. Can calculate point royalties.

Cron – Newsletter: Newsletter: Cron events for newsletter. Runs a specific job(s) at a set interval linked to the Newsletter component related to mailing out newsletters. Can process any newsletter mailings in the queue and process IP addresses to location data for newsletter email actions.

Cron – Publications: Cron events for publications. Runs a specific job(s) at a set interval linked to the Publications component. Set to email monthly publication stats to authors, compute unique user stats from text logs, issue master DOI and achieve publications (via mkAIP) when grace period expired – PURR ONLY.

Cron – Resources: Cron events for resources. Runs a specific job(s) at a set interval linked to the Resources component. Issues master DOI and audit resource data.

Cron – Search: Cron events for Search. Runs a specific job(s) at a set interval linked to the Search component. Set to process queues at set intervals.

Cron – Support: Cron events for support. Runs a specific job(s) at a set interval linked to the Support component that processes the support queue based on predetermined parameters. Has the ability to close tickets, email reminders for open tickets, email for tickets with specified parameters and remove temporary upload files and directories at set intervals.

Manually Running a Cron Job

1. Log into the **/administrator** interface
2. Hover over the **Components** tab and from the drop-down select **Cron**
3. Search for the cron job and check the box beside the cron job's title
4. Select the **Run** icon on the top of the Cron main page
5. The Cron job will automatically run the predetermined job

Deleting a Cron Job

1. Log into the **/administrator** interface
2. Hover over the **Components** tab and from the drop-down select **Cron**
3. Search for the cron job and check the box beside the cron job's title
4. Select the **Delete** icon on the top of the Cron main page
5. The Cron job will be deleted

Events

What is an event?

Do you have an upcoming event that you would like to share with other hub users? The Events component allows you to submit the details of these events and share them with your community.

Note: Administrators must first log in to the backend of the hub in order to complete the tasks below.

Creating an Event

1. On the backend, click the **Components** tab, and select **Events** from the drop-down menu
2. In the Events Manager, select the **New** icon
3. Fill in the title of the event
4. Select the category of the event
 - **General**: an event is the broadest category for events.
 - **Workshop**: is an event that is a clinic for users.
 - **Seminar**: is an event that hosts a speaker or presentation.
 - **Meeting**: is an event similar to conferences.
5. Add a description in the Activity field that includes details about the event and include whom the event is intended for
6. Fill in the location of the event, the website/URL that pertains to the event or where event information is stored, and add tags to connect the event to tag topics
7. Set the date and time of the event using the drop down calendar from the boxes. An event can last multiple dates as an expanded time frame. The time span of the event is calculated in military time
8. Select the time zone that the event is held in for this helps set up the time frame of the event for users in different time zones
9. If the event has registration, fill in the information in the registration section
 - Select **Register by** date
 - Enter contact email address. This is the email address to which registration forms will be sent
 - If registration is restricted for the event (Invite Only), enter a password users must enter to gain access to the registration form into the Restricted field
 - To choose certain registration fields for your event, select the Hide or Show icons by clicking on the radio buttons in the Registration Fields area
10. Click **Save** to add the event to the Hub calendar. The event will be automatically published and will appear on the frontend

Editing an Event

1. On the backend, click the **Components** tab, and select **Events** from the drop-down menu
2. In the Events Manager, locate the event that needs editing, and click the select the checkbox next to it
3. Once the event has been selected, click on **Edit** icon to edit the content of an event
4. Fill in the Event details, and then click **Save & Close** to save the changes

Deleting an Event

1. On the backend, click the **Components** tab, and select **Events** from the drop-down menu
2. In the Events Manager, locate the event that needs editing, and click the select the checkbox next to it
3. Once the event has been selected, click the **Delete** icon. The event will be permanently removed from the Hub

Unpublishing an Event

1. On the backend, click the **Components** tab, and select **Events** from the drop-down menu
2. In the Events Manager, locate the event that needs to be unpublished
3. In the **State** column, a green check mark icon indicates the event is currently published
4. Click the green check mark icon in the state column of the event you'd like to unpublish
5. The state column will now show a circle with a line through it icon, indicating that it has been unpublished

Viewing Event Respondents

If registration was set up for an event, a hub administrator can view the registrant information by logging into the backend.

1. On the backend, click the **Components** tab, and select **Events** from the drop-down menu
2. In the Events Manager, find the event, and select the check box next to it
3. Once the event has been selected, click on **View Respondents** button in the upper right

4. Now all of the respondents to the Event can be viewed along with information that they filled out when they registered for the event

Adding a Page to an Event

1. On the backend, click the **Components** tab, and select **Events** from the drop-down menu
2. On the Events Manager, click the **Events** tab and select the box of the event you are editing
3. Once the event has been selected, click on **Add a Page (plus icon +)**
4. Add the details of the page for the event. Here extra information can be added to the event, including details of the event and key information for the participants
5. Click **Save & Close** to save the new page to the event

Feed Aggregator

What is the feed aggregator?

The Feed Aggregator is a component which allows feed managers to collect articles from several RSS feeds and to selectively combine them into one site-sponsored RSS feed.

Users must also be logged into the hub to see any of these controls.

Adding a Feed Manager

In order to access the feed controls, a user must be added as a feed manager.

The feed aggregator controls are only available to those given either the Author, Editor, or Published role. Users must also be logged into the hub to see any of these controls.

1. Click on **Users Menu** and select **Members**
2. Check the box next to the user whom shall be promoted
3. In the drop-down, select the permission level as Author, Editor, or Publisher, for the user
4. Once the group has been selected, click **save and close** to save the changes
5. The user will now have access to sort posts from the feeds

Adding a Feed URL (RSS)

1. Navigate to the URL **<https://yourhubname.org/feedaggregator>**
2. Click the **Add Feed** button in the upper right hand corner of the page
3. Add the Feed Name, the Feed URL, and enter the description of the feed
4. Click the **Submit** button to add the feed to the source feed collection

Retrieving and Managing Posts

1. Navigate to the URL **<https://yourhubname.org/feedaggregator>**
2. Click the **Retrieve New Posts** button to pull new posts from the URLs that have been added to the Feed Aggregator. New posts will be added to the list
3. Once new posts have been added to the list, manage the new posts by selecting approve, mark for review, or remove
 1. **Approve** - Add the post to the generated feed.

2. **Review** - Allow other managers to review the post before adding it to the generated feed.
3. **Remove** - Remove the post permanently from the collect posts.
4. Once a selection has been made from the three options the choice that was made the button will turn gray
5. To change the selection, click one of the other options

Accessing the Feed URL

1. Navigate to **<https://yourhubname.org/feedaggregator>**
2. To view the feed URL, click on the **Generate RSS Feed** button
3. The aggregator link will be generated into a pop-up box with a blue highlighted link
4. Copy the link into any readers that accept RSS feeds as input

Disabling a Feed

1. Navigate to **<https://yourhubname.org/feedaggregator>**
2. Click the **View Feeds** button
3. Locate the feed that is to be disabled
4. Click the **Disable** button. It will then be disabled, and new posts will no longer be retrieved from the feed and added to the feed aggregator

Enabling a Feed

1. Navigate to **<https://yourhubname.org/feedaggregator>**
2. Click the **View Feeds** button
3. Locate the feed that is to be enabled
4. Click the **Enable** button. Any new posts will be retrieved from the feed and added to the feed aggregator

Editing a Feed

HUB MANAGERS

1. Navigate to **<https://yourhubname.org/feedaggregator>**
2. Click the **View Feeds** button
3. Locate the feed to be edited, and click the feed's **Edit** button
4. Edit the content of the feed, and then click **Submit**

Forum

What is a Forum?

A forum, or message board, is an online discussion area where people can hold conversations in the form of posted messages.

Forums have a specific set of jargon associated with them; e.g. a single conversation is called a **thread** or discussion.

A discussion forum is hierarchical or tree-like in structure: a forum can contain a number of sections, each of which may have several categories. Within a forum's category, each new discussion started is called a thread, and can be replied to by as many people as so wish.

What is a section?

Sections are a way to organize or group related categories (topics). By default, sections are sequenced alphabetically by title.

What is a category?

Forum categories are a simple way to group related threads or discussions together. When a category is locked, no new threads may be created within that category. Typically, a locked category will be indicated as such by a padlock icon.

What is a thread?

A thread (sometimes called a discussion) is a collection of posts displayed from oldest to latest. A thread is defined by a title, an additional description that may summarize the intended discussion, and an opening or original post (common abbreviation OP, which can also mean original poster), which opens whatever dialogue or makes whatever announcement the poster wished. A thread can contain any number of posts, including multiple posts from the same members, even if they are one after the other.

Note: Users must be logged in to the hub in order to participate in the forum.

