

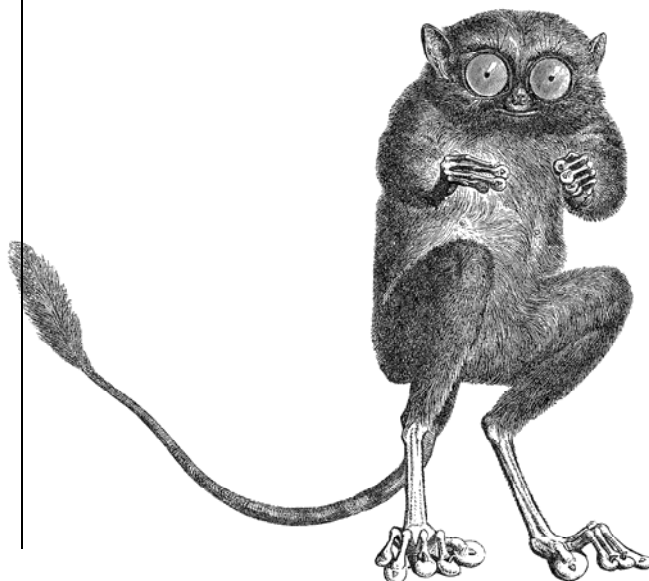
# Up and Running with Joomla

By R. Allen Wyke and Skip Matheny  
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*Need to launch a feature-rich website quickly where you have one or more people authoring the content? Want to use a powerful, robust, and scalable Content Management System (CMS) you can trust? This Short Cut will get you up and running with Joomla 1.5, a freely available open source CMS. Learn how to install, configure, customize, and extend your Joomla installation. Also learn the tricks of the trade in how to set up and manage both your content and your users. Joomla can be a challenge to understand at first, so drastically cut your “get up to speed” time by taking the Short Cut!*

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## Assumptions

For this material to work, we have made some assumptions about your knowledge. While we make every attempt to help the reader understand how to perform a particular task, we limit our coverage of operating systems, web servers, PHP, and databases, so that we might focus the majority of the content on Joomla (<http://www.joomla.org>) itself. Here are some of the assumptions we make:

- You know what Joomla is—at least enough to understand it is a CMS and it is used to manage and deliver websites.
- You are using Joomla 1.5, not 1.0.x. If you need 1.0.x covered, please consider purchasing the first edition of this book.
- You do not expect this material to be comprehensive. Keep in mind it's a short cut—not a comprehensive guide. Although we often provide pointers to features and functionality that we do not cover in detail, it should not be expected that we mention or cover everything. If you see something you want to know more about, please check out the Joomla website.
- Once we provide the URL, you can locate the necessary files to download and install for your system (Windows, Linux, Mac OS X, etc.).
- You have a user account with the necessary permissions to install and configure these components on your machine. Although it is not required, preferably you have root or administrative access.
- You have command line (direct, or via telnet or ssh) access to the machine you are performing the installation on. We also assume you know how to remotely access the machine, if necessary, and how to use the command line.
- You know how to modify filesystem permissions as needed.
- You have basic networking knowledge, such as understanding how to access machines on your network via hostname or IP address and port numbers. This also includes knowledge of terms such as *localhost*.
- You have a basic understanding of web servers (Apache, IIS, etc.), databases (MySQL), and PHP to the point of being able to install, configure, and run them.

# Section 1: Installation, Setup, and Initial Configuration

In 1997, eBay was barely two years old and Google was primarily a research project for a couple of college students. How times have changed! Today's Internet boasts online applications, services, and a plethora of tools, assets, and information that can help anyone do pretty much anything. One area that has seen lots of attention is the creation of websites.

It would be easy to recount the history of how initial website creation tools were created, how they forked and evolved into development and Content Management System (CMS) platforms, but not today. In this Short Cut, we want to talk about a platform called Joomla that can be used to power very sophisticated websites quickly. If you have used a commercial or homegrown CMS before, such as those by Vignette, then Joomla will come as a welcome alternative.

The first section has you install the prerequisites and Joomla and then perform the initial setup and configuration. With Joomla up and running you can begin setting up your Sections and Categories, which will be used to classify your content. You're exposed to templates and extensions, as these two features help lay the foundation for what is possible in terms of site functionality.

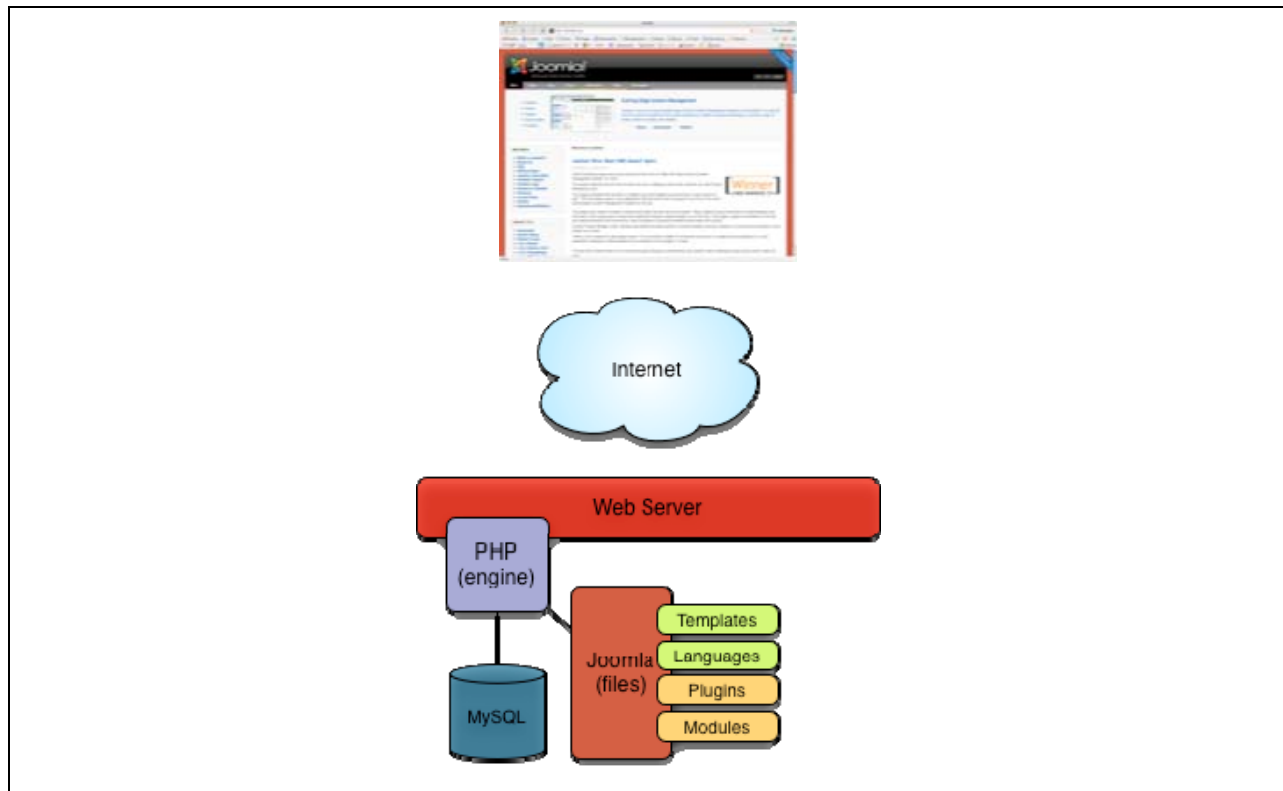
So, let's get started.

## Satisfying the Prerequisites

Before we can get started working with Joomla directly, make sure your computer has the required software and components to run the system. It would be very easy for us to spend numerous pages talking you through the individual installation steps for each of the prerequisites, but in the interest of time we are going to make some assumptions about what you already have installed. They are as follows:

- You have a web server, such as Apache's HTTP Server (<http://httpd.apache.org>) or Microsoft Internet Information Services (IIS) (<http://www.iis.net>), to serve the pages.
- You have PHP (<http://www.php.net>), which is the web development language that has been used to create Joomla and is required to process requests.
- You have MySQL (<http://www.mysql.com>) database, which is an open source and freely available package.
- You have Joomla (<http://www.joomla.org>), the Content Management System (CMS) we are covering in this Short Cut.

Figure 1-1 provides a look at this from a layout perspective, often referred to as the *stack*. In the figure you can see that the Joomla architecture has several core groups, including Templates, Languages, Components, Modules, and Mambots. We will cover these in Section 4 of the Short Cut.



**Figure 1-1. Joomla deployment stack**

## WAMP, MAMP, and LAMP—An Alternative

Before we dive into each of the individual requirements you need to run Joomla, let us first point out there is an alternative—one of the AMP (Apache, MySQL, and PHP) distributions. In a nutshell, so many applications need these three components today, that people have started bundling them into a single installation which can be run on Windows, Mac OS X, or Linux— thus the references to WAMP (<http://www.wampserver.com>), MAMP (<http://www.mamp.info>), and LAMP ([http://en.wikipedia.org/wiki/LAMP\\_%28software\\_bundle%29](http://en.wikipedia.org/wiki/LAMP_%28software_bundle%29)). To even further the case, there is a distribution called XAMPP (<http://www.apachefriends.org>), which adds Perl to the mix (the second P) and provides distributions for Linux, Windows, Mac OS X, and Solaris.

**Note**

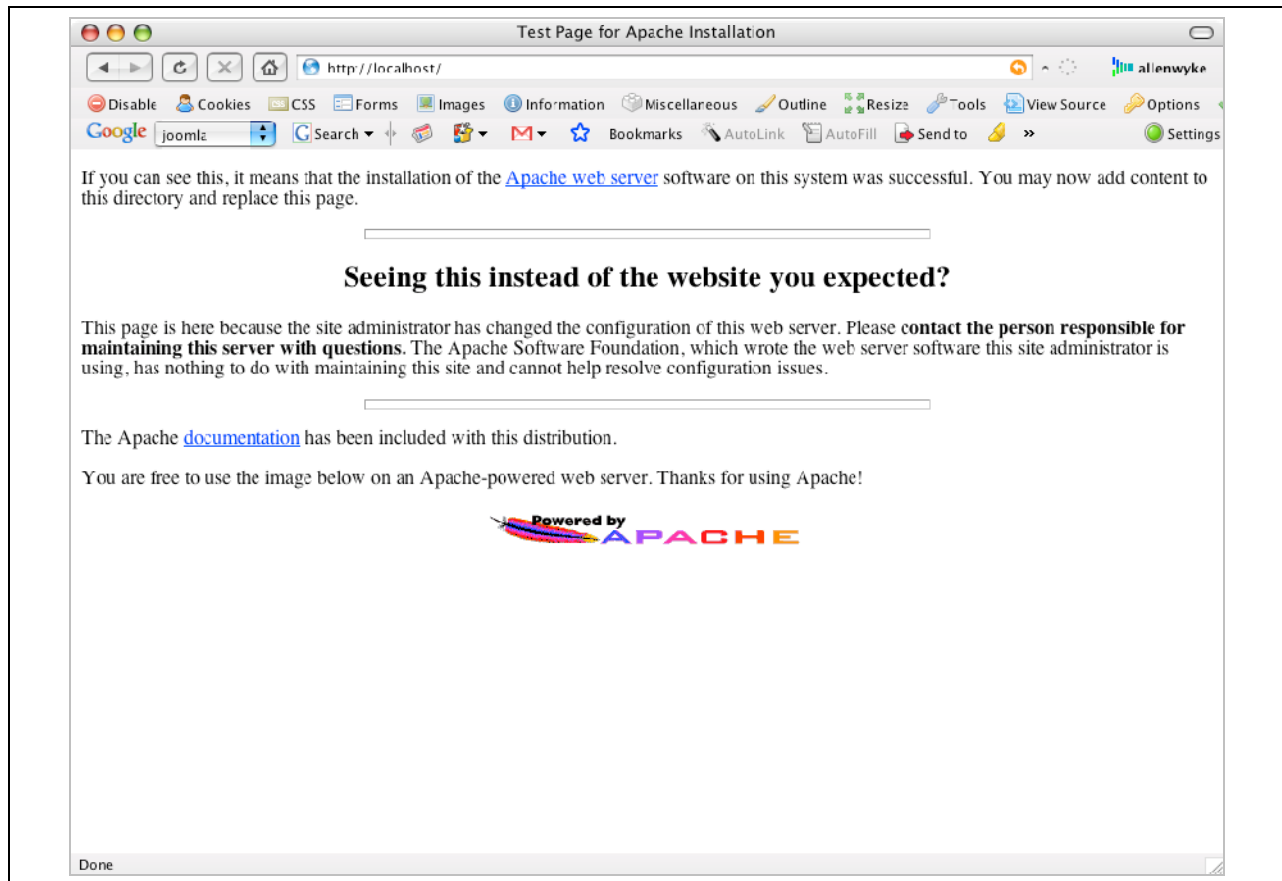
For the purposes of this Short Cut, when we refer to XAMPP, you can assume we literally mean an XAMPP distribution or any similar WAMP, MAMP, or LAMP distributions unless otherwise specified. In general, take it to mean a distribution with Apache HTTP Server, MySQL Database, and PHP.

From a Short Cut perspective, these distributions are definitely the way to go to get started with Joomla. By installing one of these distributions, you can quickly meet all the Joomla requirements without having to install and configure separate packages. The purists in the world would rather install and configure them individually, which is fine too. At the same time, if you are planning on running Joomla in a production environment then you will also want to install and configure these individually.

**Web Server**

Like most web-based applications, a web server is required by Joomla to handle requests from a web browser and return the results. For many operating systems today, a web server is provided. Mac OS X and most Linux distributions come with a version of Apache HTTP Server, while Windows generally come with some flavor of IIS. If you decide to use a built-in web server rather than one from XAMPP, be sure to check your system documentation on how to configure and run the service.

Be sure to check to make sure your web server is up and running before proceeding. A check, by pointing your web browser to the host, will show if it is working. If you are running your browser on the same machine you are running the web server, then you can simply go to <http://localhost> to access the site. A freshly installed Apache HTTP Server will return something like Figure 1-2.



**Figure 1-2. Apache HTTP Server successfully running**

## PHP

Joomla, at its core, is a system written in PHP. According to the official site, PHP is an HTML-embedded scripting language. Much of its syntax is borrowed from C, Java, and Perl with a couple of unique PHP-specific features thrown in. The goal of the language is to allow web developers to write dynamically generated pages quickly. In a nutshell, it is a web-based programming language that has quickly grown out from the hobbyist to having an enormous following. With this success have come many enhancements and advances to the language.

### Note from Allen

As someone who often serves as Chief Technology Officer at a large online media company and has experience building and running Java, Active Server Pages (ASP), and Visual Basic (VB) teams, PHP is one of my favorite technologies. Not only does it allow me to stand up solid and scalable sites and web-based applications quickly, but the resource pool of talent is also growing significantly enough that it is a solid business decision.

With your web server up and running, it's time to install PHP. (Some computers come with PHP already installed on the system. Mac OS X, for instance, already has PHP on it—it just has to be enabled.) Read your system documentation to see if PHP is already installed. And please note, you will want to be sure you have a supported version of PHP. Not sure? Don't worry—the Joomla installation process will help. For now, let's just get the version you have running.

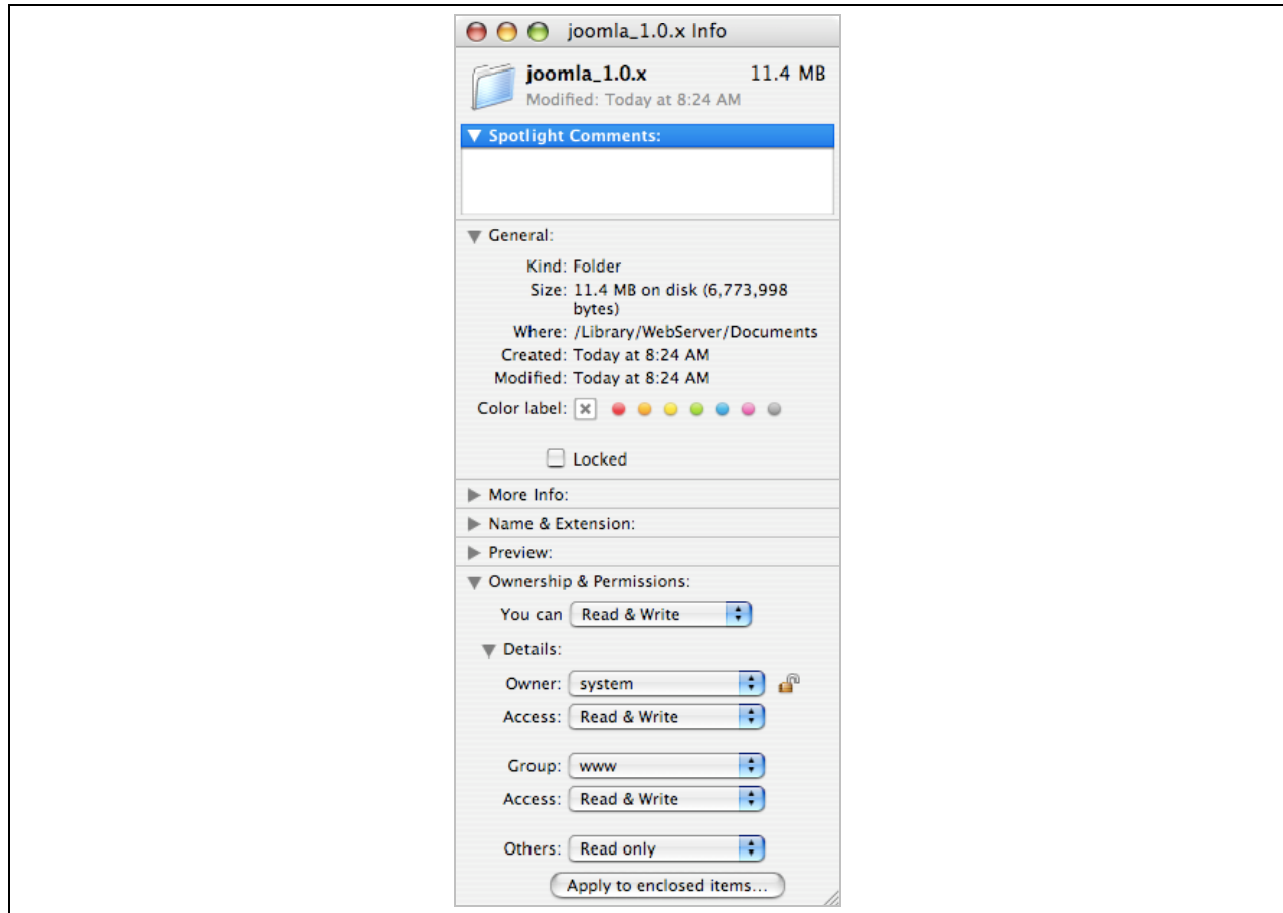
If you need to install PHP, go to the PHP website (<http://www.php.net>) and follow the download and installation instructions provided. PHP runs as a server *plug-in* (called a filter in IIS or module in Apache HTTP Server). Basically, when a request comes in for a PHP page the plug-in says, “hey, I am suppose to handle that request by passing it to this PHP engine thing and then return the results,” so it intercepts the normal process of the web server and does so. The end result is that the PHP code is processed by the PHP engine and the results (e.g., the HTML page) are returned to the browser.

After you have installed PHP, the best way to test it is to create and drop a file called *test.php* that contains the following code into the document root of your web server.

```
<?php  
phpinfo();  
?>
```

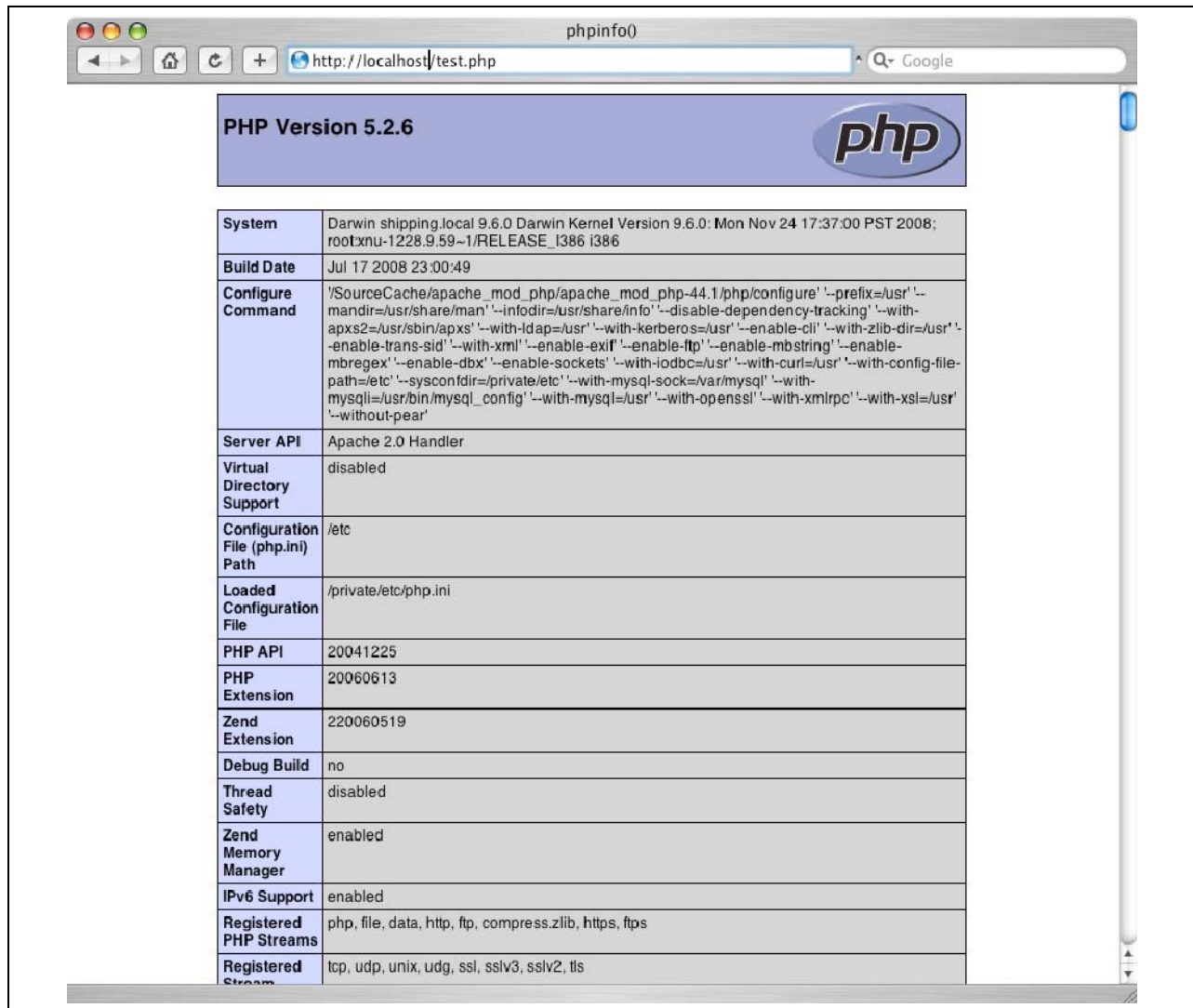
## Warning

Be sure to have the proper permissions on the file to execute the script. For UNIX and Linux-based distributions, including Mac OS X, this can generally be resolved by given the www group (or user) rights to the file. See Figure 1-3 for example of these settings on a Mac OS X machine.



**Figure 1-3. Giving the www Group Read and Write permissions**

This script, assuming everything is running correctly, will output all the details about your PHP installation including the location of the governing *php.ini* file (something you may need a little later on). See a sample of this in Figure 1-4. In this page, you can see we are running PHP 5.2.6, which is the version on our Mac OS X 10.5 computer.



**Figure 1-4. Results of running phpinfo()**

There is one other requirement before we move on—PHP needs to have support for MySQL included in its distribution. Remember our *test.php* page? Scroll down and look for a section on MySQL, as shown in Figure 1-5. If you do not see a section for MySQL, then that means you need a new PHP distribution or you need to compile a new one with MySQL support included. Check the PHP documentation for how this can be done or, perhaps, choose to move to one of the XAMPP distributions.

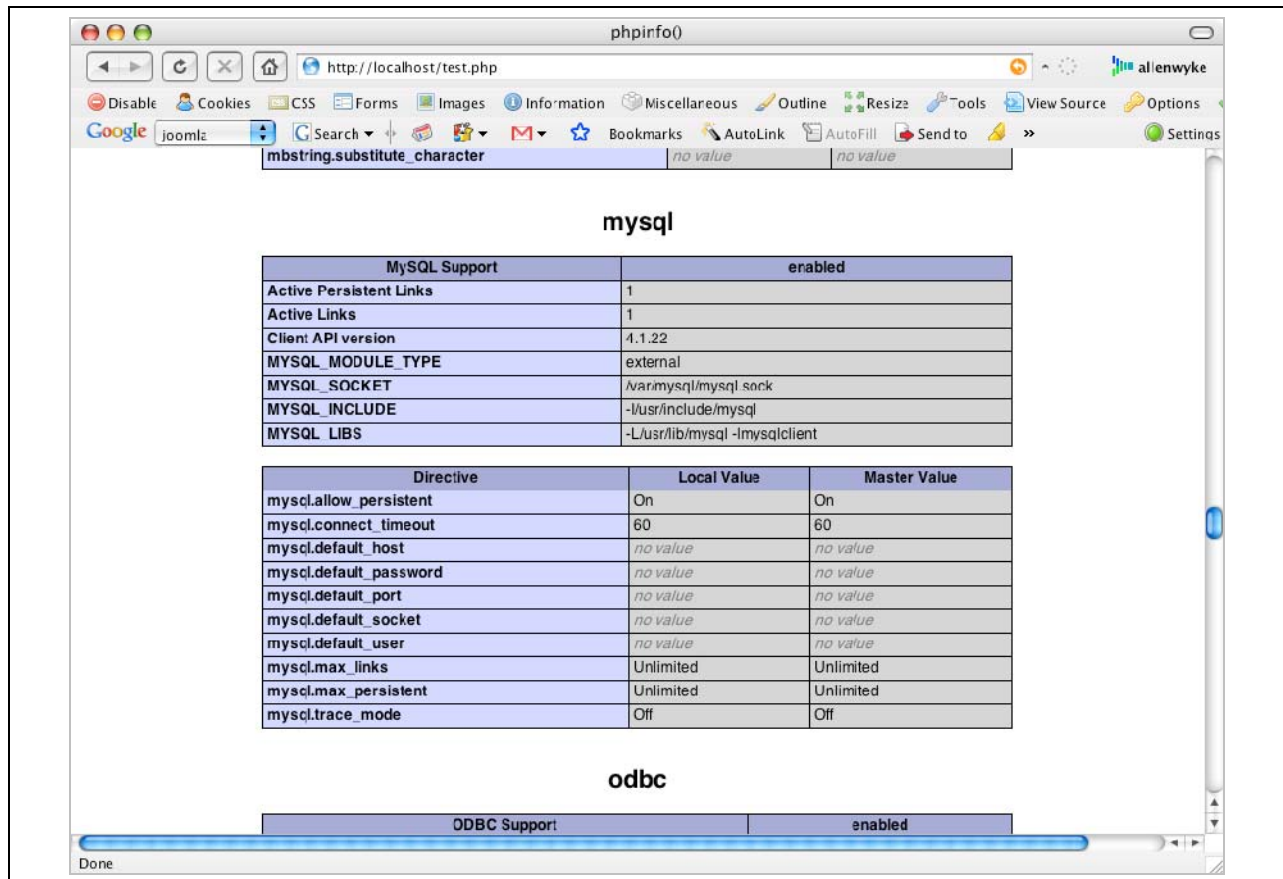


Figure 1-5. PHP with MySQL Support

## MySQL

In the world of open source, there are quite a few databases. One, however, commonly emerges as the most supported—MySQL. The database initially lacked some critical features needed by larger enterprises, as well as non-command line tools for administration, but the last few years has seen MySQL mature at a significant rate. One could certainly argue that its success goes hand in hand with the success PHP has seen and vice versa.

Like PHP, some computers and/or operating systems come with MySQL. Many of the Linux distributions either come with it or provide it as an optional component to install. If you do not have MySQL, you will need to go to the MySQL website (<http://www.mysql.com>) and follow the download and installation instructions provided. Once you have downloaded and installed MySQL, download and install the GUI (Admin) Tools. These tools represent a common set of graphical applications that allow you to administer, configure, and otherwise manage a MySQL server.

At this point, we have our web server running, we have PHP with MySQL support installed and working, and we have a MySQL database up and running; it is now time to install Joomla.

## Installing Joomla

Download the most current release from the Joomla website (<http://www.joomla.org>). Once downloaded, uncompress the file and place it into your web server's document root directory. Because the Joomla setup will need to access and modify some configuration files within its folder, you may (Mac OS X and UNIX/Linux) need to modify the permissions like we did to run the *test.php* page.

### Note

While we go over the steps to install Joomla, it is not the goal of this Short Cut to comprehensively cover or replace the official documentation for the installation of Joomla, rather we provide a clear vision and understanding of what most of you can expect when performing the setup. If you run into issues, we recommend you go Joomla.org and read through their official documentation and forums for help.

## Creating a Database User and Schema

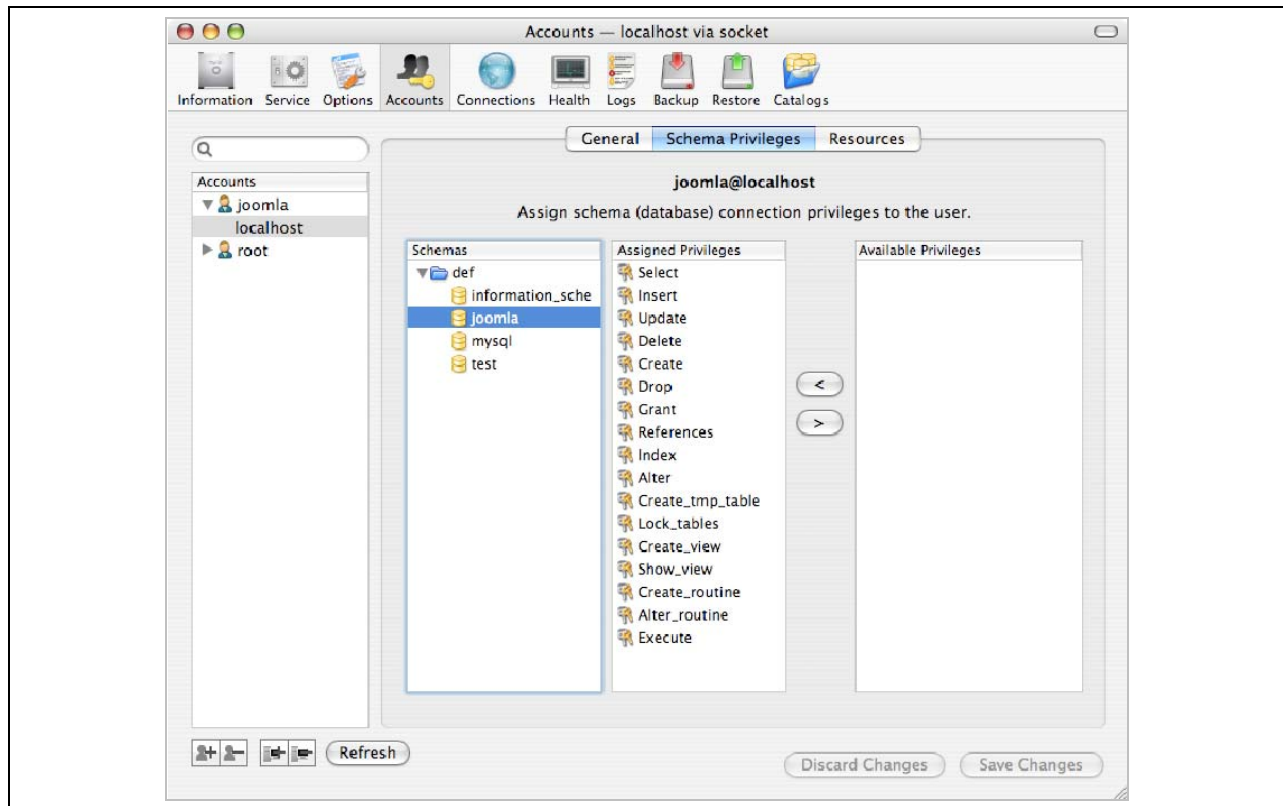
The first step in setting up Joomla is to create a database (a.k.a. schema or catalog as it is often referred) to hold all the Joomla data. This can be done using any of the MySQL administration tools, such as the MySQL Administrator you installed as part of the Admin Tools. There are also other tools, such as *PhpMyAdmin* (<http://www.phpmyadmin.net>), that are often distributed as part of the XAMPP distributions, which will work as well. You can name the database anything you want, but we recommend you just call it *joomla* for the purpose of getting started.

### Tip

If you are hosting Joomla on a site that does not allow you to create a database but rather your account is provided with a single database for all your tables, then don't worry—Joomla can be installed without overwriting any of your existing tables. In this case, just write down the name of your database name for use during the Joomla setup.

The next step is to create a database user with the appropriate permissions to access our joomla database and create the necessary tables. Once again, we recommend you simply name this user joomla for this exercise. Assuming your Joomla installation is on the same machine as your MySQL database, you will want to be sure to configure the user to be allowed access from *localhost*.

Once the user has been created, we next need to give that user the proper rights to our Joomla database. These are often referred to as schema privileges. For this exercise, just give the user all available privileges. Figure 1-6 shows what this looks like using the MySQL Administrator application.



**Figure 1-6. Using MySQL Administrator to give a user permissions on the Joomla database**

## Setup Process

Once your database is configured, all you need to do is drop the Joomla folder into your document root and access it via the browser. You will need to be sure your web server user has at least read/write access (chmod 664 for you Linux/UNIX users) to the files in this directory, so that it can complete the configuration. This will launch the setup process.

On the initial screen, the Joomla installation process allows you to select the language you want to use during the installation process. After you click Next, it checks to make sure your environment is correctly configured. We recommend that you resolve any issues before proceeding. Most often errors that you see will have to do with permissions or PHP configuration issues.

After correcting any environment issues and accepting the license agreement, proceed with the installation. Enter the information about Database Connection.

Here is where you use the information that you entered when creating the database and a user to access it—Figure 1-7 shows what this looks like.

**Figure 1-7. Database setup**

## Note

If you are reinstalling Joomla in the same tables as a previous instance, then you can click the Advanced Settings and control how you want to handle old tables as well as specify a table prefix to use. The table prefix should also be used if you plan on running multiple Joomla instances with all the data stored in the same database (but in different tables).

Once the database tables are created you will be provided a screen to enable Joomla's FTP filesystem layer. This layer was added to Joomla 1.5 to better handle filesystem permission restrictions that often occur on Linux on other UNIX-based operating systems. In short, rather than trying to access the local disk directly, this layer later uses FTP to perform disk actions.

If you are running Joomla on a Microsoft Windows-based machine or you have configured your permissions to allow Joomla to have its required disk access, then you can leave this option set to No—turning off the FTP filesystem layer. If you need to enable it, you will need to make sure the machine running Joomla is also running FTP and that the account Joomla is running has access to the Joomla installation path.

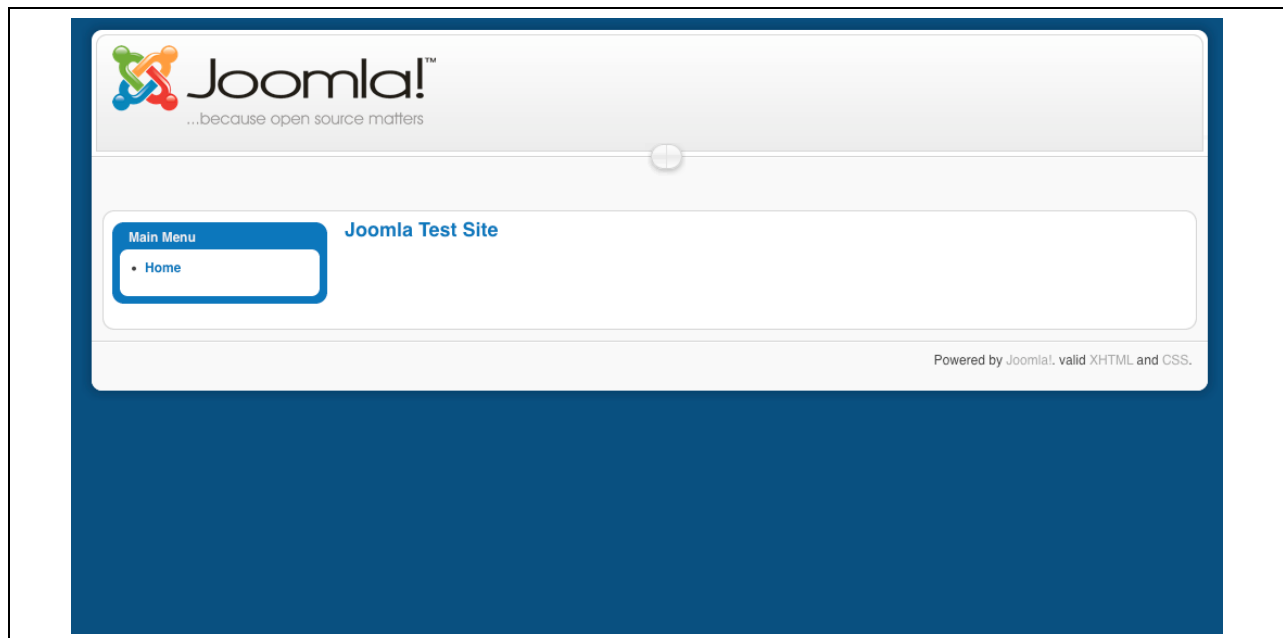
Once you have configured the FTP filesystem layer, you will come to a screen where you can enter in the sitename. This can be changed at a later time, but let's call it our Joomla Test Site for now.

Step 6 will also give us a chance to install default sample data, load a migration script if you are migrating from another server, and specify the administrator's email address and a password.

## Note

For the purposes of this book, we will not be installing the sample data. If you wish to install it, simply click the Install Sample Data button on the Step 6 screen.

Once you have completed Step 6, remove the installation directory that is found in your Joomla folder of your document root. Doing so helps ensure that others will not be able to access your installation files and hack your site. Finally, click on the Site button and you are taken to your live site. As you can see in Figure 1-8 it is almost entirely blank. But don't worry—the next step is for us to access the administrator site to start configuring the site!

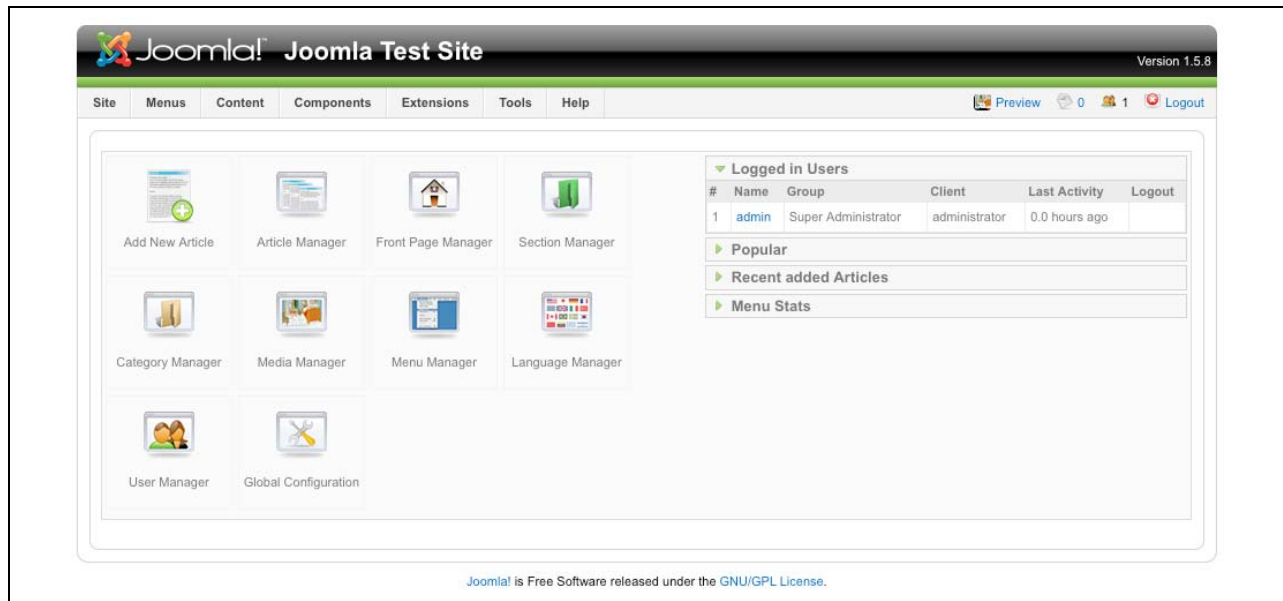


**Figure 1-8. Fresh Joomla Site**

The main Joomla site is not the only thing to see, however. Joomla also boasts a powerful *backend* that is used to configure the system, install extensions, and author and publish content. This backend is called the Joomla Administrator and can be seen in Figure 1-9.

## Tip

Joomla Extensions (<http://extensions.joomla.org/>) provide a way to extend the Joomla system and add functionality and features. We will cover extensions and how they are found and installed later in this Short Cut, but for now just remember they exist.



**Figure 1-9. Joomla Administrator**

To access the Joomla Administrator, simply type in `/administrator` *after* the URL you use to access your Joomla site. When you do so you will be prompted to log in (Figure 1-10) using the information you provided during the installation process (Step 3).



**Figure 1-10. Joomla Administrator Login page**

For instance, if you installed Joomla in the root of your web server, you will want to go to:

`http://localhost/administrator/`

If you installed Joomla into a directory on the root, such as a directory called *joomla*, then you would access the Joomla Administrator using the following URL.

<http://localhost/joomla/administrator/>

## Understanding the configuration.php File

Before we start configuring our site, we wanted to take a minute to go over a very important file contained in the Joomla installation—the *configuration.php* file, which is contained in the root of the Joomla files. This file is where all your configuration options are contained. Did you mess up something during the installation process? Edit the *configuration.php* file. Do you have a Joomla installation on your machine at home that you want to move to a set of servers elsewhere? Edit the *configuration.php* file.

Although it is not required to know every single aspect of the *configuration.php* file, you will certainly find it helpful if you need to make a change to something that you are not able to do through the core Joomla Administration—like when it is not functioning. Some of our favorite settings in this file to remember are the following:

- **\$host:** the hostname where the database server is running.
- **\$user:** the user you connect to the database as.
- **\$password:** the password for the `$mosConfig_user` that is used to connect to the database.
- **\$db:** the name of the database/schema on the database server.
- **\$live\_site:** the URL used to access the site. This setting is important to ensure that stylesheets, images, and other relative path resources are properly referenced.

## Additional Configuration Settings

If you opened up the *configuration.php* file you saw a number of settings other than the few we listed. Now, if you access the Joomla Administrator console and click on the Global Configuration icon, you will be taken to the tabs that allow you to control various aspects of your configuration. Specifically, it allows you to control the following:

- **Site:** where you can take the site offline for maintenance, set the site's name (displayed in the `<title>` HTML element), and control other aspects, such as site meta data and SEO (Search Engine Optimization) settings.

- **System:** provides control over aspects such as enabling web services, controlling user registration, media settings as well as debug, cache, and session settings.
- **Server:** has core server settings, which include control over page compression, error reporting, locale, FTP, database, and email.

Although this list of options are easy to follow if you have prior experience with a CMS, it becomes very easy to be overwhelmed about what settings you need to care about which ones you don't if you are a newbie. The next couple of sections will help demystify these settings.

## Important Site-Wide Options

When we are setting up an instance of Joomla for a client or our own needs, there are several changes we always make or at least consider making. We have compiled these into Table 1-1 to help give you quick access to some of our favorites.

**Table 1-1. Important site-wide options**

Tab	Setting	Comments
Site	Site Name	This setting is used in several locations, including as part of the <code>&lt;title&gt;</code> element on all pages and some of the email templates.
	Global Site Meta Description	This should be a short description of your site, which is used by search engines to help classify, rank, and display details on your site on Search Engine Result Pages (SERPs). When someone searches on Google, for instance, the search results display this text just below the title that is displayed.
	Global Site Meta Keywords	This controls the keywords that are placed in the <code>&lt;head&gt;</code> of the HTML output by Joomla. It helps search engines categorize your site. Use a list of terms and phrases, separated by commas, you feel represent your content.
	Search Engine Friendly URLs	If you care about search engine rankings, you will want to enable this setting. It transforms obscure URLs, such as <code>/index.php?option=com_search&amp;view=search</code> , and changes it to be something friendly, like

		<b>/search.</b>
System	Allow User Registration	If you are going to have users register on your site, then you will need to set this option to <b>Yes</b> . It is recommended that you keep the rest of the user settings the same unless there is a reason to do otherwise.
Server	GZIP Page Compression	To reduce the size of pages sent between the server and browser, Joomla can compress the pages before it sends them. It is recommended that you enable this option to help speed up how fast your pages are downloaded and displayed on users' computers.
	Time Zone	Will pick up the offset of the server running Joomla by default. You may need to change this to your time zone if your site is hosted elsewhere.

There is one section of the Server tab you will notice is missing from the prior table, but is important: Mail Settings. Because your Mail settings are a critical piece of how Joomla operates, especially if you enable site registrations, we wanted to cover it in its own section with some details on why you would select one option versus the other.

## Email Settings

We probably scared you a little with that last sentence. It's not really that scary, but it is really that important to get this right. If you do not get your email settings correct, your system will not be able to tell you when people register, and it won't allow the system to guide your users through the registration process. And even if you do not use registration per se, other extensions that you may wish to install, such as newsletter or forum/message boards extension will definitely need to send emails back and forth.

If you are on a UNIX/Linux or Mac OS X machine, then more than likely you have Sendmail (<http://www.sendmail.org/>) installed (or something that masquerades as Sendmail in the case of more recent versions of Mac OS X). To be safe, we generally use the PHP Mail Function option though. It uses PHP configuration settings to use the appropriate underlying Mail Transfer Agent (MTA) to send mail, which more times than not is Sendmail or the equivalent in Windows.

In summary, give either of these a try and use whichever one works. Windows users should try the PHP Mail Function, as it is highly unlikely you have done

what is necessary to run Sendmail. If neither of those works, move to the SMTP Server option.

In general, using the SMTP Server option should be as easy to selecting it, selecting the option on whether or not it requires Authorization, providing the username and password accordingly, and of course setting the SMTP Host. It can be a bit tricky if you are hosting a site for someone else but you are *not* hosting their domain (i.e., DNS). We ran into this exact situation recently. We'll set the stage and describe the problem we had.

We were hosting a site for a customer of ours, but their DNS was still hosted and managed by their Registrar

([http://en.wikipedia.org/wiki/Domain\\_name\\_registrar](http://en.wikipedia.org/wiki/Domain_name_registrar)). By default, all domain names have a Mail Exchanger (MX) record that points to the location of the mail server. While we were able to add a record to their DNS that pointed to our IP address for all requests to their web server (a.k.a. [www.example.com](http://www.example.com)), the services provided by the particular company we were hosting with, which will remain nameless, assumed they hosted the entire DNS. End result was that it also assumed the MX record should point to our mail server and *not* the real mail server and their service would not allow us to set this. So each time Joomla attempted to send an email, it would check the DNS of our hosting company, see a local MX record (versus the real one), and try to send the email to local account, which of course did not exist, so the email would bounce back to the sender specified in the From Mail address on the Mail configuration tab in Joomla.