Creating a Category

1. Navigate to the **Component** tab and click on **Forum**
2. On the Forum component, select the **Category** tab and then click on the **New** button on the top of the page
3. Fill in the title of the new category
4. Fill in the alias or title that will be displayed in the URL
5. Fill in the scope or site and the scope ID or site identification number for the new category
6. Select the state of publish from the drop-down
 - a. **Unpublished:** The category will be removed from the frontend Hub but available on the backend of the Hub.
 - b. **Published:** The category will be available of the frontend and backend of the Hub.
 - c. **Trashed:** The category will be removed from the Hub.
7. Select the access level from the drop-down
 - a. **Public:** All visitors or users of the Hub can access the category.
 - b. **Registered:** Only registered users of the Hub can access the category.
 - c. **Special:** Only registered users with special permissions can access the category.
 - d. **Protected:** Only users with protected rights can access the category.
 - e. **Private:** No users besides the creator of the category can access the category.
8. The **Category** can be locked so that no new posts will be allowed by checking the box in **Details**
9. Click **Save & Close** to save the new section and to return to the Forum dashboard

Creating a Section

1. Navigate to the **Component** tab and click on **Forum**
2. On the Forum component, select the **Section** tab and then click on the **New** button on the top of the page
3. Fill in the title, alias (URL ending), scope (site), and scope ID for the new section
4. Select the state of publish (unpublished, published, or trashed) from the drop down and the access level (public, registered, special, protected, or private)
5. Click **Save** to remain on the **Forum: New Section** edit page or click the **Save & Close** to save the new section and to return to the Forum dashboard

Creating a Discussion Thread

1. Navigate to the **Component** tab and click on **Forum**
2. In the Forum component, select **Threads**
3. Click the **New** icon
4. Fill in the title, alias (URL ending), scope (site), and scope ID for the new section
5. Select the state of publish (unpublished, published, or trashed) from the drop down and the access level (public, registered, special, protected, or private)
6. Click **Save** to create the thread

Deleting a Discussion Post

1. Navigate to the **Component** tab and click on **Forum**
2. In the Forum component, find and select the Forum thread post to be edited by clicking the **Delete** icon
3. The forum post will be automatically deleted and saved. Once a post is deleted, the material cannot be retrieved

Limiting Thread Viewing Access

(Note: You have to be logged into your hub in order to complete the following tasks)

1. Click the **Components** tab and then select the **Forum** button located in the drop-down
2. On the Forum page, click the **Threads** tab
3. Select the title of the thread and then click the discussion post's title
4. Under the **Publishing Options**, selecting from the drop-down can change the **Access** of the discussion thread
 - a. **Public:** All users or visitors to the Hub can view the discussion thread
 - b. **Registered:** Only logged in users can view the discussion thread
 - c. **Private:** Only certain members have access to the discussion thread
5. Save these changes by clicking the **Save & Close** button

Tools

Managing Tools

While Tools can only be managed through the tool pipeline, tool sessions can be managed on the backend in the /administrator interface.

Managing the Maximum Open Tool Sessions per User

User session limits (and tool preferences) can be found by following these steps:

1. Navigate to /administrator interface
2. Hover over Components and from the drop-down select Tools
3. Click on User Preferences
4. Number of sessions is dictated by the session class
 1. Default Class = 3
 1. Add another class by clicking "Custom" class, then enter the number for the user
5. If a user doesn't have an entry, you can create one for them

Content

Overview

Good content is unique, engaging, and easy-to-use. You may have a bunch of old tech reports sitting around as PDF files. You could load those onto the hub. Are they good content? It depends.

As for creating places for your community members to learn about the Hub or the community's workflow, start with an article page. You can create article pages from the backend of the Hub.

Let's start with some definitions. 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.

It is important to understand that the content of the site (article pages, modules, groups, etc.) is totally separate from the visual formatting (template) of the site. It is best to think of text entered in the Administrator Interface as pure content and there is no need to style each individual component.

Article Manager

Creating an Article

1. First login to the administrative Interface
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**, **Category Manager**, and **Media Manager**
3. Click on **Article Manager**
4. Click the **+** sign to add a new article page. The New Article screen contains options for categorizing and naming the article, editing content and selecting parameters
5. Enter a title in the **Title** field. This is used when the article title is displayed
6. Enter an alias in the **Alias** field. This is the alias that will appear in the URL. For example, choosing hubzero as the alias will result in **https://yourhub.org/hubzero**
7. Select a **Category** using the appropriate drop down menu
 - If no category applies, choose **Uncategorized**.
8. Select the status of the article. If you would like to see it on the frontend immediately, choose **Published**
9. Select Access level:
 - **Public**: All hub visitors can access the article page.
 - **Registered**: Users must be registered and logged in to see the page.
 - **Special**
 - **Protected**
 - **Private**
10. In the **Article Text** field, enter the content of the article
11. Click the **Save and Close** (star) toolbar button to save your changes and to return to the Article Manager screen
 - Alternatively, you may click the **Save** (check in a circle) toolbar button to save your article but leave it open for editing.
12. To find view your article on the frontend, navigate to yourhub.org/alias. If you chose a category, this alias might be slightly different. See URL documentation under Content for more information

Editing an Article

1. First login to the administrative Interface
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**, **Category Manager**, and **Media Manager**
3. Click on the **Article Manager** link
4. You should now be presented with a list of all the content articles. There are a few methods to find the specific entry you want to edit. You can filter by state, category,

author, etc., or search for the title of the article page. A third option would be to look through the list manually, if you really want

5. Please find the **About Us** page as we will use that as an example. Once found, click the article title to edit it
6. You now should be presented with a page where you can edit the text, title and other page parameters similar to the image below
7. When your edits are complete, click the **Save and Close** (star) toolbar button to save your changes to return to the Article Manager screen
8. Alternatively, you may click the **Save** (check in a circle) toolbar button to save your article but leave it open for editing

Deleting an Article

Moving to the Trash:

1. First login to the administrative Interface
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**, **Category Manager**, and **Media Manager**
3. Click on the **Article Manager** link
4. Check the box next to the article you want to trash
5. Then click **Trash** (trashcan) toolbar 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

To retrieve the trashed article, select the status filter of the article list to **trashed**. This will show all the articles with a status of **trashed**. Click on the article's title and choose the status that you require – typically **published**.

Permanently Deleting:

1. If you want to make sure the Article is completely gone from the system (so no further roll back is available), select the status filter of the article list to **trashed**. This will show all the articles with a status of **trashed**
2. Check the box next to the article you want to delete
3. Click the **Empty Trash** (trashcan) toolbar button to remove the article permanently. Recovery is not possible after this action
 - **Note:** Articles in the Trash Manager are not the same as Archived Articles.
4. Check the box next to the article you want to unarchive

Article Pages: Can articles be assigned to multiple categories or sections?

No, articles and other content items cannot be assigned to multiple categories or sections.

Possible work-arounds include:

- Creating duplicate articles in multiple categories.
- Using menus rather than dynamic lists of content items.
- Using various third party extensions that simulate assignment to multiple categories.
- Using key words to simulate categories and sections.

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>
5. Select **Save**

Menus

Overview

A Hub menu is a website navigation menu where users go to navigate around the Hub. The Main Menu is the first navigation path that users interact with from your landing page and usually lives in your template header. Additional menus can be added to content pages on the Hub in order to link like pages together for easier navigation. The general rule of thumb is that if a content page is not linked to a menu, the likelihood of the page being discovered by users is diminished.

Organizing Your Articles Using Menus

If you have a set of articles that you would like to group together, you can use 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
 1. **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: [Categories](#), [URLs](#)).
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**
5. Now you will see your new menu in the list
6. 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**.
 1. **Menu Item:** represents an instance, or individual menu link
 2. **Menu:** represents the entity as a whole
7. Now click the **New** button to add new menu items to your menu
8. After clicking **New**, scroll down and select **Link**
9. 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.

10. Click **Save** in the upper right-hand corner
11. 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:
12. At this point, simply repeat the previous steps to create menu items for all of the articles that you want to use together
13. The final step in this process is to assign the menu items that you've created to display on the article pages
14. To do this, navigate to **Extensions -> Module Manager** on the backend *Joomla!* interface
15. Next, select **New**
16. 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**)

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**?

17. When all of this has been done, click **Save**

Redirecting a URL to Another Existing Hub Component

Redirecting a URL to Another Existing Hub Component Previously created groups and other components can have URL redirects added to other components instead of transferring all the files and data that live in the previous area to a new section. For example, a professor can redirect a group called **Mainclass** to another group called **Springclass**. In order to set up a redirect, follow these steps:

1. Navigate to **/administrator**, locate the tab **Menus** and select **Menu Manager** from the drop-down
2. Locate the **Default** menu group
3. Click on the **Default** group to enter its menu interface
4. Try and locate the **Parent** group
5. In this case we want groups, however, this is not listed, so let's create it by clicking

the **New** in the top right corner

6. Create the "groups" part of the URL **/groups/mainclass**
7. Click the **Select** button next to the field *Menu Item Type Select External URL*
8. To create the groups part of the URL, fill in the form as follows:
 1. *Menu Item Type: External URL Menu Title: Groups Link: groups*
9. Click **Save & Close** from the top right corner
10. To create the redirect portion, follow step 5 again except fill out the Menu Title as mainclass and the link as spring2016class
11. This will redirect users from */groups/mainclass* to */groups/springdefaultclass*
12. Nest mainclass under groups to create the end result from the redirect
13. This is done in the **Menu Item Details** under **Parent**
14. Set the **Parent** to **Groups**
15. Click **Save & Close**

Creating a New Menu

1. Navigate to **/administrator**
2. Hover over **Menus** -> **Menu Manager** and click on **Add New Menu**
3. Fill out the new menu information
4. Click **Save & Close**
5. From **Menu Manager: Menus**, locate your new menu and click on **Add a module for this menu type** under *Modules linked to the menu*
6. Create the new module for your menu by filling in the module configuration information
 1. **Note:** Most menu modules are left aligned
7. Click **Save & Close**
8. Create new menu items, either linked to articles you have created or linked to various components, by navigating to **Menus** and clicking on your new menu
9. Click on the **Menu Items** tab and click the **New** button to create menu items
 1. **Note:** Once you have linked menu items to your new menu, navigate back to **"Extensions"** -> **Module Manager** -> Click on your new menu module -> Confirm the **Menu Assignment** for your module is affiliated with the new menu items you created

Users

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 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.