As a temporary solution we ended up using a Gmail account we had to send messages through. Personally, we do not like the fact the SMTP User and Pass settings are in clear text (and stored in the [configuration.php](#) file), but it did work. The whole situation ultimately caused us to change hosting companies. The moral of the story is to use the Sendmail or PHP Mail Function options if you can. If you can't and your deployment is secure enough to not be concerned about passwords (lack thereof or stored in clear text), then by all means use the SMTP Server option.

Besides the core mail server settings, there is also the Mail From and From Name settings. When a person gets an email from Joomla, this will be the address it is from and the name that is displayed. You want the Mail From setting to be a real email address, so that any replies or bounces will go to an inbox that you can monitor or read. Something like [accounts@](#), [system@](#), [registration@](#), or even [info@](#) is fine—whatever you have control over and want to create.

The name should be something meaningful, to make it easier for people getting email from the system to recognize. If you were using Joomla for a real estate site, then you should have the name of the company here assuming it is not

unreasonably long. For instance, for Allen's real estate site, he has Wyke Properties as the Mail From setting.

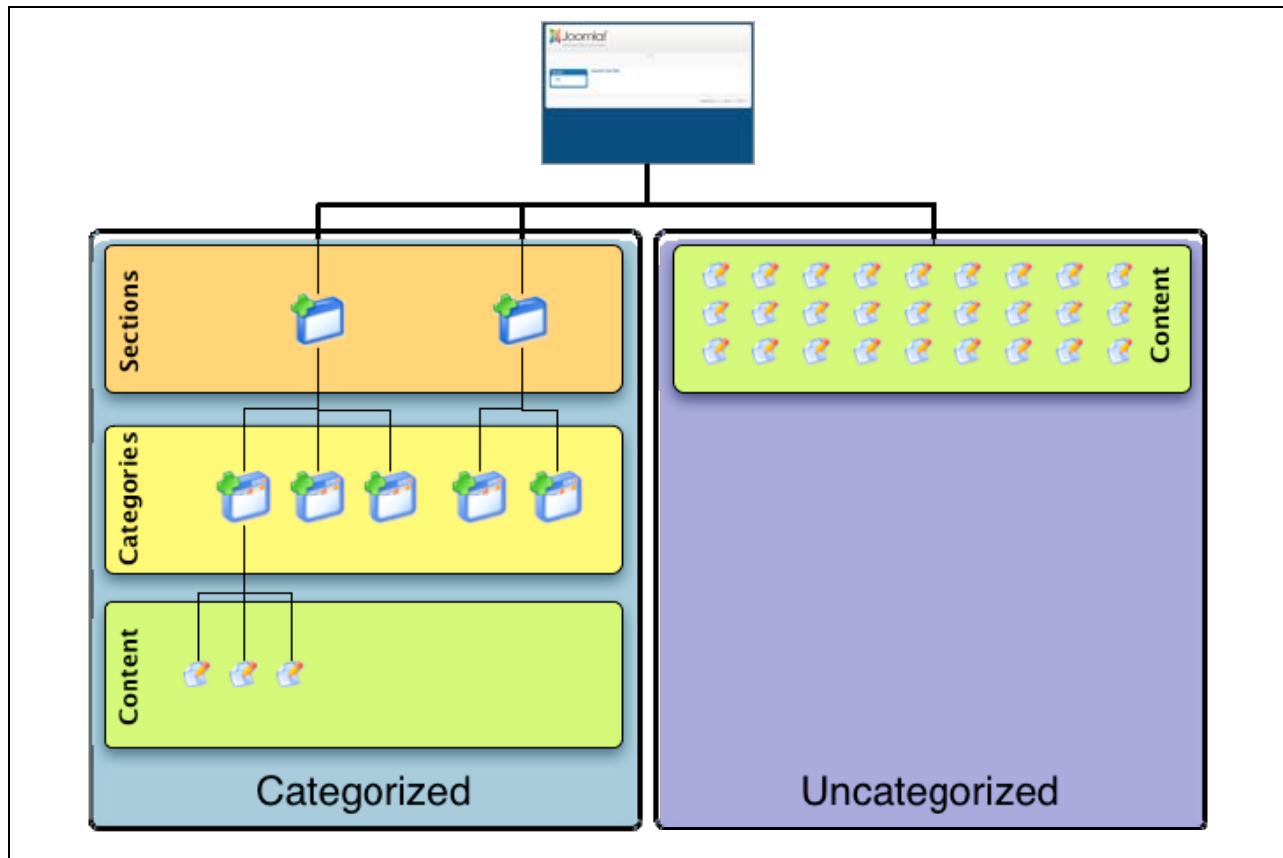
In the end, these two settings allow you to control how emails from Joomla appear to the user and where replies will go. Basically, it translates into something like the following, where the name is displayed in most email clients and the email address is available to see and definitely use:

| Wyke Properties <info@wykeproperties.com>

## Organizing Your Content

One of the best benefits of a CMS is the fact that it organizes its content and makes that organization available throughout the system. If you want a menu on your site that says News, for instance, then you will always want it to show the most recent news. Each time you add a news article, such as a press release, you do not want to have to change the link—you always want it to show articles that have a categorization of news. Joomla accomplishes this organization using two things: Sections and categories.

Sections represent exactly what they sound like—sections of your site. They are reflective of the topmost organization of your site. Categories, on the other hand, are one level down—they further categorize the sections of your site. If you had a section called About Us, for instance, then you may have categories such as History, Management Team, or Office Locations. Figure 1-11 shows how Sections and categories are organized, as well as how they are related to Uncategorized Content, which are not grouped within Sections or categories and will be covered later.



**Figure 1-11. Sections and categories**

### Warning

Before you can enter a Category, you must first enter the parent Section that the Category will be a part of.

When creating Sections and categories, which can be accessed from the Control Panel in the Joomla Administrator or under the Content menu, there are several options to be aware of:

- **Publish:** tells Joomla whether or not the Section or Category should be published and available for use on the site.
- **Unpublish:** will unpublish the Section or Category for use on the site.
- **Move (Categories Only):** used to move a Category from one Section to another.
- **Copy:** will copy the item from one location to another, such as copying a Category from one Section to another.

- **Delete:** will delete the Section or Category. You will have to delete or reassociate any content associated to the Section or Category before you can delete it.
- **Edit:** allows you to edit the selected the Section or Category.
- **New:** is used to create a new Section or Category.

Before you create Sections and categories, we have some words to the wise about planning.

## A Little Planning

At first glimpse it appears Sections and categories are easy. For the most part, that is true. But if you do not plan ahead and you end up having the wrong makeup of Sections and categories, you could find yourself making a lot of changes and moving content to address the problem. Moving content is generally just time consuming, but it can have a negative impact on your SEO efforts. It's not impossible to correct, but it teaches you a lesson—plan ahead!

When you plan your site the best advice we can give is probably the opposite of what you might think. We do *not* recommend you try to enter every possible Section and Category you think you will ever need, but rather *only* enter the ones you absolutely know you need. Over time add Sections and categories as your site grows or the market demands it. If you find that you need to rename or further breakdown a Section or Category, then it's ok—do a little here and a little there as needed.

To help get you started, in Table 1-2, we have provided some Sections and Categories commonly seen on various sites.

**Table 1-2. Common Sections and categories**

Section	Categories
About Us	<ul style="list-style-type: none"> <li>• History</li> <li>• Management Team</li> <li>• Office Locations</li> <li>• Careers</li> </ul>
Products	<p>List of products your company offers. If you were Microsoft, for instance, you might have the following:</p> <ul style="list-style-type: none"> <li>• Office</li> <li>• Windows</li> </ul>

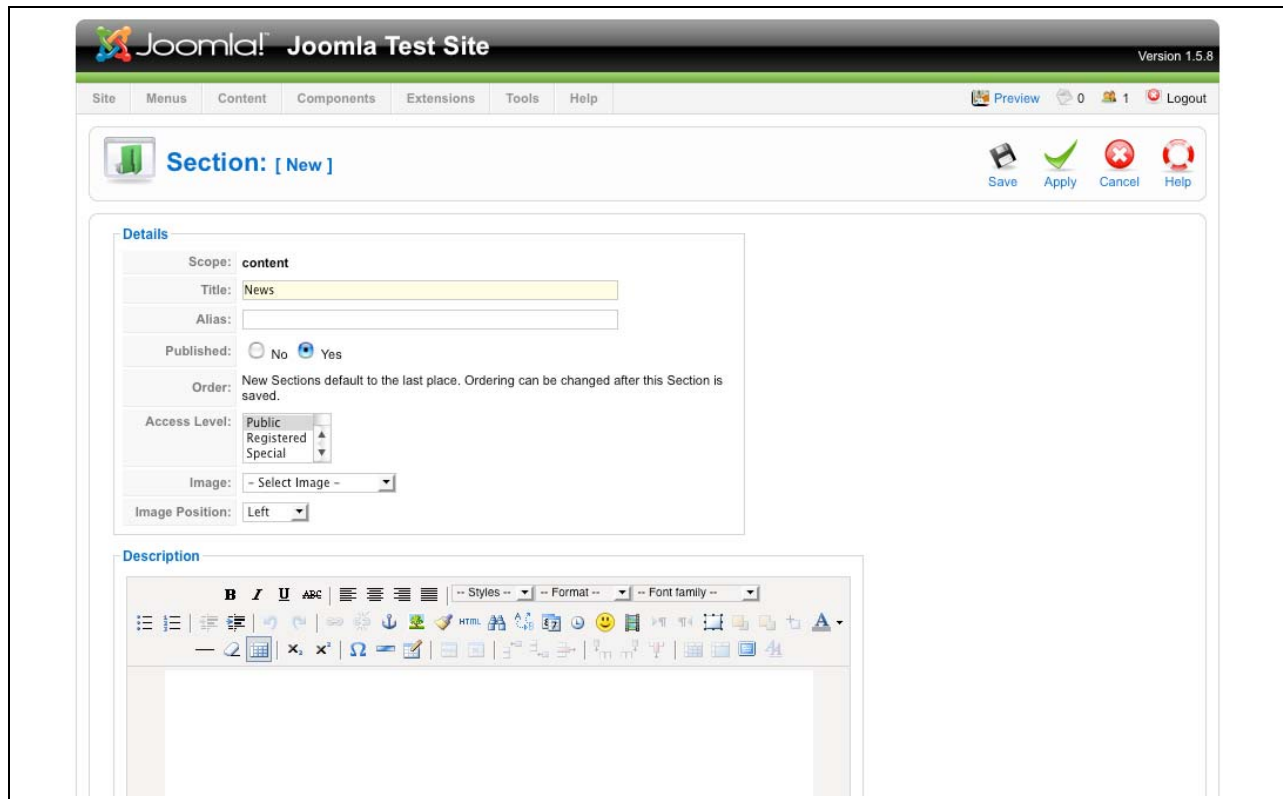
	<ul style="list-style-type: none"> <li>• MSDN</li> </ul>
Solutions	<p>If your site will be promoting industry solutions, such as:</p> <ul style="list-style-type: none"> <li>• Small Business</li> <li>• Medium-Sized Business</li> <li>• Enterprise</li> </ul>
Industries	<ul style="list-style-type: none"> <li>• Financial</li> <li>• Manufacturing</li> <li>• Technology</li> <li>• Industrial</li> </ul>
Support	<ul style="list-style-type: none"> <li>• Submit an Issue</li> <li>• Knowledge Base</li> <li>• User Forums</li> </ul>
News	<ul style="list-style-type: none"> <li>• Press Releases</li> <li>• Publications</li> </ul>
Resources	<ul style="list-style-type: none"> <li>• Links</li> <li>• Whitepapers</li> <li>• FAQs</li> </ul>
Services	<ul style="list-style-type: none"> <li>• Consulting</li> <li>• Training</li> </ul>
Community	<ul style="list-style-type: none"> <li>• Blog</li> <li>• Pictures</li> <li>• Videos</li> <li>• Forums</li> </ul>

As you can see, it is very easy to populate your Sections and categories. Once again, we recommend you start small—only enter the items you *know* you will need for certain with your initial import of content. We can about assure you that you will end up making some changes once you start entering content and linking to menus, so don't sweat over trying to solve it all right now.

## Sections

To enter a Section, simply click the Section Manager in the Joomla Administrator Control Panel and then click New. Using the form presented (see Figure 1-12), enter the following information. This is not everything you can do, but keeping with our Short Cut mentality, it is what 95% of you will care about. For the purpose of this example, let's create a Section called News that is accessible by the Public, is Published, and has no Description.

- **Title:** Put the name of your Section here—in our example right now, it should say News.
- **Published:** This radio button gives you the option to specify if you want the Section published or not.
- **Access Level:** We have not yet covered permissions, but if you wanted to restrict a given Section to a specific group of users, such as Registered users, then this is where you would do it.
- **Description:** This description can be used to provide a general description of what the Section is, or it can contain content you wish to be displayed on your site. We will cover how to control the display of this Description on your site when we go over creating menu items.

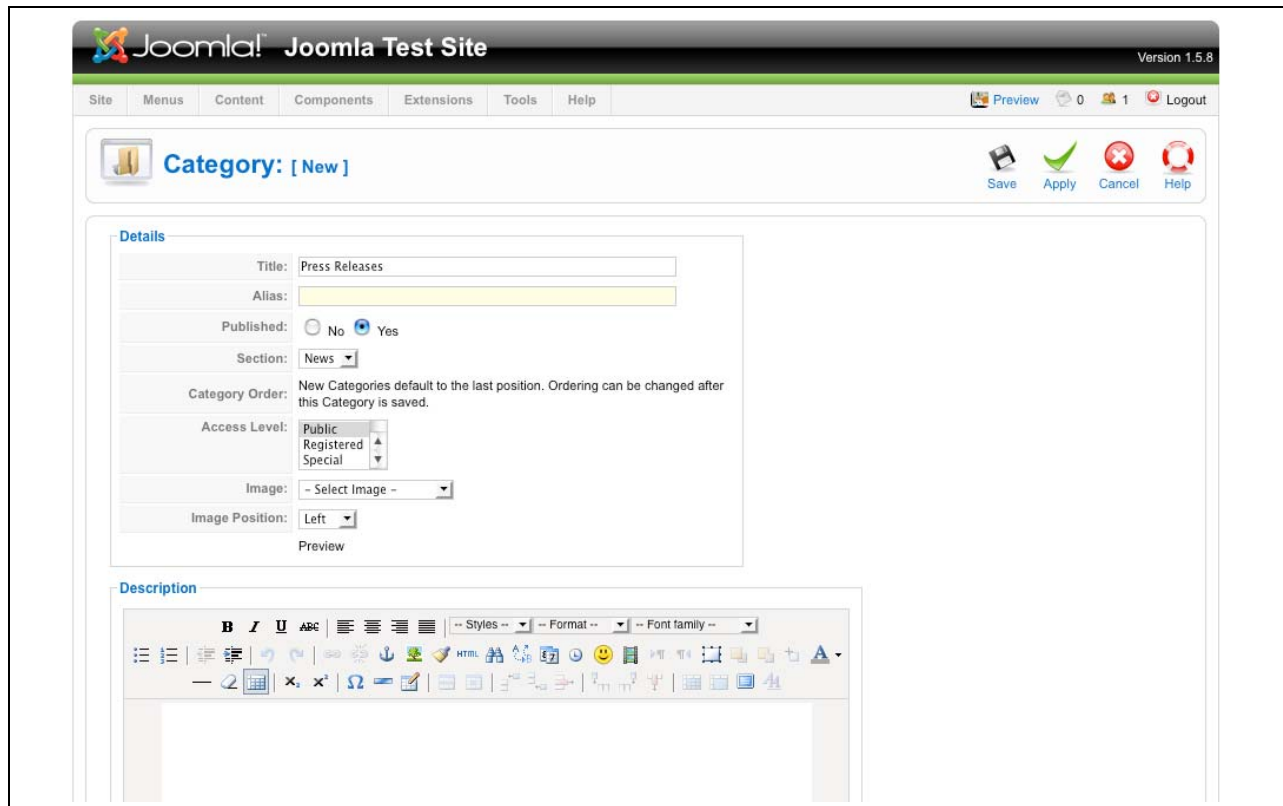


**Figure 1-12. Creating a new Section**

After you have entered in all the information you want, click Save to save your new Section.

## Categories

For the most part, creating Categories is exactly the same as creating Sections—except for one important difference. When you create a Category you *must* select the name of a previously created Section. This selection option appears right under the Published radio button option as shown in Figure 1-13.



**Figure 1-13. Creating Categories**

Following our example of creating a Section called News, create a Category called Press Releases. Once complete, click Save.

With your newfound knowledge of creating Sections and categories, go ahead and enter the ones you know you will need to get set up. Before we move to adding content to your newly created Sections and categories, we have a few more things to cover about the core system. Let's do that now.

## Selecting a Template

Templates, which are accessible from the Extensions menu in the Joomla Administrator, are probably one of the easiest things to understand conceptually in Joomla. Templates contain the code that represents your site design—it's a skin. Joomla has support both for Site and Administrator templates, which means you can have one template for your core site and something different for the Joomla Administrator. You can even apply templates to specific pages, which can be handy if you want your homepage to look slightly different than the rest of your site. Or perhaps you need landing pages for various content Sections on your site—think of a sports site with different looks for football, soccer, basketball, and baseball for instance.

**Note**

We cover details on how to create your own templates later in the Short Cut. Right now our intent is to just get you familiar with the important aspects as an administrator.

That being said, not all templates are created equal—and we speak from experience. As we both started using Joomla heavily, we quickly found out that some templates were not coded properly. We also found out that creating our own templates required a rather in-depth knowledge of CSS (Cascading Style Sheets), HTML, and how Joomla worked. Although many of you may have a lot of CSS and HTML experience, like we do, ensuring consistency across browsers is not always easy—especially when newer browsers, like Internet Explorer 7, introduced a whole new world of problems to many of the templates out there.

Let's spend some time looking at what you want to consider.

**Considerations**

While we all want to find and use free templates, the reality is that many of the free templates have problems. Even if they were originally solid when developed, we have found that many templates are rarely updated to accommodate new versions or changes to Joomla. Over time the template becomes more and more cumbersome. With this in mind, here are some pointers when considering your template:

- The templates that ship with Joomla by default are great in terms of functionality. If you like the way they look, then we recommend you use them or at least use them as a starting point if you want to edit to make them look like you want.
- We have found templates that use a lot of absolute positioning as well as fixed width settings have problems with Joomla Extensions you may install. Let's say you are installing a message board extension, for instance. If your main template restricts the width to a setting that does not allow the message board extension to be properly displayed, the text could be jumbled.
- Try to only use templates that store 100% of their formatting and layout in CSS—this will only make it easier for you to edit globally should you need to...and you probably will.
- Not all templates properly separate the site CSS from the authoring environment CSS. This may not sound like a problem, but if your template has a solid black background, for instance, and a Section (HTML `<table>`, `<div>`, etc) in the middle that is white, and you have black text, this will look

nice on the website side, but when you go to author a piece of content the black background will be displayed as you try to author the text in a black font. In short, you will not be able to see it.

- With Joomla 1.5, Module Positions are defined from within the templates. These positions are used to specify the location of Site Modules, which we will cover in the next major area of this section of the Short Cut. You want to make sure your template provides as many Module Positions that makes sense for your site design. If you want modules, such as a user menu, to be on the *left*, then you need to be sure your template has a *left* position specified.
- Since there were significant changes between Joomla 1.0 and 1.5, we simply do not recommend even trying to use Joomla 1.0 templates as the basis for your 1.5 installation—try only to find Joomla 1.5 templates.

## Working with Templates

Later in the Short Cut, we cover more details about creating your own templates, but before you embark on that task, there are several things you need to know when working with templates within Joomla in addition to the previously mentioned Module Positions. These can be summed up as follows and can be performed by accessing the Template Manager from the Site menu within the Joomla Administrator.

- **Default:** the template that is marked as the default will be used for all pages on the site *except* where overridden through assignment.
- **Assigned:** want to assign a template only to a single Section of your site? Select the template and under the Menu Assignment Section, set the option to assign the template to a specific Menu item. Templates that are assigned to Sections of the site will have a green checkmark by them under the Assigned column of the Template Manager.
- **Edit:** while you can always edit a template and its CSS directly from the filesystem if you have access, you can also edit it from within the Joomla Administrator. Simply select the template you wish to edit and click the Edit button. On the resulting screen you will have the ability to not only change any options the template may provide, such as color variation or width, but also edit the HTML or CSS directly. Once complete, click Save to immediately see your changes.

## Warning

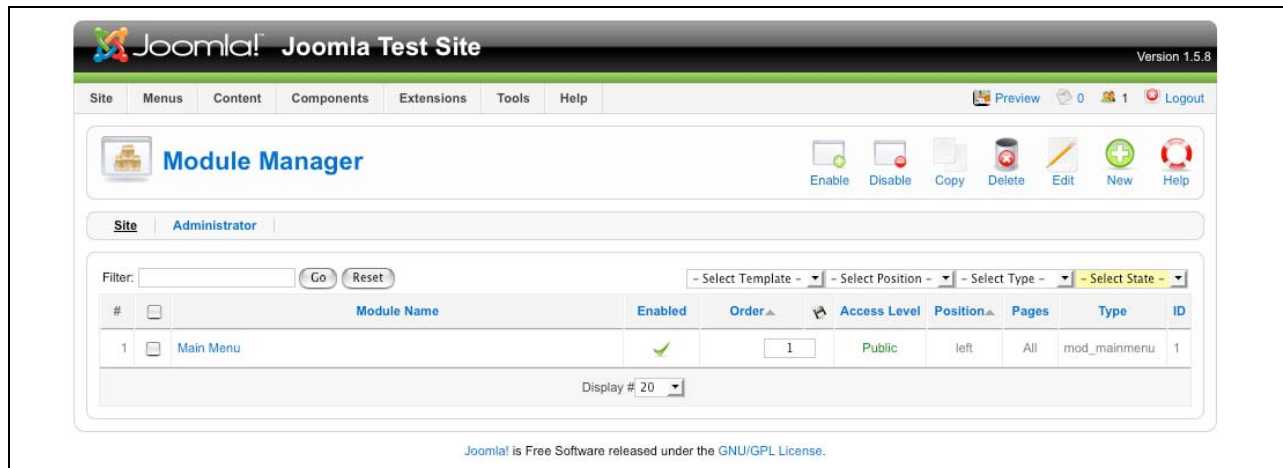
CSS files are often cached by web browsers, so you may have to perform a force reload (or clear your cache) for the browser to see changes you make to your CSS files.

- **Template Management:** eventually you will want to either add a new template or delete an existing one. To add a new template, simply go to Extensions → Install/Uninstall → Install and using the Upload Package File section, upload the new template. To delete a template, go to Extensions → Install/Uninstall → Templates, select the template you want to remove, and click Uninstall. Please note only templates that are not in use can be uninstalled.

One other thing to note about templates is that there are also Administrator templates. While it is rare that people installing Joomla will want to create custom Administrator templates, it is possible to do so. This allows you to do things like have a custom header across the top of the Joomla Administrator pages or perhaps provide a list of helpful internal links at the bottom of the pages. This can especially be helpful if you are powering a large site with Joomla and you need to customize the editing environment to work according to your own workflow.

## Controlling Modules

In many ways, controlling the modules on your site controls how it looks, but at the same time it controls how it functions. These modules, which are managed using the Module Manager shown in Figure 1-14, can be accessed from the Extensions menu. Simply changing the position of modules, for instance, can dramatically change how your site looks and feels. Not sure you like the menus on the left? No problem—move the Main Menu to the module position named *right*.

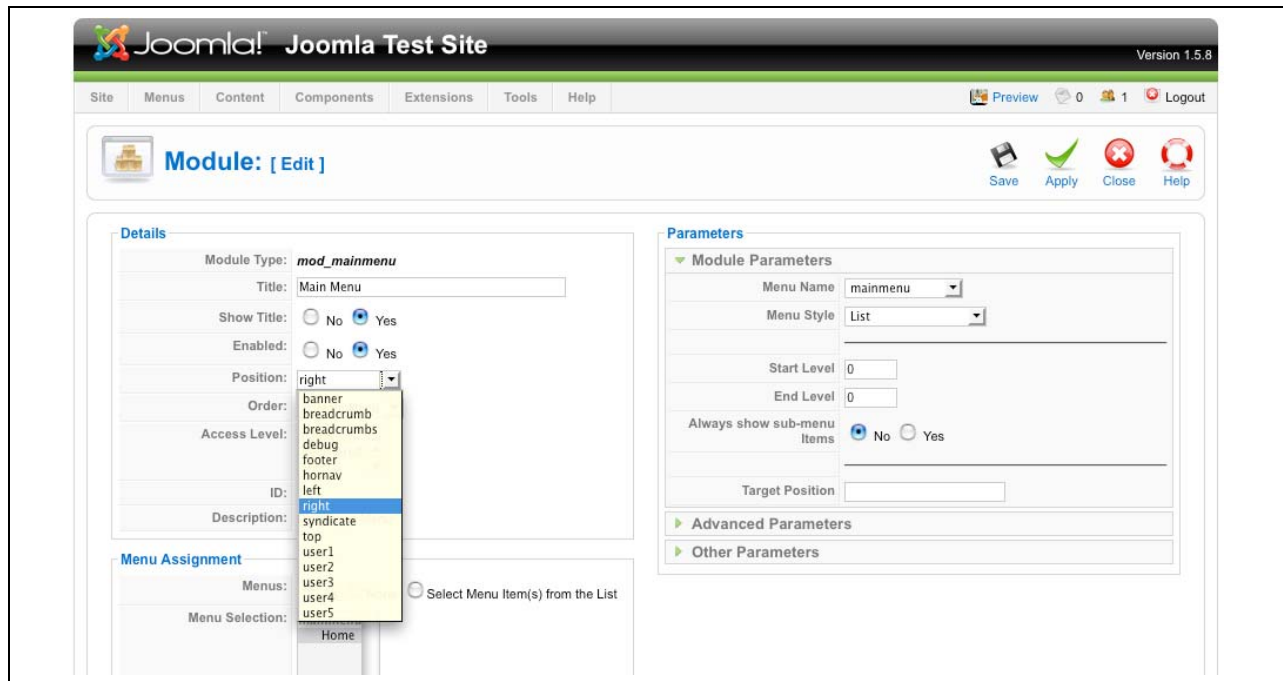


**Figure 1-14. Controlling Site Modules**

## Basic Settings

At a high level, the Module Manager allows you to:

- **Enable:** modules can be turned on or off by Enabling or Disabling. Items under the Enabled column of the Module Manager with a red X are disabled while items with a green checkmark are Enabled.
- **Order and Position:** there are two aspects to specifying the location of a module on your site. One is the position on the page, which is shown under the Position column. The position can be modified by editing the module and using the Position dropdown, as shown in Figure 1-15. The other is Order. The order represents the order the modules are displayed when multiple modules occur within the same position. You can change the order by using the arrows under the Order column or by manually editing the numbers displayed under the Order column and then clicking the little disk icon beside the column heading.



**Figure 1-15. Controlling the position of a module**

- **Access Level:** if you build sites that provide the ability for users to register and log in, you will inevitably want the ability to *only* display some modules to people *after* they have logged in. Modules marked Public will be displayed to all users, while modules marked Registered will only be displayed to users after they have logged in.

If you edit a given module, you will find even more configuration options. While all modules share the common settings we just covered, each has its own set of parameters that are specific to the module itself. The Main Menu module, for instance, allows you to select a Style, enable caching, or even specify how to indent images.

The rule of thumb here is if you want a given site module to perform differently, then be sure to click on it and see what kind of parameters are available—there is a good chance that what you want to do is there waiting for you to tweak and make your own.

## Adding Modules

The default Joomla! installation comes with a single module—the Main Menu. But it has far more modules built in that you can add and configure. If you click on the New button in the Module Manager, you will see a complete list of modules you can add. Since this is a Short Cut, we are not going to cover all types here, but here are the ones we think will most interest you:

- **Breadcrumbs:** ever been to a site that shows the *path* to the page you are viewing, such as News → 2009 → July? Breadcrumbs, which often seem to be

displayed just below the header or top navigation of a site, not only help users have an awareness of where they are on your site, which is good for usability, but it can also have a positive SEO impact because it adds a link to every page. More on SEO later, just remember that breadcrumbs are good.

- **Custom HTML:** probably our favorite module! In today's world where you may want to display your Facebook status on your site, have a YouTube video, or otherwise include a "widget" from another site on yours, this module allows you to do just that. All you have to do is give it a name and within the Custom Output editor, put in your text. If you need to paste in pure HTML, simply click the HTML icon on the editor, paste the HTML in the pop up, and hit Update. Then click Position, Order, Enable, Save, and you are done!
- **Latest News, Most Read Content, Newsflash, and Related Articles:** three different modules, but all serve the same basic purpose—to help expose your user, regardless of where they are on the site, to other content they may want to see. This is often a beneficial tactic for a site to increase page views or page views per visits, and provide SEO lift. Think of it as cross-selling your users other articles and content they may want to see!
- **Login:** if you plan on having users register on your site and then log in later, perhaps to edit their preferences or access private content, you will need to add a Login module to allow them to do so.
- **Poll:** we actually cover polls later in the book, but if you want to ask your users to provide feedback or participate in a poll, here is where you would add the proper module to allow them to do so. Once added, you can add and manage polls from the Components → Polls menu.
- **Search:** if you have a site, you probably want people to be able to search it! Simply add a Search module.

Although our list should help get you started, the best way to get a hang of site modules, honestly, is to open two browser windows and display them side by side. Have one displaying the home page and the other logged into the Modules Manager in the Joomla Administrator. Now, make changes to the modules from within the Modules Manager and save them and then refresh your other browser to see the changes. Turn off the Title, enable and disable, and change the Order and Position. Also try playing with the module-specific parameters.

You now have Joomla installed, up, and running and a general understanding of the core interworkings. Now it is time to start populating it with users to help you with creating and publishing your content. What better way to get things done more quickly than enlist the help of other people!

## Section 2: Adding and Managing Users

With Joomla installed and the initial functional components set up, its time to delegate. For the most part, configuring, managing, and maintaining user accounts in Joomla are pretty easy and work as you would expect. This section shows you how to set up users, assign them to permission Groups (a.k.a. Access Levels), link them to Contacts, and get them ready to start creating content.

### Managing Users

All of the user management features within Joomla can be accessed either by clicking the User Manager icon on the main Control Panel page, as shown in Figure 2-1, or from accessing the User Manager submenu under the Site menu—both within the Joomla Administrator backend.

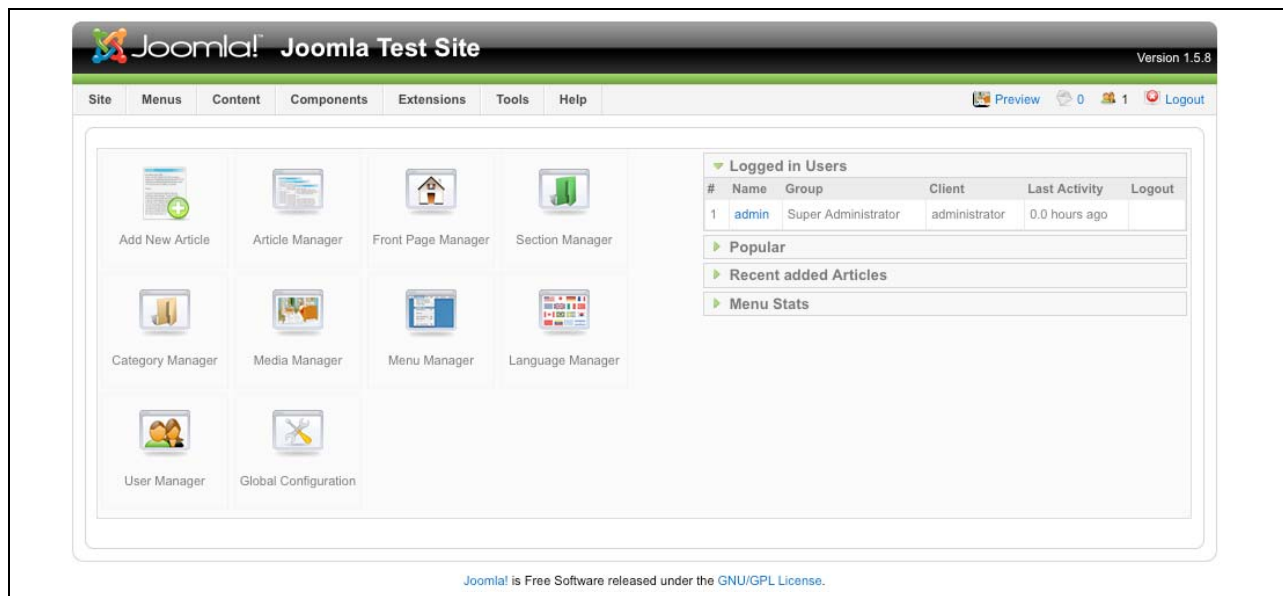


Figure 2-1. Accessing the User Manager

### Adding Users

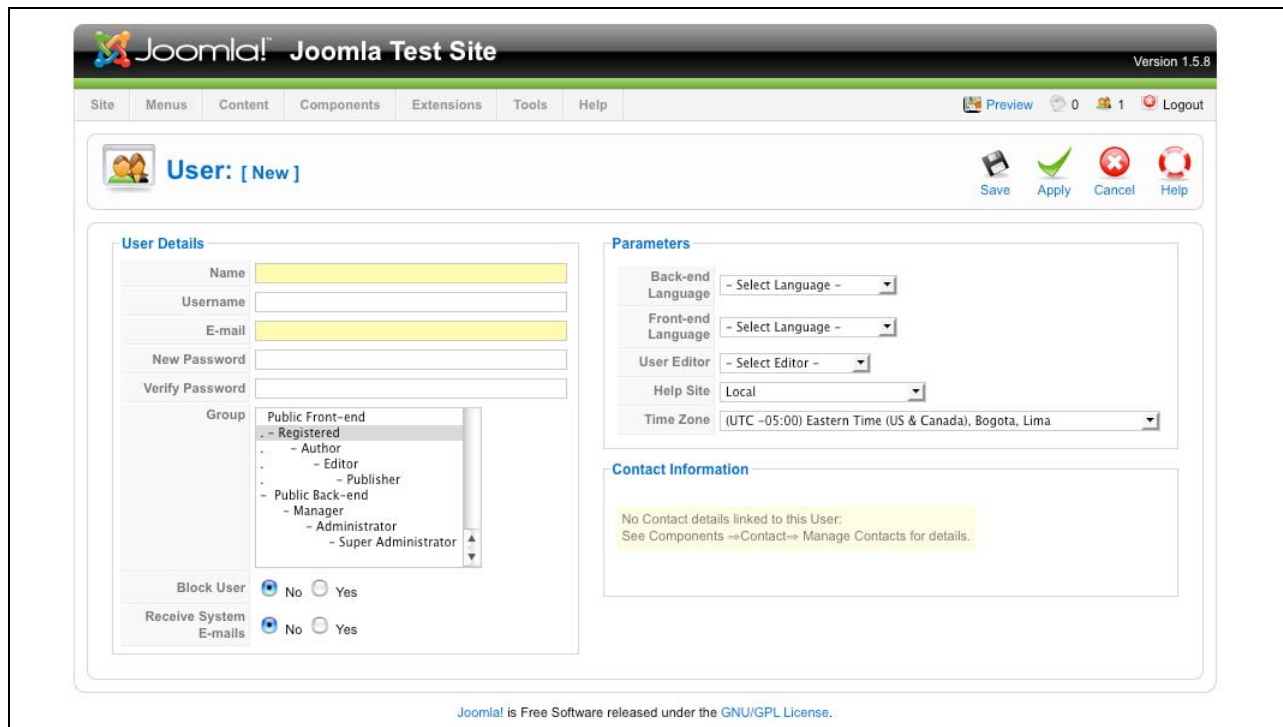
Once you have access the User Manager you are ready to add, edit, or delete users. For all practical purposes, there are three ways to go about this:

- **Manual:** add them manually by clicking the New button and filling out the information on the resulting form, as shown in Figure 2-2.
- **User Registrations:** assuming you have enabled user registration when configuring Joomla, you can have users click the Create an Account link on the Login module and fill in their information. Once complete you, the Administrator, will get an email and then you can go in and assign them the correct access permissions.

- **Import:** if you have a lot of users, do not want users to register, and you are familiar with working with SQL, then you can import them directly into the database. While we can't give you specific instructions in this book on how to do that, you will want to take a look at the `*_users`, `*_core_acl_aro`, and `*_core_acl_groups_aro_map` tables where you replace `*` with the table prefix you selected during your Joomla setup (default is `jos`).

## Tip

New extensions come out everyday, so be sure to check the Joomla Extensions site (<http://extensions.joomla.org/>) to keep an eye on the latest and greatest offerings. You can find items related to importing users under the Access & Security → User Management Category. Once again, we cover how to install and configure extensions later.



**Figure 2-2: Adding a new user**

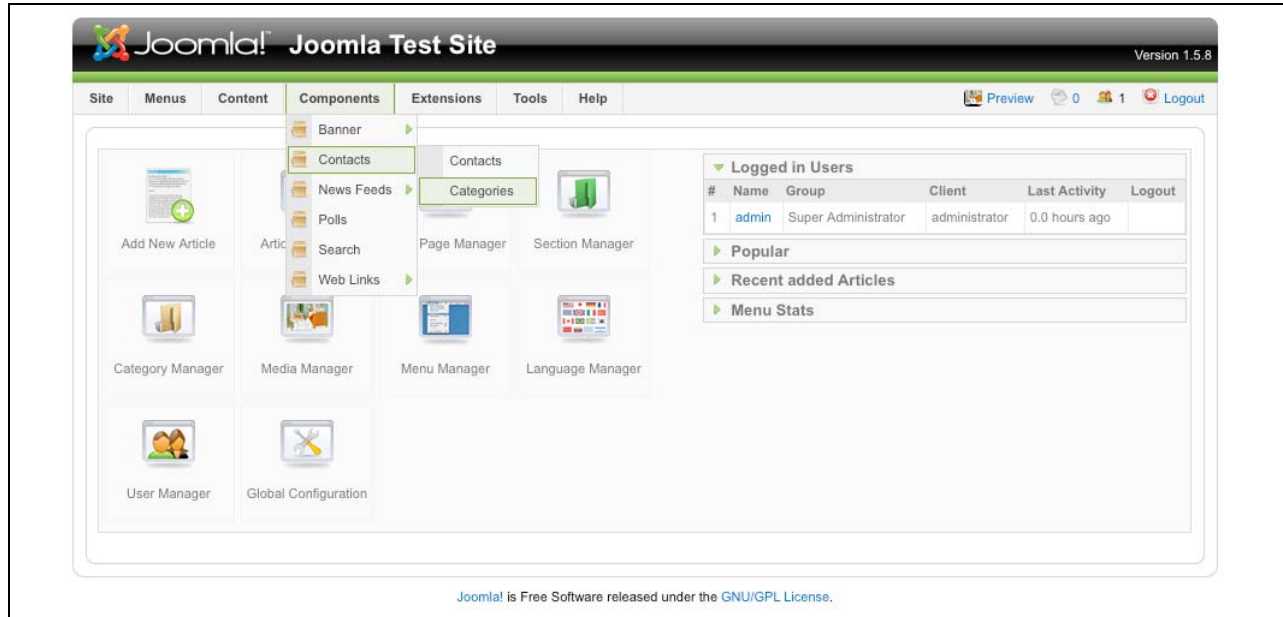
Using one of these methods, you will be able to quickly populate your system.

## Linking Users to Contacts

Many sites today provide a link to contact information, so site visitors can easily email or call to ask questions or provide comments. Wouldn't it be nice if Joomla allowed you to not only add contacts to be easily displayed in pages, but also

allowed you to link those contacts to Joomla users, since there is a good chance some of them may be the same? Well, wish no more—Joomla can do this for you!

Before you can create a contact and therefore link them to a user, you must first create a contact Category. For instance, if your site is primarily a sales tool, you may want to create a Category called *Sales*. You could also create categories for Management Team, Board of Directors, Investor Relations, or perhaps Technical Support. To create a Category, simply access the Contact Categories submenu under the Contacts menu within the Components menu in the Joomla Administrator as shown in Figure 2-3 and fill out the form.



**Figure 2-3. Adding contact Categories**

Once you have created a contact Category, you can click on the Contacts option under the same menu path. Using the form provided, shown in Figure 2-4, you can select which Category to add the user too, specify the internal user you wish to link to the contact if applicable, and provide significantly more details than the User Manager provides. You can provide the contact's position, address, telephone, fax, and even other miscellaneous information.

**Joomla! Joomla Test Site** Version 1.5.8

Site Menus Content Components Extensions Tools Help Preview 0 1 Logout

**Contact: [ New ]** Save Apply Cancel Help

**Details**

Name: Allen Wyke

Alias:

Published: ☐ No ☒ Yes

Category: Executive Team

Linked to User: Administrator

Order: New Contacts default to the last position. Ordering can be changed after this Contact is saved.

Access Level: Public Registered Special

**Information**

Contact's Position: President

E-mail: allen@ripplegroup.com

Street Address: 123 Some Street

Town/Suburb: Some City

State/County: NC

Postal Code/ZIP: 55555

Country: USA

**Parameters**

**Contact Parameters**

Name	Hide	Show
Contact's Position	<input type="radio"/>	<input checked="" type="radio"/>
E-mail	<input checked="" type="radio"/>	<input type="radio"/>
Street Address	<input type="radio"/>	<input checked="" type="radio"/>
Town/Suburb	<input type="radio"/>	<input checked="" type="radio"/>
State/County	<input type="radio"/>	<input checked="" type="radio"/>
Postal/Zip Code	<input type="radio"/>	<input checked="" type="radio"/>
Country	<input type="radio"/>	<input checked="" type="radio"/>
Telephone	<input type="radio"/>	<input checked="" type="radio"/>
Mobile Phone Number	<input type="radio"/>	<input checked="" type="radio"/>
Fax	<input type="radio"/>	<input checked="" type="radio"/>
Web URL	<input type="radio"/>	<input checked="" type="radio"/>
Miscellaneous Information	<input type="radio"/>	<input checked="" type="radio"/>
Contact Image	<input type="radio"/>	<input checked="" type="radio"/>
vCard	<input checked="" type="radio"/>	<input type="radio"/>

**Advanced Parameters**

**Figure 2-4. Creating a contact and linking to a user**

One of the things you will notice about the contact form is the ability to associate an image as well as other parameters. The list of images provided in the dropdown is pulled from the images/stories folder of the Joomla installation, which can be accessed from the filesystem or by using the built-in Joomla Media Manager. So, if you want to provide photos for all your contacts, place all of them in this directory.

The parameters, on the other hand, help provide control over what information is displayed if the contact is displayed on the public website. You may, for instance, decide not to provide the phone number or street address for a specific person on the site. Using the settings here, you can control what is displayed and what is hidden as well as if you want the email form shown, which allows people to send the contact email directly from the website. You can see an example of this in Figure 2-5.

The screenshot shows the Joomla! administrator interface. At the top is the Joomla! logo with the tagline "...because open source matters". Below the logo is a "Main Menu" with links to "Home" and "Executive Team". To the right of the menu, the user "Allen Wyke" is logged in as "President". Below the user name, there is a contact form with fields for "Enter your Name:", "E-mail address:", "Message Subject:", and "Enter your Message:". To the left of the contact form, there is a "Login" section with fields for "Username" (admin) and "Password" (\*\*\*\*\*), a "Remember Me" checkbox, and a "Login" button. Below the login section, there are links for "Forgot your password?", "Forgot your username?", and "Create an account". To the right of the login section, there is a contact card for "Allen Wyke" with address "123 Some Street, Some City, NC 55555, USA", phone numbers "336-555-1212", "336-555-1414", "336-555-1313", and a website "http://www.ripplegroup.com".

**Figure 2-5. Displaying contact information and an email form**

As you can see, contacts can be pretty powerful—especially in terms of using them to provide contact details for people within your organization to your website visitors.

Now that we have covered how to add users in the system and contacts, where appropriate, let's take a closer look at how to assign users permissions.

## Groups and Permissions

Like any CMS, a large part of the value Joomla brings to a person developing and running a website is the ability to control the types of users that author, edit, manage, administrator, or view the content. At its core, Joomla breaks this down into Guest, Public Front-end, and Public Back-end high-level groups. Guests represent anyone who is not logged in, whether registered or not, while the Public Front-end and Public Back-end groups have further segmentation and meaning. Let's take a look at those.

### Public Front-end

The Public Front-end refers to the main Joomla site that all users, even non-registered ones, access. Permissions around the Public Front-end, on the other hand, refer to users with some level of registration. When these users are logged in,

they have access to content, functions, modules, or other aspects of the CMS that non-logged-in users do not have access to. Public Front-end groups are as follows:

- **Registered:** these users have completed the registration process and, upon successful login, can of course view all content classified with an Access Level Public plus content with a level of Registered. They can also perform, by default, functions such as configuring their user profile and submitting web links (more on that later).
- **Author:** inherit permissions present for Registered with the added benefit of being able to create new content.
- **Editor:** inherit permissions present for Author with the added benefit of being able to review and edit any published or unpublished content on the site—not just their own.
- **Publisher:** inherit permissions present for Editor with the added benefit of being able to publish or unpublish content.

Unless you have a significant number of people authoring content for your site, most of your users will probably fall into either the Registered or Publisher Category. And if you do not allow users to register and log into your site for member-only content, then you may only have Publisher users.

## Public Back-end

One easy way to think of the Public Back-end is to think of the Joomla Administrator pages, but users with this level of permission are not required to log into the backend to perform functions. It is possible for them to log into the frontend and perform all Public Front-end functions. Should a Public Back-end user need to change Joomla configuration options, however, they must log into the backend. Public Back-end groups are as follows:

- **Manager:** inherit permissions present for Publisher from the Public Front-end with the added benefit of being able to log into the Joomla Administrator (aka Administrator Backend). Once logged in, a Manager can access the following functions, which primarily focus on content and menus:
  - Site
    - Control Panel
    - Media Manager
  - Menus
    - Access and edit existing menus
  - Content

- Article Manager
- Section Manager
- Category Manager
- Front Page Manager
- Help: general, including System Information
- **Administrator:** inherit permissions present for Manager with the added benefit of being able to access the following additional functions, which primarily focus on modules and components:
  - Site
    - User Manager: can create, edit, or delete users of the same Administrator level or below. Basically, all except Super Administrator.
  - Menus
    - Menu Manager
    - Menu Trash
  - Content
    - Article Trash
  - Extensions
    - Install/Uninstall
    - Module Manager
    - Plugin Manager
- **Super Administrator:** has complete and total access for all backend and frontend functions. Specifically, it adds the following to the Administrator level:
  - Site
    - User Manager: can create, edit, or delete all users *except* other Super Administrators. To delete a Super Administrator, you must first downgrade their Access Level to something lower than Super Administrator and then delete.
    - Global Configuration
  - Extensions
    - Template Manager

- Language Manager

Unlike the list of Public Front-end access levels, we often use all the Public back-end levels. If we are providing a hosting and support service for a customer, we usually give them Manager access. This allows them to control most everything they want, without giving them the power to change core settings or install/uninstall extensions. If we have a consultant helping out on the site, we will give them Administrator level, so they can do everything they need but change a few, *very* core, settings. And finally, we reserve Super Administrator for ourselves.

## More Options

For some of you, the default Joomla groups will not be sufficient. You may want to create your own groups and assign your own access levels by Section or Categories. If you fall into this category, there are solutions, but you should use them with extreme care. In fact, you should try to change your approach. If you can't, however, and you absolutely must have more options, then we recommend you try the following. Please note, both of these can cause problems for other extensions you may want to install, so use at your own risk (and read their documentation):

- **JACLPlus** (<http://www.byostech.com/>): commercial ACL (Access Control List) enhancement component implemented as a hack to allow the creation of new groups and/or access levels. It also enables you to assign multiple access levels to user group to make your website items' view access more controllable. Beside these, it also enhances com\_content frontend ACL to allow add/edit/publish action control based on user groups for specified Sections/categories/content items.
- **JUGA** (<http://www.dioscouri.com/juga/>): Unlike JACL, JUGA (Joomla User Group Access) is not a hack. It is a commercial extension that handles a similar function by synchronizing a table it creates upon installation with built-in Joomla components and content.