Members

Members Breakdown

A breakdown of all the tabs on the /administrator interface inside of User: Members.

- Members: Manage all member accounts
- Notes: Manage user notes and note categories
- Access: Manage access levels
- Points: Manage user points
- Passwords: Set and manage password rules
- Quotas: Manage user quotas for tool usage
- Registration: Manage registration process
- Import: Import a CSV file of new users
- Export: Download CSV of all users
- Plugins: Manage all member related plugins

New features added to the sub toolbar on the /administrator interface inside of User: Members.

- De-identification of Members

Members: Editing an Account

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

1. First login to /administrator
2. Once logged in, hover over **Users** and select **Members** from the drop-down
3. You should now be presented with a list of all the members on your site
 1. There are a variety of methods to find the specific person you wish to edit:
Searching or Manually scrolling through the list to find the use
4. Once found, click the person's name to open up their profile
 1. Account: General details about the users account and assigned access groups
 2. Profile: Profile details
 3. Password: Where an administrator can manually reset a user's password and

check on how many days are left before current password expires

1. **Warning:** If you have an automatic password filler turned on in your browser, check this section if you are editing a user's account before saving for you might reset their password with one of your saved passwords
 4. **Groups:** List of groups that the user is involved in either as a member or manager
 5. **Hosts:** List of hosts that the user has access
 6. **Messaging:** The user's messaging settings
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

Members: Manually Confirming a User

Users by default have the option to confirm their accounts unless an administrator changes this to administrator approval only. An administrator will need to follow these steps to confirm any new users:

1. Navigate to **/administrator** and hover over the **Users** tab
2. Click **Members** from the drop-down
3. Search for the user you wish to confirm
4. Check the box beside their account and click the **Confirm** button
5. The user's account will be confirmed

Members: Clearing Existing Terms of Use Agreements

When terms of use are changed on the hub, it may be necessary to require users to re-accept the new terms. To reset all existing agreements, and force re-acceptance, follow these steps:

1. Go to **/administrator** interface
2. Navigate to the **Users** tab and select **Members** from the drop-down
3. Click the **Reset terms of use agreements for all users** button
4. Navigate to the frontend of the Hub and login to double check that the **Terms & Conditions** acceptance pop-up appears

Members: Blocking a User's Account

Sometimes spammers can attack your Hub and create multiple accounts. In order to prevent the spammers from access these accounts again, you can block their accounts. This also is a way to "unpublish" accounts of users who don't wish to have accounts on the Hub anymore versus deleting their account. This way, if they ever need access again, you only have to unblock them. Follow these steps to block a user's account:

1. Navigate to **/administrator** and hover over the **Users** tab
2. Click **Members** from the drop-down
3. Search for the user you wish to confirm
4. Check the box beside their account and click the **Block** button
5. The user's account will be blocked

User Manager: Customize Profile

Allows an administrator to define profile/registration fields. To edit the profile schema, navigate to the Members Manager (**Users ? Members**). Then click the button in the toolbar labeled **Profile**. In this screen, you have the ability to define user profile fields, if said fields are required or optional, what values are allowable, and what fields are dependent upon a value from another field being chosen.

Field Type Breakdown:

Text

A single-line textbox.

Paragraph

A multi-line textbox (a.k.a. textarea).

Checkboxes

A list of options where the user may select one or more.

Multiple Choice

A list of options where the user can only choose one of the available options.

Date/Time

A textbox specifically for entering timestamps.

Dropdown

A dropdown (select box) of options where the user can only choose one of the available options.

Country

A dropdown (select box) of countries. *The list of countries is automatically populated.*

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Website

A textbox specifically for entering URLs.

Hidden

A hidden input.

ORCID

A textbox for entering entering ORCIDs.

Toolbar Breakdown:

- **Save.** Saves the user and stays in the current screen.
- **Save & Close.** Saves the user and closes the current screen.
- **Save & New.** Saves the user and keeps the editing screen open and ready to create another user.
- **Cancel/Close.** Closes the current screen and returns to the previous screen without saving any modifications you may have made.
- **Help.** Opens this help screen

How to Build with the Profile Manager:

1. Navigate to **/administrator** and hover over the **Users** tab and click on **Members** from the drop-down
2. Click the **Profile** button
3. Manage the current Profile breakdown with the following actions:
 1. **Add a new field:**
 1. **Select the field type** then fill in the label information while under the **Edit field** section
 2. Determine the Access level and the information will automatically save
 2. **Duplicate a field:**
 1. Hover over the field you want to duplicate and then click the **Duplicate field** button
 3. **Remove a field:**
 1. Hover over the field you want to remove and then click the **Remove field** button
 4. **Move fields:**
 1. Select the field you want to move and drag it up or down depending on your preference
4. Click **Save & Close** to save your changes

Notes

Notes are a function where users can create and store notes on the Hub. On the **/administrator** interface, an administrator can manage the notes created by users.

- **User Notes:** Where an administrator can view notes made by other users and edit, approve, publish, unpublish, along with other actions to curate the notes
- **Note Categories:** Where an administrator can create new note categories and batch process selected categories

Access

An area where access groups can be managed. Access groups are the various permission levels assigned to different groups of users based on their roles in the Hub. Generic default levels are: Public, Manager, Administrator, Registered, Author, Editor, and Publisher. These

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levels are broken up by the levels of responsibility and what the access the group has to different areas of the Hub. An administrator can see the number of users in the group in the **Users in Group** column.

An administrator can add new access groups by clicking the New button and following these steps:

1. Navigate to **/administrator** and hover over the **Users** tab and click on **Members** from the drop-down
2. Inside of **Members**, select the **Access** tab and click the **New** button
3. Add a **Group Title** and then select the **Group Parent**
4. Click **Save & Close**

An administrator can also can manage the viewing levels available on the Hub by following these steps:

1. Navigate to **/administrator** and hover over the **Users** tab and click on **Members** from the drop-down
2. Inside of **Members**, select the **Viewing Level** tab and click the **New** button
3. Add a **Level Title** and select the **Access Groups** that have this viewing access
4. Click **Save & Close**

Points

Points are the Hub's currency system. Hub administrators can provide royalties to active and helpful users who interact with a Hub's community.

- Summary: Check out top users and statistics of how points are earned
- Look up User Balance: Look up a users Point total by searching with their user I.D.
- Configuration: Configure the amount of points you want to reward users when completing specific tasks which are assigned in the Alias. **NOTE:** There are only seven point alias' you can use, see Point Configuration listed below.
 - **Description:** Add a short description describing why these points were being rewarded
 - **Alias:** The alias of the rule affiliated to the awarded points

- **Points:** Define the amount of points
- Batch Transaction: Deposit or Withdraw points from user accounts through batch transactions

Configure Points

1. To set up Points on your Hub, follow these steps:
2. Log into the **/administrator** interface
3. Hover over the **Users** tab and select **Members**
4. Select the **Points** tab and then the **Configuration** tab
5. Fill out the form to add points in seven specific areas of the Hub:
 1. Question posted: Award points when a user posts a question
 1. Points: Determine the amount of points you want to award a user when they complete this task
 2. Alias: *ask*
 3. Description: Question posted
 2. Answer posted: Award points when a user posts an answer
 1. Points: Determine the amount of points you want to award a user when they complete this task
 2. Alias: *answer*
 3. Description: Answer posted
 3. Question rating posted: Award points when a user posts a rating to a question
 1. Points: Determine the amount of points you want to award a user when they complete this task
 2. Alias: *questionvote*
 3. Description: Question rating posted
 4. Answer rating posted: Award points when a user posts a rating to an answer
 1. Points: Determine the amount of points you want to award a user when they complete this task
 2. Alias: *answervote*
 3. Description: Answer rating posted
 5. Answer accepted as best: Award points when a user who asked a question in Answers accepts another user's best answer (the user who submitted the answer earns the points)
 1. Points: Determine the amount of points you want to award a user when they complete this task
 2. Alias: *accepted*
 3. Description: Answer accepted as best
 6. Abuse report granted: Award points when a user reports abuse and an administrator grants the abuse report
 1. Points: Determine the amount of points you want to award a user when they complete this task
 2. Alias: *abusereport*
 3. Description: Abuse report granted
 7. Review rating posted: Award points when a user rates a post
 1. Points: Determine the amount of points you want to award a user when

they complete this task

2. Alias: *reviewvote*
3. Description: Review rating posted
6. After filling out the form, click **Save & Close** to save the new point configuration

#	POINTS	ALIAS	DESCRIPTION
(1)	<input type="text" value="5"/>	<input type="text" value="ask"/>	<input type="text" value="Question posted"/>
(2)	<input type="text" value="10"/>	<input type="text" value="answer"/>	<input type="text" value="Answer posted"/>
(3)	<input type="text" value="1"/>	<input type="text" value="answervote"/>	<input type="text" value="Answer rating posted"/>
(4)	<input type="text" value="2"/>	<input type="text" value="questionvote"/>	<input type="text" value="Question rating posted"/>
(5)	<input type="text" value="20"/>	<input type="text" value="accepted"/>	<input type="text" value="Answer accepted as best"/>
(6)	<input type="text" value="5"/>	<input type="text" value="abusereport"/>	<input type="text" value="Abuse report granted"/>
(7)	<input type="text" value="2"/>	<input type="text" value="reviewvote"/>	<input type="text" value="Review rating posted"/>

Passwords

Password Rules and Password Blacklist are two sections that are already set up at default. The Password Rules comply with our latest security scan and are suggested to be turned enabled at all times so that all users meet the same rules when creating their accounts. As an administrator, you can blacklist passwords if you do not want users creating simple or Hub related passwords.

Blacklisting a Password:

1. Navigate to **/administrator** and hover over the **Users** tab and click on **Members** from the drop-down
2. Inside of **Members**, select the **Passwords** tab, then select **Password Blacklist**
3. Click the **New** button
4. Add the password in the **Word** text box
- 5.

Quotas

Managing user quotas is simplified on the backend into three main areas. As an administrator, you can increase or decrease a user's quota, create quota classes, and import quotas, by following these steps:

Increasing/Decreasing a User's Quota:

1. Navigate to **/administrator** and hover over the **Users** tab and click on **Members** from the drop-down
2. Inside of **Members**, select the **Quotas** tab and select the **Member disk quotas** tab
3. Search for the user and then click on their name
4. Increase or decrease the user's quota by changing their quota class or by changing their limits
5. Click **Save & Close**

Creating a Quota Class:

1. Navigate to **/administrator** and hover over the **Users** tab and click on **Members** from the drop-down
2. Inside of **Members**, select the **Quotas** tab and select the **Quota classes** tab
3. Click the **New** button
4. Fill in the **Class Options** form
 1. Alias: Class alias
 2. Soft blocks limit: Soft limit for quota blocks
 3. Hard blocks limit: Hard limit for quota blocks
 4. Soft files limit: Soft limit for quota files
 5. Hard files limit: Hard limit for quota files
 6. User Access Groups: Select what access groups are automatically associated with this quota class
5. Click **Save & Close**

Importing Quotas:

1. Navigate to **/administrator** and hover over the **Users** tab and click on **Members** from the drop-down
2. Inside of **Members**, select the **Quotas** tab and select the **Import Quotas** tab
3. Import existing filesystem quotas by copy and pasting a **quota.conf** file in the text box
4. Check the box next to **Overwrite matching existing entries**

5. Click **Import**

Registration

An administrator can configure a user's registration fields from the /administrator interface on the Hub. Read more about this on [Member Registration article](#).

Import

An administrator can manually import users if they are wanting to complete this process for a large research group needing access to the Hub immediately or for a classroom of students where the instructor already knows the students' information. To import users and set up import hooks, follow these steps on the [Member Import Article](#).

Export

Exporting the current list of Hub users can be done by visiting the **Export** tab inside of **Members**. From that tab there will be a button that states **Download CSV of all users**. By clicking this button, you can download a list of all members and archive the file for your own use as an administrator or for safe keeping.

Plugins

Plugins are used to turn on various parts of the Members interface which includes their profile and dashboard. An administrator can manage these plugins by unpublishing and publishing various plugins to limit or expand a users Member area on the frontend of the Hub. Specifically in the Member Dashboard Configuration plugin, an administrator can manually change rearrange the member dashboard modules to fit the message of the Hub.

Publishing/Unpublishing Plugins:

1. Navigate to **/administrator** and hover over the **Users** tab and click on **Members** from the drop-down
2. Inside of **Members**, select the **Plugins**
3. Check the box next to the plugin and click the **Publish** or **Unpublish** button
4. The plugin will change stats under the **Published** column

Managing Member Dashboard Configuration:

1. Navigate to **/administrator** and hover over the **Users** tab and click on **Members** from the drop-down
2. Inside of **Members**, select the **Plugins** tab
3. Locate the **Members-Dashboard** plugin and click **Manage** under the Manage column
4. Manage the modules inside of the **Members-Dashboard** plugin
 1. Drag and drop to move modules
 2. Drag the lower-right corner to expand or contract the size of the module
 3. Add more modules by clicking the **Add Modules** button and selecting a module
 4. **Push Modules to Users** by clicking this button and filling out the form, then clicking **Push Module**
5. All changes will be automatically saved for every new user
 1. Users who have already adjusted their Dashboards will not be affected by these changes

Toolbar Features

De-identification of Members

Release: 2.2.26

Purpose: Mechanism to remove Personally Identifiable Information (PII) from the CMS databases. Some database rows are simply deleted, and in other cases fields are deleted or replaced with anonymized values that are unrelated to the original PII (e.g., username), in which case no record or mapping is kept of the original value. Accounts will not be entirely deleted, but some data will be kept for statistics.

1. Navigate to the top toolbar in **/administrator** and hover over the **Users** tab and click on **Members** from the drop-down
2. Make sure under the **Options** modal window, under the **Permissions** tab, the "De-identify" option is set to 'allowed'. Save and Close the Options window.
3. Inside of **Members**, on the **Members** table, in the 1st column, select different members to de-identify
4. Navigate to the sub toolbar on the top right and click the 'eye-closed' icon button (next to

the trash icon button), which will de-identify those specific members

5. Changes in the database will be reflected in the displayed **Members** information

6. The previously selected members will have had their information deleted from the following tables:

- User Profiles
- Support Tickets
- Session and Session Geo
- Profile Completion Awards
- All related to Newsletter Mailing
- Messages
- All related to Media Tracking
- All related to Jobs
- Feedback
- Event Registration
- Blog Entries and Comments
- All related to Cart
- All related to Authentication
- All related to Groups and Profiles
- Users Quotas Log
- All related to Attachments
- Users Password and Password History
- Points Subscription

7. Also, the previously selected members will have had their home directory deleted from our servers

8. Lastly, the previously selected members have had account information updated with generic info.

9. A "success" alert message should be displayed for the previously selected members.

Registration

Disabling Registration

In some circumstances, it may be desirable to disable user registration entirely. To do so, navigate to the members manager (Administrator > Users > Members) and click the "Options" button in the toolbar. The first available configuration option is "Allow User Registration". Set this to "No" to disable registration entirely.

Registration Fields

1. First log in to the administrative backend
2. Once logged in, find **Users** in the main menu bar located toward the top of the page.
3. Choose **Members** from the drop down menu
4. Click on the **Registration** tab
5. 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, but are not required
 - **Hide** = Not visible
 - **Read only** = Can view but cannot change
6. Once you feel ready to save your changes, scroll back to the top of the page and click **Save** 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

User Authentication Plugins

A Hub can offer multiple ways for users to login through other services like LinkedIn, Facebook, ORCID, etc.

- Authentication-Certificate: Handles user authentication against client side SSL certificates
- Authentication-Facebook: Handles user authentication against Facebook
- Authentication-Google: Handles user authentication against Google
- Authentication-Hubzero: Default user authentication
- Authentication-LinkedIn: Handles user authentication against LinkedIn
- Authentication-ORCID: Handles user authentication against ORCID
- Authentication-Picas: Handles user authentication against Purdue's CAS
- Authentication-Twitter: Handles user authentication against Twitter

To activate these authentication plugins acquire a customer secret and customer key from the other service by registering your App on the service and selecting the Web format. Once you have the keys you can enable the plugins from the backend of the Hub.

1. Navigate to the backend of the Hub and locate the **Extensions Tab** and click on **Plug-in Manager**
2. Inside of the **Plug-in Manager**, search for the authentication plugin
3. Click on the title of the plugin and inside the plugin insert the **customer secret** and **customer key**
4. Change the *Status* of the plugin to **Enabled** and then click **Save & Close**

TLS Certificate Authentication

Certificate Authentication Plugin:

This plugin is in charge of actually checking the certificate and creating new accounts or linking existing ones to the system. In this plugin is where you enter the certificate details. One already has an account on the

Enable the Authentication - Certificate Plugin:

1. Navigate to the backend of the Hub and locate the **Extensions** tab
2. Click on the **Extensions** tab and from the drop-down click on the **Plug-in Manager**
3. Locate from the plugin list or through search the **Authentication - Certificate** plugin
4. Click on the title of the plugin then locate the *Status* section inside the plugin
5. From the *Status* drop-down, select **Enabled** then click **Save & Close**

Certificate routing plugin:

This plugin handles the requirement for a certificate to be present while browsing the site. While the authentication plugin is what checks and links the user to the cert, other authentication could still be allowed. With this plugin enabled, a certificate must be present and authentication options are limited to just certificate based authentication. This plugin is called: System - Certificate.

Enable the System - Certificate plugin by following the same steps listed out above.

New account approval:

This allows admins to require approval of new accounts prior to their being able to access the site. When this is enabled, accounts pending approval can be found in the users manager on the backend. You can also elect to turn on an administrative dashboard module that lists accounts pending approval. And in the users manager parameters, you can enable administrator notifications to receive an email when new accounts are created. This allows the certificate->user link to be user initiated (rather than admin initiated), but still gated and admin approved.

In terms of apache configuration, **SSLVerifyClient optional** should be set. This will allow the certificate to be included, but also allow the CMS to handle the requirement for the certificate through the use of the certificate routing plugin mentioned above.

SSLOptions +StdEnvVars should also be set, as I'm sure it already is for you all. Lastly, make sure the site is forced to SSL via the Joomla global configuration on the backend.

Note: In order for this feature to be useful, all users need to gain a TLS Certificate and have it implemented in their browser prior to utilizing this authentication process.

Member Import

Overview

The members bulk importer/ updater is designed to allow a site administrator to bulk import or update member data. Due to its ability to mass upload/ modify accounts, it is an administrator only feature.

Warning!

The improper use of this feature can have damaging consequences. Use with caution.

The importer should only be used in special circumstances. Minimum requirements for the CSV (first name, last name, username, password, etc.) and any additional registration fields (member demographics) must be gathered by an administrator for every account to be affected. In most cases, it is more time effective and less error prone for a new members to enter this information in the registration form instead of passing the information through the administrator.