## Now What?

Like any system that has users in it, you will want to keep an eye on your users. When people leave your company or should no longer be allowed to edit content, be sure to disable their account. This can be done by clicking the green checkmark for the user under the Enabled column of the User Manager or by changing the Block User setting to Yes when editing the user. All in all, the ongoing management of users in Joomla is not that bad. Word to the wise—just don't forget to do it.

Now that you have created your users, linked them to contacts as you saw fit, and given them the proper access permissions, it is time to put them to work. Grab the group and let's start creating content!

## Section 3: Basics of Creating Content

Joomla sites allow you to use and create two different kinds of content: Categorized and Uncategorized. Categorized refers to articles that have been assigned a Section and Category, which we cover earlier in the book, and Uncategorized refers to articles that have not be assigned a Section and Category. It is worth noting that while both types of content are very useful, the power of a CMS like Joomla predominately can be found within Categorized content, since it can be used to drive menu and pages automatically.

### Note

For the purpose of this book please consider the term *content* to be synonymous with “articles.” When referencing non-text content, such as images or video, we will refer to those items as “media.”

Because we know that most anyone reading this Short Cut understands, at least conceptually, what an article is, we will do our best to stay true to keeping this a Short Cut. So, strap on your seatbelts and let’s get started!

### Adding Articles

Before we get into the details of creating new content, you need to be aware that there are a couple of ways to create a new article.

- In the back-end of Joomla, from the Control Panel, click the Add New Article button (shown in Figure 3-1).
- You can also select Content → Article Manager and click the New button.



**Figure 3-1. The Add New Article icon in the Control Panel**

## Types of Content

One of the things we talked about earlier in the book was the concept of categorized and uncategorized content, with categorization being provided using Sections and Categories in Joomla. In this section, we are going to provide a bit more detail on these two types and why you might use one over the other.

### Categorized Content

Categorized content, which can be thought of more simply as content with an assigned Section and Category, represent the ever growing and changing meat and potatoes of your site. Practically speaking, this type of content probably makes up 95% of your site's substance and represents the primary reason people are attracted to visit and revisit your site.

While many people think of web pages as flat two-dimensional, magazine-like pages, it's best to imagine categorized content as three-dimensional entities. Each content item can be used interchangeably within Joomla's various structures of content representation. In short, this means that with a few mouse clicks, you can rearrange the entire layout, organization, presentation, or order of your content without having to change your site template or rearrange the layout of each piece of content (text, photos, etc.) on a given page.

For example if you are trying to present the most recent press articles about your company, you can display them as a three-column vertical layout, or as a bulleted list of headlines (which link to the full text), or as a series of short blog-like teaser lines, which have Read More buttons that link to the rest of the articles. Joomla is able to provide this versatile functionality through the organization of the content items in Sections and categories.

## Uncategorized Content

Uncategorized content items, unlike categorized, do not belong to any Section or Category. With this lack of categorization comes with it the fact that uncategorized content items cannot be integrated with Joomla's various forms of dynamic content representation.

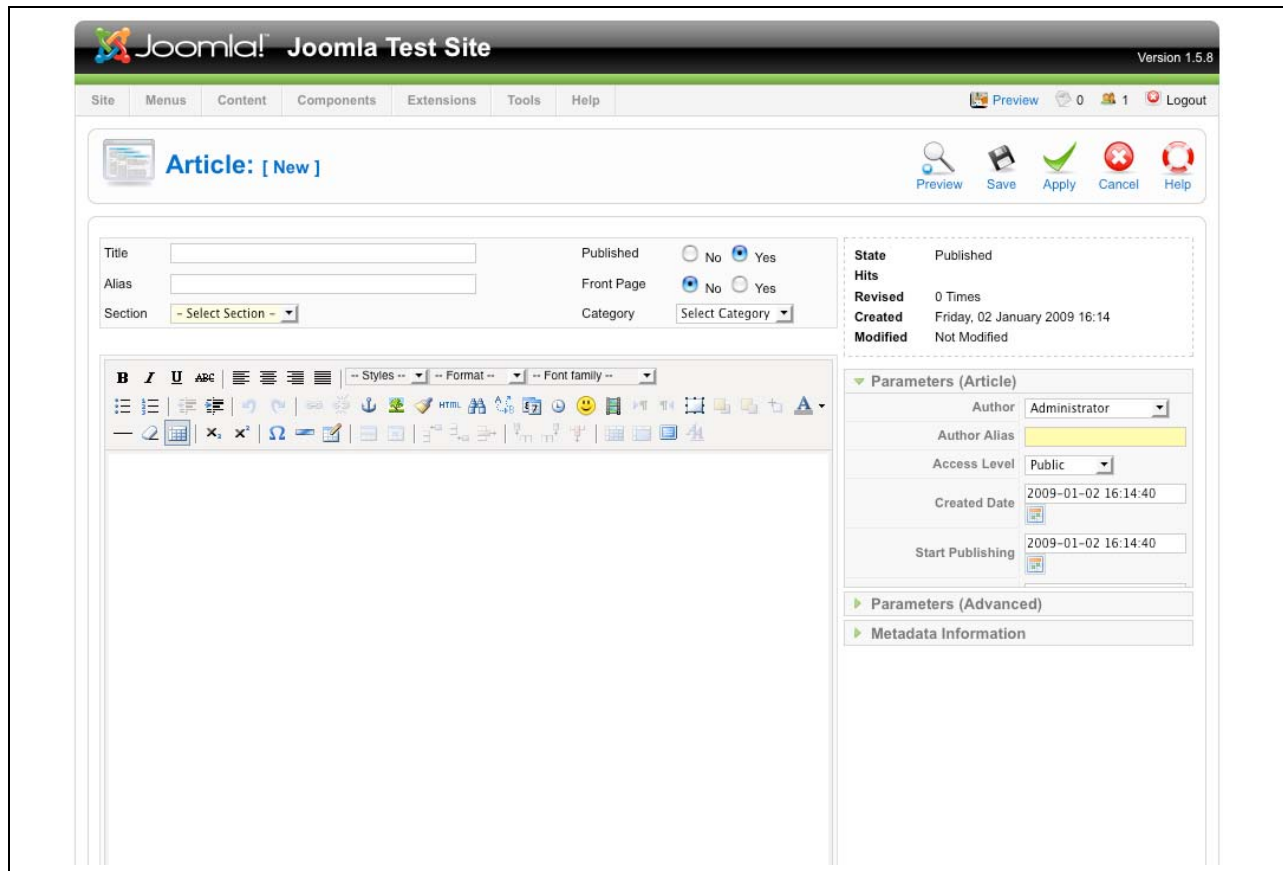
For instance, if a page of categorized content consists of a collection of ever changing/revolving individual content items, such as "Recent News," that is accessible from a main menu, whereas a link to uncategorized content will not change—it just links to "a page." If you have ever created websites made up of entirely of static, separated HTML pages, static content pages will seem familiar to you.

Now, just because the content isn't categorized doesn't mean you shouldn't use this feature. Here are some great uses of uncategorized content pages:

- About Us
- Terms and Conditions
- Privacy Policy
- Contact Us
- Advertise With Us
- Sign Up Now

## The Basics

Once you have begun the process of creating a new article, you are taken to a screen, like the one shown in Figure 3-2, where you will notice the information is divided into roughly two types—the article and parameters, including meta data. The part that contains details on the article has its own WYSIWYG (What You See Is What You Get) editor to facilitate easy authoring. The other part, which is mostly found on the right side, is a series of parameters controlling how your content is displayed and metadata about the article.



**Figure 3-2. Adding a new article**

## Writing an Article

For adding content to your site, Joomla uses TinyMCE as its WYSIWYG editor, which is available for editing on both the backend and frontend. The editor works much like a typical word processor, such as Microsoft Word, OpenOffice.org Writer, or Apple iWork's Pages, so the toolbar should be fairly intuitive.

- Enter the title of your content item, and enter the title under Title Alias. The title of your article is what will appear at the top of the article, usually in some form of header tag. A title alias is an alternate title for your content item, used by SEF scripts and dynamic title/meta scripts.
- Assign a Section and a Category for your content item, using the drop-down menus.

## Reminder

You must define the Sections and Categories before creating content items.

- Use the Joomla editor to enter your content.

- If you prefer to write your own HTML, toggle the editor by selecting the HTML button provided in the menu options on the Joomla editor. You will see a pop-up window that enables you to edit the actual HTML source of your content item. Once you select the update button at the bottom of the window, the changes you have made to your content item appear in the Joomla editor.
- Save your work.

You may save your work by selecting the Save or the Apply radio buttons in the top right hand corner of the screen. Each of these buttons saves your work, but with different functions.

Selecting Save saves your work to the site, and closes the content item window, taking you back to the Article Manager screen.

Selecting Apply saves your work to the site and allows you to keep working on the content item. This is a very useful option if you are working for long amounts of time on a particular content item and do not want to accidentally lose your work or if you want to preview (in a new browser tab) your content item as a published article on the Web while you work.

### **Cut-and-Pasting from a Word Processor**

When using the Joomla editor, be cautious when copying and pasting text or other content from a non-Joomla application, such as Microsoft Word, Adobe Dreamweaver, and so on, without washing it of all its hidden formatting. Often with sophisticated word processing and/or HTML editing software, the text carries with it hidden formatting, such as line breaks, font styles, and other formatting, which is compatible only with the software in which it was created. If you, for example, paste content directly from Microsoft Word into Joomla, you may have skewed and unwanted layouts in your content item.

To remedy this situation, use the Remove Formatting button in the WYSIWYG editor by first highlighting the text and clicking the Remove Formatting icon. Another simple way is to first paste your text into a simple text editing application, such as TextEdit in Mac OS X or Notepad in Windows and then cut and paste the text from the text editing application into the Joomla editor. By using the text editor as the “middle man” in your cut-and-paste sequence you will remove the formatting. Of course, if you wanted to keep some of the formatting, then you will need to go back and reapply it from within the Joomla editor.

### **Parameters and Metadata**

Parameters and metadata control and specify specific data about your article. The following list is not comprehensive, but outlines some of the more important items:

- **Primary Information:** located just above the Joomla editor, where you type the article.
  - **Published:** radio button that specifies if the article should be *live* on the site.
  - **Front Page:** radio button that determines whether the article is displayed on the Front Page (aka Home Page). If this is set to yes, it will also show up in the Front Page Manager.
  - **Section and Category:** if your article is to be categorized, as we have discussed before, select the proper Section and Category here.
- **Article Parameters:** items that control the overall article.
  - **Author:** allows you select, from a list of users in the system, who is the author of the article. This is very useful if your content is written by contractors or other outside parties, whom you do not, for whatever reason, allow to access the authoring environment directly.
  - **Access Level:** determines who can see the article. If you want to restrict it to logged-in users only, for instance, then select the option Registered. If you want everyone to see it, then select Public. By default this item is set to Public.
  - **Start/Finish Publishing:** this is a *huge* feature for anyone who has ever worked for an online media company, as there are often times you need to write an article that will need to go live at some point in the future. Let's say you have a Hot Tip of the Day feature, for instance. Well, you do not want to stay up to midnight every night to publish the new tip and unpublish the old one. Using this option, you can author as many tips in the future as you want and simply specify when they are suppose to become active (a.k.a. Published) and then inactive (a.k.a. Unpublished) and Joomla takes care of the rest!
- **Advanced Parameters:** specifies everything from enabling ratings on the document, to including PDF, Print, and Email icons/links. Generally speaking, these should be controlled globally, which can be done by going to Content → Article Manager and clicking the Parameters icon.
- **Metadata Information:** controls the `<meta>` elements in the `<head>` of your HTML document.
  - **Description:** if you care about Search Engine Optimization (SEO), which is briefly described near the end of the book, then you should always make an effort to include a solid description about any article you publish. The text you put here will be placed in the `<head>` of your HTML document—

specifically within a `<meta name="description" content="your description here" />` element.

- **Keywords:** along the same lines as Description, this is where you can place keywords that help describe the article. These are also placed within the `<head>` of your HTML document, within a `<meta name="keywords" content="your keywords here" />` tag. It is also worth noting that if you add the Related Module to your site, the list of articles that show up under this module are driven by the keywords you use.

As you can see, Joomla provides a pretty powerful publishing environment that can accommodate the needs of most any publisher.

## Images and Video

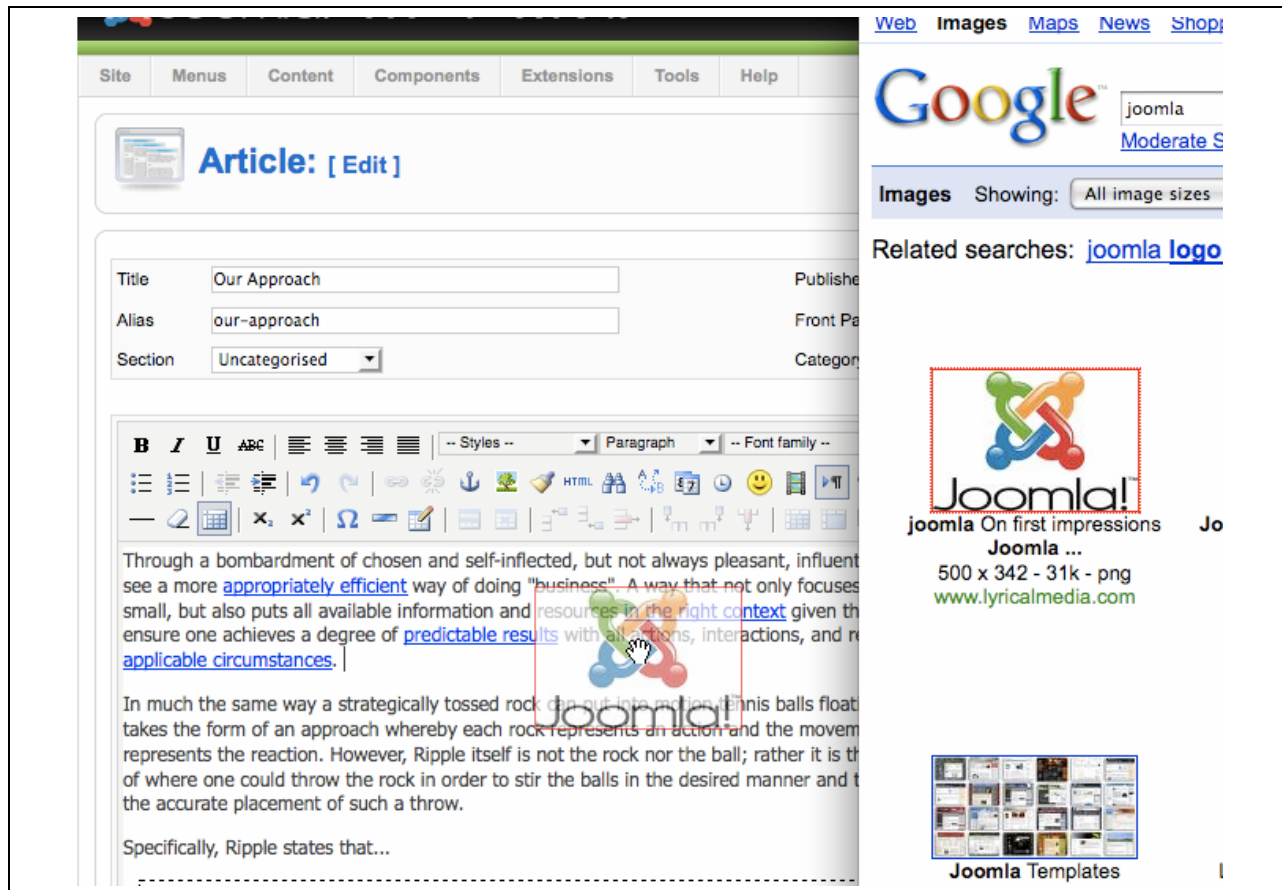
Placing images within a Joomla article can be accomplished using a few methods, which are basically reduced to the following:

- **Manually:** providing the exact URL to the image you want to include, such as `/images/mylogo.gif` or `http://www.example.com/images/mylogo.gif`.
- **Drag-and-Drop:** a second option, which is extremely nice if you have a repository or full-blown Digital Asset Management system, is to simply drag-and-drop the image into the Joomla WYSIWYG editor. Once dropped, you can edit the properties of the image to resize and position it for your article.
- **Using the Image Button:** located just below the Joomla editor is a button simply titled Image. When clicked, after placing your cursor at the location you want the image inserted, you are presented with options to select an existing image (from the `/images/stories/` directory of your Joomla installation) or upload a new one.

### Warning

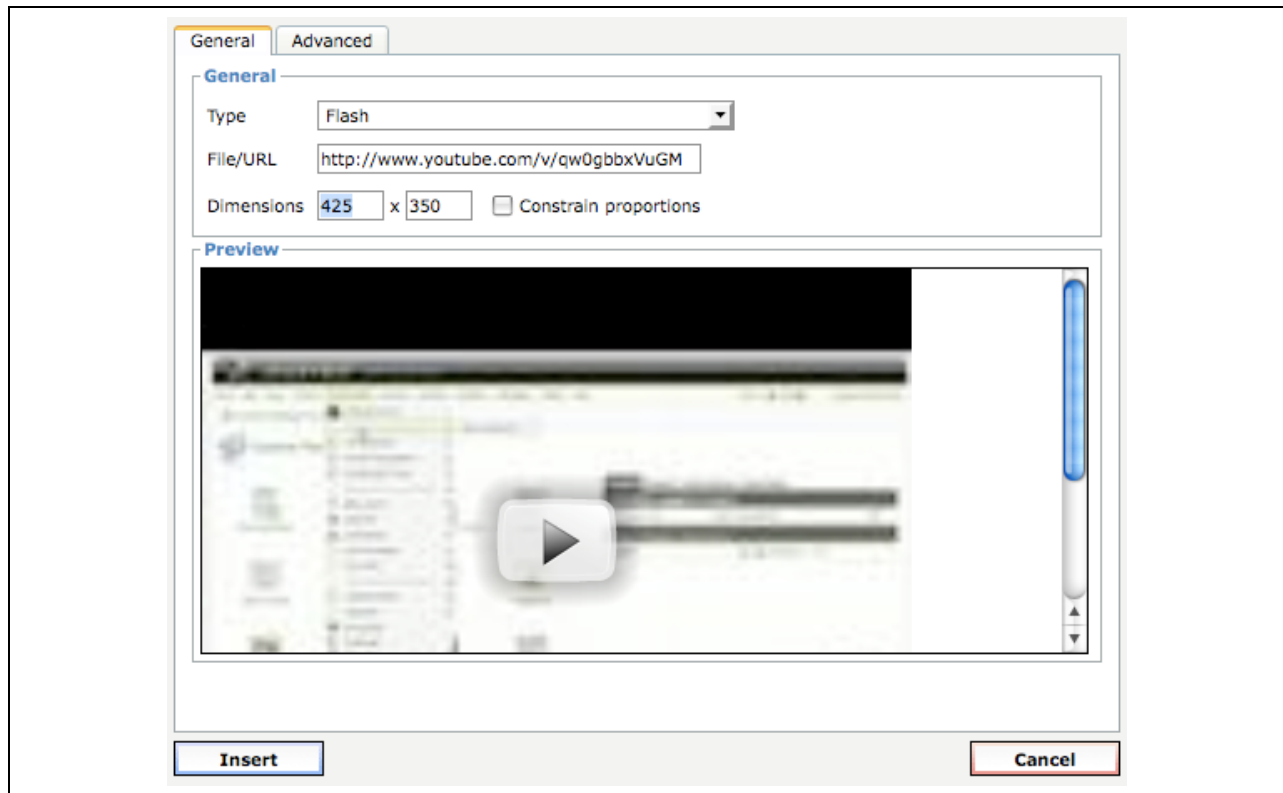
Regardless of how you put an image in an article, it is important to know that resizing the image for the article does *not* actually resize the image itself, but rather restricts the size it is displayed as. This is important, because if you specify a high resolution image that is, for instance, 10MB in size, its file size will not change and will therefore take a *long* time to download and display in a page.

In Figure 3-3, you can see an instance of dragging an image from one browser window, in this case Google Images search, into an article. Once released, the image will be displayed in the article, maintaining the original URL to the image, and be ready to edit (e.g., provide alt text, alignment, sizing, or any other styles).



**Figure 3-3. Dragging and dropping an image**

Adding other types of media, such as QuickTime, Windows Media Player, Real, or even Flash movies are just as easy. Simply place your cursor where you want the item to be displayed, click the Insert/Edit Embedded Media toolbar item, and enter the details. Figure 3-4 shows what entering a YouTube video looks like after you enter the URL and tab away from it.



**Figure 3-4. Inserting a YouTube Flash video**

## Front-end Editing

One of the nice features of Joomla is the ability to edit content directly from the frontend, which can make it very easy to fix errata on a site and/or submit new content. Imagine reading through your own website, looking over pages, articles, images, etc. and you notice a typo on a recently published item—yikes!

If you are logged into the site, like any other member, but with the appropriate permissions, you can simply click the pencil and paper icon that appears next to the content item, like the one shown in Figure 3-5. Once clicked, the Joomla editor appears. From here you can fix the error, click the Save button, and your page is corrected and is now live. No more having to log into the backend, hunt for the document, and then perform the edit—just edit it in real time!



**Figure 3-5. The frontend editing icon used to initiate frontend editing.**

In addition to editing existing content from the frontend, it is also possible for users assigned Author rights or above to submit articles and anyone who's registered to submit a Web Link from the frontend. This can be useful if you have a number of external authors submitting content.

In order for this to be active however, a couple prerequisites must be met:

- You must first create a link to the submission form. This is done by clicking Menus and then selecting the menu you wish to add the link to. On the Menu Item Manager page, that shows existing links, click New. From there you can create links for either Articles, Web Links, or both:
  - Internal Links → Articles → Article → Article Submission Layout
  - Internal Links → Web Links → Web Link → Web Link Submission Layout
- The user must be logged in and be assigned to have Author rights/permission or greater to submit an article. All of these as well as users with Registered rights, if allowed, can submit Web Links.

With these two items met, you are ready to receive content!

### Note

Joomla sends email to the site administrator when content is submitted, which helps ensure you always know when something has been added to the site.

## Front Page Content

Considering that it is the first impression a user has of your site, the Home Page or Front Page, as Joomla calls it, deserves some special attention. There are two easy ways to publish articles to the Front Page of your site.

One is by selecting the proper option for the Front Page radio button on the main Article edit/creation page—its right under radio button where you specify whether the article is to be published or not. An easier way, however, is to access the Article Manager and simply click the red X for the article you want to publish on

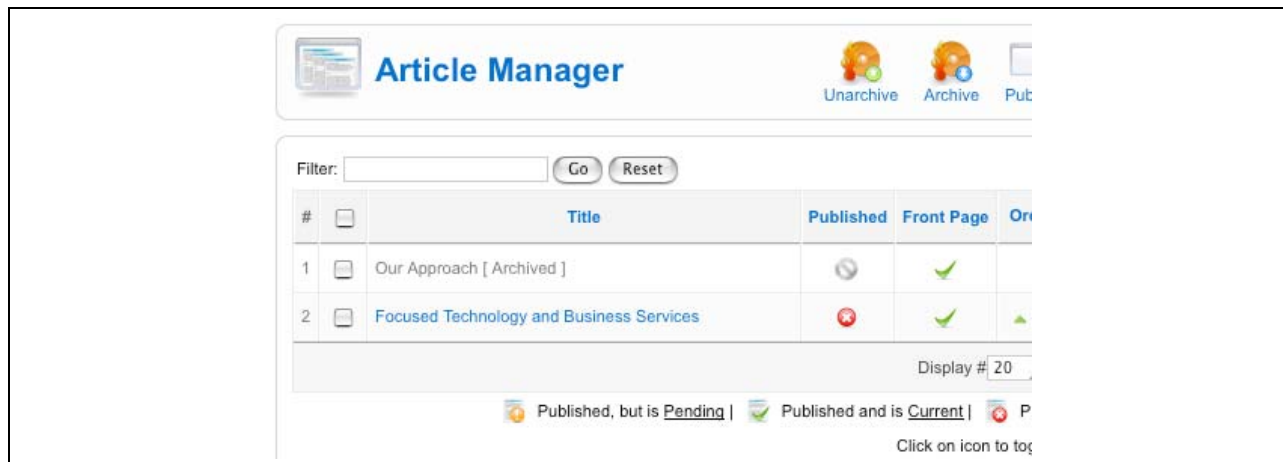
the front page under the Front Page column. To unpublish from the Front Page, click the green checkmark.

Once an item has been added to the Front Page, you can go to the Content → Front Page Manager to further control these items. From here you can publish or unpublish the items simply by clicking on the icon under the word Published for each item. You may also rearrange the order in which the items are displayed on the front page, either by clicking the arrows (corresponding to a particular content item) up or down. Or if you wish to reorder more than one content item at a time you can type in the order number you want to change next to the corresponding content item in the provided box. After you have the order you want, simply click the icon of the disk next to the word Order at the top of the page and Joomla saves and reorders your pages for you.

## Archiving

As you might imagine, archiving in Joomla refers to a way to store older items on your site, which may be past their prime in relevance, but still retain enough value to store online. This is especially helpful if you have a large number of pages, since you can use the Select State dropdown on the Article Manager to only display items that are Published, Unpublished, or Archived.

To Archive an item simply click the box next to its name from within the Article Manager and click the Archive button. To unarchive an item, simply click the box again and click the Unarchive item. Figure 3-6 shows what an Archived item looks like in the Article Manager.



**Figure 3-6. An archived article**

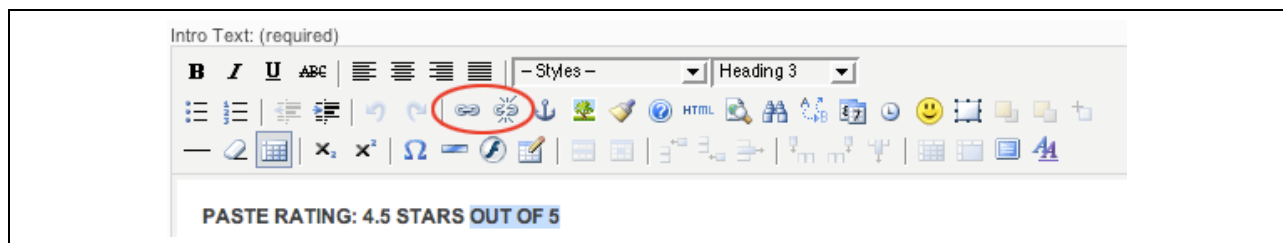
If you still want to provide your users access to archived items, then you can add a new Archived Content module using the Module Manager. By publishing the Archive module, you can allow frontend users to have automatic access to these archived content items. A Calendar (month/year) is created within the module, which allows the reader to view archived items, based on the time they were

created. This approach is often used for old press releases, news, or other legacy content.

## Understanding Links

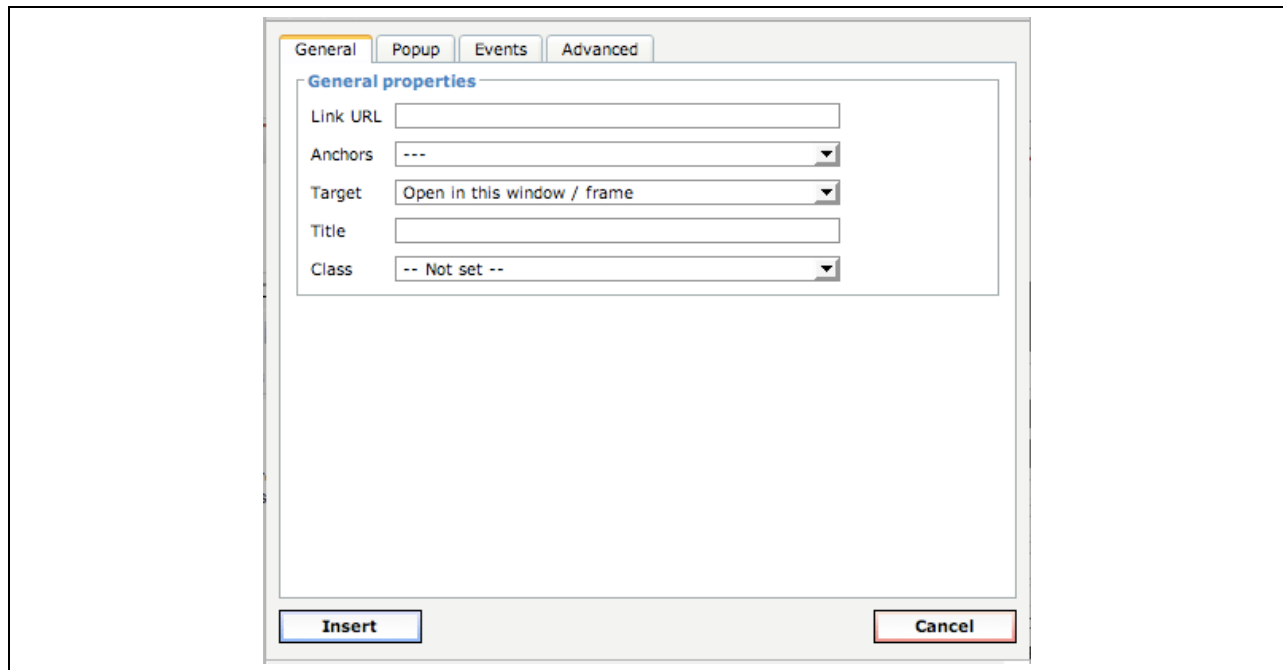
To insert a hyperlink into a content item, you can either code the HTML yourself, or use the editor. To insert a hyperlink with the editor, which is the easiest, follow these steps:

- Highlight the text or item you'd like to turn into a hyperlink with your mouse.
- Click on the chain button in the editor toolbar, shown in Figure 3-7. Please note there must be something highlighted, for the hyperlink buttons to become clickable. In this case "OUT OF 5" is highlighted.



**Figure 3-7. The hyperlink buttons**

- A pop-up window, shown in Figure 3-8, appears with some text fields and option tabs. In the Link URL field, type (or paste) the link you want to insert. If you are trying to link to an anchor, use the drop-down menu to locate it by name (naturally, it must already be created for it to appear in the dropdown menu).



**Figure 3-8. The pop-up window for inserting hyperlinks**

- Use the Target drop-down menu to specify whether you want the link to open in a new window, this window, or otherwise. It is usually a good idea if you are linking to an external site, to use the `target=_blank` option, so that once somebody clicks that link, and leaves your site, they can easily return.
- It is wise to give your link a title, which will have a positive SEO impact, so be sure to include it.
- Finally click Insert in the bottom of the pop-up window, and you should see your new link in the content box you had been working in.

Though there are many options available for setting up a link in TinyMCE, we are going to cover the basic ones to get you off the ground with Joomla. If you need a TinyMCE tutorial, we recommend going to the developers' website:

<http://tinymce.moxiecode.com>.

## Joomla URLs

Before we dive into creating internal links to other pages within our Joomla site, let's take some time to understand the URLs constructed by the CMS. There are basically two types: the default URLs and Search Engine Friendly (SEF) URLs.

### Default URLs

If we take a look at one for a typical content item:

| [http://www.example.com/index.php?option=com\\_content&task=view&id=1&Itemid=29](http://www.example.com/index.php?option=com_content&task=view&id=1&Itemid=29)

Though at first this URL may look big, scary and indecipherable, but it's actually based on a few key principles:

- **Component Name (option=):** specifies the component being requested. In our example, `option=com_content` tells us this URL is for the content component.
- **Task (task=):** specifies the task the component is being asked to view, such as *view* or *edit*.
- **Content ID (id=):** specifies the ID of the content (Article, News Feed, etc.) you are requesting.
- **Instance ID (itemid=):** basically, it is a number that identifies how to get to the page (id) you are requesting. Why? Because coming in from a menu, for instance, may result in drawing the page differently than coming in from a link on a page. Passing this is optional.

Using this standard format for URLs allows us to simply substitute the Content ID (id) number at the end of the line to insert the correct link. For example, if we wanted to create a link to an article with Content ID 3, we would use this URL:

```
| http://www.example.com/index.php?option=com_content&task=view&id=3
```

## SEF URLs

When setting up Joomla, or after, if you modified the Global Configuration → Site → SEO Settings, then you may have realized you could change how the URLs generated by Joomla appear. We didn't go into a lot of detail on these settings before, so here's a summary:

- **Search Engine Friendly URLs:** when enabled, Joomla reduces the complicated URLs into something that is more readable. For instance, the URL we used in the last example would be reduced down to the following:

```
| http://www.example.com/index.php/component/content/article/3
```

- **Use Apache mod\_rewrite:** if you are using Apache *and* you have enabled `mod_rewrite` for it, then you can rename the *htaccess.txt* file in your root Joomla directory and enable this setting. Doing so removes the *index.php* part of the URL. So, if this *and* the SEF URLs options are enabled, our URL will further be reduced to this:

```
| http://www.example.com/component/content/article/3
```

- **Add Suffix to URLs:** it's unlikely that you will need this option, but if for any reason you need your pages to end with a document type extension, such as *.html*, then you can enable this extension and it will do so. This would give us something like the following:

```
| http://www.example.com/component/content/article/3.html
```

At this point we are sure you are going to ask how to further control the SEF URL structure. What if, for instance, you want the URL we just created to be even further reduced to something like the following:

| <http://www.example.com/my-cool-article.html>

This book isn't specifically going to go into all the detail for SEO and SEF URLs, but there are a few things we did want to point out in case you are interested on the subject matter:

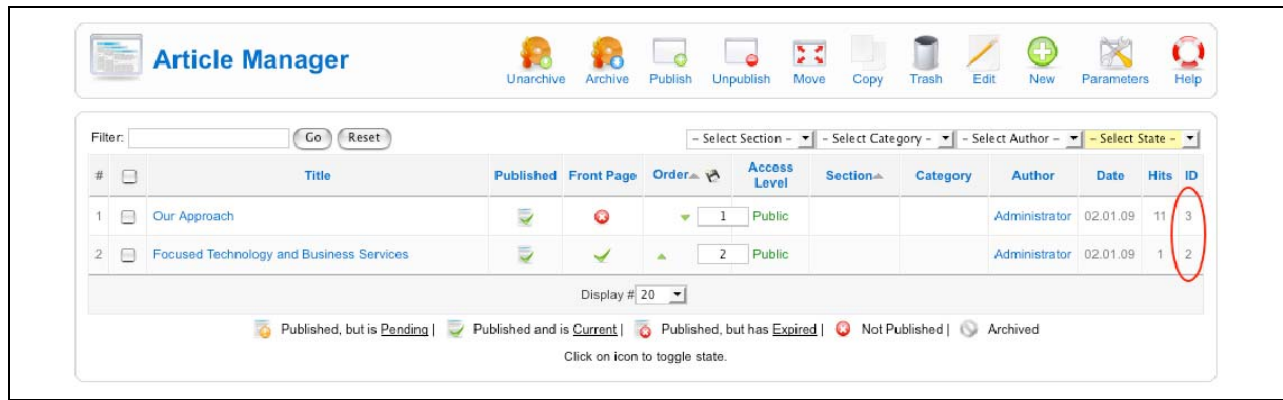
- For menu items you have created, the Search Engine Friendly URLs setting in Joomla, when enabled, uses the value you specified in the Alias field for the menu item for the URL.
- If you are extremely gifted at coding *.htaccess* files, you can further rewrite URLs that Joomla makes “friendly” to be even friendlier—but there is only so far you can go. You can't, for instance, use the *.htaccess* file to put the title of the article in the URL unless it is already there.
- If you really want control over the URLs, use a Joomla Extension like *sh404SEF*, which allows you to control URLs.
- When using a Joomla Extension to control URLs, they are not always compatible with other extensions. So, be sure to select wisely.

## Linking to Pages

With our Joomla URL primer out of the way, let's take a look at how to link to pages stored in Joomla. Unfortunately for all the amazing things Joomla does provide, there is no easy way to create links to pages without the help of an extension. Maybe this will be a feature in upcoming versions of Joomla, but for now you insert internal links within content items (if you are using the editor), using the same pop-up window that you use for external links.

The challenge however, is figuring out the URL for the internal page to which you wish to link. There are a couple of ways of finding out.

- You can plainly publish the page and view it from the frontend, copy the URL, and then paste it into the Link URL field. This is true whether or not you enable or use any SEO/SEF settings or extensions.
- You can use the ID number provided on the Article Manager page, shown in Figure 3-9, and use it in correspondence with the default Joomla URL for accessing articles.



**Figure 3-9. Article ID circled on the far right**

As you can see, this can be a bit problematic. But don't worry—we have a solution. If you install the JCE (Joomla Content Editor), which includes both an Administration Component and an Editor Plugin, a new WYSIWYG editor will be available to you—one that allows you to browse pages in Joomla to quickly and easily link to them.

## Adding Menus

Menus are a concept that has changed for the Joomla 1.5 release. There are essentially three steps involved in adding menus, which represent your site navigation:

1. Create Menu
2. Active the Menu by creating a module to house it
3. Add links to the Menu

### Creating a Menu

By default, only a single menu is provided—the Main Menu (mainmenu). This may very well be the only menu you need if you have a simple site. But just in case you do not, let's step through creating a new menu.

To add a new menu, which will allow you to associate menu items to the new menu, follow these steps.

1. Select Menu. You should see a list of the current menus for your site, shown in Figure 3-10. Select Menu Manager from this menu.



**Figure 3-10. Menu Item**

2. On the Menu Manager page click the New button. From here, enter the following values. We are going to set up a new menu called About Us that will appear on the right side of our site.
  - Unique Name: rightmenu
  - Title: Right Menu
  - Description: Menu to display on the right
  - Module Title: About Us
3. Once you have entered these values, click Save.

With our menu created, now its time to enable it on the site.

## Activating Our Menu

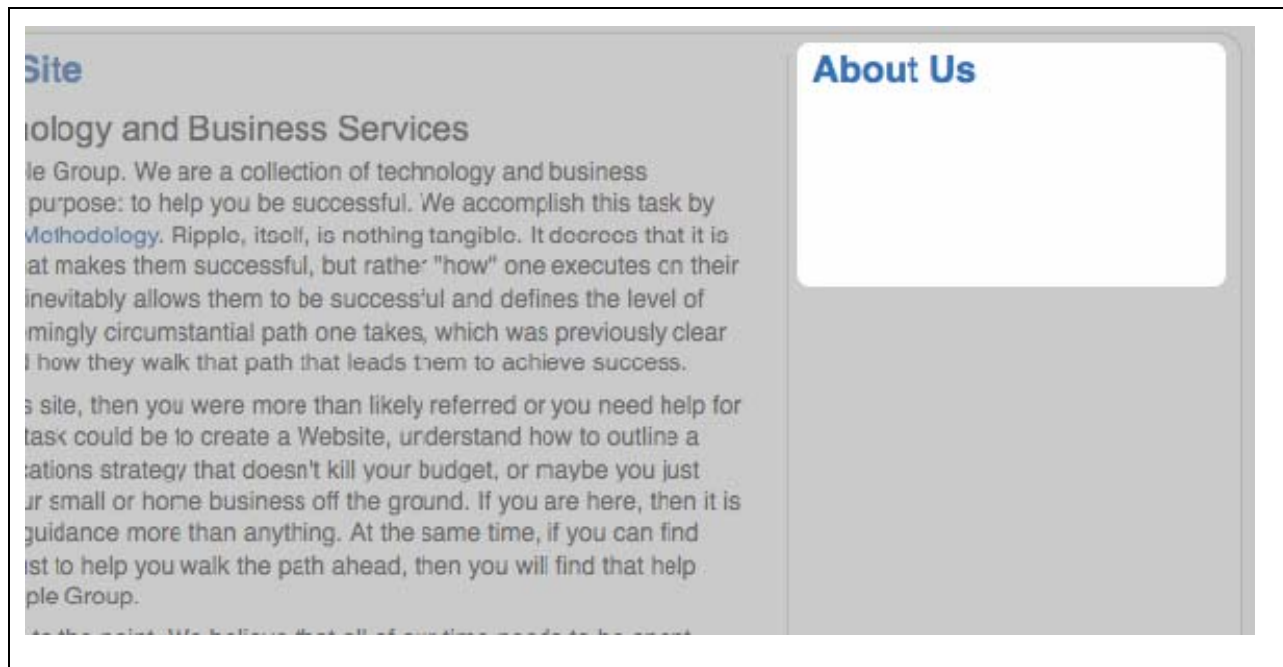
To activate our menu for display purposes we must create a new Menu Module that loads the menu and specify a few parameters, such as where we want it to display (we will give you a hint...on the right).

To create a new Menu Module, follow these steps:

1. Open Extensions → Module Manager and click the New button.
2. Select the Menu radio button and click Next.
3. On the resulting screen, set the following options:
  - Title: About Us
  - Position: right
  - Menu Name (under Module Parameters): rightmenu
4. Click Save.

Now, if we take a look at our site, we see a new module on the right that says About Us, as shown highlighted in Figure 3-11. But wait a minute—there are no

menu items! Correct—it's now time to take a look at how to add menu items to our new menu.

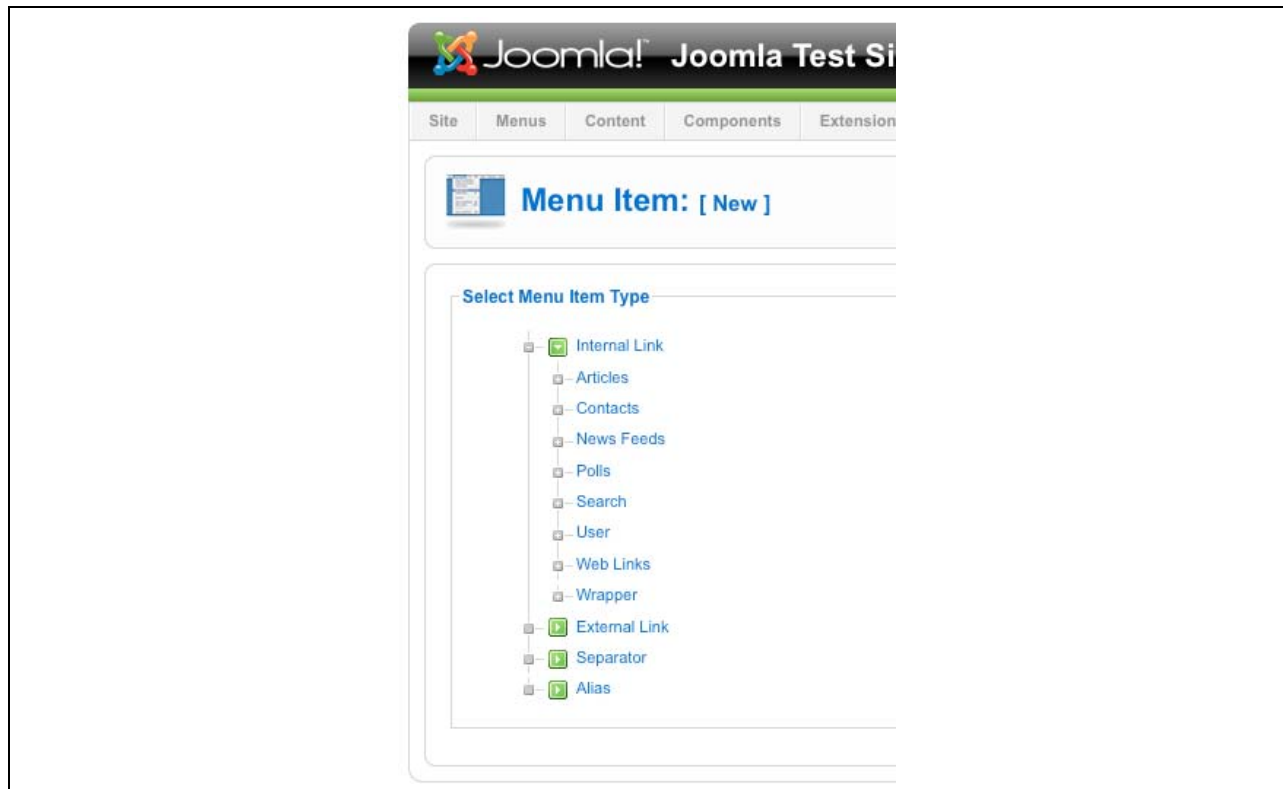


**Figure 3-11. Our new Right Menu displayed**

## Adding Items to Our Menu

The first thing to know about a menu item is that you can link to just about anything—whether it is a link to another resource on your site or an external site. In fact, the options you have to select from, which can be seen in Figure 3-12, break down like this:

- **Internal Link:** links to an internal resource, such as articles, contacts, news feeds, polls, and more.
- **External Link:** links to a non-Joomla resource, such as those on other sites.
- **Separator:** provides some non-linked text.
- **Alias:** allows you to link to an existing menu item in another menu.



**Figure 3-12. Menu Item types**

If you take a closer look at the list of Menu Item options you will also notice there are several categories of Internal Links you have at your disposal. If you click on each of these options, you will likely be presented with even *more* options. For instance, under Articles alone, there are further groupings of Archive, Article, Category, Front Page, and Section, with each of these groupings having one or two options themselves!

### Note

If you have installed additional modules, you will see even more options to select from in the Menu Item Types.

Although you may first be inclined to just pick any Menu Item here, there is an extremely important lesson to be learned by these options—each of these have a different way of displaying content when clicked. Or to say that a different way—each of these menu item types display content differently when a user navigates to pages from them, so it's important to understand what you are selecting. For instance, you will see references to Blog Layout, which is different than just the normal layout.

Having all these options sounds great, but it can also create confusion. Lucky for us, the developers of Joomla have made it really easy to change the Menu Item type from one to another if you do make a mistake. Simply click the Change Type

button when creating or editing the Menu Item and you are taken back to the Menu Item Type list, where you can start all over.

The number of Menu Item Type options coupled with the various settings and other options you can specify for each type create countless combinations for controlling how your site looks. So, the best way to understand the different layout options is to create several menus and play around with the settings.

**Note**

Use these same steps to add menu items to any menu—including ones that already exist.

To do this, follow these steps:

1. Go back to Menus and select Right Menu from the list, which is the menu we just created.
2. Click the New button.
3. Select Internal Link → Articles → Category → Category Blog Layout as the type of Menu.
4. On the resulting page, enter in the following details:
  - Title: Press Releases
  - Display In: ensure Right Menu is selected
  - Category: Select News/Press Releases (Remember we created a Section called News and a Category called Press Releases earlier in the book.)
5. Click Save.

**Note**

We are sure you saw other parameters that could be controlled when creating this menu item. For now, stay the course and only change the items we mention. We cover some of these options in the next section.

With our menus now in place, all we need to do is add some content. At this point, go back and add a new article under the Press Release Category of the News Section. After you save it, go to your site and click the Press Releases menu item we added to our About Us (a.k.a. Right) menu. Then add a second article and once again check the link and watch how it changes. Finally, add a third article and check the link. After doing so, you should see something like Figure 3-13.