Please note, if you are using Member Import on a HIPAA hub, please complete the extra steps on delivering passwords to members.

Registration Fields

The member importer follows the parameters set in the registration component. If a registration field is required during the initial registration form (organization, for example), the field must be included in the uploaded CSV file in addition to the required fields for the CSV. Not all registration fields are available via the member importer, those should be collected from the new member on the next login, if desired.

CSV Preparation

1. Log into hub's administrator portal, e.g. <https://hubname.org/administrator>
2. Navigate from the main menu to **Users -> Members**
3. From the page menu under the title **Members**, click on the **Import** tab
4. Click on the button that looks like a grid, located on the top right of the page, to

download the example CSV

5. Save the file with a different name that represents the group of members to be imported
 1. Note: Do not save it in Excel format, the import only accepts CSV files.
6. Edit the CSV
 1. Fill required fields and any supplementary fields

CSV Field Descriptions

- id: User's ID (leave blank when creating new accounts)
- name: User's full name e.g. First Last
- middleName: User's middle name
- surname: User's surname
- username: User's hub username
- email: User's email (only use valid email addresses as emails will be sent to the user)
- password: User's temporary password
- block: User's blocked status (1 for blocked, 0 for not blocked)
- approved: User's account approval status (1 for approved, 0 for not approved)
- sendEmail: User's preference for receiving email from the hub (1 to accept, 0 to decline)
- activation: User's email confirmation status (1 for confirmed, 0 for unconfirmed)
- usageAgreement: User's acceptance of hub's terms of service (1 for accepted, 0 for declined)
- homeDirectory: User's hub home directory e.g. /home/hub/user
- organization: User's organization (depends on hub's registration configuration)
- orgtype: User's organization type (depends on hub's registration configuration)
- phone: User's phone number (depends on hub's registration configuration)
- groups: A comma separated list of the aliases for the groups that the user is a member of
- projects: A comma separated list of the aliases for the projects that the user is a member of

Creating a new import and uploading a completed CSV

1. Login to the hub's administrator portal
2. Click the **Members** tab and from the drop-down
3. Click on the **Import** tab
4. Click on the button with the plus icon located on the top right of the page
5. In the new page that opens, enter a name for the import and a short description
6. Click the file selection button in the **Upload** fields to upload a CSV file
 1. Select the desired CSV
7. Save the import using one of the save buttons in the top right

Testing an import

It is always a good idea to do a test run before actually importing or updating members' accounts.

1. Select the import you wish to test run by checking the box for the import row
2. Click on the **Test Run** button
3. After the test has completed, you will see the results displayed below the progress bar
4. Click on each item will display details for each record

Running an import (after a test run)

1. Click on the **Run for Real** button (under the countdown)

Groups

Overview: Managing Groups

Groups are a unique feature that allows communities to grow inside of the Hub. Groups are more commonly used to share information between specific individuals. The /administrator interface allows you to set up permissions for groups and manage active groups all from the backend of the Hub.

Creating a Group

1. Navigate to **/administrator** interface
2. Hover over **Users** and select **Groups** from the drop-down
3. Click the **New** button
4. Fill out the form then click **Save & Close**
 1. **Details:** General information about the Group
 1. **Membership:** Settings that determine how users can join the new Group
 2. **Page Settings:** General settings that determine Group page setup
 3. **Email Settings:** General email settings that related to emails sent from the Group
 2. **Files:** A new group must be saved first before you can upload files from the backend of the Hub and store the files into the Group

Editing a Group

1. Navigate to **/administrator** interface
2. Hover over **Users** and select **Groups** from the drop-down
3. Click the **Title** of the Group
4. Change the Group's information then click **Save & Close**

Deleting a Group

1. Navigate to **/administrator** interface
2. Hover over **Users** and select **Groups** from the drop-down
3. Check the box next to the Group's **Title**
4. Click the **Delete** button

Publishing a Group

1. Navigate to **/administrator** interface
2. Hover over **Users** and select **Groups** from the drop-down
3. Check the box next to the Group's **Title**
4. Click on the **Publish** button

Unpublishing a Group

1. Navigate to **/administrator** interface
2. Hover over **Users** and select **Groups** from the drop-down
3. Check the box next to the Group's **Title**
4. Click on the **Unpublish** button

Configuring Groups

1. Navigate to **/administrator** interface
2. Hover over **Users** and select **Groups** from the drop-down
3. Click on the **Options** button
4. Make changes to the following sections:
 1. **General**: Determine if Groups can be auto-approved or manually approved by an administrator
 2. **Info Page**: Determine what Groups can show on the Information Page for Groups
 3. **Membership & Access**: Determine the default discoverability and join policy for new Groups
 4. **Email**: Enable emailing from the Group from discussion comments and forum digest
 1. **Note**: If you determine Groups can email out Forum digest you will need to set up the Cron plugin that sends out these emails
 5. **Upload**: Determine file upload path
 6. **Pages**: Determine if pages need to be approved and who can approve Group pages, determine other specifics related to Groups
 7. **Super Groups**: Determine if Super Groups can have components, the Super Group Group Owner and Repo Management options
 8. **Permissions**: Change the viewing and interactive permissions for Groups
5. Click **Save & Close** to save the changes made

Access Groups

Access

An area where access groups can be managed. Access groups are the various permission levels assigned to different groups of users based on their roles in the Hub. Generic default levels are: Public, Manager, Administrator, Registered, Author, Editor, and Publisher. These levels are broken up by the levels of responsibility and what the access the group has to different areas of the Hub. An administrator can see the number of users in the group in the **Users in Group** column.

An administrator can add new access groups by clicking the New button and following these steps:

1. Navigate to **/administrator** and hover over the **Users** tab and click on **Access Groups** from the drop-down
2. Click the **New** button
3. Add a **Group Title** and then select the **Group Parent**
4. Click **Save & Close**

Access Levels

Access

An area where access groups can be managed. Access groups are the various permission levels assigned to different groups of users based on their roles in the Hub. Generic default levels are: Public, Manager, Administrator, Registered, Author, Editor, and Publisher. These levels are broken up by the levels of responsibility and what the access the group has to different areas of the Hub. An administrator can see the number of users in the group in the **Users in Group** column.

An administrator can also can manage the viewing levels available on the Hub by following these steps:

1. Navigate to **/administrator** and hover over the **Users** tab and click on **Access Levels** from the drop-down
2. Click the **New** button
3. Add a **Level Title** and select the **Access Groups** that have this viewing access
4. Click **Save & Close**

User Notes

Notes

Notes are a function where users can create and store notes on the Hub. On the /administrator interface, an administrator can manage the notes created by users. This section allows administrators to manage and view notes made by other users and edit, approve, publish, unpublish, along with other actions to curate the notes.

User Note Categories

Categories

Notes are a function where users can create and store notes on the Hub. On the /administrator interface, an administrator can manage the notes created by users. This section allows an administrator to create new note categories and batch process selected categories.

Super Groups

Overview

Super Groups are advanced Hub Groups, that have their own web space within the Hub to showcase their Group. Super Groups have a lot of extra functionality built in to allow them to customize their group.

Super Groups have the ability to include PHP and javascript code into Group pages and modules. Pages or modules that contain PHP or Javascript code will then need to be approved by a Group page approver. Notifications are sent to approvers when a page needs to be approved. Another notification will be sent to the Group managers when the page has been approved.

Super Group templates must follow HUBzero's [Super Group Template rules](#).

Creating a Super Group

1. Log in to the backend of the Hub and hover over the **Users** tab and select **Groups**
2. Click **New** to create a group
3. Select the group type from the drop-down to be **Super**
4. Fill in the CN or group alias, the title and logo of the group, along with the public and private group descriptions
5. In **Membership Control**, check the box if the membership is to be controlled. The membership **Join Policy** determines access level for the group
 - a. **Public:** Any user on the Hub can join the group.
 - b. **Restricted:** Qualifications are given that predetermines who can join. These restrictions have to be added into the credentials.
 - c. **Invite Only:** A group manager has to send an invite any new group members to the group.
 - d. **Closed:** No one can join the group unless they are added from the back-end of the Hub.
6. Determine the access level of the group from hidden or visible. A hidden group is not listed on the front-end of the Hub, and any content is unavailable to any user that is not a member of the group. A visible group can be found on the Hub through regular searches
7. Once all the group's content has been filled in, then save the new group by clicking **Save & Close**. The group will be automatically approved and visible on the Hub
8. The following will be automatically created when making the super group:
 - a. Base template with custom error handling & login
 - b. Separate database for super group related components, data, etc

- c. If Gitlab integration is enabled, all needed connections will be made and super group folder will be controlled via Git.