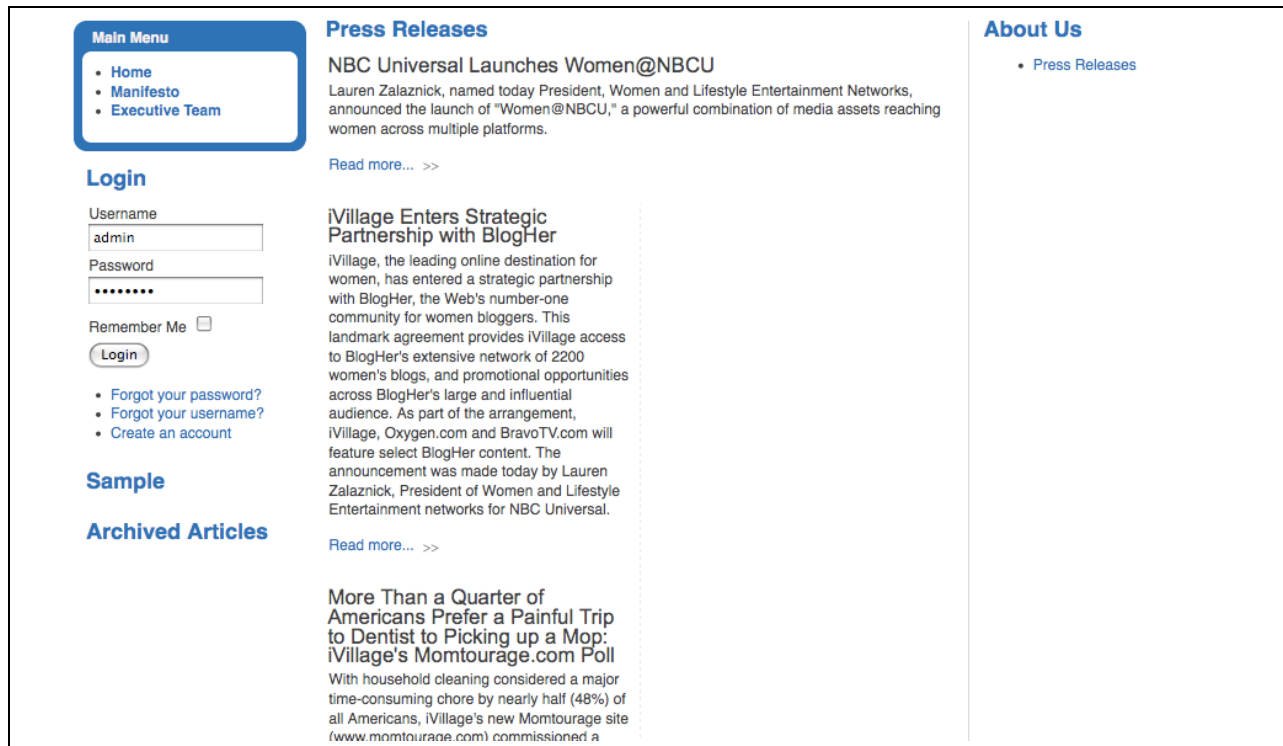


Figure 3-13. Our Press Releases menu item with three articles

## Controlling Layout with Menu Parameters

In the last section, we created a Category Blog Layout Menu Item for our site. Once we published the menu item, we saw the content items had been automatically divided into two columns. The web developers out there would probably go straight into the CSS to change the layout, but with Joomla that is not necessary. All we need to do is set a few options within the Menu Item's parameters and we can completely change the way the page is displayed.

### Note

When we say content layout, we are only speaking about the content that appears in the (usually white) content box of the site. The menu type does not affect the site template, which surrounds the content box on all sides. Subsequently, the CSS and *index.php* files drive the layout. For the layout in the content box however, we have to go to the Menu parameters.

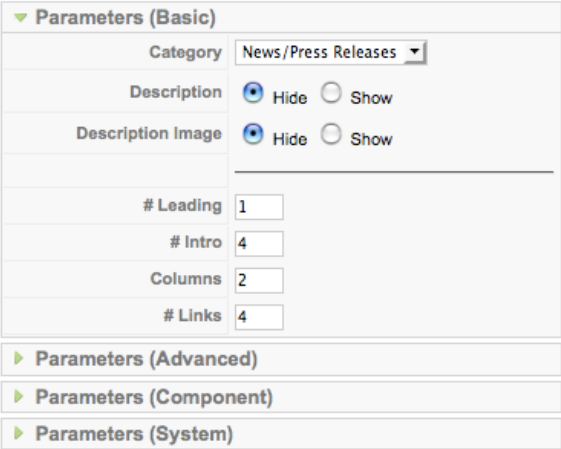
To get a better understanding of the options and how they work, go back to Menus → Right Menu and click on our newly created Press Releases menu item. On the resulting screen, you will find that there are four different kinds of parameters that can be changed:

1. **Basic Parameters:** allows you to change the Category you want to link to, whether you show the Description of the Category and image, as well as how

you want the layout of the page to look—such as the number of columns or how many articles you want to display before Joomla starts paginating.

2. **Advanced Parameters:** from here you can control things such as the ordering of the articles, how you want columns handled, and more specific pagination options.
3. **Component Parameters:** specific to the component itself (i.e., content), here is where you can override global settings.
4. **System Parameters:** controls some lower level aspects, but does allow you to set the `<title>` of the page, which is important for SEO purposes.

Many of the items in these parameters are self explanatory, however, when it comes to controlling the layout of a page, we do want to talk a bit more about the Basic Parameters that are available to you, which are shown in Figure 3-14.

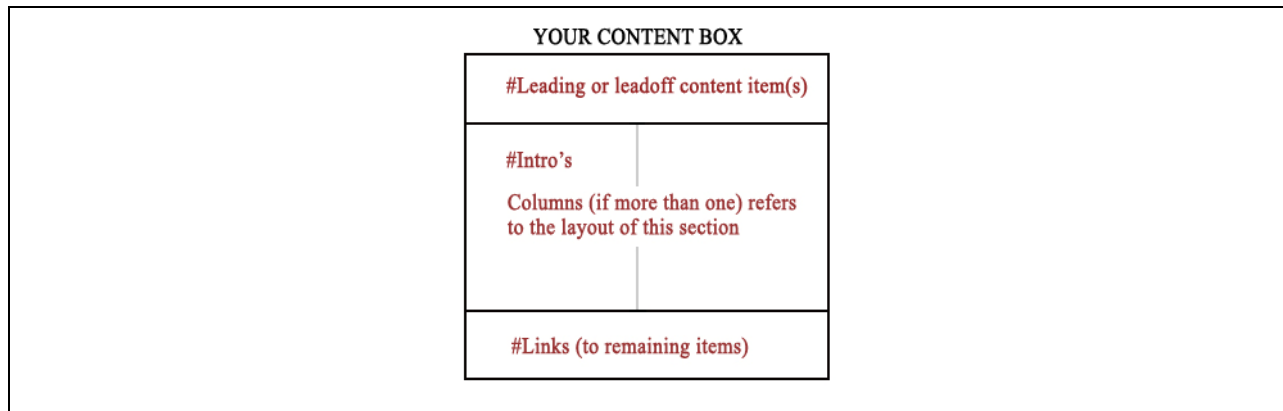


The screenshot shows the Joomla! configuration interface for the 'Parameters (Basic)' section. The 'Category' dropdown is set to 'News/Press Releases'. The 'Description' and 'Description Image' sections each have radio buttons for 'Hide' (selected) and 'Show'. Below these are five input fields: '# Leading' with value 1, '# Intro' with value 4, 'Columns' with value 2, and '# Links' with value 4. At the bottom, there are three expandable sections: 'Parameters (Advanced)', 'Parameters (Component)', and 'Parameters (System)'.

<b>Parameters (Basic)</b>	
Category	News/Press Releases
Description	<input checked="" type="radio"/> Hide <input type="radio"/> Show
Description Image	<input checked="" type="radio"/> Hide <input type="radio"/> Show
# Leading	1
# Intro	4
Columns	2
# Links	4
Parameters (Advanced)	
Parameters (Component)	
Parameters (System)	

**Figure 3-14. Basic Parameters**

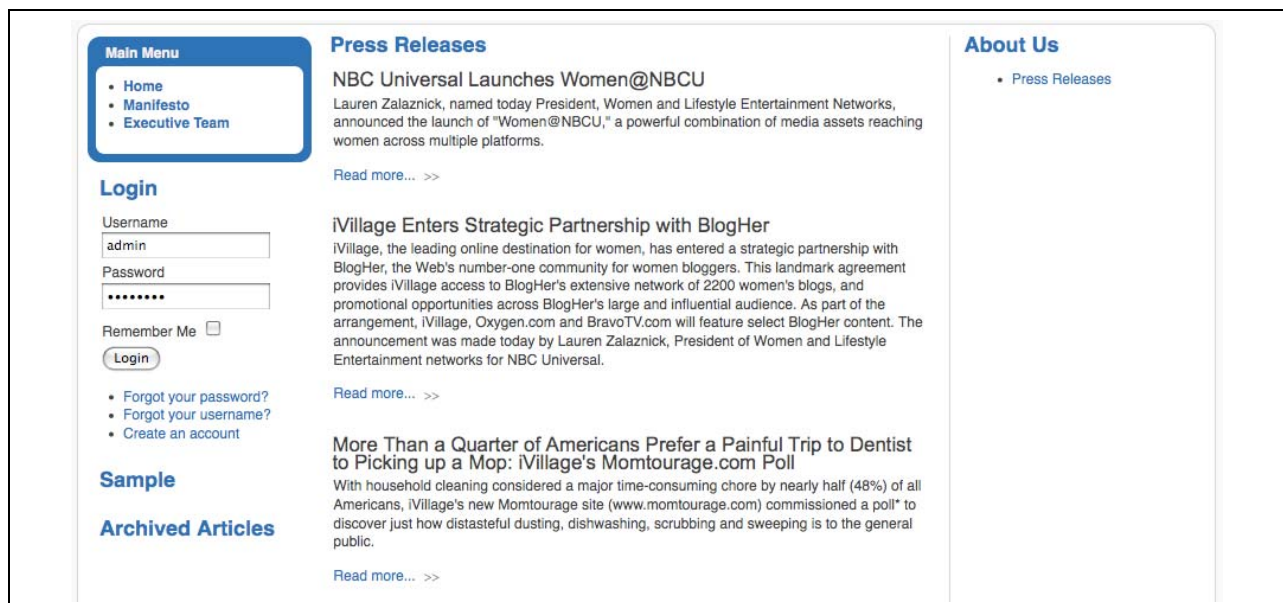
At first appearance, it is not clear how you can control page layout with these parameters. If you take a look at Figure 3-15, however, you will get a better idea how this breaks down.



**Figure 3-15. Understanding blog layout parameters: Leading, Columns, Links**

To get a better understanding of these options, specifically the last four, let's take a closer look at them:

- **# Leading:** refers to the number of full width articles you have *leading* your page. Back in Figure 3-13 you can see the results of having one leading article.
- **# Intro:** refers to the number of articles to display the introductory text. In short, these are the number of articles displayed that are *not* full width. Back in Figure 3-13, the setting was 4, but we only had three articles and one of them was used for leading, so only two intros were displayed.
- **Columns:** Here is where you enter the number of columns in which the Intro's will be displayed. In Figure 3-13, this was set to 2. In Figure 3-16, you can see what happens when you change this to 1.



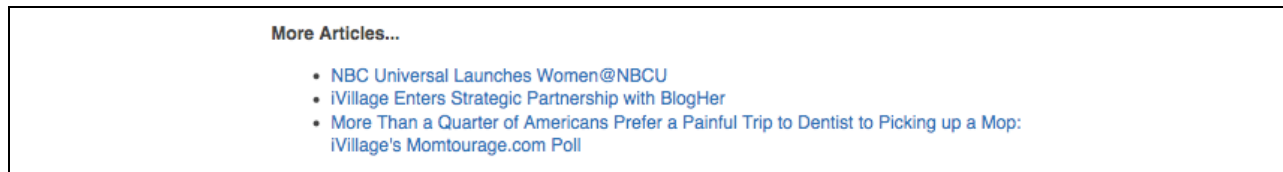
**Figure 3-16. 1 Leading with two intros, but only one column**

- **# Links:** refers to the number of links to display at the bottom of the page after you have reached the maximum number of items on the page (e.g., Leading

plus Intros). For instance, if you have Leading set to 1 and Intro and Links set to 4, but you have ten articles, then you will get five articles on the page (Leading plus Intro), four links, and then an option to continue to another page for the final link.

In addition to the Basic Parameters, there are a few noteworthy items under the Advanced Parameters section as well. They are:

- **Primary Order:** determines the order in which your articles will be displayed. By default, the items are displayed chronologically. The most recent item created is automatically first in the order of content items. You are able to change this, however, to other values, such as alphabetically, most/least hits, or even use the ordering from the Articles Manager page.
- **Pagination:** If you have more content items in a category than are allowed to appear on your page, as we referenced a couple of paragraphs back, Joomla provides the option for an automatic pagination, where your menu parameters divide all content items into pages. When this happens, a page navigation control will be displayed on the resulting page, such as in Figure 3-17.



**Figure 3-17. Joomla blog automatic pagination**

As we mentioned, there are certainly a number of other options available for you to control. And also remember, each type of link presents different types of parameters. But just stepping through this one, which is the toughest, should give you a general idea how the parameters work and how they can be used to control content.

## Other Useful Content

Categorized and Uncategorized articles aren't the only useful content types Joomla offers out of the box. In addition to these, you can also create Web Links, News Feeds, and Polls—all of which we cover now.

### Web Links

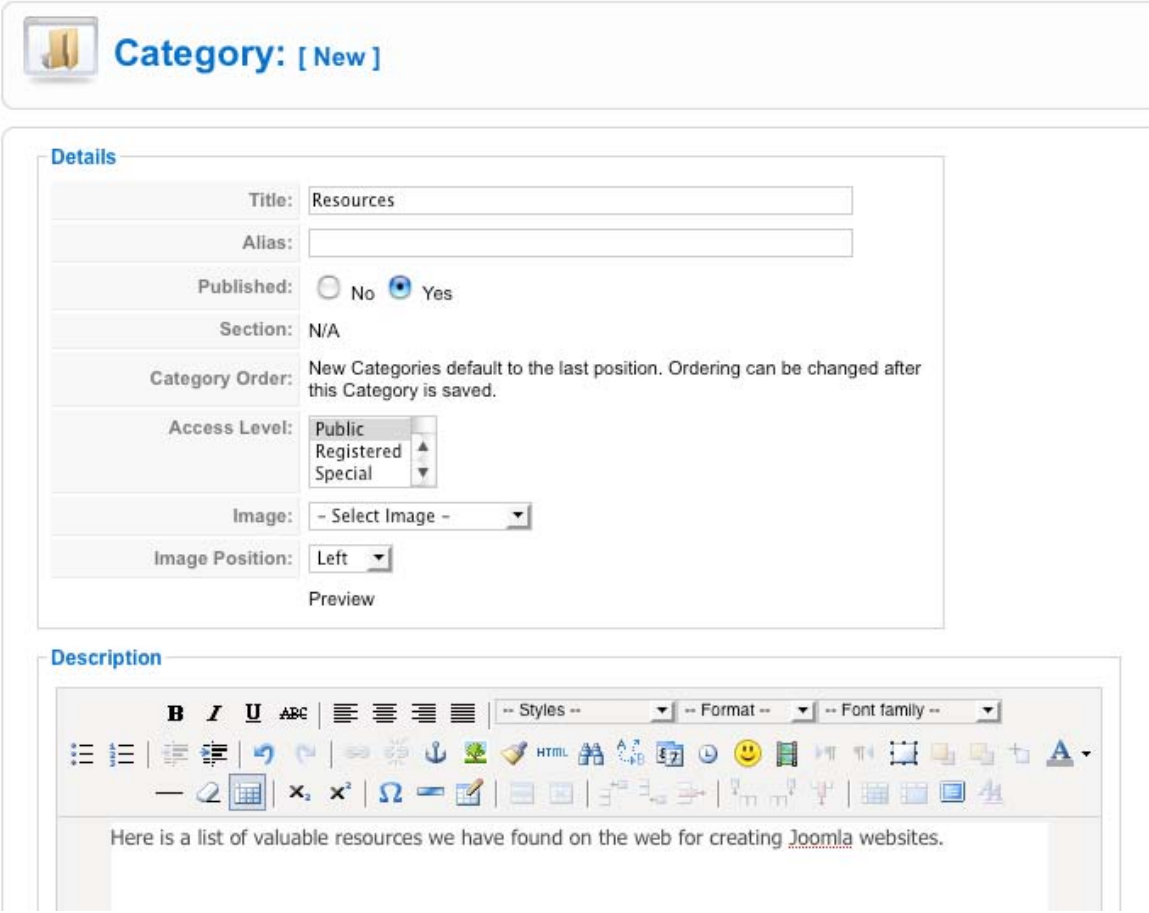
Web Links are exactly what they sound like—they provide an organized way for you to present links to other sites, complete with categorization, on your site. And like contacts, Web Links must be assigned to a category.

## Note

You can specify global settings for Web Links by clicking the Parameters button on the Web Link Manager page. Any settings here will be inherited by all Web Links.

To get started, let's add a Category by following these steps:

1. Select Components → Web Links → Categories. You should now see the Category Manager page.
2. Click the New button.
3. In the resulting page, shown in Figure 3-18, enter the Title of your Category. For this example, let's create one with a Title of Resources.
4. If applicable, added in some text in the Description that describes your Web Link Category.
5. Click Save.

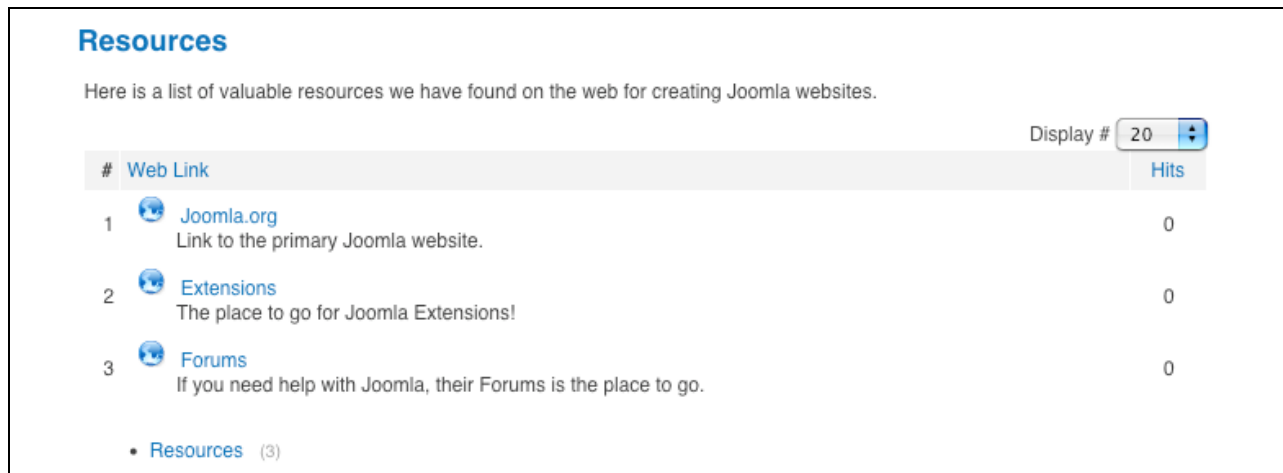


**Figure 3-18. Creating a Web Link Category**

With our Web Link Category created, we can now create new Web Links following a similar process.

1. Select Components → Web Links → Links. You should now see the Web Link Manager page.
2. Select the New button.
3. Enter a name for your link (i.e. Joomla) and the URL itself (i.e. <http://www.joomla.org>), and a description if applicable. At the same time, if you want to change how the link is opened, rather than using your Global Settings, you can use the Target dropdown to specify if you want the link to open in a new window or not.
4. Click Save.

With you Category and Links created, you can easily create a new Menu item to link to your Web Links, as shown in Figure 3-19.



**Figure 3-19. Displaying Web Links on your site**

## News Feeds (RSS)

The News Feeds component is a fantastic way for you to retrieve and present RSS news feeds from other sites on your site. This means that you can have ever-changing, automatically updated content in the form of headlines and/or articles from sites such as the *New York Times*, Linux Today, or the Frank Zappa fan club—from any site you like that provides RSS feeds. Like Web Links, however, News Feeds must be assigned to a Category.

To get started, let's add a Category by following these steps:

1. Select Components → News Feeds → Categories. You should now see the Category Manager page.
2. Click the New button.
3. In the resulting page enter the title of your Category. For this example, let's create one with a title of Industry News.

4. If applicable, added in some text in the Description that describes your Category.
5. Click Save.

With our Category created, we can now create new News Feeds following a similar process.

1. Select Components → News Feeds → Feeds. You should now see the News Feeds Manager page.
2. Select the New button.
3. Enter a name for your feed (i.e. NY Times) and the URL itself (i.e. <http://www.nytimes.com/services/xml/rss/nyt/HomePage.xml>), and a description if applicable. At the same time, if you want to limit the number of articles and how often the feed is retrieved, you can specify these options.
4. Click Save.

With you Category and News Feed created, you can easily create a new Menu item to link to your News Feed, as shown in Figure 3-20.

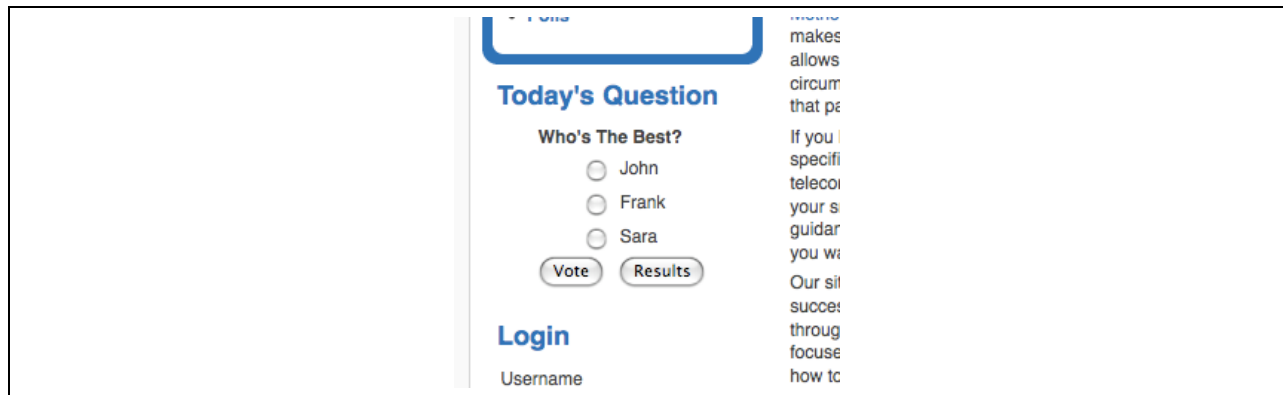


**Figure 3-20. Displaying the NY Times News Feed**

## Polls

For our last content item, let's take a look at polls. What is a content site if you can't have polls? Whether it is trying to gather information on what product your customers want you to develop next or perhaps it is for pure entertainment, sites often use polls to help drive traffic and retain its users.

As such, Joomla! allows you to create and publish your own polls with its built-in module, shown in Figure 3-21. With text fields available for users to choose from, this built-in feature should be able to handle at least the majority of your polling needs.



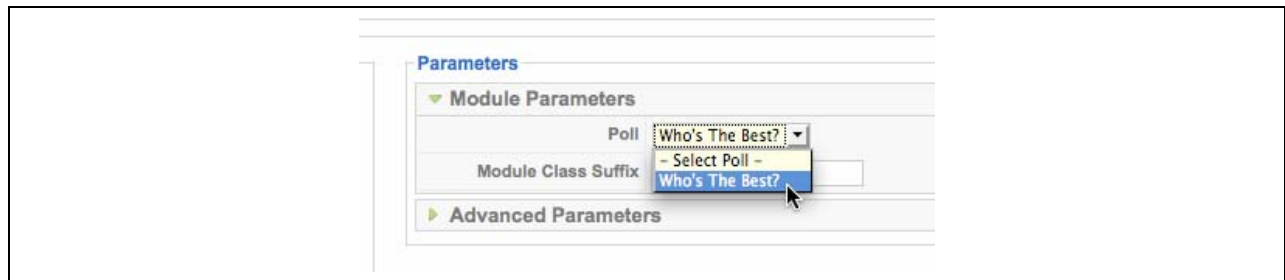
**Figure 3-21. Using Joomla's built-in polls**

To add a new poll to your site, simply follow these steps:

1. Select Components → Polls.
2. Select the New button.
3. Enter a title for your poll (i.e., Who's going to win the NBA Finals?)
4. Enter the potential choices for answers (i.e. Blazers, Bobcats, Lakers, Who cares, we only watch College basketball, etc.) under the options test fields.
5. If necessary, customize the lag time (in seconds) between votes to prevent users from voting repeated times during the same visit. The default is 86,400 seconds, or 24 hours.
6. Select the option for it to be Published and click Save.