Frontend Module Management in Super Groups

Accessing the Module Manager:

1. Log in to the Hub and access the **Super Group** home page
2. Click on the **Manage Group Pages** link in the group manager toolbar, to get to the page manager
3. Select the **Manage Modules** tab to view the module manager
4. Search for modules by using the search drop-down that searches for a module based on location and title

Adding a Module:

1. Log in to the Hub and access the **Super Group** home page
2. Click on the **Manage Group Pages** link in the group manager toolbar, to get to the page manager
3. Select the **Manage Modules** tab to view the module manager
4. Click the **New Module** button in the toolbar
5. Fill in all required fields and click **Save Page**

Publishing a Module:

1. Log in to the Hub and access the **Super Group** home page
2. Click on the **Manage Group Pages** link in the group manager toolbar, to get to the page manager
3. Select the **Manage Modules** tab to view the module manager
4. Publish the module by clicking on the **Unpublished** icon. The icon will become a **Published** icon
5. The module will now be available on the front interface of the Hub

Unpublishing a Module:

1. Log in to the Hub and access the **Super Group** home page
2. Click on the **Manage Group Pages** link in the group manager toolbar, to get to the page manager
3. Select the **Manage Modules** tab to view the module manager
4. Unpublish the module by clicking on the **Published** icon. The icon will become an **Unpublished** icon
5. The module will now be removed from the front interface of the Hub

Editing a Module:

1. Log in to the Hub and access the **Super Group** home page
2. Click on the **Manage Group Pages** link in the group manager toolbar, to get to the page manager
3. Select the **Manage Modules** tab to view the module manager
4. Click on either the **Manage Module** button or hover over the arrow next to the button to see more options, including **Edit Module**
5. One of the new features with the module manager is the page content WYSIWYG editor. It now uses CKEditor and HTML to manage your page content
6. Modify the module with new changes, and then click the **Save Page**

Reordering a Module:

1. Log in to the Hub and access the **Super Group** home page
2. Click on the **Manage Group Pages** link in the group manager toolbar, to get to the page manager
3. Select the **Manage Modules** tab to view the module manager
4. Click on either the **Manage Module** button or hover over the arrow next to the button to see more options, including **Edit Module**
5. One of the new features with the module manager is the page content WYSIWYG editor. It now uses CKEditor and HTML to manage your page content
6. Modify the ordering of the module by using the drop-down, and then click the **Save Page**

Super Groups: Resource Template Inheritance

Originally when viewing a Resource from a Super Group, the Resource is seen with the master

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site template rather than the Super Group's custom template. Resource Template Inheritance allows users, when viewing a Resource from a Super Group, the Resource to inherit the Super Group's template to maintain consistent look and feel of the Super Group. '

Configuring

Overview

One of the many advantages to 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.

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 “Users” 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 User related items.
3. Choose “Members” from the available options. On the resulting page, there should be a sub-menu (tabs).
4. Choose “Register” from the available options.
5. 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

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.

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 name)
        /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.

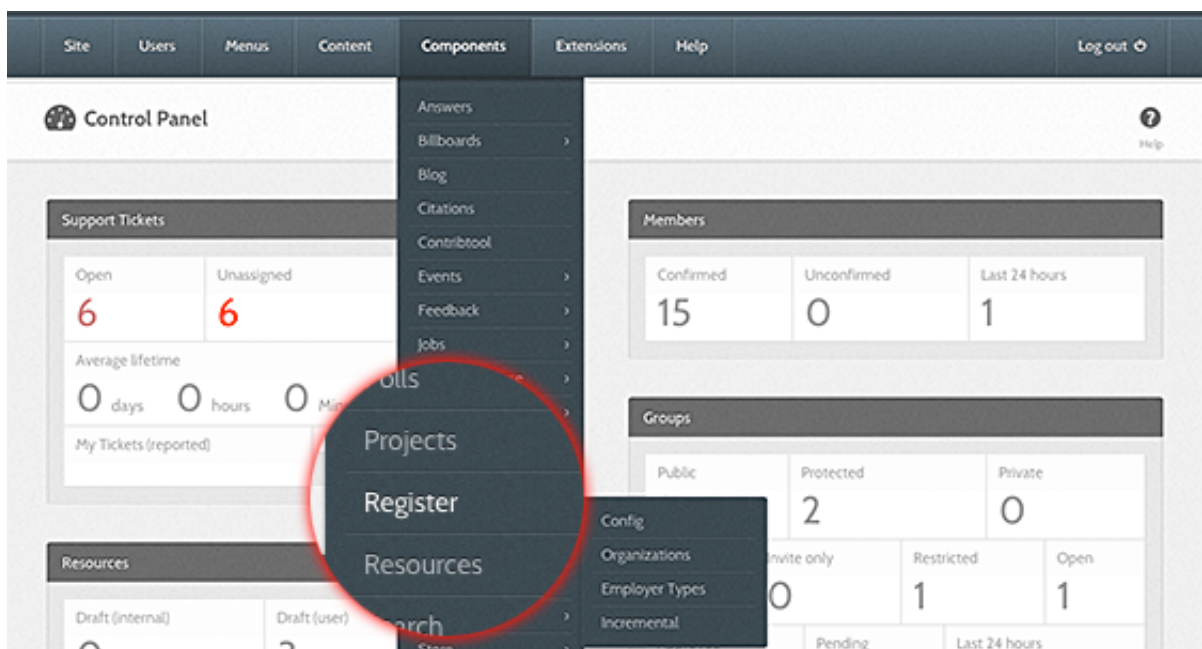
See [Template Overrides](#) for more information on customizing layouts and CSS.

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.
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

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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

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a floppy disk) in the upper right portion of the page. Changes take affect immediately.

External Authenticators

Single sign-on (SSO) is a element of access control of multiple related, yet independent, software systems. A user logs in with a single ID and password to gain access to a system without using different usernames or passwords, or in some configurations seamlessly sign on at each system.

Benefits of using single sign-on include:

- Mitigate risk for access to 3rd-party sites (user passwords not stored or managed externally)
- Reduce password fatigue from different user name and password combinations
- Reduce time spent re-entering passwords for the same identity
- Reduce IT costs due to lower number of IT help desk calls about passwords

SSO shares centralized authentication servers that all other applications and systems use for authentication purposes and combines this with techniques to ensure that users do not have to actively enter their credentials more than once.

CILOGON

A hub administrator must register at <http://cilogon.org/oauth2/register>

Enter a Client Name.

Enter a Contact Email Address.

Enter a home URL (the URL of your hub - hubzero.org, for example).

Callback URLs should be:

`**<hostname>` should be replaced with the HUB URL. If you have more than one hub instance, include a redirect URL set for each host that you will wish to use CiLogon.

```
https://<hostname>/index.php?option=com_users&task=user.link&authenticator=cilogon
```

```
https://<hostname>/index.php?option=com_users&task=user.login&authenticator=cilogon
```

```
https://<hostname>/administrator/index.php?option=com_login&task=login&authenticator=cilogon
```

Select all SCOPES (email, edu..., openid, profile, org.cilogon...).

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Leave blank - Refresh Token Lifetime.

Leave blank - Issuer.

CiLogon will process the registration and if approved a client id and client secret will be provided and must be added to the "Authenticator - CiLogon" plugin in the Administrator Interface (/administrator) to enable to plugin. Once enabled, users may log into your hub via credentials provided by CiLogon.

Frequently Asked Questions

Article Pages: How do you set parameters for articles and other content items?

Many Article parameters, such as **Show Title**, **Show Author**, and so on, can be set from the backend of the Hub. This can be done by logging in to the backend, navigating to the **Article Manager: Articles** page (**Content-> Article Manager**), and then selecting the article you would like to adjust the parameter for. By clicking the box beside the title of the article, and then clicking the **Edit** button to open up the article for editing.

Typically, parameters at the individual article and menu item levels can be set to a specific value or to a value of **Use Global**. If the individual article's parameter is set, then that value controls the setting. If this is set to **Use Global** then the menu item parameter is checked.

Courses: How can I view the outline a student would see in a course?

If you wish to view and check any prerequisites that have been set as an instructor you have to enroll in the course as a student. Currently the instructor's view of the course outline and the outline students see are not the same. An instructor or a manager of a course will be able to view all of the content and see that it is published or unpublished. For students, the outline they view depends on the prerequisites for the parts of the course and what is available to them during the course.

The best way for an administrator of a course to view what a student can see, would be to create a testing account and enroll as a student in the course.

Groups: How do you send a group message?

Group messaging allows you to send out a message as an email to all the group members. A Group Manager is the only one with the permissions to send out messages from the group to all group members. To send out group messages follow these steps:

1. Navigate to **<https://yourhub.org/groups>** and log into the Hub
2. Navigate to the group page and click on the **Members** tab
3. Click on the email icon to send a message to all of the group members
 - a. To email only a specific group member, select the same icon next to the individual's name.
4. Compose the message by:
 - a. Selecting whom the message is for from the drop-down.

- b. Fill in the subject title.
 - c. Write up the message.
5. Click the **Send** button to send the message to the group

Projects: How do you connect Google Drive in a Project?

Note: Managers and Collaborators of a Project can connect their Google Drives, but the creator of the Project must connect their Google Drive account prior to others adding on their accounts to the project.

1. Navigate to **<https://yourhub.org/projects>** and log into the Hub
2. Access the project that you wish to add your Google Drive to
3. Inside of the project access the **Files** tab and locate the **Connect** button
4. Click the **Connect** button and then click the second **Connect** button
5. Then choose the account or login to your Google account
6. You will be relocated to a new page where you will accept the project files to Google Drive for various access levels. Click **Accept** to confirm the last step
7. Then you will be relocated back to the project confirming your Google Drive connection to the project

Support: How do I add other attachment file extensions for tickets?

1. Navigate to **<https://yourhub.org/administrator>** and login to the as an administrative user
2. Click on the **Components** tab and then click on **Support**
3. On the **Support: Tickets** page, click on the **Options** button
4. Inside of **Support Configuration** click on the **Files** tab
5. Under **Extensions**, add the new file extension that can be uploaded to a ticket
6. Click **Save & Close** to save the changes and to exit out of the **Support Configuration** pop-up

Wishlist: How do I change the status of a wish?