With your poll created, all you need to do not is ensure the poll is enabled on your site through the Extensions → Module Manager. If you have not published a Poll module, do the following:

1. Go to Extensions → Module Manager.
2. Click the New button.
3. Select Poll from the list of Modules.
4. Give your module a Title, such as Today's Poll, ensure it is enabled, and select the poll you want to display under the Module Parameters → Poll dropdown, as shown in Figure 3-22.
5. When complete, click Save.



**Figure 3-22. Selecting your poll**

As you can see, you can do a *lot* with Web Links, News Feeds, and Polls—it really is up to your imagination. In the next section, we talk about some more advanced topics.

## Section 4: Advanced Joomla Topics

At this point, you have been exposed to the basics of Joomla. For many of you, this is all you need and is more than enough to even get a large site up and running. But over time you will inevitably reach a point where you outgrow the basics and need to perform more advanced things in Joomla.

In this section of the book, we touch on several of these advanced topics. Two of the more exciting features that we cover are templates and extensions. At the same time, we provide some general information on SEO and how to scale Joomla if your site is *really* getting some traffic!

### Creating Templates

In order to understand, edit, and eventually create your own Joomla Template, let's start with learning the fundamental parts of how a Joomla Template works.

#### Note

Building Joomla Templates can be a world unto itself and not easy to fully grasp in a quick read. If you're new to building web templates for Content Management Systems, such as Joomla, it's best to try and learn the fundamentals over time by trying to build a simple template yourself.

As we step through the following sections, you will find that creating a template involves these basic guidelines/steps:

1. **Core Template Files:** understand the core template files and how they work.
2. **Basic Shell:** not only represents the basic HTML elements such as `<head>`, but the Joomla-specific code you will want to include to ensure some of the core Joomla functionality is available in your template.
3. **Defining Layout:** refers to the general layout of your template and more specifically the positions you define, which is where Joomla Modules can be positioned.
4. **External CSS and JavaScript Files:** most all templates will have external CSS and maybe JavaScript files. Ensuring that you properly construct the paths to these files in your templates is very important.

## Note

It is a generally accepted, and recommended, practice when creating templates for *all* images to be specified in stylesheets rather than from within the HTML files (e.g., *index.php*). The idea here is that if what you are building is truly a template, then images are just another aspect of that design and style. As such, they should be specified in the CSS rather than using `<img>` elements in PHP and HTML files.

## Core Template Files

To get started, let's look under the hood, or at the code and CSS, of a working template. To do this, go into the *templates* directory of your Joomla distribution and you will see several other directories, such as *beez*, *ja\_purity*, and *rhuk\_milkyway*. Each of these directories represents a template that has been installed—the files in the directories are the files for the template.

If you look inside of any of these directories you will see the following important files and folders:

- **index.php:** basic framework of the template—provides the master layout for the design.
- **template\_thumbnail.png:** preview image of the template, which is displayed from within the Joomla Administrator when you roll over the template name.
- **templateDetails.xml:** contains fundamental details about your template, the files and images it contains, and where the Joomla Installer should copy these files.
- **params.ini:** if the template provides different options, such as different size or color variations, then the currently active set of parameters are stored in this file.
- **css/:** folder that stores all the CSS files for template, including any color variations.
- **images/:** folder that stores all the images used in the template.

## Basic Shell

As you create your template, you will want to be sure to start with some common Joomla code in the `<head>` of your *index.php* file as well as at the bottom. While the code is certainly 100% under your control and you can adapt and change it, the basics, which can be copied from a template included with the Joomla distribution, look like the following for the head.

```

<?php
// no direct access
defined( '_JEXEC' ) or die( 'Restricted access' );
?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="<?php echo $this->language; ?>" lang="<?php echo
$this->language; ?>" >
<head>
<jdoc:include type="head" />

</head>

```

And just before the ending body element (`</body>`), as shown next, you will want to include a line that will make it easier to debug your Joomla installation if you are encountering problems:

```

<jdoc:include type="modules" name="debug" />
</body>
</html>

```

### Tip

If you use Dreamweaver to create websites, there is a Joomla Dreamweaver extension available for download at <http://dhtmldev.com/content/view/72/30/>. This provides a toolbar, which will, at the click of a button, insert these module codes, wherever you place your cursor.

Before we move on, it is worth mentioning that one approach to designing your site template is to leverage a free template as the foundation for your design and customize it to your needs and style. For instance, Joomla comes with a default template or two, which can be easily modified using the steps we just covered. Simply locate the parts of the template you wish to change, such as a font, color, or even the structure itself and make the necessary changes to suit your needs.

### Tip

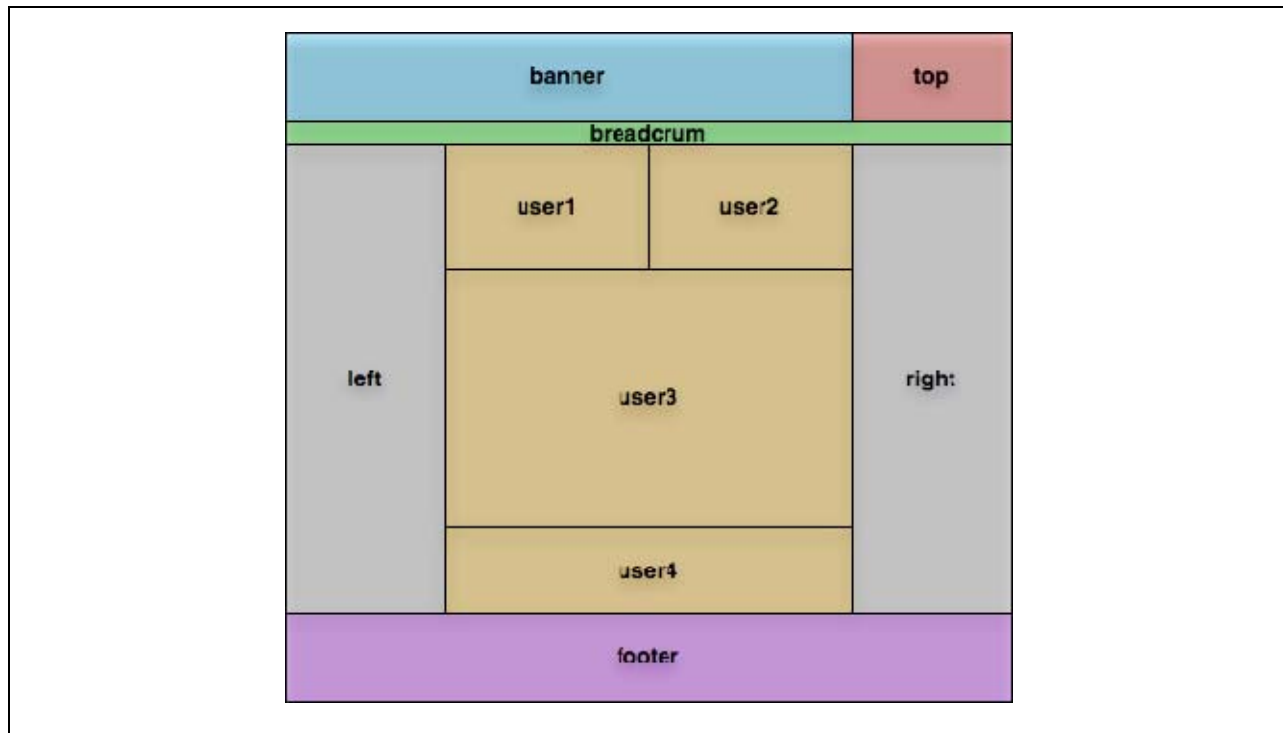
If you just want to make a few edits to a template you already have installed on your server, then simply navigate to the Extensions → Template Manager from within the Joomla Administrator, select the template you want to change, and click Edit. From the resulting screen you can modify parameters about the template or edit the CSS or HTML.

If you need a tutorial or reference for HTML or CSS and how they work, a great place to begin is <http://www.w3schools.com/>. If you need an introduction to using colors defined in their hexadecimal representation, then check out <http://www.pagetutor.com/colorpicker/index.html>.

With the basic template shell in place, let's focus on the necessary instructions needed to define positions.

## Defining Layout

When it comes to the *index.php* file and the structure it creates, you will find that many Joomla templates break down into a grid. The layout in Figure 4-1 shows an example of how this could look.



**Figure 4-1. Layout**

In Figure 4-1, each of the named areas corresponds to a Joomla layout position. So, for example, there is a location in the top righthand corner that can be used by Joomla to load Modules in Position “top.” Here is what a typical statement looks like for defining a module position—in this case the top position.

```
| <jdoc:include type="modules" name="top" />
```

So, if you are creating your own template, then after you have created the basic structure and layout, probably using `<div>` elements and CSS, then you can start to specify positions in your template using these statements. As you are doing your design, be sure to consider the fact that for some positions you will want to load multiple modules, such as perhaps *top*, *right*, and *left*. Allow your design to accommodate these scenarios.

## Including External CSS and JavaScript Files

With the basic template and core layout defined, its time to start filling in the blanks. One of the first things you will need to do is pull in your stylesheets and JavaScript. Since any given Joomla install can occur in various locations (e.g., root of the server, */joomla*, *~johndoe/joomla*, etc.) the path to these external resources

may vary. As such, you will want to prefix your paths with following PHP code to automatically construct the path:

```
| <php echo $this->template ?>
```

For example, if you were pulling in a stylesheet called `global.css` that was located in the `css/` folder of your template, you would include the following in the `<head>` of your template. When requested by a user, Joomla would replace the PHP code with the proper path to load the *global.css* file.

```
| <link rel="stylesheet" href="<php echo $this->template ?>/css/global.css" type="text/css" />
```

At this point, there is really nothing else to say about templates! The rest is up to you as the designer. Just by following these simple rules, you will be able to create compelling templates to showcase your site.

## Tip

One of the quickest and most effective ways to examine and understand how elements on your page and in your template is controlled by CSS is to use a browser plug-in. Plug-ins exist for Firefox (e.g., Firebug, Web Developer, etc.) and Internet Explorer, while Apple's Safari browser has a built-in inspector that simply needs to be enabled from within its Preferences. By using these plug-ins you can see where styles are inherited from and often edit and view changes.

## Using Extensions

As amazing as Joomla is on its own, once it's up and running for you, there are a seemingly endless amount of extensions made to work with Joomla. These extensions can provide you with a fully functioning online store (VirtueMart), a forum message board (Fireboard), an AJAX image-rotator for your site's header or an online community building application (Community Builder). All of these integrate with Joomla, and were designed specifically for Joomla. Best of all, the majority of these extensions, like Joomla itself, are open-source. The best place to find Joomla Extensions and read user reviews and ratings is

<http://extensions.joomla.org/>

## Installation and Configuration

One of the areas Joomla 1.5 improved over the 1.0.x code-based was how it handled the installation of extensions. Before, you had to know if you were installing a Module, Mambot, or Component and installing a Template was a completely different process. Now, all of this has been consolidated under the new Extensions menu.

Once you have found an extension you'd like to download, simply click the Extensions menu and select Install/Uninstall. On the resulting screen, which will

be the Install tab, you only need to browse to the ZIP file that contains the extension and upload—Joomla does the rest. If you have already uploaded the file or you have a URL to it, Joomla can also fetch it that way as well.

If the module was installed successfully, you will see a screen from Joomla saying so. If there was a problem, you will see a similar screen explaining the problem. Once the module's installed, you only need to follow the instructions provided with the extension to enable and use it.

## Common Gotchas

Because many of these extensions are open-source and created by developers in their spare time, do not get frustrated if you find nuances or bugs. In most cases, the developer is more than happy to work with you to ensure their extension is functioning properly. That being said, there are a few recommendations we have for locating extensions:

- **Ratings, Reviews, and Updates:** read reviews, check the rating the other users give it, and see how recently it has been updated. Sometimes, an extension will have been posted by a developer and then left un-updated for months.
- **Native Joomla Support:** Joomla has the ability to run some of the older extensions in a compatibility mode. Our recommendation is to avoid that and only install extensions that have *native* support for the version of Joomla you are using.
- **Professional:** this is more subjective, but if you take 10 or 15 minutes to check out the developer's website, you will get an idea of how professional the extension is—does it look like it was created by a person or group who allocates time to build a solid and professional product. Gravitate toward these developers if you can.

In the end, just think smart and rely on the community around Joomla to help you pick the right components for your needs. Don't overthink it, but at the same time do spend some time making sure your selections are wise.

## Some of Our Favorites

Although we are not going to be able to cover each of these in this book, we have included the following table to outline some of our favorite Joomla Extensions.

Name	URL	Description
VirtueMart	<a href="http://virtuemart.net/">http://virtuemart.net/</a>	Entire eCommerce platform—shopping cart, payment gateways, inventory

		management.
DOCman	<a href="http://www.joomlatools.eu/">http://www.joomlatools.eu/</a>	Document Management system—great for sharing documents and files with users.
Community Builder	<a href="http://www.joomlapolis.com/">http://www.joomlapolis.com/</a>	Can be used to create online communities.
JCE	<a href="http://www.joomlacontenteditor.net/">http://www.joomlacontenteditor.net/</a>	WYSIWYG editor that is based on, but more powerful than the TinyMCE implementation shipped with Joomla.
Hot Property	<a href="http://www.mosets.com/">http://www.mosets.com/</a>	Real estate management system.
sh404SEF	<a href="http://extensions.siliana.com">http://extensions.siliana.com</a>	SEO control over your URL rewriting, titles, meta data, and more!
AEC	<a href="https://globalnerd.org/">https://globalnerd.org/</a>	Allows you to create subscriptions to govern your users' access to your site. Allows you to charge access and assign membership levels.
Joom!Fish	<a href="http://www.joomfish.net/">http://www.joomfish.net/</a>	Multilingual content manager, which allows you to support multiple languages on your site.
JEvents	<a href="http://www.jevents.net/">http://www.jevents.net/</a>	Need a calendar on

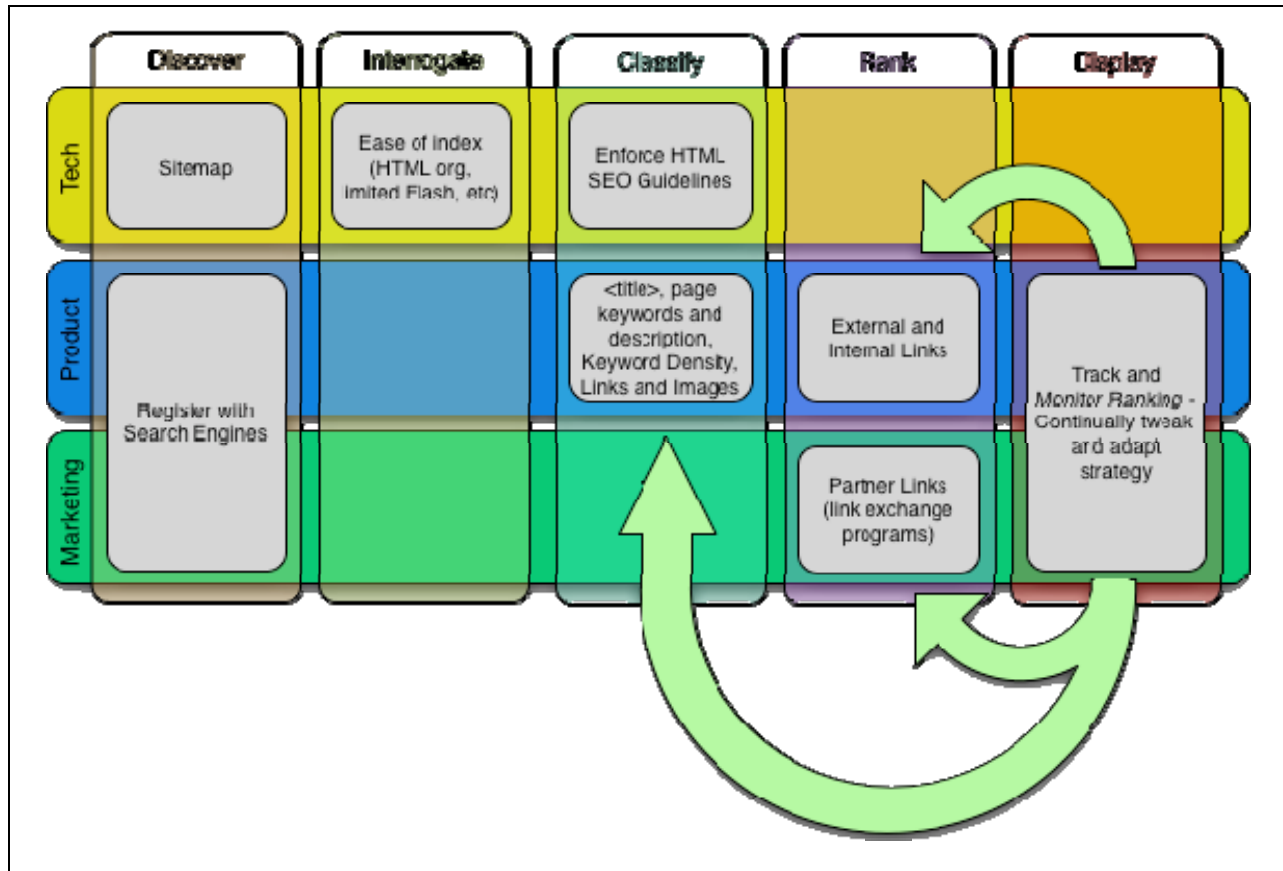
		your site that displays events? This is the solution for you.
Joomap	<a href="http://koder.de/projekte/joomap/">http://koder.de/projekte/joomap/</a>	Creates sitemaps for users to use as well as to submit to Google for SEO purposes.

## Introducing SEO

In today's online world, we would be remiss not to provide at least some information on Search Engine Optimization (SEO). While there are many aspects to working with search engines, and far more than we can cover in this book, we can at least let you know the term/phrase SEO often is labeled to cover several core areas. These are:

- **Search Engine Optimization (SEO):** refers to optimizing a site for search engines and is reflective of the fact that a large amount of traffic either does or can originate from a search engine. Usually this refers to solid page meta data, descriptions, and structure, as well as linking, alt text for images, sitemaps, and keyword density among the most commonly implemented strategies.
- **Search Engine Marketing (SEM):** form of Internet marketing that seeks to promote websites by increasing their visibility in search engine result pages. In short, when a site does not naturally (called "organic") show up near the top of search result pages, the alternative is to buy your way in through paid placement.
- **Search Engine Friendly (SEF):** refers to efforts placed around helping a site be more friendly for search engines, such as using readable URLs (e.g., <http://www.example.com/sports/baseball.html> versus <http://www.example.com/page.php?899078uy8&id=90787>), ensuring redirects for moved pages are correct (e.g., 301 versus 302), etc.
- **Search Engine Results Page (SERP):** the listing of web pages returned by a search engine in response to a keyword query. The results normally include a list of web pages with titles, a link to the page, and a short description showing where the keywords have matched content within the page. A SERP may refer to a single page of links returned, or to the set of all links returned for a search query.

Figure 4-2 gives you a high-level idea of how to think of SEO in terms of the steps from a search engines perspective, and then the various tracks that can influence it from a company/product perspective.



**Figure 4-2. Understanding SEO**

What this image does is that it shows the five basic steps a search engine goes through, and then shows where the various parts of a company can impact/get involved in helping rankings. The reason this view/perspective on SEO is important is because it is often wrongly thought that SEO is purely a technology effort. Let's take a look at these steps:

1. **Discover:** before a search engine can do anything, it must know you exist! The easiest way to do that is to register your site with them. You can easily find registration pages by doing a web search.
2. **Interrogate:** once a search engine knows you exist, it needs to send its spider out to index the site. In doing so, any help you can give it, such as sitemaps and easy-to-follow links, will help. Basically, you want it to find all your pages.
3. **Classify:** with your site indexed, the search engine must do its thing to classify your site. Are you a sports site? Or maybe more specifically, an NFL site? Things such as meta tags and proper descriptions in the HTML header as well

as proper use of HTML headings (h1, h2, etc.) and keyword density will help ensure your site is appropriately classified.

4. **Rank:** how important is your site versus others on the Web? Each search engine has their own method, but suffice it to say, that the more people link to you and the more clicks you get on search result pages (SERPs) the higher you rank. You have some control over this by including links on your own site as well.
5. **Display:** with all the information about your site in the hands of the search engine, now it's time to properly display it when a person searches on something that matches what your site offers.

Again, there are many finer facets to SEO than we have provided here, but hopefully this will at least get you started thinking in the right direction. More specifically, you will want to have SEO in the back of your mind as you think of the following topics that we covered earlier in the book:

- **Links:** be sure to use links within your pages—linking internal pages to other internal pages where it makes sense.
- **SEO/SEF Module:** go ahead and plan on installing one, such as sh404SEF, for use from everything from SEF URLs to better control over page titles, meta data, and descriptions. And of course, select the proper configuration options to accommodate your needs in the Joomla configuration.
- **Sitemaps:** install a Module that will generate a sitemap, which can be registered at popular search engines, such as Google. This helps search engines properly index your site and weight/rank the pages correctly.
- **Image ALT Text:** either install a module that does this for you automatically or put a policy in place that requires your Authors, Editors, and Publishers to *ensure all* images have a solid and accurate description in the alt attribute of the `<img>` element.
- **Templates:** make absolutely sure the templates you use, whether you created them yourself, found them for free, or purchased them are structured in a way that reflects good SEO practices, including proper use of heading elements, such as `<h1>`, `<h2>`, etc.

With even a little effort, you can start to see positive lift in your search rankings, so do not undervalue the task of including it as part of your deployment. And remember...SEO is an ongoing thing. It is not something you can just do once. You need to put some solid modules/practices in place and continue to monitor and evolve them as time goes on.

## Scaling Joomla

Most of us hope that any site we build will be successful, but rarely do people actually plan for success. As traffic starts to increase on your site, however, you will need to at least put some thought into how you plan on scaling your Joomla deployment to fit your needs.

We could easily write an entire book about scaling and performance tuning any PHP application, but in this Short Cut we only have time to give you a few things to look into.

- **PHP Distributions:** although you can always build PHP yourself or use the distribution that may come with your server, you can certainly use a pre-build distribution. We mentioned early in the book to use an XAMP distribution as you read, but for production you will probably want something a bit more tailored to your needs.
  - **Windows and Linux:** we recommend Zend Core (<http://www.zend.com/en/products/core/>).
  - **Mac OS X:** just use the PHP distribution that comes with operating system. If you have a Mac OS X 10.3 or 10.4, then we recommend the Entropy builds from Marc Liyanage (<http://www.entropy.ch/software/macosx/php/>).
- **Caching and Acceleration Systems:** in short, these systems will cache generated PHP pages, which allows the overall system to be faster—it will serve pages out of its cache versus having to hit the database again.
  - **Alternative PHP Cache (APC):** <http://us.php.net/apc>
  - **memcached:** <http://www.danga.com/memcached/>
  - **eAccelerator:** <http://eaccelerator.net/>
  - **XCache:** <http://xcache.lighttpd.net/>
- **Full PHP Platforms:** if you are running a full-blown commercial site and you have multiple servers, need easy management, monitoring, and reporting tools, then the Zend Platform (<http://www.zend.com/en/products/platform/>) is where you want to go.

## Wrapping Up

We truly hope this Short Cut helped to jump start your understanding, installation, usage, and overall adoption of Joomla. Check back often, as we will continue to update and improve the Short Cut as time goes on and new versions of Joomla and our favorite extensions become available.