The status of a wish serves to indicate to the general site users whether the wish was accepted/rejected for implementation and when to expect the proposed feature online. Once a wish is submitted, an administrator of the Hub can change the status of the wish. To change the status simply open up the wish and then click **Change status** which is located under the wish. From the drop-down box select the new status of the wish:

- **Pending:** The wish is pending a response.
- **Accepted:** The wish had been accepted and is currently being worked on.
- **Rejected:** The wish has been rejected due to other contributing factors that disallow the ability to create the wish. Example: Practicality or User use case
- **Granted:** The wish has come true and is now available to the Hub.

Once the status has been selected, click **Change Status** to save the new status and inform the user who submitted the wish what stage their wish is in right now.

How do I redirect a URL to point to another existing Hub component?

Scenario: A professor has a group called "mainclass" and wants students to use another group called "spring2016class"

1. Navigate to **/administrator** and hover over the **Menu** tab and select **Menu Manager** from the drop-down
2. Locate the **Default** menu and click on the title to enter the menu interface
3. Locate the **Parent** group, in this case, locate the **Groups** menu
 1. If you can not find the parent "Groups", it might have not been created. Follow these additional steps to create the new group:
 1. Click the **New** button
 2. Click **Select** and from the list select **External URL** from the **System Links** section
 3. Fill in the form:
 1. **Menu Title:** Groups
 2. **Link:** groups
 4. Click Save & Close to save the new menu item
4. Create the redirect portion, repeat steps 1-9 *except* fill out the **Menu Title** as **Mainclass** and the link as **spring2016class**
 1. This will redirect users from **/groups/mainclass** to **/groups/spring2016class**
5. Nest the Mainclass under Groups to create the redirect
 1. This is done in the **Menu Item Details** under **Parent**
 2. Set the Parent for Mainclass as **Groups**
 3. Click **Save & Close**

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. Login to the **/administrator** interface.
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.

Approving Content

Approving Pending Content

Depending on whether auto-approval for user-submitted resources on a Hub is turned **On/Off**, which can be done in each component's settings (**Options**), you may need to watch for newly submitted content awaiting for administrator approval to be published on the Hub. The administrative dashboard shows whether content is pending approval by component.

You can publish a pending piece of content just by clicking on the title and select appropriate

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status from the detailed page, as shown below.

As soon as new content is published, it will be available for Hub users to access and search the

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item, depending on access restrictions.

Tools

Tool Pipeline (a.k.a. Contribtool)

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

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.
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

The first step in the tool pipeline 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/tools/pipeline>. 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 tool pipeline 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 tool pipeline web page. Choose this project by clicking on the tool name, which is a link to it's 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 are 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 the tool pipeline. Start by accessing the tool pipeline web page <https://yourhub.org/tools/pipeline>. Find the tool project on the tool pipeline 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 requirement for installing a tool in the HUB environment:

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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

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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.

All tools need a graphical user interface. There are several toolkits available including Qt, GTK,

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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

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files. Even tools that do not have source code that needs to be compiled still need a Makefile.

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.

```
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.

Line Example :

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```
1      cd toolname
2      cp /apps/rappture/examples/zoo/curve/curve.tcl src/curve.tcl
3      svn add src/curve.tcl
```

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
```

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

Line Example:

HUB MANAGERS

```
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.

Line Example:

HUB MANAGERS

```
1      cp /apps/rappture/examples/zoo/curve/tool.xml
      rappture/tool.xml
2      svn add rappture/tool.xml
```

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:

HUB MANAGERS

```
1      #!/bin/sh
2
3      /apps/rappture/invoke_app "$@" -t toolname
```

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:

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```
1      cd src
2      make all install
3      cd ../
4      ./middleware/invoke -T $PWD
```

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 hold 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 the tool pipeline.

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:

Line Example:

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```
1      cd src
2      make distclean
3      cd ../
```

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:

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

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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 status can be changed to Uploaded. Go to the tool's status web page in the tool pipeline, it can be found through the tool pipeline web page:

<https://yourhub.org/tools/pipeline>.

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 the tool pipeline, 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

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environment. This is an admin task. Navigate to the tool's status web page in the tool pipeline. 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.

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

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Line Example:

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```
1      sudo su - apps
2      cd /apps/toolname/dev/src
3      make all
4      make install
```

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 the tool pipeline, 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.

On the updated page, a Launch tool link will be made available, on the right side of the page, in

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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 the tool pipeline 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.

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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 the tool pipeline.

During the process of creating the tool information page, the necessary information will be

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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.

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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

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tool's status page in the tool pipeline will automatically be updated.

Approved to Published

To publish a tool in the Approved state, the administrator must click the Publish link in the

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Administrator Controls on the tool's status page in the tool pipeline. 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 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 the tool pipeline, 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,

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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

Tickets: Best Practices

Users can create tickets when they experience a problem on the Hub that is not answered in **Questions and Answers** or **Knowledge Base**. Tickets are ways to report bugs or issues that they experienced with the Hub. Administrators are then able to access the **Support** component to help solve these issues.

In order to understand how tickets are submitted by users, read our [Hub User Support Documentation](#). It is important to learn about giving Hub Managers/Administrators the proper permissions to access the Hub's tickets and setting up custom ticket messages and categories. Learn about how you can complete these tasks by reading our [Hub Manager Support Documentation](#).

When a new ticket is submitted by a user, it is best if a Hub Manager/Administrator tries to respond with an initial message which notifies the customer that their ticket has been received by the Hub team and will be worked on shortly.

The Hub Manager/Administrator would then review the ticket and see if the user provided enough information to understand either the **Issue**, **Request** or **Question**.

- **Issue:** A problem ("bug") the user experienced on the Hub or "bug"; a matter or situation regarded as unwelcome by the user.
- **Request:** An act of asking for a change in feature design or permission to access an area of the Hub currently restricted.
- **Question:** An inquiry about a feature or item related to the Hub or Hub's community.

Best practices indicate that these three questions should be answered either by the user or can be filled in by the Hub Manager/Administrator after reviewing the ticket:

1. What was the user trying to do?
2. What did they expect to happen?
3. What actually happened?

For example, John Doe submitted this ticket:

The Hub Manager/Administrator understands that from John Doe's description, he has reported

an **Issue** and can answer the following questions:

1. What was the user trying to do?

Trying to search for the word 'test' in the Forums feature.

2. What did they expect to happen?

The user expected the page to load with search results related to 'test'

3. What actually happened?

The user received a 500 error (see screenshot provided by user)

Once the ticket has been appropriately addressed and understood by a Hub Manager/Administrator, it can then be assigned to the appropriate individual or group (i.e. software developers, Hubzero Development Team, etc.). By following these best practices, both users and Hub management teams can experience an efficient and professional service relationship.

Site Notices

Overview

1. Login to the Hub's **/administrator**.
2. Hover over **Extensions** and then click **Module Manager** from the drop-down.

3. You should now be presented with a list of all the modules installed on your site. There

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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.

4. 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.

Note: 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.

5. 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**.

Note: 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.

6. Return to the top of the page and click **Save** 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 logging into the **/administrator** interface. Once logged in, hover over **Components** and clicking on **Cron** from the drop-down.

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

Event

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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.

Getting Started: Advanced Setup

Your Hub's Getting Started Page

Your hub should have a getting started page at <your hub url>/gettingstarted. Most of the items addressed on this page are discussed in further detail below.

Editing "About You", "How to Contact", & "Terms of Use" Pages

1. First login to the administrative interface of your hub
2. Once logged in, find **Content** in the main menu bar located toward the top of the page
3. Click on the **Article Manager** link
4. You should now be presented with a list of all the content articles. There are a few methods to find the specific entry you want to edit. You can filter by state, category, author, etc. or search for the title of the article page. A third option would be to look through the list manually, if you really want
5. Please find the **About Us** page as we will use that as an example. Once found, click the article title to edit it
6. You now should be presented with a page where you can edit the text, title and other page parameters similar to the image below
7. When your edits are complete, click the **Save & Close** toolbar button to save your changes and return you to the Article Manager screen
8. Alternatively, you may click the **Save** toolbar button to save your article but leave it open for editing

Facebook Authentication

Step 1: Setting Up Facebook

1. Navigate to (<https://developers.facebook.com>)
2. Begin by logging into a Facebook account or creating a new Facebook account for your hub
3. After successfully logging into Facebook, click the **My Apps** tab, then in the drop-down select **Register as a developer**
4. Read through the Facebook policies and accept the policies by changing the answer from **No** to **Yes** with the switch button, and then click **Register**
5. Select the **My Apps** tab again and from the drop-down click **Add a New App**
6. Select the platform of the new app by clicking the **WWW** or "Website" icon

7. In the upper right corner of the page, select the **Skip and Create App ID** button
8. Fill in the **Display Name** in the name field and select the category of the application depending on your field
9. Fill in the rest of the **New App ID** information or leave it blank depending on your preference, then click **Create App ID**
10. On the application dashboard, copy the App ID and App Secret. In order to copy the App Secret you will have to click **Show** in order to access the full secret code

Step 2: Enabling Facebook

1. Navigate to your hub, and access the /administrator interface
2. Click the **Extensions** tab and then from the drop-down select **Plug-in Manager**
3. Locate the **Authentication-Facebook** plug-in and open the plug-in by clicking the plug-in name
4. Inside the plug-in, change the status of the plug-in from **Disabled** to **Enabled**
5. Insert the App ID and Consumer Secret into the corresponding fields and click **Save & Close**
6. The Facebook Authentication will be available for users to use in order to login into the hub

LinkedIn Authentication

Step 1: Setting Up LinkedIn

1. Navigate to (<https://www.linkedin.com/secure/developer>)
2. Begin by logging into a LinkedIn account or creating a new LinkedIn account for your hub
3. After successfully logging into LinkedIn, under the list of applications click **Add New Application**
4. Fill out the form to register a new application
 - Under *Default Application Permissions*, check "**r_basicprofile**" and "**r_emailaddress**".
 - Under *OAuth 2.0*, add your hub's URL (e.g., <https://yourhub.org>) as an **Authorized Redirect URLs**.
5. Click **Add Application** once you have finished filling out all the required fields in the application form
6. Once you receive a message stating, **Your application was successfully created**, copy the API key and the Secret key

Step 2: Enabling LinkedIn

1. Navigate to the /administrative interface of your hub
2. Under the **Extensions** tab select from the drop-down **Plug-in Manager**
3. Inside the Plug-in Manager, locate the **Authentication-LinkedIn** plug-in
4. Select the title of the plug-in, then inside the plug-in fill in the API key and the Secret key
5. Enable the plug-in by selecting from the Status drop-down, then click **Save & Close** to save the changes that were made
6. The LinkedIn plug-in will be successfully enabled and available for users to use as another option to log in to your hub

Google Authentication

Step 1: Enable the Google+ API

1. Navigate to the Google Developers Console (<https://console.developers.google.com/>) and log into a Google Account or create a new Google account for your hub
2. Select **Credentials** and click **Create Credentials** and then click **OAuth Client ID**
3. Add the following URLs as redirects
 1. https://yourhub.org/index.php?option=com_users&task=user.login&authenticator=google
 2. https://yourhub.org/index.php?option=com_users&task=user.link&authenticator=google
4. Save and collect your **Client ID** and **Client secret**

Step 2: Enable the Authentication-Google Plug-in

1. Once you have collected your **Client ID** and **Client secret**, log into the /administrator interface for your hub
2. Select the **Extensions** tab and then from the drop down select the **Plug-in Manager** button
3. Locate the **Authentication-Google** plug-in and select the plug-in's title
4. Inside the plug-in, locate the **Status** section and select **Enable** from the drop-down
5. Fill in the **Client ID** and **Client Secret** into the appropriate fields
6. Save all the changes by clicking **Save & Close**
7. Your users will be able to log into your instance with Google authentication

ORCID Authentication

Step 1: Set Up ORCID Authentication on ORCID

1. Navigate and sign-in to ORCID
2. Once signed-in, navigate to <https://orcid.org/developer-tools>
3. Complete the developer form:
 - a. Name of application
 - b. Website URL
 - c. Description
 - d. Redirect URLs
 - i. https://yourhub.org/index.php?option=com_users&task=user.link&authenticator=orcid
 - ii. https://yourhub.org/index.php?option=com_users&task=user.login&authenticator=orcid
4. Click the “Save” icon on the right side
5. Copy Client ID and Client secret

Step 2: Enabling ORCID

1. Navigate back to your hub and log into the /administrative interface
2. Click on the **Extensions** tab and then select from the drop-down the **Module Manager**
3. On the **Plugin Manager** page and locate **ORCID** from the new module list
4. Fill in the **Client ID** and **Client Secret** into the appropriate fields
5. Save all the changes by clicking **Save & Close**

CI Logon

Step 1: Set Up CI Logon

1. Navigate to cilogon.org/oauth2/register and begin filling out the form:
 1. Client Name: Name of the Hub
 2. Contact Email: Main email to receive information; best if we use our mailman set-up for the support contact list (support@hubname.org)
 3. Callback URLs:
 1. https://hubname.org/index.php?option=com_users&task=user.login&authenticator=cilogon
 2. <https://hubname.org/users?authenticator=cilogon>

3. https://hubname.org/administrator/index.php?option=com_login&task=log in&authenticator=cilogon

4. https://hubname.org/index.php?option=com_users&task=user.link&authenticator=cilogon

4. Client type: Confidential

5. Scopes: Select all in the list

6. Refresh Token: No

2. Click “**Register Client**”

3. You will receive on the next page the client ID and client secret; save both

Step 2: Enabling CI Logon

1. Navigate to hubname.org/administrator and sign in as an administrator

2. Once signed in, navigate to “**Extensions**” and then “**Plugin Manager**”

3. Search and click on the “**CI Logon Authentication**” plugin

4. Add in the client ID and client secret and set-up the plugin to use the site login and optionally also allow administrator login

5. Click “**Save & Close**”

6. CI Logon will email the contact once they have confirmed the request and you can now use CILogon to sign into the hub

Google Analytics

Step 1: Set Up Google Analytics on Google

1. Navigate to (google.com/analytics) and select **Access Google Analytics**

2. You will be required to login to a Google account.

1. We suggest creating a Google Account for your hub

3. Click **Sign Up** and begin filling in the required fields in the analytics form

4. Select **Get tracking ID**, and then read and accept the terms of Google Analytics by

clicking **I accept**

5. You will receive a tracking ID. This ID will be used on the hub in order to finish the set up process

Step 2: Enabling Google Analytics

1. Navigate back to your hub and log into the /administrative interface
2. Click on the **Extensions** tab and then select from the drop-down the **Module Manager**
3. On the **Module Manager** page click the New button and locate **Google Analytics** from the new module list
4. Open the new module by clicking on its title then fill in the tracking ID, title, and the position of the module to be in the footer (typically, this module should be in a position present on every page--for HUBzero-built templates, that tends to be position **footer**)
5. Click **Save & Close** and Google Analytics will be installed in your hub

Google Drive

Step 1: Configuring Google Drive in Projects on a hub

1. Navigate to console.developers.google.com and log in with your hub Gmail account
2. Click **Create Project** to create a new project for your hub
 1. Enter the Project Name. We suggest using your hub name
 2. Enter the Project ID. The Project ID is a globally unique identifier that cannot be renamed. Use the ID given, or specify a new one in the field
 3. Click **Create**
3. Once created, click the link to your project to open it
4. From the Dashboard, click "Enable an API" to select services for the project. From this list, find and turn on Drive API and Drive SDK services by clicking **Off** next to each to switch them to **On**. Be sure to accept Terms of Service if asked
5. Next, navigate to the left hand menu to find APIs & auth. Click **Consent Screen** to set up the branding information. Fill in all required fields
 1. Choose the hub email account from the Choose your email dropdown
 2. In Product name, type **Project Files to Google Drive Connector**
 3. Click **Save**
6. Next, click **Credentials** under APIs & auth
7. Click **Create new Client ID**
8. On the Create Client ID screen, choose **Web Application** under Application Type
9. In the Authorize Javascript origins field, type your hub URL (i.e. <https://yourhub.org>)
10. In the Authorized Redirect URIS field, type your hub URL and add /projects/auth (i.e. <https://www.yourhub.org/projects/auth>)

11. Click **Create Client ID**
12. Under Client ID for web application, note the Client ID and Client Secret, as these will be needed
13. Under Public API Access, click Create New Key
14. Choose **Browser key** from the Create a new key pop-up
15. In the HTTP Referrers field, type in your hub name followed by/*
 - Example: yourhub.org/*
16. Click Create. Note the API Key: After this step, you will navigate back to the hub to configure

Step 2: Turning on Google Drive in Projects

1. Navigate the /administrator interface for your hub and log in
2. Navigate to the **Extensions** menu, and click **Plug-in Manager**
3. In the search, type **Projects**, and click **Search**
4. In the results, find the Projects – Files plugin. Click the title to edit
5. Scroll down until you see the Google Connection Enabled option
6. Choose **Yes** from the drop-down
7. Fill in the Google Client ID, Client Secret, and API Key fields with the information from your account
8. Choose when to auto-sync
9. If you would like to only make Google Drive available to certain projects, type the alias of the project into the Connected Projects
10. Click **Save & Close**

CKEditor

CKEditor is a HTML text editor designed to simplify web content creation. It's a WYSIWYG editor that brings common word processing features directly into the web pages being built. After a hub has been updated to R1.3.0 various settings need to be adjusted on the administrator backend of the hub to allow CKEditor for all users.

Step 1: Global Configuration

1. Navigate to the /administrator interface for your hub, and log in
2. Select the **Site** tab from the top menu
3. Click on the **Global Configuration** from the drop-down to open up the global configuration settings
4. Under the **Site** tab navigate to **Site Settings** and then locate **Default Editor**
5. Select **Editor-CKEditor** from the drop-down

6. Click **Save & Close** to save the newly changed settings

Step 2: HTML Format Handler Plug-in

1. Navigate to the /administrator interface for your hub, and log in
2. Select the **Extensions** tab from the top menu
3. Click on the **Plug-in Manager** from the drop-down
4. Enter **Content – HTML Format Handler** into the search box and click **Search**
5. Click on the **Content – HTML Format Handler** title to open up the plug-in
6. In **Details** change the status to **Enabled** and then click **Save & Close**

ReCAPTCHA

Step 1: Set Up ReCAPTCHA on Google

1. Navigate to (<https://www.google.com/recaptcha/intro/index.html>) and select **Get reCAPTCHA**
2. You will be required to log in to a Google account, at this point consider creating a new account for your hub or use a previously created account
3. Fill in the **Label** field and **Domain** field with the appropriate information
4. Copy the **Site key** and **Secret key**

Step 2: Enabling ReCAPTCHA

1. Navigate to the /administrator interface for your hub, and log in
2. Select the **Extensions** tab and from the drop-down select **Plug-in Manager**
3. Locate the **CAPTCHA-ReCAPTCHA** plug-in and click on the title
4. Change the status of the plug-in from **Disabled** to **Enabled**, then fill in the **Public key** and the **Secret key**
5. Save the changes by clicking **Save & Close**, then ReCAPTCHA will be activated on your hub